
“Relationship between Foreign Institutional Investments (FIIs) and Annual Turnovers of BSE and NSE”

Dr. Hatim Fakhruddin Kayumi*

Abstract

FIIs play vital role in any country as they bring together capital (financial resources) for productive investments. FIIs include foreign companies, financial institutions, foreign banks, pension funds, insurance companies and portfolio houses willing to invest in Indian financial markets. Bombay Stock Exchange and National Stock Exchange has played significant role in mobilization of capital resources as well as development of Indian capital market. Stock turnover means total value of stocks traded during a definite period of time. It is an important tool to determine overall health of stock market. Present research which is based on secondary data attempts to study the trends of FII investments in India, annual turnovers of Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). Study attempts to determine correlation between FII investments in India with annual turnovers of BSE and NSE. Period covered under study ranges for nearly two and half decades, i.e. from 1994-95 to 2017-18. Correlation coefficient is determined and used to find out relationship between FIIs and stock turnovers at BSE and NSE.

Keywords: FII Investments, BSE, NSE, Turnover, Correlation

I) Introduction

Investments from outside India were allowed since 1990s. These foreign investments are categorized either into Foreign Direct Investment (FDI) or Foreign Institutional Investment (FIIs). Foreign institutional investor (FII) is an investor or organization incorporated in country outside country in which it is investing. *Foreign institutional investors (FIIs) are defined as those institutional investors which invest in the assets belonging to a different country other than that where these organizations are based.* FIIs play vital role in any country as they bring together capital (financial resources) for productive investments. FIIs include foreign companies, financial institutions, foreign banks, pension funds, insurance companies and portfolio houses willing to invest in Indian financial markets. For investing in India, an FII must first register itself with SEBI. Individual investors are not permitted to directly invest in stock markets. However, High Net-worth Individuals (HNIs) having net worth of over US dollar 50 million are allowed to open sub-account of FII. FIIs can invest in shares, stocks, debentures, bonds and warrants of listed companies as well as unlisted companies in both primary and secondary markets. FIIs can be also invest in mutual fund units and derivatives listed on any stock market.

BSE stand for Bombay Stock Exchange which is the oldest stock market in Asia established in year 1875. Formerly, BSE was known as "The Native Share & Stock Brokers' Association". SENSEX stands for Sensitive Index that is major index consisting of 30 well-established and financially sound companies from different sectors listed on BSE. BSE offers efficient and transparent platform for dealing in (buying and selling in) equity shares

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and stocks, debt securities, derivatives, mutual funds, etc. NSE stands for National Stock Exchange which was registered as a company in November 1992, but later was recognized as stock exchange in April 1993. NSE was established to offer modern, fully automated screen based trading system. NSE is well known across the country for its transparency, speed, effectiveness, safety and integrity. NIFTY which is the prime index of NSE represents weighted average of 50 Indian company stocks operating among twelve different sectors. Both BSE and NSE has played significant role in mobilization of capital resources as well as development of Indian capital market.

Stock turnover means total value of stocks traded during a definite period of time. This specified time period may be either annually or quarterly or monthly or even daily. According to Investopedia, '*Share Turnover is a measure of stock liquidity calculated by dividing total number of shares traded over a period by average number of shares outstanding for the period.*' This turnover is an important tool to determine overall health of stock market. In general, high stock turnover signify higher liquidity of shares of company as investors shall buy as well as sell their stocks easily and quickly. High turnover points out high confidence of investors in stock market as they positively and actively invest financial resources in market. On the contrary, low stock turnover highlights hesitation and investors as they hold back financial resources or even sell investments at reduced prices. Large scale companies usually experience higher stock turnover whereas, small business houses are subject to lower market capitalization.

II) Research Methodology

A) Objectives of Study

- To determine and analyze relationship between FII investments and annual turnover of Bombay Stock Exchange (BSE)
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B) Scope of Research: Present research attempts to study the trends of FII investments in India, annual turnovers of Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). Study attempts to determine correlation between FII investments in India with annual turnovers of BSE and NSE. Period covered under study ranges for nearly two and half decades, i.e. from 1994-95 to 2017-18.

C) Data Collection: Study is mainly based on secondary data which was collected from various secondary sources including internet, reference books, journals, articles publications, etc. related to the FIIs, BSE and NSE.

D) Tools for Data Analysis: Line Chart, Percentages, Proportions and Correlation Coefficient

III) Analysis and Discussion

Table 1: Table showing trends of net investments by FIIs and annual turnover at BSE (Rs. in Billion)

Financial Year	Net FIIs Investments	BSE Annual Turnover
1994-95	47.75	677.49
1995-96	67.21	500.63
1996-97	73.87	1,242.84
1997-98	59.10	2,076.46
1998-99	-(7.29)	3,120.00
1999-2000	97.65	6,850.28
2000-01	96.82	10,000.32
2001-02	82.73	3,072.92
2002-03	26.69	3,140.73
2003-04	440.01	5,026.18
2004-05	414.18	5,187.16
2005-06	486.50	8,160.74
2006-07	237.55	9,561.85
2007-08	625.83	15,788.56
2008-09	-(433.36)	11,000.74
2009-10	1,149.02	13,788.09
2010-11	1,107.59	11,034.66
2011-12	499.16	6,670.22
2012-13	1,406.25	5,487.74
2013-14	855.22	5,216.65
2014-15	1,102.43	8,548.44
2015-16	-(48.82)	7,400.89
2016-17	583.26	9,982.61
2017-18	265.87	10,829.68
Correlation Co-efficient		0.366

Figure 1: Graph showing trends of net investments by FIIs and annual turnover at BSE

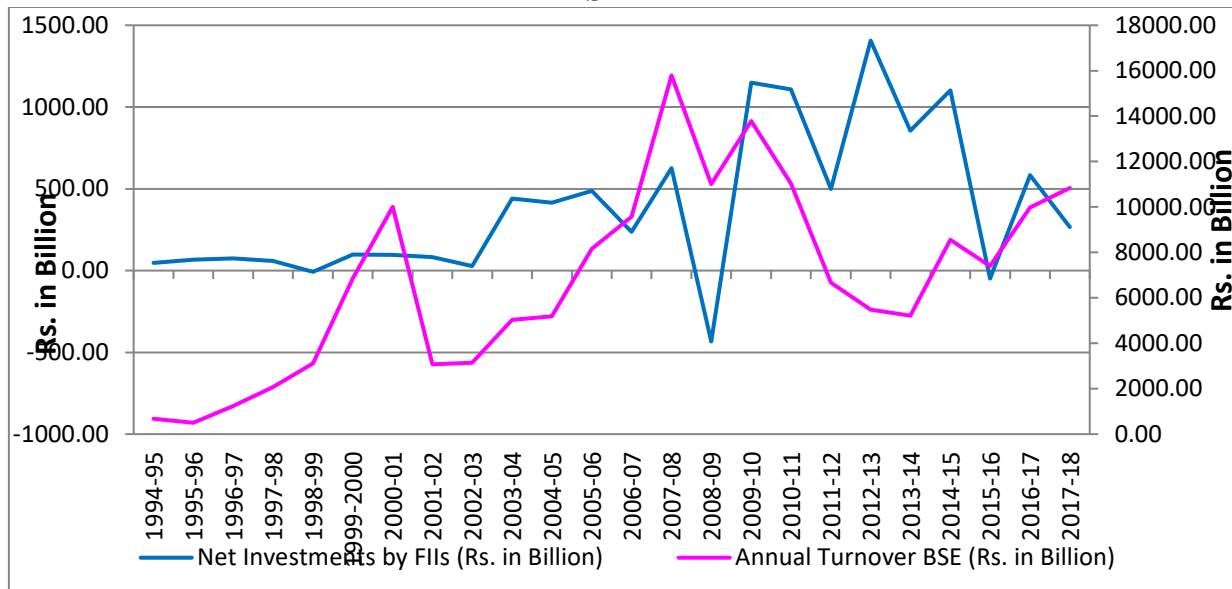


Table and graph highlighted trend, movement and growth of Foreign Institutional Investments (FIIs) in India and annual turnover at Bombay Stock Exchange (BSE). This growth is analyzed for a period of nearly two and half decade i.e. from 1994-95 to 2017-18. Above table and graph showed the Foreign Institutional Investments (FIIs) in India over the period under study. It can be seen that FII Investments were quite low as well as violated marginally during the beginning of period i.e. till 2002-03. However, after that FII Investments rose sharply till 2007-08. This FII investments decreased massively (turning negative resulting in withdrawal of investments by foreign investors) in the year 2008-09 due to global financial crises across the world. Later on, these investments fluctuated constantly over the period indicating uncertainty and lack of confidence among foreign institutional investors. On other hand, the above table and graph revealed annual turnover of Bombay Stock Exchange; which unlike FII investments had fluctuated significantly and regular over period under study. The stock turnover increased significantly followed by steep falls at regular intervals. This aspect indicated combination of bullish trend and bearish trend in stock turnover at BSE. However, this turnover has increased and grown multifold times over period of two and half decade. The correlation coefficient calculated was 0.366 which indicated that there existed positive relationship between net FII investments and annual turnover of Bombay Stock Exchange. However, this relationship is not strong or is insignificant.

Table 2: Table showing trends of net investments by FIIs and annual turnover at NSE (Rs. in Billion)

Financial Year	Net FIIs Investments	NSE Annual Turnover
1994-95	47.75	18.05
1995-96	67.21	672.87
1996-97	73.87	2,945.03
1997-98	59.10	3,701.93
1998-99	-(7.29)	4,144.74
1999-2000	97.65	8,390.51
2000-01	96.82	13,395.11
2001-02	82.73	5,131.67
2002-03	26.69	6,179.89
2003-04	440.01	10,995.33
2004-05	414.18	11,400.71
2005-06	486.50	15,635.01
2006-07	237.55	19,452.87
2007-08	625.83	35,510.38
2008-09	-(433.36)	27,520.23
2009-10	1,149.02	41,380.24
2010-11	1,107.59	35,774.10
2011-12	499.16	28,108.93
2012-13	1,406.25	27,082.79
2013-14	855.22	28,084.88
2014-15	1,102.43	43,296.55
2015-16	-(48.82)	42,369.83
2016-17	583.26	50,559.13
2017-18	265.87	72,348.27
Correlation Co-efficient		0.440

Figure 2: Graph showing trends of net investments by FIIs and annual turnover at NSE

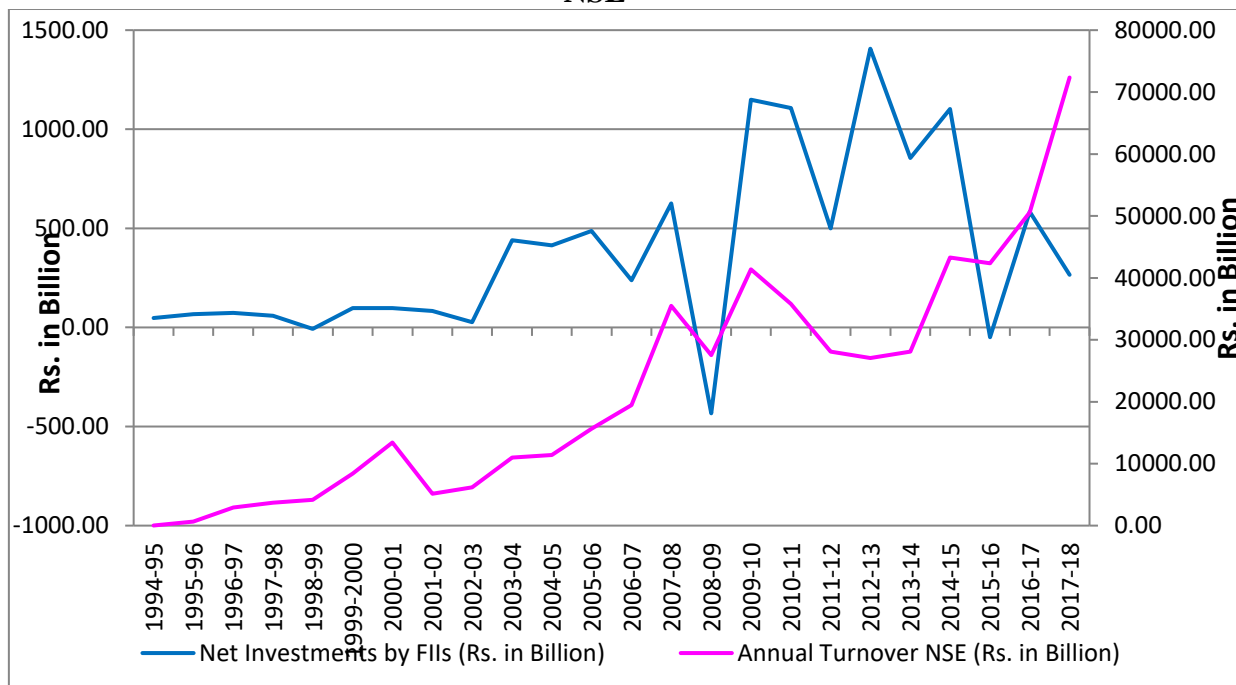


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IV) Research Finding

There existed positive relationships between net FII investments and annual turnover of Bombay Stock Exchange (BSE) and between net FII investments and annual turnover of National Stock Exchange (NSE). However, this relationship were not strong or is insignificant.

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Trusted Operating System Based Software System to Develop Secure Web Application by Using Reverse Engineering Method

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Abstract

Object Oriented Model driven software development contains security engineering for web applications. In web applications, we use mining patterns. This paper expresses a unified modelling language based secure software maintenance procedure. For maintaining a large scale software product and real-life product line products the above process will be used.

Using SPF based trusted operating systems; we can run and implement this web application, without having proper software documentation. Reverse engineering of old software is concentrated on the knowing of legacy program code. To implement a new version of the software program by using extracted design information, this process security performance model for trusted operating system for designing of secure web applications. The model driven round trip engineering approach is used in web applications for reimplementation and reengineering process.

Keywords: Secure web application; OOP;

1. Introduction

Large scale business application development and long established programming model couldn't manage with each other. To resolve such problems in programming object oriented program is introduced. This object oriented programming is a new way of study on programming a software program is divided into a group of objects at a time which can hold information and methods. Software application is built throughout combining of objects in a same way as building a house with bricks. Software developers to express their valuation on OOP by using number of luxurious words. Every latest software applications are developed based on object oriented analysis and designing.

Number of features are offered by object oriented model that are intended to help the development of large and stretchable software if works properly. By stretchability. It is meant that the principles of encapsulation, information, and data hiding, data abstraction, inheritance polymorphism should be properly applied so as to remove any odors of weakness and rigidity.

To understand user's activities when computer user interact with web sites when we can use web usage mining. According to the user requirement the web site and security performance flexibility model can be recognized after knowing the user activity. From the old C++ source code and entered into an object oriented software development process was extracted the design information.

Web log resources are web server log, web proxy log user, history files cookies files browser etc. In the year of 1994 UML arose the 3 unification design methods namely booch method, object modelling technique and objectory method. Object management group was maintained and highly controlled on the unified modelling developing language than UML

is providing the good opportunity in incorporate of the some diagrams in beginning time only class diagram is regularly used in software industry and software engineers developed by the communication between the several diagrams.

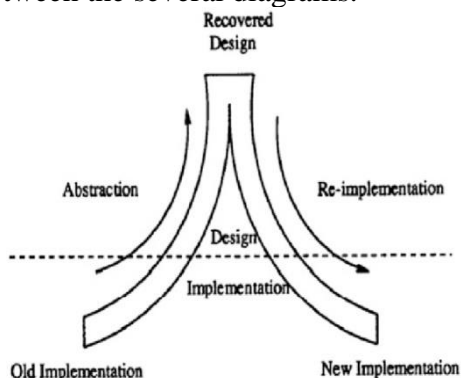


Fig 1: Reverse engineering and reimplement process for web application

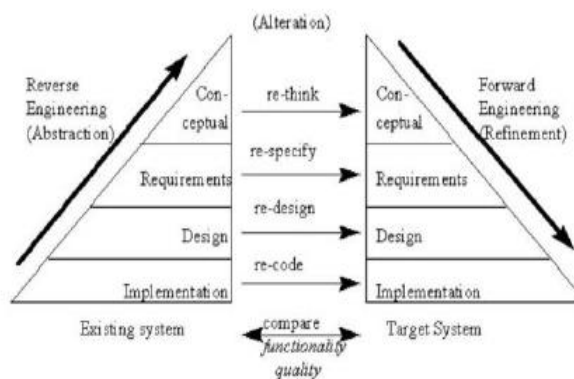


Fig 2: General model for software reengineering

2 Secure Web Application Modeling

In web application will be safe of this operation system and all applicable of 3PF model on maintain the balance among safety and web app provided in actual performance above the application app proposing depending on the SPF in trusted operating system than small amount of operating system parts in secured only it's for required in this paper According to fig 3.

SPF is maintained and controlling of the unnecessary parts of the safe the web app and mainly help provided by the highly performance of web applications. In this level avoiding the unless system safety. Only providing on the security for use parts performance of software web address will be developed in all respect.

For planned and improved by the web application first is identify which part of system is highest work of in specific application. For development of the systems work in high speedly in effectively in above paper is provided by the safety and improved by the web application. Fig 3 is including on the web server's improved speed development and safety provided in web application.

Web application can be discrimination unified developing language in object-oriented diagrams. Two diagrams are used. Namely Class diagram and object diagrams. Both the diagrams was used for the functional requirement and build communication in essential

including on the change and faults to be related and removed. All software is changed its necessary that UML object-oriented model.

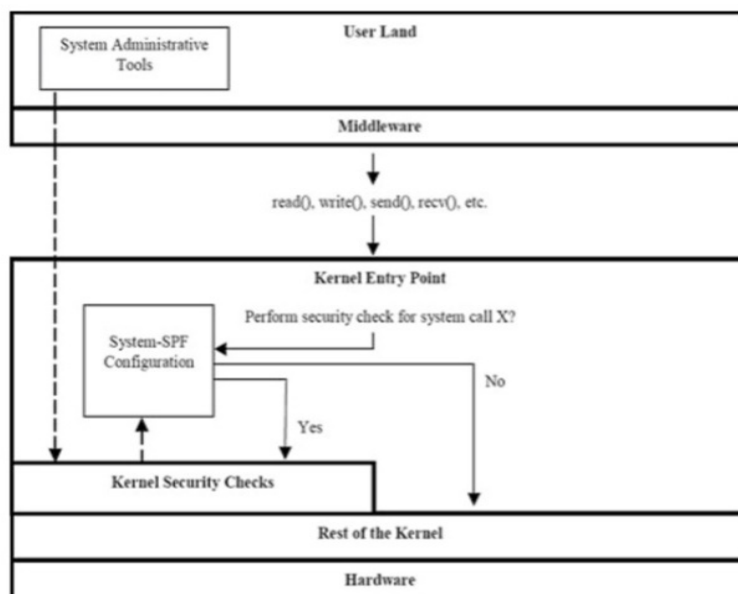


Fig. 3: System SPF structural design for stock control Web application

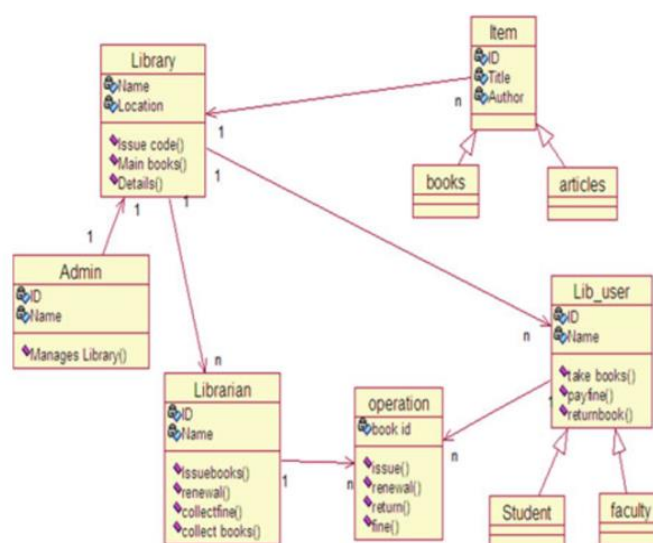


Fig.4: Generic object-oriented class diagram for round-trip engineering

3. Axes of Change in Round-Trip Engineering

The interference between the classes of computer system can be high light, numerous axes of change through which a change in a class can be influence other classes enforcing them to be modified is defined by proposed object oriented model i.e., ripple effect. For example, A class will need the update of all classes that use this member function by changing the signature of a member function. Figure indicates the object oriented class diagram. For designing software models for software development by using an unified modelling language. Object oriented design recovery can be focused by reverse engineering for web application.

Conclusion

Redesigning of an existing software system is represented by using an reverse engineering. In Web application, For maintaining the security, this paper focuses on security performance flexibility model of trusted operating system. Object oriented design is very easier to modify compare to source code. Old software describes the existing software system, and then we can design and develop the new system. We will get trendy software system that is improved structured proper documented, and easily manged than the old and previous software version.after he using of reverse engineering round trip of any old web application therefore Re- enginiring of software contains object oriented reverse engineering.

In this Paper, We request anovel method to software design and to software maintenance and showed how it has been used for manging large-scale software for secure web application we can approach the model-driven devolpment of secure operating system

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N ANUSHA(Trusted Operation Paper)

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Improving The Speed Of Memory Capacity To Computer By Extending The Kernel Level Remote Memory

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Abstract

Now days, there is lot of struggle for capacity of memory in computer system because the size of units that are in memory is not copping up with large need of memory in computer system. Although, there is a need of big memory system focusing large memory application. Students and researchers face problem because big memory machines are too expensive. By the way the development of networking technologies like Infiniband EDR(100Gbps) is very intensive, in HPC cluster environment the way of dealing of remote memory implementation has been examined way of cost productive to deal large memory application. We can suggest, the users in HPC cluster system with admistrator's support who wanted to run large amount of application can use memory of kernel level in extension system. In large memory application system there is a mapping of virtual address space and remote memory pages that can be designed in remote extension system and here we use 3 components namely Memory provider, Memory consumer and Integrated memory manager.

Keywords: Kernel level; Remote memory;

1. Introduction

Many bussiness companies, software companies, industries, research centers are facing problem with storage capacity of computer system because there is no improvement in the expansion speed of capacity of memory capacity. IMDB, IMDG(in memory data grid) are some large memory application which group together in human genome sequencing area, and helps in big scale scientific methods exponetially and these application need cost productive memory which provide large memory and obtaining big memory is a way to more cost and now, there is a drastic improvement in networking technologies, LAN/SAN are in modren networking technologies such as infiniband quadrics and myrinet has high bandwidth and low latery and in case pf infiniband EDR(enhanced data rate). It achives 100Gbps data transfer rate and few microseconds level end to end latency the bandwidth of PCI-E(Gen 3*16 128 Gbps) is compared by performance which is nearly new as intenal system bus of computer and remote direct memory accers operation mode is also supported by these technology in which transfering between remote memory and local memory don't coordinate with cpu by this it automatically enables the remote memory as local file system are used by many trials by using the approch concept the usage of the remote memory as local memory this helps in adding a layer between local disk and main memory as the memory of latecy is faster 10000~100000 time more than HDD'S thus it make more sense. These are large amount of extention of virtual address space in previous approaches to the remote memory and uses implicit method gives the information that remote memory can be

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used by user when the large memory application wanted to run by them and in this there is no any linking and re-compiling but it is mandatory to modify the memory management core of kernel.

2. Related Work

Remote memory module consisting of the one of more dedicated remote memory servers and few client machines.

This mechanism states that remote memory should be used than the local storage for the backing storage here the memory pages will be moved to the remote memory server when the local memory gets exhausted. Cache of local or unit storage or as storage [2, 16]. Anderson et al. classified the approaches to use remote memory like local memory based on the implementation layer/techniques:

- (1) Explicit program management,
- (2) Level of user API,
- (3) device-driver,
- (4) Kernel moderating and
- (5) Interface of the network.

3. Remote memory extension systems for kernel

In fig 1 you can see and their performance. There are 3 types of nodes in remote memory extension system namely Consumer node, memory provider and memory manager node. And each node perform several units of extension system.

After allocation, though RDMA operation, the granted memory configures readable and writable to Infiniband HCA, the allocated memory of the virtual address has been allocated. Then, integrated memory is registered by granted memory. The integrated memory is registered by granted memory. And this manages and helps in constructing the memory pool that has memory blocks that the memory is registered. The remote memory pool is built and composed of granted memory block by integrating memory manager in which memory provider is registered.

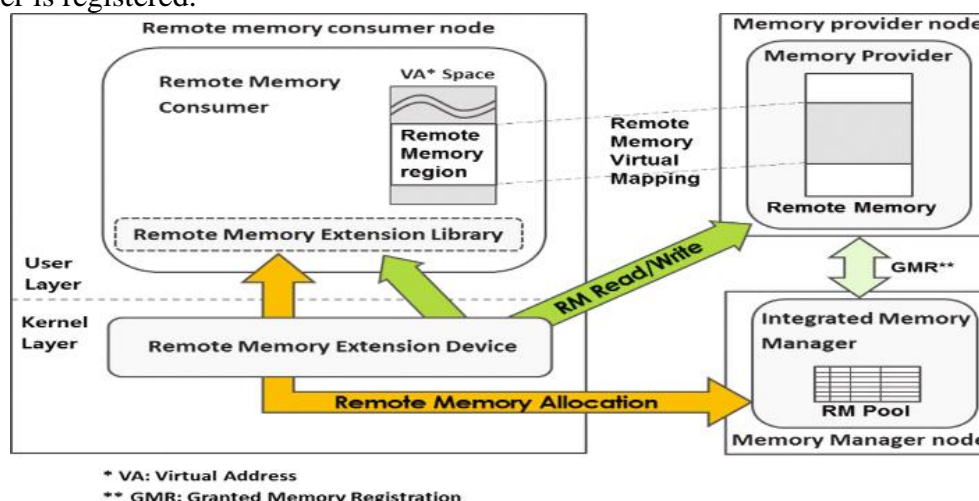


Fig 1: Behaviors of extension system of remote memory

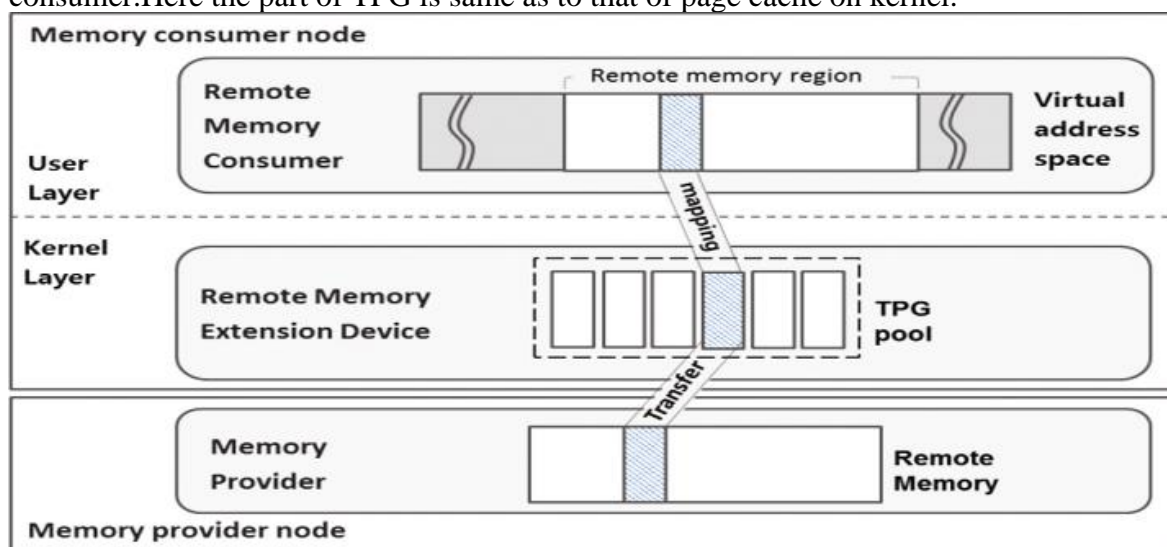
Remote memory extension library helps us to enable usage of service of remote memory. The job of remote memory allocation from remote memory pool and this occurs on intergrated remote memory manager and on this we can allocate the remote memory block which maps to virtual address. And here the addition of new component i.e, remote memory extension

device for the extension system of remote memory of user level i.e,existed.In fig 1 the remote memory extension library help in providing API and interacts to it.

3.1 The performance of remote memory extension

As you can in fig 2 for using of remote memory the remote memory consumer process should be represented by remote memory. In fig there is a process of remote memory access. As described above Remote memory provider and memory device helps and remote memory consumer process for using remote memory. The extension device of remote memory handles the kernel level faulting of page for remote memory region.

The remote memory consumers are allowed by memory page and remote memory consumer.Here the part of TPG is same as to that of page cache on kernel.



* TPG: Temporal page (physical memory)

3.2 API of User Level

Table shows API of user level remote memory extension .There is a rminit which helps to make association to intregated memory management and helps for remote memory register to integrated memory.

Table 1: API for user level for extension of remote memory

APIs	Description
Int rmint();	Initialise remote memory extension library
Int rmterminate();	Terminate remote memory extention library
Void *rmmalloc(size_t size);	Allocate remote memory
Void rmfree(void*ptr);	Deallocate the allocated remote memory

3.3 Technique of remote memory in page faulting

In this behaviour of page faulting helps in holding the kernel that assinging the page of memory and it maps to the virtual address of user.

The physical memory page is not allowed to allocate to user level code.In this paper a new version device of linux and extension of remote memory is designed and used.And this is a physical device not virtual device.By developing mmap function we can hold up the assinging of device driver of remote memory. And for each memory allocation in mmap function there is a specification of page fault handling function. From TPG pool the TPG is selected for page fault handler function to read the data fromremote page to TPG.

3.4 Management of temporal page

There is a limited source of TPG and it is so important to convert TPG efficiently. And there are 4 double linked lists 1.Active 2.Inactive dirty 3.Unused 4.Inactive clean.

And in these unused lists holds all the unallocated TPGs. And in case of active list the TPGs is assigned the thread of consumer and made a consumer thread. And the inactive dirty lists has all the TPGs that are unmodified out of TPGs that are inactivated. The TPG lifecycle is managed through 6 operation. In the region of memory the page fault occurs and the faulting of page handler acquires a TPG from unused list. There are some TPGs active list that TPG manager inactivates for recycling. And the selection of inactivated TPGs are from head of active list and it is done through LRU policy when the remote memory consumer revisits a revisited TPG of inactive dirty to the active list.

Conclusion

In this paper there is a partially developed extension system of kernel level memory for the remote memory consumer applications, perfecting functions, handling the page of kernel level faulting active TGP management function reading and writing of data the user cluster level API is provided by user.

In this provided data, the implementation of remote memory extension is not finished because the kernel level infiniband communication model is not completed for swapping communicating with other consumer and memory provider and integrated memory layer but there is a completion of development of page faulting handling of kernel level mechanism.

In previous writing there is a need of use of page fault handling of kernel level to the user because of there is about 3.5~3.6 us of latency level page fault handling for pattern for random access for using remote memory and the user has expected decreases in the time of page faulting handling about 1~2 us by the kernel level page fault handlers there was 4x improvement of latency in page fault handling say 0.89 us per page is remote memory extension for kernel level and this system may not satisfy for latency sensitive application who is in need of large memory but our suggestion is best for candidate who need large data sharing. Among cluster machines because sharing.

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A Study On The Use Of Payment Apps Among Different Sections Of Consumers

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Dr.Suresh.K.**

Abstract

Our Economy is Traditionally based on cash transactions. With the introduction and development of information technology resulted in the wide scale deployment of electronic payment system in India. This has evolved into the introduction of mobile payment systems and their associated services. Financial institutions and mobile carriers are becoming increasingly interested and have started collaborating in order to provide mobile banking capabilities because of various reasons. This has already resulted in a change in payment systems from physical cash-based to phone-based. Many players introduced various payment apps with features designed to meet the expectations of consumers. The present study deals with the use of payment apps among different sections of consumers.

Keywords: Mobile Payment Apps, Mobile Wallet, Customer Perception.

Introduction

Banks which are the lifeline of economy by their functioning can make or break the economic position of a country. It plays a vital role in the movement of funds across various sectors of the society. The advancement in technology has changed the mindset of the people in recent years. They want to execute things in few seconds with ease and convenience. Delays in processes and to wait in long queues are hated by the public in general.

Initially it was Internet Banking which paved a new era in banking by bringing the entire operations to personal computer. Internet Banking helps and give the customers anytime access to their banks. Customers could check out their account details and perform various activities according to their conveniences. From here the technology is taking banking operations to the next level called mobile banking.

Along with the development of internet banking is the development of Digital banking. Digital banking is the move to online banking where banking services are delivered through the internet. Digital banking is about the automation of every step of the banking relationship, and it goes way beyond an online or mobile banking platform. It is the complete digitization of all activities, programs and functions of banks – from digitizing the services and products offered by the banks to automating all the processes related to this within the bank (the back-end) and connecting these worlds with middleware. Mobile banking helps both the customers and the bankers, because only smaller number of people would visit the banks to conduct small transactions. Mobile banking gives the precious gift of time small and medium size business owners. For banks mobile banking is an opportunity to attract new

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customers and meet the fast-paced needs of the customers by introducing various payment apps with ease and convenient use with attracting features.

Unlike internet banking it uses software's, usually called as "app" provided by the financial institution for this purpose.

Review Of Literature

- Hema k (2018) she added that it can enable the country to increase cashless payments. The result indicates that the development of technology for digital payments have improved the performance of banking sector and able to achieve the above said motive of cashless country. This study gives emphasis to the percentage of awareness on maximum utilization of technology and usage of banking apps. next motive was among the usage of these apps. This study is on a perspective view from undergraduates.
- Madhu Chauhan and Isha shingahas (2009) added that customers are using e-wallets mostly for the purpose of recharging and payment of bills. A lot of efforts is required to make the mass aware about importance and ease of using e-wallets to perform various operations. Researcher also states that smart phone have spread all over the markets and people have now started to make different kind of payments through mobile phones
- Abhijit M Tadse and Harmeet Singh Nannade (2017). Revealed and pointed that in the context of privacy payment apps had no issues but it has to work upon offering certain discount and offers and also check the total transaction time taken to complete the transaction by the customer.
- Poongothai K and Ranjith Kumar (2015) conducted a study mainly in the outskirts of Coimbatore city. They revealed that Pay tm is one of the finest and one of the first class developed payment app in this tech savvy environment. After the break down of demonetization people in India struggled to sustain in the competitive environment. It has high regard on customer satisfaction as it had its own feature that it could avail to a person who uses simple mobile phones in an easiest way. It also tries to bring in more innovative ideas as to increase high level of customer satisfaction to sustain competitive market conditions.
- Hem Shweta Rathore (2016)identified that convenience ,brand ,loyalty and usefulness are the three major factors which is to be considered in the adoption of digital wallets among Customers.
- pushpa Panicker (2017) made a research on "The changing trends in payment methods " and added to the core that it had a greater impact on consumers especially in the banking sector in India towards the motive of increasing cashless payments. It also throws light on the effective utilization of technology and security and at the same time banks should take effective measures in creating awareness towards the effective usage.
- Prasanth Raghav (2017) who made study on "The study on consumer perception towards mobile banking " and resulted in concluding that certain initiatives are taken by the government of India as well as the RBI and that had resulted in greater acceptance and deeper penetration of non cash payment modes. And also he found that increasing telecommunication system has made a change to alternative electronic payment system. Another perspective was that Cheques as a mode of payment has lost its relevance and would remain the same in the coming years.
- Arpita Pandey (2017) pointed that governments introductions such as the GST have paved the way in increase in the rate of the tax being collected and enlarge our economy.

Digital payment is one of the empowering system in India promoting digital India started by our Honorable prime minister Mr. Narendra Modi which leads to transparency of cash flow into each individual of the country and control of the black money by tax payment. Digital payment has helped Indian citizens to attain knowledge and awareness added "Arpita".

- Zahoor Ahmed Shah (2015) has done a research on "The problems and prospects of digital payment system" and says that it has become evident that the field of e-commerce has a promising future in the coming years and is going to obtain maximum benefits.
- Poonam Painuly (2016) has done research which titled as "mobile wallet: an upcoming mode of business transaction" have Analyzed that business sectors like banking, retail ,hospitality etc are making use of wallet money and mobile payment instruments because of its benefits like ease of transaction ,secured profile and convenience in handling applications.

Need And Importance Of The Study

The need for cashless transactions and a more transparent economy is on the rise. To facilitate mobile banking different types of apps are there carrying its own features. With time more and more apps are coming into the fray. It is thought to study the consumer opinion about these apps and for what purposes these apps are used by the people to a major extend.

Statement Of The Problem

Over years, the expectations of the customers are increasing; new regulations are evolving with the spread of business, competition from tech giants are increasing and digital economy is developing at a faster rate. This necessitates reinventing themselves to survive. Banks need to improve their operational efficiency and respond faster to industry changes if they want to succeed in a digital economy. They have to provide instruments to specific customer demand, serving a particular segment or niche within the market. They have already started to do that in a variety of ways. How the public respond to it and whether the instruments are meeting their expectations is the problem to be elucidated. This is attempted in this study from the primary and secondary data collected.

Objectives Of The Study

- To understand the concept of payment apps.
- To understand the pros and cons of using these payment apps.
- To understand the different types of payment apps available in India.
- To understand the perception of customers on the usage of various payment apps.
- The factors which leads to better consumer acceptance regarding these payment apps.
- To understand the problems faced by the customers while using the payment apps.

Research Methodology

The study is descriptive cum analytical in nature. Both primary and secondary data were used for the study. Primary data was collected from students, staff, friends, relatives who use these food delivery apps. Secondary data for the study was gathered through extensive and intensive survey of existing literature. The literatures which were selected for review gave an idea about the possible details that would be gathered, and supported the conclusions that we got from the primary data. Other sources of information used in this study were obtained from company profile, online sites, newspapers and magazines.

Sources of Data: The study is descriptive cum analytical in nature. The data for the study has been collected from both primary and secondary source. The primary data has been

collected from students, staff, friends, relatives who use these inline payment Apps. Secondary data for the study was gathered from extensive and intensive survey of literature. other sources of information used in this study were obtained from online sites, news papers and magazines.

Population: The sample for the study has been selected from whole of India. Demographic questions were included in the questionnaire to understand the influence of demographic factors in the use of payment apps.

Sample Size: Sample size was 238 with no particular reference to any area. It was made compulsory for any person who wanted to respond. This was done to find the relationship if any, between the demographic factors and the opinions made by the respondents.

Tool for analysis: In this study, the tool used for analyzing the collected data is percentage analysis. This can be done through various statistical tools. In this study tools used for analyzing the data collected is percentage analysis.

Presentation: The collected data is primarily presented in the form of tables to provide a better understanding of data. After tabulation a pictorial representation of the tabulated data is made with the help of pie and bar chart. They provide ease in analysis of data. Many of the respondents did not fill up the questionnaire properly

Limitations Of The Study

- The period of study is limited as it is a part of our under graduate course.
- Many of the respondents did not fill up the questionnaire properly. So their responses could not be trusted.
- A few respondents had sent partially filled questionnaires. So they could not be used for further analysis.

Analyzis And Interpretation

Table 1: Demographic profile of respondents

Category	No. of respondents	Percentage of respondents
Gender		
Female	131	45
Male	107	55
Others	0	0
Total	238	100
Age		
15-25	171	71.8
26-35	25	10.5
36-45	21	8.8
46-55	11	4.6
56-65	6	2.5
66-75	2	0.8
Above 75	2	0.8
Total	238	100
Profession		
Student	146	61.3
Teacher	19	8
Travelling businessman	6	2.5

Resident businessman	10	4.2
Travelling professional	8	3.4
Resident professional	10	4.2
Travelling employee	5	2.1
Resident employee	21	8.8
Others	13	5.5
Total	238	100
Place of residence		
Urban	178	74.8
Rural	45	18.9
Metropolitan	15	6.3
Total	238	100
Monthly income (Rs.)		
Below 10000	39	16
10001-20000	40	16.8
20001-40000	50	21.4
40001-60000	39	16.4
60001-80000	17	7.1
80001-100000	20	8.4
Above 100000	33	13.9
Total	238	100

SOURCE :PRIMARY DATA**Interpretation**

In the present study it is observed that 45% of the respondents are females and 55% males. In the age category it was observed that 71.8% of the respondents are in the age group of 15-25, 10.5% in 26-35, 8.8% in 36-45 and 4.6% of respondents are in 46-55 age groups. Here more respondents are in the age group of 15-25 as most of the respondents are college students from whom we collected the data.

To understand the professional background of the respondents, question regarding that were included. Among the respondents 61.3% are students, 8.8% resident employees, 8% teachers and 4.2% each are resident businessmen and resident professionals. Travelling businessman and travelling employees are 2.5 and 2.1% respectively. The responses reveal that the questionnaire reached a wider section of the people but certain sections are not represented adequately.

To the question on place of residence, 74.8% are urban dwellers, 18.9% rural whereas 6.3% are from metropolitan areas.

Since income is a major factor that determines the use of payment apps, respondents were asked to indicated there income status. It is observed that 16% of the respondents have monthly income lower than Rs. 10000, 16.8% between Rs.10001 and 20000, 21.4% between Rs. 20001 and 40000, 16.4% between Rs.40001 and 60000 and 7.1% between Rs. 60001 and 80000, 8.4% between Rs. 80001 and 100000 and 13.9 above 100000.

Table 2: Currently using apps among the respondents

Currently using apps	No. of responses
Pay tm	132
Google pay	129
Sbi Buddy	25
icici pockets	7
Phone pe	48
Axis mobile	8
PayUmoney	2

SOURCE: PRIMARY DATA

Interpretation

In the present study when the respondents were asked to indicate the presently using apps, 55.5% responses indicated Pay tm, 54.2% Google pay, 26.4% other mobile banking apps, 20.2% phone pe, 10.5%, Sbi Buddy, 3.4% axis mobile, 2.9% use icici pockets and 0.8% responses indicated PayUmoney app. The respondents were allowed to choose multiple options as there can be instances of people choosing multiple payment apps. The responses clearly indicate that there are respondents that use multiple payment apps. The greater responses for a particular app show their preference over other among the respondents.

Table 3: Different sources of information regarding the apps observed by the respondents

Medium	No. of respondents	Percentage
Television advertisement	23	9.7
Online advertisement	48	20.2
Newspapers	13	5.5
From friends or relatives	120	50.4
Noticing people using it	31	13
Others	3	1.2
Total	238	100

SOURCE: PRIMARY DATA.

Interpretation

In the present study, the respondents indicated that they got information from friends or relatives (50.4%), by online advertisement (20.2%), by noticing people using it (13%),

television advertisements (9.7%) and through newspapers (5.5%). It is interesting to note that the major section of the respondents got the information from friends and relatives. There is an element of practical training for the use of these apps. So people will choose where a scope for demonstration is there. This is best available from friends and relatives. They will be telling about their choice and will be demonstrating or teaching its operation. The next source is the online advertisement where again repeated learning is possible by viewing the demonstration.

Table 4: Gadgets/technology used by respondents while using payment app

Gadgets/technology	No. of respondents	Percentage of respondents
Simple cell phone	6	2.5
Smart phone	205	86.1
Tablet	8	3.4
Laptop	9	3.8
I pad	8	3.4
Other	2	0.8
Total	238	100

SOURCE: PRIMARY DATA

Interpretation

The result indicates that 86.1% of the respondents use payments app through Smart phones 3.4% of them through tablets, 3.8% through laptops and 3.4% through I pads. This result indicates that people use payment app with a device that is in proximity. These apps are designed to work well in Smart phones with a view to be used in Smartphone. Perhaps majority of decision of transferring money came from information received through Smartphone. So execution of transfer took place with the Smartphone which was at hand while making decision.

Table 5: Purpose of using payment apps among the respondents

Purpose of using payment apps	No. of responses	Percentage of responses
For booking travelling tickets	113	47.5
For booking entertainment tickets	129	54.2
For bill payments	127	53.4
For buying household items	49	20.6

For recharging	128	53.8
For online shopping	132	55.5
For transferring money	135	56.7
Others	4	1.6
Since the respondents can give more than one option, the percentage is calculated based on the respective options and so the total percentage will not be 100		

SOURCE :PRIMARY DATA

Interpretation

The result of the responses (56.7%) shows that most of the respondents use payment apps for transferring money. The next major use (55.5%) is for online shopping followed by (54.2%) for booking entertainment tickets. A high incidence of use is for mobile recharging (53.8%), 53.4% for bill payments, and 47.5% for booking travelling tickets, 20.6% for buying household items and 1.6% for other purposes. Most of the respondents use mobile banking apps for transferring money rather than visiting banks as it helps in saving time.

Table 6: Frequency of using payment apps among the respondents

Frequency of use	No. of respondents	Percentage of respondents
Occasionally only	87	36.6
Weekly once	37	15.5
2-3 times a week	40	16.8
4-6 times a week	38	16
1-2 times a month	28	11.8
Others	8	3.3
Total	238	100

SOURCE :PROMARY DATA.

Interpretation

From the responses it can be seen that 36.6% of the respondents use payment app only occasionally, 15.5% weekly once, around 16.4% 2 - 6 times a week, 11.8% 1-2 times a month. The occasional use clearly show the scope for penetration among the masses. Even people who are aware of the use of payment apps are not using it regularly.

Table 7: Amount of payment done per month using the payment app

Amount of payment done	No. of respondents	Percentage of respondents
Below 1000	65	27.3
1001-3000	84	35.3
3001-5000	34	14.3
5001-10000	32	13.4

Above 10000	23	9.7
Total	238	100

SOURCE : PRIMARY DATA.

Interpretation

From the above response, it can be seen that 35.3% of respondents spend between Rs.1001-3000 per month, 27.3% of respondents spend below Rs. 1000, 14.3% spend between Rs.3001-5000, 13.4% Rs. 5001-10000 and 9.7% of respondents spend above Rs.10000. Since most of the respondents are students they will be using these apps for mobile recharging.

Table 8: Most preferred payment app among the respondents

APP	No. of respondents	Percentage of respondents
Google pay	104	43.7
Pay tm	81	34
Sbi Buddy	19	8
Phone pe	19	8
icici pockets	2	0.8
Mobikwik	2	0.8
Others	11	4.7
Total	238	100

SOURCE: PRIMARY DATA

Interpretation

From the above table it can be observed that Google pay is the most preferred app with 43.7% of respondents using it. Another 34% of respondents prefer pay tm, 8% prefer sbi buddy as well as Phonepe. 0.8% of respondents prefer icici pockets as well as Mobikwik and 4.7% of respondents prefer other apps. From this we infer that most of the respondents use Google pay as they feel it is more comfortable.

Table 9: Preferred features of the favorite payment apps which influence its use among the respondents

Features of payment apps	No. of responses	Percentage of responses
Easy to use	172	72.3
Discount options		0
Cash back offers	103	43.3
Better security of data	72	30.3
Best merchant acceptance	21	8.8
Speedy transaction	105	44.1
Best customer services	40	16.8
Higher value transaction possible	21	8.8
Easy tracking of spent	33	13.9
Required transaction limit is there	4	1.7

Speedy correction of transaction	25	10.5
Others	51	21.4
Since the respondents can give more than one option, the percentage is calculated based on the respective options and so the total percentage will not be 100.		

SOURCE: PRIMARY DATA.

Interpretation

From the responses tabulated above, it is observed that 72.3% of respondents prefer their app because it is easy to use, 44.1% prefer it because of its speedy transactions, and 43.3% prefer because of its cash back offers, 30.3% use as it has got better security of data. About 16.8% prefer it because of its better customer services, 13.9% prefer it because it has got easy tracking of spent, 8.8% of respondents prefer it because of its better merchant acceptance, 8.8% of respondents prefer as permits transaction of higher amount of money. There are respondents (1.7%) preferring the app because of the option to set a transaction limit is available. These responses show the wide variety of factors looked into by the respondents while choosing a payment app. .

Table 10: Problems faced by the respondents while using payment apps

Problems while using payment apps	No. of responses	Percentage of responses
Security risk	27	25.7
Poor internet connectivity	38	36.2
Poor merchant acceptance	20	19
Lack of technical knowledge	18	17.1
Service charge	23	29.1
Others	6	5
Since the respondents can give more than one option, the percentage is calculated based on the respective options and so the total percentage will not be 100		

SOURCE : PRIMARY DATA

Interpretation

From the responses collected in this study it is observed that 36.2% indicate facing problem while using mobile banking apps due to the poor internet connectivity, 29.2% due to high service charge, 25.7% faced security problems and 19% indicate poor merchant acceptance. About 17.1% indicate lack of technical knowledge as a difficulty in using mobile payment app.

Table 11: Opinion among respondents for improving the acceptance of mobile payment app

Opinion among respondents	No. of responses	Percentage of responses
Improve internet coverage	120	50.4
Speedy correction of transaction failures	144	60.5
Reduce cost of internet usage	84	35.3
Others	13	5.2
Since the respondents can give more than one option, the percentage is calculated based on the respective options and so the total percentage will not be 100		

SOURCE:PRIMARY DATA.

Interpretation

From the responses it is observed that 60.5% respondents feel that speedy correction of transaction failure will improve the acceptance of mobile banking apps; 50.4% feels that improving the internet coverage will improve the acceptance and 3 Apart from these there are certain suggestions which are not general in character.

Findings And Suggestions

Findings

1. Majority of respondents are male (55%).
2. Majority of respondents fall in the age group 15-25 (71.8%).
3. Majority of respondents are students (61.3%).
4. Most of the respondents live in urban area (74.8%).
5. More than half of the respondents currently use pay tm (55.5%).
6. Majority of respondents came to know about payment apps from their friends and relatives (50.4%)
7. Most of the respondents use smart phones for using payment apps (86.1%).
8. Most of the respondents use payment apps for transferring money (56.7%).
9. Majority of respondents prefer Google pay the most (43.7%).
10. From the point of favorite app most of the respondents feel it is easy and more convenient use (72.3%).
11. Among the respondents who find problems while using payment apps feels it is because of poor internet connectivity (36.2%).
12. Most of the respondents feels, there should be speedy correction of transaction to improve the acceptance of payment apps (60.5%).

Suggestions

1. It seems that news paper advertisement is not effective for the popularization of payment apps as people are reluctant to try a new app on their own. So a proper methodology has to be worked out regarding news paper advertisement if it is used for the popularization of these apps.
2. Another major concern is the security of the transacted money and a provision to correct the errors of transaction without hardship and delay is a requirement suggested by the respondents.

Conclusion

The study reveals that the majority of users of payment apps are males. It may be because in our society, they are the decision takers or the majority of money transactions are taken by them. If this contention is the reason for the majority, it is to be noted that the percentage of females using payment apps are close to that of the males and that is indicative of a social change happening around us. In this study majority of respondents are from the 15-25 age group. This cannot be considered as an indicator of youth using apps more because majority of the questionnaire reached the hands of the college students. Regarding the use of payment apps more than 55.5% use pay tm. Other studies also show that pay tm is the popular payment app. It is interesting to note that the majority (50.4%) admit that they got information regarding these apps from their friends and relatives. Most of the responses indicated that these apps are used for transferring money between accounts and that they are used occasionally. This may be an indication of occasional users using the app for transferring money between accounts and the majority of them transfer only small amounts. This observation is difficult to explain with the responses obtained in this study. Majority of

the responses vote for Google pay apps. The major criteria for liking a payment app are its simplicity and that there should be a provision for speedy correction of any transaction error happens. In our study, it is observed that these are convenient and easy to use and there are only few problems while using these apps that can be attributed to the design features of the apps. Many of the problems reported are of personal in character.

In a nut shell it can be said that customers are on surge of using appropriate payment apps for their various uses. Payment apps are becoming an indispensable part of our economy making our nation a paperless economy. If this is the case, there will be more players coming into the field and there will be competition among them. It necessitates continuous development of these apps to remain in the forefront.

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A Study On Service Quality Dimensions And Customer Satisfaction Towards Three Star Restaurants In Ernakulam District

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Abstract

This study investigates the customer's perceptions of service quality delivered by three star restaurants in Ernakulam district and its effects on customer's satisfaction and loyalty. The data was collected from the respondents by means of a scheduled questionnaire. The SERVQUAL model was used to study the service quality of restaurants. It was found that the customer's perceived quality towards the service had a significant effect on the customer's satisfaction and customer's loyalty. Finally, the result demonstrated the existence of a significant influence imposed by the customer's satisfaction on the customer's loyalty

Keywords: Restaurant, Service Quality and Customer Satisfaction, SERVQUAL model, Customer Loyalty.

Introduction

Restaurants are the part of food and beverage service industry. Service industry is the major source of employment. Service industry is the growth engine of economy and it is the corner stone of success in profit oriented organizations as well as non-profit oriented organizations. Many service related industry gives due weight age to service because it contribute a lot in business growth. Restaurant industry deals in the service of food and beverage and contributes in the economic growth of country. Competition is increasing in food service industry at very fast speed. Excellent service quality offers to customer's results in increase level of satisfaction and revisit of customers and increase profit of the company, Brink & Berndt (2008).

Evidence from the previous studies, that satisfaction of guest goes down easily but it is tough to win. Satisfied guest are your free words of mouth advertisement whereas dissatisfied guest move to another competitive restaurants and spread negative words of mouth communication to others. Leppard & Molyneux (1994) described in their study that it is an essential task for the companies to make their consumer happy. Only a single unresponsive member of the staff in restaurant can make or mar the image of the restaurant. Poor service quality generally increases dissatisfaction in customers and he/she will not come back to restaurant again. Excellent service quality improves Satisfaction which leads to customer retention and it's a life blood of a restaurant.

Christopher et al. (2002) pointed out that "restaurants management not only attract new customers but also retain existing customers". According to report published by Grant Thornton India that Indian food and beverages (F&B) industry grow at a speed of 24%

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annually and it may reach Rs. 3.8 trillion at the end of March 2017. Report published by Grant Thornton India and FICCI (Federation of Indian Chambers of Commerce and Industry) that quick service chain restaurants have 45% share and it increases by 16.6% annually, 32% share of casual dining and grow at 10.1% annually. 22% share of standalone restaurant while café segment 12 % and grow at 10.7% annually. 3% Market share of Fine Dining from multinational chains. Quick service restaurants chains McDonald's, Domino's Pizza, KFC, Subway, Haldiram's, Bikanervala, Sagar Ratna and Yo! China have estimated sale of Rs.92, 000 crore by 2016-17 and these chains set up their outlets in smaller cities also.

According to ASSOCHAM report (2015) that Indian quick service market is expanded at a compounded annual growth rate (CAGR) of 25 % and it may reach to Rs 25,000 crore by 2020. According to CRISIL research (2013) that urban population by 2020 in India reach to 35% of total population around 52 Crore. Since the last decade people are frequently dine out with friends and family, most of people involve in information technology business and lives in metro cities both man and woman are working and they have no time to cook food so they prefer to eating out.

Review of Literature

Suzana Markova et al., conducted a study titled "Measuring service quality in city Restaurants using DINSERV Scale". Service quality applied in a variety of service industry represents an important issue to managers and academic researchers. Service quality is more difficult to customers to evaluate than product quality because of lack of tangible evidence associated with services. Parasuraman and Berry (1988) developed the SERVQUAL instruments for measuring the service quality. It is an instrument for measuring the gap between the service the customer thinks to be provided and what they think has actually provided. The SERVQUAL instrument consists of 22 items that measures consumers' expectations. It also includes various limitations like measuring time, measuring scale and service quality dimensions.

Abul Kalam et al., (2012) through the study titled, "The Influence of Service Quality and Price on Customer Satisfaction: An Empirical Study on Restaurant Services in Khulna Division" aimed at linking some factors of service quality and price fairness of restaurants with the customer's satisfaction in Bangladesh. The researchers found that the customers of restaurants have negative impression about various factors regarding restaurants.

Syed Naseeb Ullah Shah et al., (2018) studied about the role of service quality and customer satisfaction in firm's performance in relation to Pakistan's hotel industry. It was found that service attributes have a significant optimistic effect on customer satisfaction. The customer's experience is the key factor in the hospitality industry.

Norazlina Rahmat et al., (2017) in their article entitled "Review on price, service quality and customer loyalty in fast food restaurants" concluded there is a relation between price, service quality and customer loyalty. The researchers analysed the factors like the fast food trends, price, service quality, customer satisfaction and customer loyalty in this regard.

According to **Sanja Raspor et al.**, Guest Comment Cards (GCC) are recognised as an important tool to measure guest satisfaction, and that in most hotels measurement practice should be improved. It also indicates that response rates are low and incentives should be provided.

Oswald Mhlanga (2018) in the research article titled "Measuring restaurant service quality in East London, South Africa: A comparison of restaurant customer expectations and

perceptions” found that improving restaurant service quality in South Africa not only increase customer satisfaction and strengthen customer loyalty, but also improves restaurant’s reputation and increase restaurant sales. It helps in identifying customer requirements.

Anastasia Spyridou (2017) conducted a study on expected and perceived service quality of “all you can eat” restaurants in Southern Taiwan. The study and findings made indicated that the service quality factors had a positive impact on overall customer satisfaction and revisiting intention.

According to **I. Mensah (2009)** providing quality food services has become one of the critical issues in tourism industry. The survey revealed that there was a negative service gap between customer’s expectations and perceptions of service quality in the case of Cape Coast. It has serious managerial implications for providing quality services to customers.

Ahmed A (September 23, 2015) conducted a study focusing the relationships between service quality, food quality, customer satisfaction and customer retention in limited service restaurants in Jordan. A questionnaire based survey was distributed to 400 students served at 10 limited service restaurants in the neighborhood of universities in Amman, capital city of Jordan. Service quality was measured in terms of SERVQUAL attributes. The key dimensions of food quality, customer satisfaction and customer retention were identified through literature. The findings showed that service quality and food quality have a positive influence on customer satisfaction. This study is original as it examines the relationships between service, food quality, customer satisfaction and customer retention in specific types of restaurants in Jordan.

Kotaneel Manikanti & P.Sreevali (2003) conducted a study to focus the service quality and customer satisfaction. It has been identified as key elements of service profit chain using data from a sample of 284 customers from two large full service restaurants. The study has provided important insights into service quality and customer satisfaction in the field of restaurant operations.

Significance of the Study

With the help of theoretical and conceptual background about customer satisfaction and service quality and its importance in restaurant industry. This research will focus on three star quick service restaurants because service quality and customer satisfaction is considered to be a more important issue for these restaurants which are more popular in the country.

Objectives

The following are the most important objectives of the study:

- To assess the service quality dimensions and its effects on customer satisfaction of three star restaurants in Ernakulam district.
- To examine the relationship between customer satisfaction and customer loyalty of three star restaurants.
- To draw suitable suggestions based on analysis of the study.

Hypothesis of the Study

The researcher has formulated the following hypothesis:

H1a: Tangibility will have a positive impact on customer satisfaction.

H1b: Reliability will have a positive impact on customer satisfaction.

H1c: Responsiveness will have a positive impact on customer satisfaction.

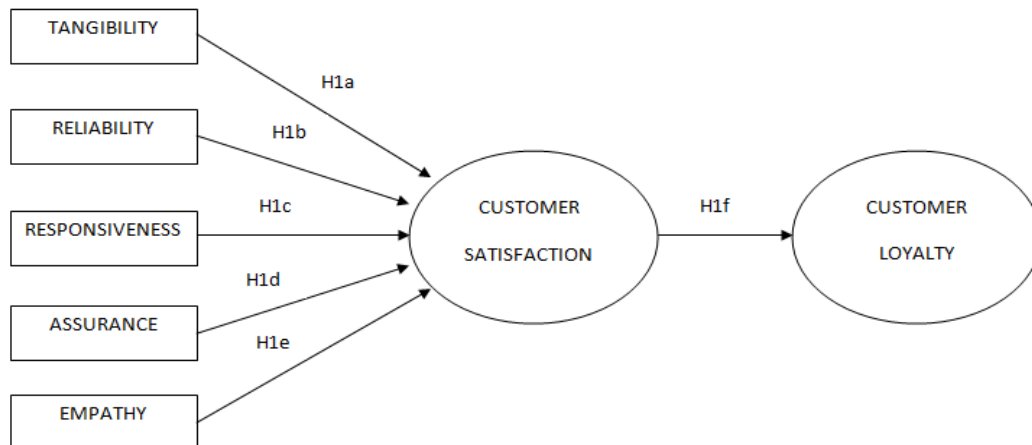
H1d: Assurance will have a positive impact on customer satisfaction.

H1e: Empathy will have a positive impact on customer satisfaction.

H1f: Customer satisfaction will have a positive impact on customer loyalty.

Conceptual Framework

Figure 1 Conceptual framework on customer satisfaction and customer loyalty.



Source: Formulated by Researcher

Research Methodology

The present study is descriptive in nature. For this research, the customers who got services from three star restaurants in Ernakulam district were considered as the population. The sampling units for the study are the customers of three star restaurants. The questionnaires were distributed to the customers who wish to participate during the Month of February 2019 to April 2019. A total of 123 responses were collected during the period by adopting snowball sampling technique.

The aim of this research was to develop a reliable and valid measurement instrument for measuring the satisfaction of customers towards restaurants in Ernakulam district, Kerala, India.

The researcher considered both primary and secondary data for the analysis. The primary data was collected through a structured questionnaire. The secondary data were obtained through journal, magazines, books, research journals and articles from the internet.

The researcher has used appropriate sample techniques in order to test the formulated hypothesis. The correlation test was used to establish the linear relationship between variables. The above mentioned statistical tools were made with the help of Statistical Package for Social Science (SPSS v.21).

Analysis and Interpretation

To complete this study properly, it is necessary to analyse the data collected in order to get the findings and reach conclusions. The analysis and interpretation is carried out with help of primary data. The data was collected using questionnaires. There were about a total number of 123 respondents.

Correlation analysis is a method of statistical evaluation used to study the strength of a relationship between two, numerically measured, continuous variables. This particular type of analysis is useful when a researcher wants to establish if there are **possible connections** between variables.

Table 1 Correlation between customer satisfaction and tangibility

		CS	TAN
CS	Pearson Correlation	1	.294**
	Sig. (2-tailed)		.001
	N	123	123
TAN	Pearson Correlation	.294**	1
	Sig. (2-tailed)	.001	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table we can see that Pearson correlation (.294**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between customer satisfaction and tangibility.

Table 2 Correlation between customer satisfaction and reliability

		CS	REL
CS	Pearson Correlation	1	.406**
	Sig. (2-tailed)		.000
	N	123	123
REL	Pearson Correlation	.406**	1
	Sig. (2-tailed)	.000	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

The above table reveals that Pearson correlation (.406**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between customer satisfaction and reliability.

Table 3 Correlation between customer satisfaction and responsiveness

		CS	RESP
CS	Pearson Correlation	1	.431**
	Sig. (2-tailed)		.000
	N	123	123
RESP	Pearson Correlation	.431**	1
	Sig. (2-tailed)	.000	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

It is evident from the above table that Pearson correlation (.431**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between customer satisfaction and responsiveness.

Table 4 Correlation between customer satisfaction and assurance

		CS	ASSU
CS	Pearson Correlation	1	.389**
	Sig. (2-tailed)		.000
	N	123	123
ASSU	Pearson Correlation	.389**	1
	Sig. (2-tailed)	.000	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table we can see that Pearson correlation (.389**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between customer satisfaction and assurance.

Table 5 Correlation between customer satisfaction and empathy

		CS	EMP
CS	Pearson Correlation	1	.482**
	Sig. (2-tailed)		.000
	N	123	123
EMP	Pearson Correlation	.482**	1
	Sig. (2-tailed)	.000	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

The above table reveals that Pearson correlation (.482**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between customer satisfaction and empathy.

Table 6 Correlation between customer satisfaction and customer loyalty

		CS	CL
CS	Pearson Correlation	1	.650**
	Sig. (2-tailed)		.000
	N	123	123
CL	Pearson Correlation	.650**	1
	Sig. (2-tailed)	.000	
	N	123	123

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

It is evident from the above table that Pearson correlation (.650**) is significant at 99.99% confidence interval. This means there is high (Cohen 1988) positive relationship between customer satisfaction and customer loyalty.

Results

The following are the results of the study:

- People in different income groups visit the restaurants irrespective of their income even though the majority earns an income above Rs.50000 per month.
- There are only around 19% of the respondents who rarely visit a restaurant. Others visit at least twice every month. A large number of the respondents visit around two to four times every month.
- The restaurant visitors mainly choose to go either with their family or friends to dine. Only a very few prefer going alone, as a large group or with colleagues.
- The restaurant visitors are not large spenders. A large majority spend only a maximum of Rs.2000 each month.
- The respondents mostly prefer to have dinner from a restaurant. They give second and third preference to lunch, and snacks and drinks respectively. People least prefer to have breakfast from a restaurant.
- The respondents think that the biggest deciding factors while choosing a restaurant are service and employee's friendliness, and quality of food. They also give significant importance to the ambience of the restaurant and accessibility.
- The physical facilities and factors (tangibility) of the restaurants contribute to the satisfaction of the customers to a certain level.
- Customer's satisfaction positively depends on the restaurant's ability to perform service dependably and accurately (reliability).
- The employee's willingness to help and respond to customer's needs (responsiveness) can contribute to their satisfaction to a significant level.
- The ability of the restaurant to inspire confidence and trust (assurance) in the customers can lead to their satisfaction.
- Customers are highly satisfied if caring and individualized service is given to them (empathy) by the restaurant.
- There is a very high chance that a satisfied customer will remain loyal to the particular restaurant in the future. Therefore service quality of the restaurant will lead to the satisfaction of customers and thus make loyal customers.

Conclusion

Dining out is a very common trend in India, nowadays. Previously, people visit restaurants on special occasions only like birthday, marriage anniversary or for some social events. But today, due to increased income, changing demographics and increased female workforce, people prefer eating out even without any occasion. Due to this factor there is a rapid growth in the restaurant industry and also a very high competition.

To survive the world of competition and to increase profit, market share and customer satisfaction, the restaurants have understood the significance of service quality. To be a reputed restaurant in a rapidly growing metro city like Ernakulam, it is necessary to be a

quality service provider. Only then the customers can be satisfied which help face competition in a city with n number of restaurants.

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A Study On Customer Relationship Management In Banking Sector

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Abstract

Customer Relationship Management (CRM) emerged in banking sector when banking institutions were getting more and more competitive. The most target of CRM helped banks to grasp the customers' current wants, what they need worn out the past, and what they attempt to liquidate the longer term to fulfill their own goals. Indian banks are realizing the concept of need based banking and also the importance of CRM that links individuals, method and technology to optimize an organization's revenue and profits through optimum customer satisfaction. CRM is specializing in making, satisfy and retentive client through uncompromising services. The purpose behind this study is to analyze whether or not banks are extremely implementing the total thought and philosophy of CRM as a way of securing competitive advantage through customer loyalty.

Key Words: Customer Relationship Management, Customer Service, Customer Satisfaction, Customer Knowledge, Banking

Introduction

Customer Relationship management is the most effective and efficient approach in maintaining and creating relationships with customers. Customer relationship management is not just a pure business technique but also it builds strong personal bonding within people. Building this type of bonding among customers drives the business to new levels of success. Banks in recent years have started developing a good relationship with its customers. The revolution in technology had its impact on the banking sector as well. The idea of anywhere and anytime banking took shape for the benefits of customers. The present-day customer is not only quality conscious but also very particular about time and service offered. Any deviation in their perception and reality will prompt them to change their brand preferences. This has persuaded the banks to emphasize on CRM which has become the need of the hour for banks.

Literature Review

R. Somasundaram & V. Krishnamoorthy (2010) in their article "Impact of Service Quality on Customer Relationship Management in the Banking Sector" stressed the importance of CRM in banking sector. The findings of the study noticed that out of 5 dimensions in the service quality, only three dimensions namely quality and appearance of materials, individual attention to customers and Customer's best interest had an impact on customer relationship management. The other two service quality dimensions like assurance and reliability had least impact on customer relationship management.

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M. Murugan & S.A Senthil Kumar (2011) in their study on “Customer Relationship Management in Banking Sector with Reference to Banks in Tamil Nadu” found that in both public and private sector banks, the mean rating of individual attention understanding the specific needs of the customers are lower than their respective dimension mean values. Public Sector banks is rated higher than the positive section banks and the public section banks are well interactive with their customers perception of customer retention management practices in public and private sectors is almost the same.

The Importance Of CRM For Indian Banking Sector

CRM has been important to the banking industry. Banks use CRM tools to obtain more customers and to enhance relationships with existing customers. Increased competition and regulation make it difficult for banks to stand out from the crowd. However, the development of CRM gave banks access to technology that helped them improve customer retention by using customer feedback to offer conveniences. Call centers of bank use CRM solutions for various purposes like tracking call transactions and troubleshooting techniques. Customer relationships are becoming very important for banks as competition is increasing, customers are becoming more demanding and the life-cycles of products and services are shortening dramatically. All these changes are making banks to strengthen the relationship with their customers and provide them with the services they require through the channels they prefer. The banks have to generate trust, establish customer care support which is required to keep regular relationship with customers. In today's changing and competitive environment, organizations recognize that customers are essential for the business and the success of the organization depends upon successfully managing relationships with them. It becomes more important for bank to keep customers happy because it is the customers that keep their business going. Strengthening of economic globalization creates competition among organizations and enforces a climate of constant change. In dynamic and fiercely competitive environment, only those can survive which compete successfully to gain new customers and retain the existing ones. Gaining and retaining customers has never been more important especially for banks whose main area of business is dealing with customers and selling financial packages to them. There has been a remarkable growth of consumer banking in India. This unprecedented development has been due to growth in Indian economy and government's decision to privatize many banks. Banks understand that customer relationship is a critical aspect for it's the success. To keep the customer satisfied, an effective strategy is required that can assist in upholding valuable customer relationship and offer customers life time value like Customer Relationship Management.

Indian banking sector has functioned relatively stable for a long time. However, in recent times, the banking sector has been facing fierce competition. Profit is important for banks to survive and grow in this environment. Today, CRM is a growing trend in Indian banks and they are investing a lot of time and money on it. The idea behind this is that it would help the bank to effectively utilize technology and other resources to gain insight into the customers' behaviour and customers' values. If adapted and implemented successfully, CRM can help banks provide better customer service, make banking operations more efficient and simplify selling and marketing processes. It is a strategic plan that aims in understanding, anticipating, managing and personalizing the organizational needs of current as well as potential customers. Banks understand that CRM is the creation of mutual values for all stakeholders in the business process. It is about creating a sustainable competitive advantage by being the best to understand, communicate, and deliver and develop existing

customer relationships in addition to creating and keeping new customers. Customer relationship management came as a process that restrained relationships with customers surpassing the whole business. Originally client relationship management was based on three major principles; shielding this customers, fostering new customers and enhancing quality worth of all the shoppers. With the appearance of CRM that was integrated with high finish software system package and technology, business views were utterly modified. The idea of CRM is that it helps businesses use technology and human resources gain insight into the behavior of consumers and thus value worth customers

Statement Of The Problem

In current situation of competitive banking world, an improvement in customer services is the most important requirement for better growth. client needs, necessity and complaint are a part of their banking business-life. So, it is more important for banks because it is a service industry. therefore customer services and customer satisfaction square measure their primary work. the need for the study arises because banking sector helps in economic development of the country and to fulfill this, customer satisfaction is necessary by providing better services with the help of computer and other innovated technologies. hence there is need for customer survey, identifying their requirements and satisfaction.

Scope Of The Study

The scope of the study is limited to the customer relationship management practices on private and public sector banks in Kerala. The foreign and cooperative sector banks were not considered for analysis because only few of the respondents had their accounts in those banks.

Objectives Of The Study

- To understand the concept of CRM and its importance in banking sector.
- To identify various factors influencing customer satisfaction through CRM activities by banks.
- To find out suitable suggestions based on the findings.

Hypothesis Of The Study

H0: Physical facilities have a positive relationship towards Customer Relationship Management in banks.

H1: Responsiveness has a positive relationship towards Customer Relationship Management in banks.

H2: Services have a positive relationship towards Customer Relationship Management in banks.

H3: Convenience has a positive relationship towards Customer Relationship Management in banks.

H4: Reliability has a positive relationship towards Customer Relationship Management in banks.

H5: Personal attention has a positive relationship towards Customer Relationship Management in banks.

H6: Trustworthiness has a positive relationship towards Customer Relationship Management in banks.

H7: Return policies and the flexible interest rate have a positive relationship towards Customer Relationship Management in banks.

H8: Satisfactions have a positive relationship towards Customer Relationship Management in banks.

H9: Loyalty of customers has a positive relationship towards Customer Relationship Management in banks.

Research Methodology

The present study is descriptive in nature. It is a sample study including both primary and secondary data. The primary data was collected directly from the sample respondents by asking them to fill up the questionnaire whereas the secondary data was collected from the secondary sources like books, journals and various websites. The researcher has used snowball sampling technique in order to collect first hand information from the respondents.

Analysis

TABLE 1 : CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND PHYSICAL APPEARANCE

		CRM	PHY
CRM	Pearson Correlation	1	.268**
	Sig. (2-tailed)		.007
	N	102	102
PHY	Pearson Correlation	.268**	1
	Sig. (2-tailed)	.007	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table we can see that Pearson correlation (.268**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between Customer Relationship Management and Physical Appearance.

TABLE 4.6: CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND RESPONSIVENESS

		CRM	RES
CRM	Pearson Correlation	1	.356**
	Sig. (2-tailed)		.000
	N	102	102
RES	Pearson Correlation	.356**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

Pearson correlation (.356**) from the above table is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between Customer Relationship Management and Responsiveness.

TABLE 2 : CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND SERVICE ORIENTATION

		CRM	SER
CRM	Pearson Correlation	1	.285**
	Sig. (2-tailed)		.004
	N	102	102
SER	Pearson Correlation	.285**	1
	Sig. (2-tailed)	.004	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table we can see that Pearson correlation (.285**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between Customer Relationship Management and Service Orientation.

TABLE 3: CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND CONVENIENCE

		CRM	CON
CRM	Pearson Correlation	1	.534**
	Sig. (2-tailed)		.000
	N	102	102
CON	Pearson Correlation	.534**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

The Pearson correlation (.534**) from the above table is significant at 99.99% confidence interval. This means there is high (Cohen 1988) positive relationship between Customer Relationship Management and Convenience.

TABLE 4 :CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND RELIABILITY

		CRM	REL
CRM	Pearson Correlation	1	.470**
	Sig. (2-tailed)		.000
	N	102	102
REL	Pearson Correlation	.470**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

We can see that Pearson correlation (.470**) from the above table is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between Customer Relationship Management and Reliability.

TABLE 5 :CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT ANDPERSONAL ATTENTION

		CRM	PA
CRM	Pearson Correlation	1	.414**
	Sig. (2-tailed)		.000
	N	102	102
PA	Pearson Correlation	.414**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table the Pearson correlation (.414**) is significant at 99.99% confidence interval. This means there is low (Cohen 1988) positive relationship between Customer Relationship Management and Personal Attention.

TABLE 6 :CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND TRUSTWORTHINESS

		CRM	TRU
CRM	Pearson Correlation	1	.527**
	Sig. (2-tailed)		.000
	N	102	102
TRU	Pearson Correlation	.527**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

The Pearson correlation (.527**) from the above table is significant at 99.99% confidence interval. This means there is high (Cohen 1988) positive relationship between Customer Relationship Management and Trustworthiness.

TABLE 4.12:CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT ANDPRICE

		CRM	PRI
CRM	Pearson Correlation	1	.513**
	Sig. (2-tailed)		.000
	N	102	102
PRI	Pearson Correlation	.513**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

From the above table we can see that Pearson correlation (.513**) is significant at 99.99% confidence interval. This means there is high (Cohen 1988) positive relationship between Customer Relationship Management and Price.

TABLE 4.13: CORRELATION BETWEEN CUSTOMER RELATIONSHIP MANAGEMENT AND CUSTOMER LOYALTY

		CRM	CL
CRM	Pearson Correlation	1	.578**
	Sig. (2-tailed)		.000
	N	102	102
CL	Pearson Correlation	.578**	1
	Sig. (2-tailed)	.000	
	N	102	102

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

We can see that Pearson correlation (.578**) from the above table is significant at 99.99% confidence interval. This means there is high (Cohen 1988) positive relationship between Customer Relationship Management and Customer Loyalty.

Findings

- The study is conducted among the age group of less than 20 years to more than 50 years. And also majority of the respondents are male.
- From the data collected the majority of respondents are Private sector employees, followed by Students.
- The survey shows that majority of the respondents comes under the age group of 20-30 years.
- 54% of respondents have annual family income between 1-3 lakhs and 5 lakhs & above. 23.8% respondents have their annual family income between 3-5 lakhs and 20.8% have annual family income less than 1 lakh.
- From the analysis it is clear that the majority of the respondents are aware of the various online services offered by the Banks.
- The study reveals that most of the respondents have their bank accounts in Private sector banks, followed by Public sector banks and only a handful of the respondents have their bank account in foreign and co-operative banks.
- There is a strong positive response towards the modern and updated infrastructure of the banks. The physical facilities are matching with the services offered and the premises are clean and attractive.
- It is evident that 50% of respondents agree that the customers are entertained by the bank employees and 50% of the respondent's complaints are easily handled. 51% of the respondents agree that the executives in the bank have enough knowledge in handling the customer's questions.
- The survey says that 53% of the respondents agree that the bank operator gives follow up to customer requests well in time. 47% of the respondents agree that the employees are willing to help and that the bank operator is consistent in providing services.

- Majority of the respondents agree that there is clear departmentalization to understand the customer needs. 53% and 51% percent of the respondents agree that the bank and the ATM which they prefer to visit are conveniently located from their work place or residence.
- This examination reveals that 59% of the respondents feel financially safe in dealing with the banks and that the bank insists on error-free transactions. 51% of respondents is assured about the facilities and services provided by the bank. From this survey it is clear that respondents say that the banks are reliable.
- The investigation discloses that 51% of respondents agree that the bank employees give individual attention to the customers. 47% believe that the employees in the bank are consistently courteous with customers and that the customers are free to take their own decisions related to financial transactions. From this survey it is clear that the respondents believe that personal attention given to customers is a very important aspect.
- The study discloses that more than 60% of respondents agree that the bank is reliable because it is mainly concerned with the interest of the investor whereas 55% and 52% of respondents agree that the cash transaction system of the bank is trustworthy and bank is accurate in performing the financial transactions.
- This evaluation reveals that 45% agree regarding the sound and attractive return policies for investors. Only 48% of the respondents are satisfied with bank's flexible rate of return regarding the various products and services offered by the bank.
- The survey discloses that 61% of respondents agree that they are satisfied with the overall services offered by the bank.
- Based on the survey, 63% respondents agree that they will continue using services from the bank for a long time. 46% respondents are willing to say positive things about the bank to other people and recommend to the respondent's friends and families about opening an account with the same bank.
- It is visible in the survey that 51% of respondents say that Customer relationship management is mainly concerned with the customer interests.
- The survey reveals that 47% of respondents feel secured and satisfied with the CRM strategies of the bank.
- Survey discloses that 49% respondents agree that financial transactions are better with CRM than without CRM.
- More than 57% respondents agree that the time has come to use CRM extensively in Bank to improve its performance.
- The study reveals that 46% respondents agree that CRM leads to improvement in customer base and satisfaction.

Suggestions

- New services should be constantly introduced to ensure the growth of the banks and to be competitive in the market and to keep up the enthusiasm of the employees and customers.
- There should be proper Employee relationship management first before customer relationship management.
- The services offered by the bank plays a very vital role and it directly influences the Customer relationship management and if the banks are not able to satisfy the needs of the customers it will affect their working.

- It is suggested that for CRM to be truly effective, an organization must first decide what kind of customer information it is looking for and it must decide what it tends to do with that information.
- The concept of CRM must be known to all and should be taken by members of the organization. Therefore, making ongoing improvements to the quality of service is vital for the success of the banking sector.
- It is suggested that for a service like banking, which operates in a very competitive environment, loyalty programs should be initiated. A loyal customer is not only profitable but will be instrumental in making the processes and management proactive to the changing needs of the customer by confiding in with valuable knowledge.
- Most of the banks have technology enabled CRM. Therefore, they should make full use of the capabilities of the technological solutions adopted.
- The banks should be an advisor to the customers regarding loans, interest rates etc.
- Banking performance should be more transparent and the functions should be more accurate.
- Suggestions and public opinions should be taken to improve the quality of the services rendered by the public and private banks.

Conclusion

Managing customer relationships is important and valuable to the business. CRM manages the relationships between a bank and its customers. The objective of the study was to understand the concept of Customer Relationship Management and its importance in banking sector and to identify the various factors influencing Customer Relationship Practices of banks.

Banks realize the importance of Customer Relationship Management and its potential to help banks to acquire new customers retain existing ones and maximize their lifetime value. Close relationship with customers will require a strong coordination between the various sectors of a bank. For a bank to succeed in adopting a CRM philosophy of doing business, bank management must first understand CRM as a holistic concept that include physical appearance of the bank, customer responsiveness, service orientation, reliability of the bank, personal attention given to the customers, trustworthiness.

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“Study of Lending by Commercial Banks to Priority Sector with special reference to MSE”

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Abstract

Priority sector is the key thrust area of the economy which has its impact on large section of the economy and the sector has national importance. In layman language Priority sector is section which should be given certain privilege preference or better higher priority to certain sections of economy. This is the weaker section of economy which may be deprived from better credit or loan access. These are few specified sector which may not get special or proper attention by banks in absence of mandatory or special consideration. This sector may be unattractive due to risk involvement and other inevitable factors inbuilt in it. This section of economy is identified and listed by Reserve bank of India. Hence, this area should be focused and strength by proper credit flow and lending. Taking into consideration its vital role in economy the Apex bank of India i.e Reserve Bank of India has made it mandatory to all commercial banks to lend specified portion of bank credit to this sector. To focus on core needy area sector area of economy RBI has lead down certain polices and rules and regulations making it mandatory to all commercial banks. It includes the agriculture sector, MSMEs, Education, Home Loan , Export Credit Etc. This research paper focuses on priority sector lending trend in India and also studies flow of Credit to MSE sector of India the one of the key growth engine of India. Through Secondary data time series analysis of the credit flow towards priority sector and MSE is studied by the researcher. Studies shows that the trend of credit flow since 2011 to 2018 there is an increase in credit to this sector. Its also observed that banks are not able to fulfill their overall targets given by RBI. Priority Sector Lending Certificate introduced by RBI may help the banks to achieve their targets. It is recommended that the mechanism of credit flow towards this sector should be increase. Increasing accessibility of credit in terms of lessening of rate of interest, collateral requirement and setting certain percentage of credit are to be given.

Keywords: Priority Sector, MSMEs, Public Sector Bank and Private Sector Bank

Introduction

Priority sector focuses on directing channelizing the lending, credit flow to certain specified sectors of economy. Priority Sector includes the following categories: As per the RBI Circular dated July 7, 2016

i) Agriculture, (ii) Micro, Small and Medium Enterprises,(iii) Export Credit,(iv) Education,(v) Housing,(vi) Social Infrastructure,(vii) Renewable Energy,(viii) Others

There are targets and sub-targets specified by RBI for Priority sector lending.

The following table shows the targets given by RBI to domestic schedule commercial banks excluding RRB and small finance banks.

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Categories	Domestic schedule commercial banks and foreign banks having branches more than 20 and above	Foreign banks have less than 20 branches
Total priority sector advances	40% of Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher	40% of Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher, to be achieved in a phased manner by 2020.
Agriculture	18% of Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher. Within this 18% for agriculture, a target of 8 % of ANBC or credit equivalent amount of off balance-sheet exposure, whichever is higher is prescribed for small and marginal farmers	Not applicable
Micro Enterprises	7.5% of of Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher	Not applicable
Weaker sections	10% of Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher	Not applicable

These board areas categories are explained as below:

1) Agriculture and allied activities:

Agriculture and allied activities into direct and indirect credit to small farmer , marginal farmers. It includes short, medium and long term funds given directly to individual farmers, SHG i.e Selp help groups. It includes farm credit, agricultural infrastructure, and ancillary activities.

2) Micro, Small and Medium Enterprises:

Micro, Small and Medium Enterprises are defined as per Micro, Small and Medium Enterprises Development Act(MSMED Act), 2006 as per their investment in plant and machinery in case of manufacturing and in case of services investment in equipment. Previously Micro and Small Firms were termed as SSI units and special schemes were introduced to encourage this sector. MSMED act,2006 first time introduced three tier of this sector i.e first Micro, Second Small and Third first time included is Medium Enterprises.

3) Weaker section includes:

1) Artisans, village cottage industries.

2) Small farmers and Marginal Farmers

3) SC & ST

4) SHG Self Help Groups

5) The beneficiaries of Government sponsored schemes such as NRLM, NULM, SRMS

6) Persons with Disabilities.

7) Distressed farmers indebted to non-institutional lenders

8) Overdraft limit to PMJDY account holder upto ₹ 10,000/- with age limit of 18-65 years.

9) Distressed persons other than farmers, with loan amount not exceeding ₹ 0.1 million per borrower to prepay their debt to non-institutional lenders

10) Minority communities as may be notified by Government of India from time to time

11) Beneficiaries of Differential Rate of Interest (DRI) scheme

12) Individual women beneficiaries up to ₹ 0.1 million per borrower

4) Educational Loan: Loan in case of Education to individuals for the purpose of vocational course upto 1 million irrespective of the sanctioned loan amount are eligible to be classified as priority sector.

5) in year 2015 Renewable energy sector is also added in priority sector lending.

6) In case of Home loan RBI has directed to housing loan under PSL upto Rs 35 lakh in the metropolitan centers which has population of 10 lakh and above 10lakh and in case of other cities Rs.25 Lakh provided the expenses and cost of dwelling in cities should not exceed Rs.35 lakh and Rs.25 lakh respectively.

Micro, Small and Medium Enterprises (MSMEs)

Micro, Small and Medium Enterprises are key growth engine of new India. Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy over the last five decades. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country.

Priority sector lending MSMEs are notified under Priority sector lending and according to RBI 7.5 % of ANBC or NBC should be channelized to this sector

They play vital role in economic development of the country. MSME contribute in alleviating poverty by creating employment at large, it contributes in increasing manufacturing output, helps in increase in Export. It contributes at large as it use local resources, low capital requirement, use skilled as well as unskilled human resource. It produces more than 8000 varied of products and contributes 45% to Manufacturing output, 45% to exports and 40% to GDP. Micro, Small and Medium Enterprises are defined in MSMED, Act 2006. They are distinguished and defined according to their investment in plant and machinery in case of manufacturing enterprises and in case of service enterprises they are defined according to their investment in equipment.

The Government of India has enacted the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 in terms of which the definition of micro, small and medium enterprises is as under:

(a) Enterprises engaged in the manufacture or production, processing or preservation of goods as specified below:

(i) A micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs. 25 lakh;

(ii) A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed Rs. 5 crore; and

(iii) A medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.

In case of the above enterprises, investment in plant and machinery is the original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification

(b) Enterprises engaged in providing or rendering of services and whose investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006) are specified below.

(i) A micro enterprise is an enterprise where the investment in equipment does not exceed Rs. 10 lakh;

(ii) A small enterprise is an enterprise where the investment in equipment is more than Rs.10 lakh but does not exceed Rs. 2 crore; and

(iii) A medium enterprise is an enterprise where the investment in equipment is more than Rs. 2 crore but does not exceed Rs. 5 crore.

Objective of the study

1) To understand the Priority Sector Lending

2) To understand and examine the trend of credit flow by Commercial banks to Priority sector.

3) To understand and examine the credit flow to MSE under priority sector lending.

Scope of the Study

The study is limited to Priority sector lending by Public sector, Private sector and Foreign banks. It is only confined to credit flow to MSE sector under Priority Sector Lending.

Literature Review

(Kumar, 2016) in the research studied the patterns of credit to priority sector lending and the challenges faces by banks in lending in such mandatory programs. The paper is based on both primary and secondary data. It also analyzed the various banks characteristics like nature of the ownership, performance of bank, size of bank etc. The Study suggests that banks have complied with the total target of priority sector lending further Private sector banks are far better in lending to this sector.

(Dave, 2016) studied the priority sector of selected public sector banks of India. The period covered for the studies is from 2011 to 2015. The researcher used Ratio-analysis and F-Test-one way ANOVA. The hypothesis for the study was framed as "All the selected Public Sector of India have equal norm with respect to priority Sector Advance To Total Advances" The analysis of the studies. The Null hypothesis of the study was accepted after the statistic test. And the studies concluded that all the selected banks have equal norms for lending to priority sector. It concluded that bank should increase their lending towards this sector so as to boost the economic development.

(Santosh Kumar Panda*1, 2017) In its research examined the pattern of credit flow towards priority sector. Econometric Analysis was carried out for the period 2006-2015 for public sector banks in India. The researcher was carried out by using panel data and multiple linear regression framework and correlation coefficients was analysed for PSL, Deposits,

Advances, Employee, CAR, ROA. The studies tested the hypothesis that whether the PSL and Bank size have relationship. Studies suggested that if the bank size will increase lending to PSL will also increase. The next hypothesis tested was the bank performance has significant impact on lending to PSL. In this case H1 was accepted suggesting a positive and significant impact on lending to Prior Sector lending. The study revealed that if the gross non performing asset ratio decreases this has its impact on priority sector lending positively means the lending increases.

(Makwana, 2015) in its research studied selected public sector and private sector banks. The period for his research was 2010-11 to 2014-15. The data studied was secondary data. Analysis of the research done by using ratios, averages, percentages and ANOVA test. The hypothesis was framed to test whether there would be significant difference in Priority sector credit to net credit ratio among selected public sector banks for the study period. In this study alternate hypothesis was accepted and null hypothesis were rejected on the basis ANOVA i.e there is significant difference in priority sector credit to net credit ratio among selected public banks.

(Ahmed, 2010) researcher studied the lacunas in this lending i.e priority sector lending by commercial banks. The study period was 1997 to 2006. It also studied group wise lending towards PSL. The factor influencing priority sector lending were analyzed. Multiple regression model was used for analyzing the data. The study observed that high recovery of loans ensures the banks to lend higher quantum of credit Priority sector. The researcher emphasis on better recover of loans amount which will in turn result in restoring the performance of commercial banks in this area.

Malyadri P, Sirisha S (2015) discussed the trends and progress of Indian Banking from 2006-2013. In this paper they discussed the Banks play vital role in any financial system. various positive and negative trends in Indian banking sector which reflected the liquidity, deposits, Capital adequacy ratio which are important to determine the healthy financial system. They also emphasized on the role of financial system in growth and development of economy. Financial sector plays a pivotal role in the economic development. It is normally agreed that a good and strong and healthy

banking system is a prerequisite for sustainable economic growth (S, p. 2015)

(Aw, Feb-May 2002) in his research paper studies the productivity subtleties of Small and Medium Enterprises in Taiwan. Researcher tried to find out correlation between size, growth and productivity of SME units. He studies the data of 3 census. The Total factor productivity was studied by finding relation through comparing the data of Employment and Size of Business age and Growth of the business. Research stated that firms grow because there are more productive and not because size of business. Productivity leads to Growth of the firm. More the productivity more the overall growth of the firm.

(Dr. Biswadeep Mishra, 2013) analyzed the problems faced by MSMEs and discussed the strategies to reduce or remove the impediments faced by this sector. He observed that one of the major problem faced by this sector is access to credit and finance.

(Adigbo, 2014) studied role of banks in financing SME in Ghana. In his study he focused on the The Agency theory by Jensen and Meckling, (1976), The Pecking Order Theory and also highlighted the concept of risk and its impact on Return on Assets. He discussed as per agency theory lending and borrowing creates financial obligations on both the parties. The contract between the parties i.e supplier of fund and user of fund should create appropriate benefits incentives to for the parties. According to the researcher perspective the ideal

agreement contract between the parties is which stands on Trust instead of the Risk. Such situation will induce both the parties to act in best interest of the contract. This may help in bringing balance between supply and demand of funds. In this way researchers proposition that this can help in mediating the demand and supply the financing gap. Researcher also quoted that collecting, processing and evaluating analyzing the quality information can help in developing the borrower's creditworthiness which is important parameter while evaluating the acceptance of loan application. Researcher related Agency paradox in lending situation where major changeling is default risk

Though extensive attention in the present literature has been committed to performance and growth of MSM units , there is dearth on study on factors affecting the productivity and growth of MSMEs in specific district. Furthermore, the vast literature in this area emphasis on large firms or performance of small and medium enterprises while research on the growth and particularly of micro, small units is underdeveloped as most of this units form a part of unorganized sector. The research intends to study the services provided by commercial banks to such units which play vibrant and vital role in economic growth in the economy. Researcher emphasis on the impact of services provided by commercial banks on growth and productive of micro, small and medium enterprises in Pune District.

(Nils D. Kraiczy, 2014) in their research work studied different parameters of growth of the firm. In this study sales and employee growth are used to measure firms variations in effect of CEO innovation orientation on research & development intensity in Small and medium firms. This search studies three parameters measuring growth i.e sales growth , employee growth and Research and Development intensity of the firm.

Research Methodology

The Secondary data are collected from different government websites, RBI Official website (Annual reports of RBI, Trend and Progress of Banking in India) , from official website of Ministry of Micro, Small and Medium Enterprises, Books, Journals , Magazines and various research papers. These Secondary data were collected and analyzed. The present section studies the period from 2004 to 2018 for priority sector lending.

Data Analysis and Interpretation

Section-I

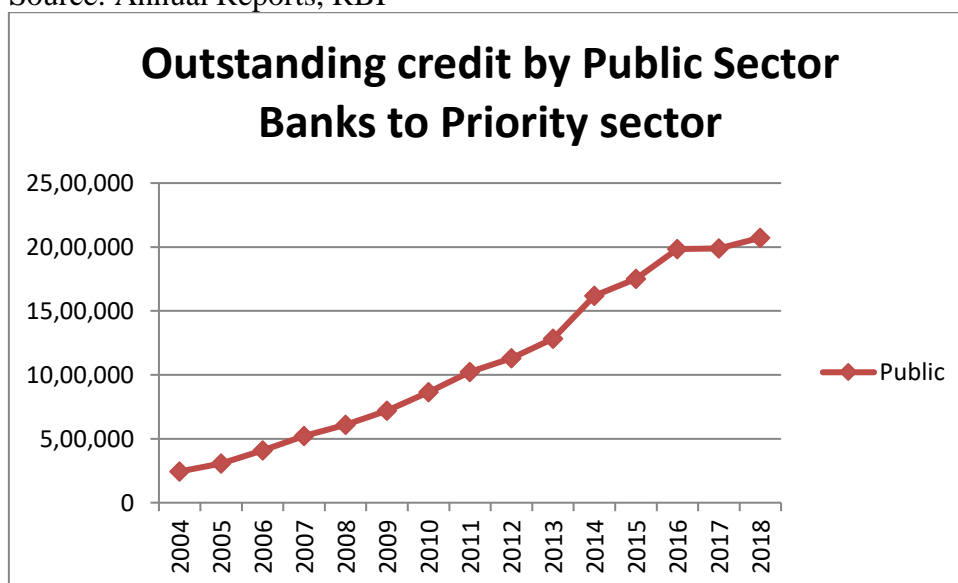
Table No-01

The following table shows outstanding credit by Public Sector Banks to Priority sector from period 2004 to 2018 and its percentage to Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher.

(figures Rs. Crore)

Year	Public	Public sector % to ANBC
2004	244,456	43.6
2005	307,046	42.8
2006	409,748	40.3
2007	521,376	39.7
2008	610,450	44.7
2009	720,083	42.5
2010	864,564	41.7
2011	1,022,925	41
2012	1,129,933	37.4
2013	1,282,200	36.2
2014	1,619,000	39.4
2015	1,751,200	37.3
2016	1,985,000	39.3
2017	1,988,900	39.5
2018	2,072,300	39.9

Source: Annual Reports, RBI



Interpretation

The above table shows that the percentage of outstanding advances of Public Sector Banks to ANBC have decreased from 43.6 % in 2004-05 to 42.8% in 2005-06. The above table shows that the is decrease in trend of outstanding priority sector advances from 2004-05 to 2007-08 to 39.7%. In 2008-09 there was growth in priority sector advances fuelled by surge in loans which again increased to 44.7% but the after that the trend shows downward side i.e decrease in outstanding priority sector lending.

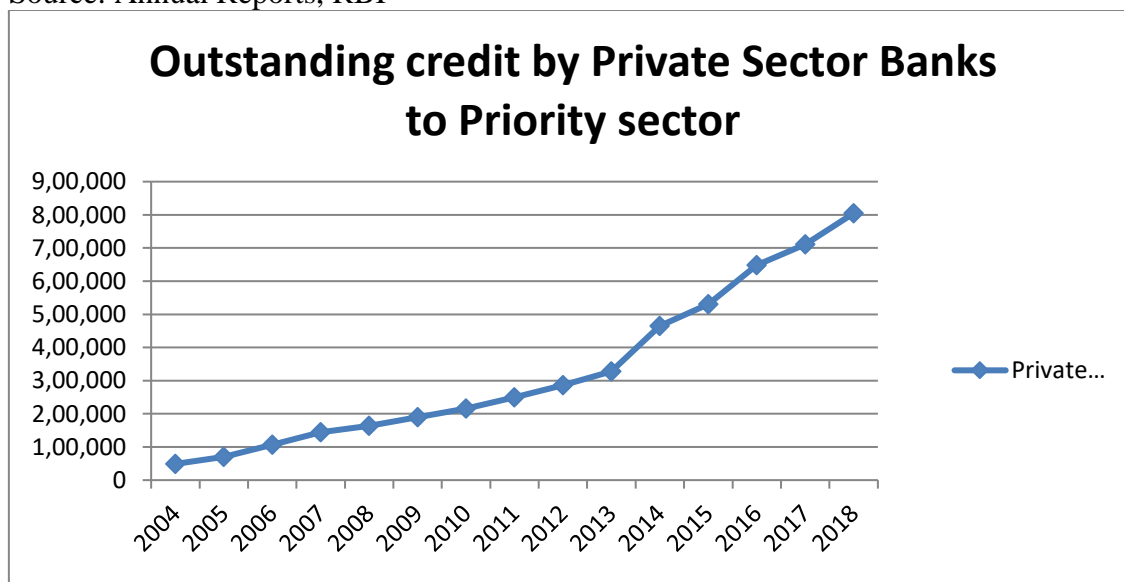
Table No-02

The following table shows outstanding credit by Private Sector Banks to Priority sector from period 2004 to 2018 and its percentage to Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher.

(Figures Rs. Crore)

Year	Private Banks	Private sector % to ANBC
2004	48,920	47.3
2005	69,886	43.6
2006	106,586	42.8
2007	144,549	42.9
2008	164,068	47.8
2009	190,207	46.8
2010	215,552	46
2011	249,139	46.7
2012	286,419	39.4
2013	327,400	37.5
2014	464,500	43.9
2015	530,300	42.8
2016	648,000	44.1
2017	711,000	42.5
2018	804,600	40.8

Source: Annual Reports, RBI



Interpretation

The above table shows that the percentage of outstanding advances of Private Sector Banks to ANBC have decreased from 47.3 % in 2004-05 to 43.6% in 2005-06. The above table shows that there is decrease in trend of outstanding priority sector advances from 2004-05 to 2007-08 from 47.3% to 42.9%. In 2008-09 it again increased to 47.8% but there after the

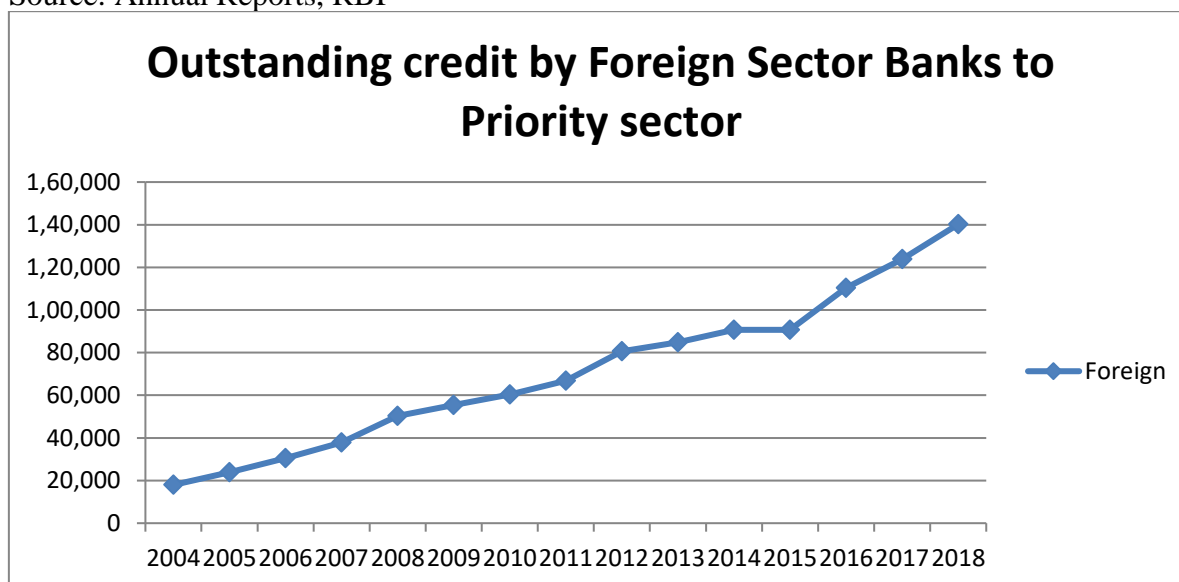
trend shows downward side i.e decrease in outstanding priority sector lending and in 2018 the Percentage change to Adjusted Net Bank Credit stood 40.8%.

Table No-03

The following table shows outstanding credit by Foreign Sector Banks to Priority sector from period 2004 to 2018 and its percentage to Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher.

Year	Foreign	Foreign Sector % to ANBC
2004	17,960	34.1
2005	23,843	35.3
2006	30,439	34.4
2007	37,831	33.4
2008	50,254	39.5
2009	55,483	34.2
2010	60,290	35.1
2011	66,796	39.1
2012	80,559	40.9
2013	84,900	35.1
2014	90,700	35.8
2015	90,700	35.9
2016	110,400	35.3
2017	123,800	36.4
2018	140,200	38.3

Source: Annual Reports, RBI



Interpretation

The above table shows that the percentage of outstanding advances of Foreign Sector Banks to ANBC have increased from 34.1 % in 2004-05 to 35.3% in 2005-06. In 2008-09 further it increased to 39.5% but there after the trend shows downward side i.e decrease in outstanding priority sector lending till 2011 and in 2012 the Percentage change to Adjusted

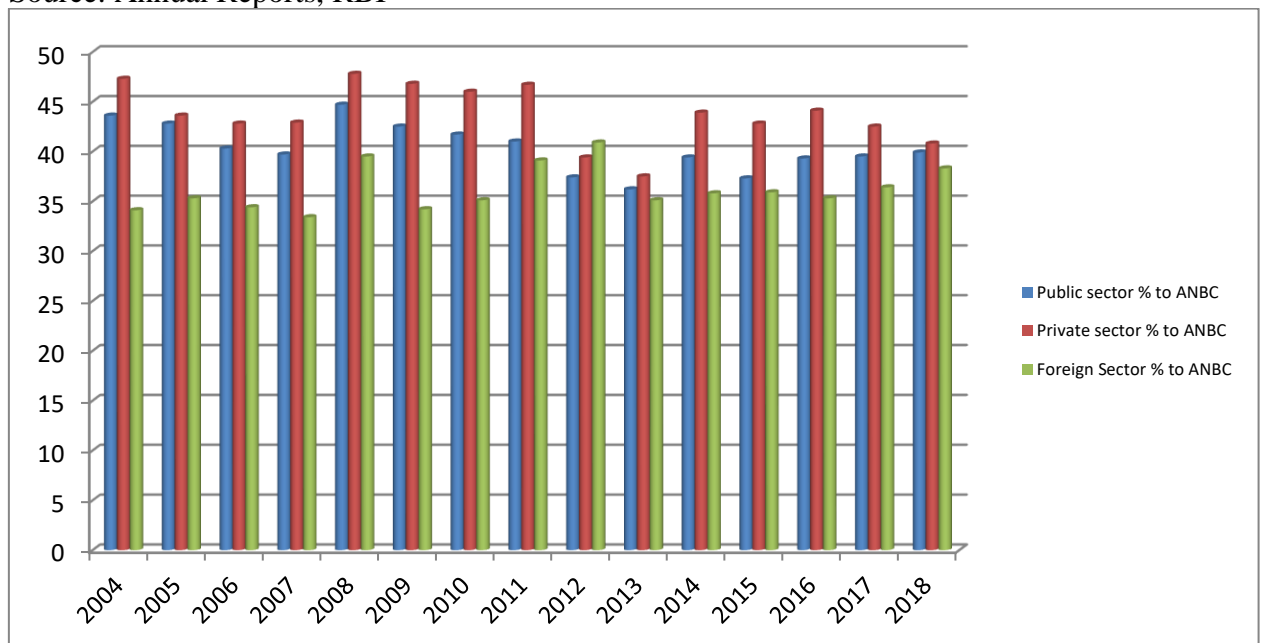
Net Bank Credit stood highest at 40.9% as compared to the percentage to adjusted net bank credit 38.3% in year 2018.

Table No-04

The following table shows the comparative analysis of Public sector bank, Private Banks and Foreign Banks percentage as per Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher.

	Public sector % to ANBC	Private sector % to ANBC	Foreign Sector % to ANBC
2004	43.6	47.3	34.1
2005	42.8	43.6	35.3
2006	40.3	42.8	34.4
2007	39.7	42.9	33.4
2008	44.7	47.8	39.5
2009	42.5	46.8	34.2
2010	41.7	46	35.1
2011	41	46.7	39.1
2012	37.4	39.4	40.9
2013	36.2	37.5	35.1
2014	39.4	43.9	35.8
2015	37.3	42.8	35.9
2016	39.3	44.1	35.3
2017	39.5	42.5	36.4
2018	39.9	40.8	38.3

Source: Annual Reports, RBI



Source: Annual Reports, RBI

Interpretation

The above table and graph shows the comparative analysis of percentage change in outstanding credit to ANBC of priority sector by Public Sector Banks, Private Sector Banks and Foreign Banks.

The table shows that if we compare outstanding credit percentage of public sector banks, private sector banks and foreign banks, Private Banks has percentage of outstanding credit is more as compared to other two sector banks. It shows that in year 2004 Public Sector banks outstanding credit was 43.6% whereas Private sector banks credit 47.3% to ANBC. The table and graph shows that there is decrease trend in the percentage in all the sector banks from year 2004 to 2018.

Section-II

Section II of data analysis includes the credit to Micro & Small Enterprises by Commercial Banks and Foreign Banks under priority sector lending.

Credit to MSE under Priority Sector:

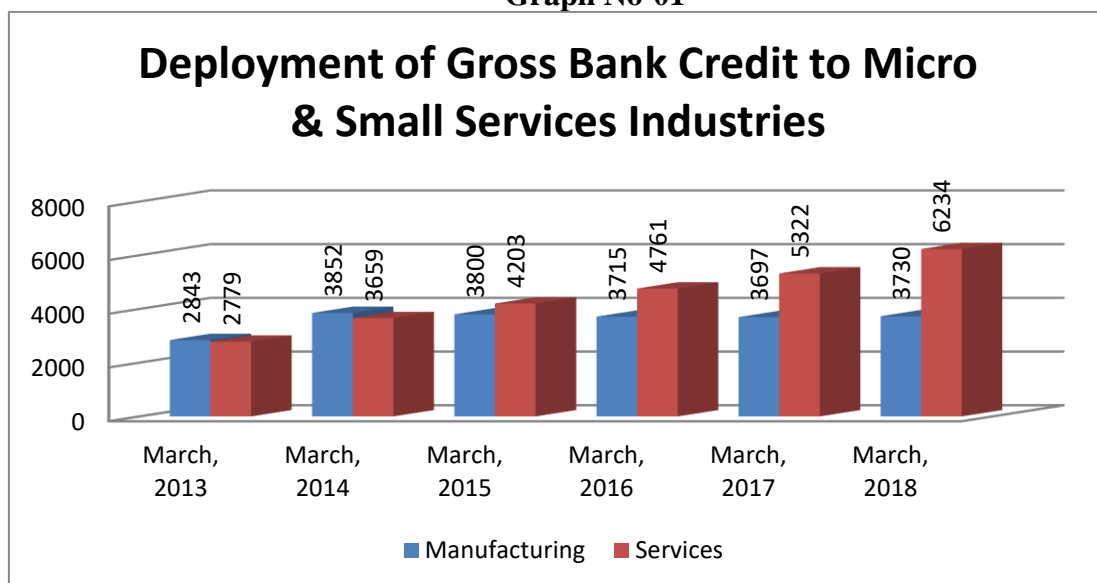
Table No-01

(Rs. billion)

Deployment of Gross Bank Credit to Micro & Small Services Industries	Manufacturing	Services
March, 2013	2843	2779
March, 2014	3852	3659
March, 2015	3800	4203
March, 2016	3715	4761
March, 2017	3697	5322
March, 2018	3730	6234

Source: Annual Reports, RBI

Graph No-01



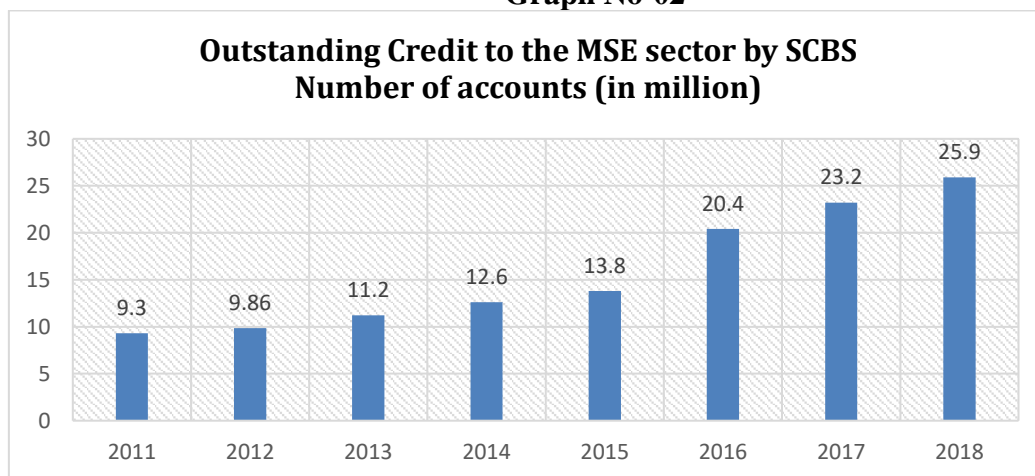
Source: RBI

Interpretation

The above table and graph shows the outstanding Deployment of Gross Bank Credit to Micro & Small Services Industries under Priority sector lending by commercial banks. It shows the data from year 2013 to 2018.

The table and graphs reveals that the outstanding deployment of Gross Bank Credit to Service Micro and Small Enterprises is more as compared to Manufacturing Enterprises. It shows that the credit flow of Gross Bank credit to Micro & Small Enterprises was Rs.5623 billion in years ended 31st March 2013. The percentage change in 2013 and 2014 was 33.6% and 13.1% respectively.

Graph No-02

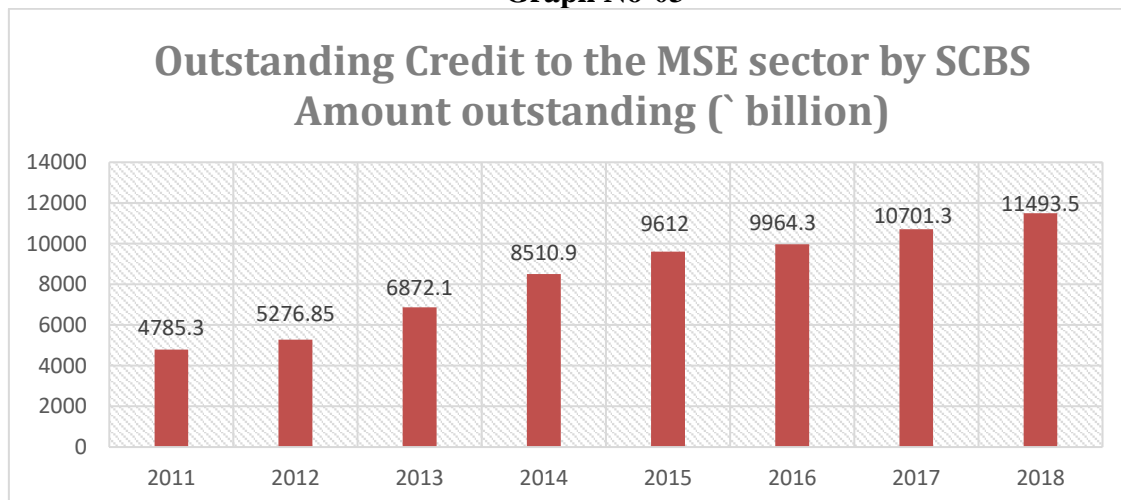


Source: Annual Reports, RBI

Interpretation

The above graph shows outstanding credit to the Micro & Small Enterprises sector by Scheduled Commercial Banks which displays the trend of increase in number of Accounts of Micro and small enterprises. It shows that in the year 2011 9.3 million accounts of MSE were there with Scheduled commercial banks. Its shows the increase and upward trend of the number of accounts as in the year 2018 25.9 million number of MSE accounts were there with SCBs.

Graph No-03

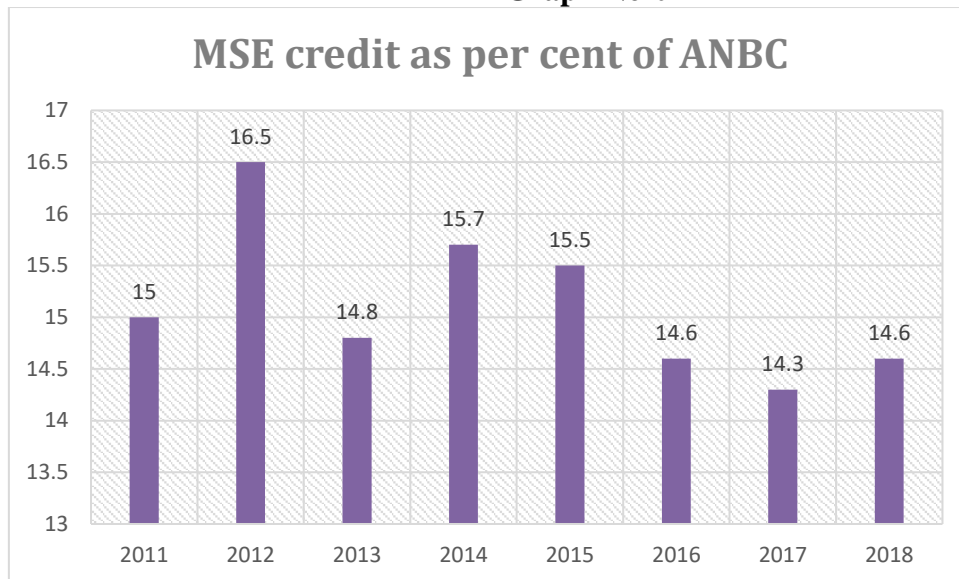


Source: Annual Reports, RBI

Interpretation

The above graph shows the outstanding credit to the Micro & Small Enterprises under Priority sector by Scheduled commercial banks. It shows that in year 2012 there was an increase in outstanding credit to 5276.85 billion as compared to 4785.3 billion in year 2011. The graph shows that there is an increase in credit deployment by Scheduled commercial banks to Micro and Small Enterprises under Priority Sector lending.

Graph No-04



Source: Annual Reports, RBI

Interpretation

The above graph shows the percentage change in credit deployment to Micro and small enterprises as per the percentage to Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure, whichever is higher. It shows that there was an increase in percentage in year 2012 i.e. 16.5% as compared to year 2011 with percentage 15%. The graph summarizes the trend of MSE credit as percentage to ANBC which shows that there is a decreasing trend of deployment in credit to MSE. It shows that 2012 percentage to Adjusted Net Bank credit was 16.55 which came down to 14.6% in the year 2018.

Findings of the Study

The major findings of the study suggest that the data shows that though there is an increasing trend in outstanding deployment of credit to priority sector in all Public sector, Private Banks and Foreign Banks percentage to Adjusted net bank credit or credit equivalent amount of off balance-sheet exposure is decreasing after 2008. In 2008 it is observed that the highest percentage outstanding deployment was provided by all three sectors of banks.

The other major finding of the study suggests that Private banks are performing much better in achieving their Priority sector target as compared to Public Sector banks however they are unable to achieve the MSE sector target as per regulations of RBI.

The study shows that the outstanding deployment of gross credit to MSE sector shows an increasing trend. It suggests that deployment to Service sector by commercial banks is more as compared to Manufacturing Sector.

The other major findings of the study suggest that the trend in Micro and Small Enterprises credit as per ANBC is showing a decrease in percentage from year 2013-18.

Conclusion & Recommendations

On the basis of the study it can be suggested that the banks should increase their credit deployment to Priority Sector. As recommended by previous research studies relationship lending can help bank to provide credit to small borrowers. It is recommended that taking into consideration the vital role of Micro & Small Enterprises in Economy the credit deployment should be increase for both Manufacturing and Services Sector. The increase in 10% year on year growth in number of accounts of MSE recommended by RBI should be effective followed and 20% year on year increase in growth of credit deployment to micro firms should be effectively followed. Despite of various measures by apex bank of India and Government of India credit deployment to priority sector has gone down and banks are not able to achieve the targets specified.

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A Study On Impact Of Social Media In Business With Special Reference To Ernakulum District

Meghna Pradeep & Sneha M C*

Jayashankar.J.**

Abstract

Social media are computer-mediated technologies that facilitate the creation and sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. The rising of social media is gradually leading to the demise of the traditional advertising main stream media. The main purpose of the study is to learn about the effectiveness of social media as a marketing tool and how it affects the consumers buying decisions. The sample for the study consisted of 50 respondents of different age groups and profession and sample selection was made randomly. The findings have led to the fact that social media is quite popular among the youth and it helps in creating wide spread brand image and brand awareness. It has the power to manipulate consumers buying decision through extensive promotion. The data is analyzed with the help of statistical tools such as percentage. It is concluded that through social media is an effective marketing tool yet it is better when used along with traditional channels.

Keywords: Social media, Traditional advertising, Brand image, Promotion, consumer decision

Introduction

Social media are internet services that let you interact with others and share and create content through online communities. It makes human interaction faster than actual human interactions and globalization a reality. Social media provides a bunch of marketing opportunities for business of all sizes. It can be used for promotion of brand name and business. One can find out what others think of your business without having to spend much on marketing research. The social media sites also possess some problems and risks to both consumers and business man. A lot of money is wasted for little or no tangible return. Privacy as well as legal problems also causes a great issue. Thus social media is great boon to business but at the mean while a threat to the reputation. The main objective of using social media as a marketing tool is to educate a wide range of people about brands, products, services and get feedback for improvement.

Literature Review

- Mohammad Yousaf Abuhashesh (July 2014) has made a study on integration of social media in business wherein he states that the current entities have to integrate the social media tools and ensure they develop the social media strategy in line with their objectives and analyze the attributes of target markets with a holistic approach. He has also

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emphasized on how enhancement in marketing, advertising, financing etc can prevent negative criticism.

- Abu Basha, Irshad Ahmad and Mohammad Wasfiq (Nov 2012) in their research on 'effectiveness of social media as a marketing tool, an empirical study'. They have thrown light on the fact that how relevant information's and high quality of social media are the basis for engaging the customers and prospects before during, and after the purchase cycle. Through this revolutionary medium a company can become an innovative firm of coming future.
- Ms. Sisira Neti (July 2011) has done a study on 'social media and its role in marketing' wherein she has highlighted the facts that companies are diverting resources and rethinking their traditional outreach strategies and how social media strategy helps in customizing the resources according to the needs. She has also stated that social media enlightens the business about others opinion without having to spend much on market research.
- M Nick, Hayli's work- 'A study of impact of social median on consumers' brings to our notice how ratings, reviews and recommendations causes consumers to have social interactions. He also come to the conclusion that social media increases the level of trust in consumers through interactions and that social factors facilitated through social media develops a supportive climate, which attracts people to come online and take part in social interactions.
- Aula Pekka (2010) has investigated on the 'threat and risk of social media on business' wherein she has bring to notice certain events which have negatively influenced brand name. The paper identifies how social media increases the scope of reputation risk and boost risk dynamics.
- Jiyoung Cha (2009) has analyzed on 'shopping on social networking websites' wherein he has focused on how social media security issues with regard to social media promotion needs to be considered and that there are two types of items that social networking sites carry: real and virtual.

Objectives

- To study about the effectiveness of social media as a marketing tool.
- To explore whether social media is more effective than traditional media.
- To study how social media affects consumer buying decision.

Methodology

The present study is designed as a descriptive one mainly based on primary data. The descriptive research explains the state of affairs as it exists at present.

Sources of Data

Primary Data

The primary data have been collected by using structured questionnaire from 50 selected respondents of Ernakulum District.

Secondary Data

Secondary data relating to the study have been collected from the websites, books, journals and periodicals.

Results And Discussions

TABLE 1. DEMOGRAPHIC PROFILES

	Number Of Respondents	Percentage
Gender		
Male	22	44
Female	28	56
TOTAL	50	100
Marital Status		
Married	33	66
Unmarried	17	34
TOTAL	50	100
Occupation		
Student	29	53
Working	17	34
Both	3	6
None	1	2
TOTAL	50	100
Qualification:		
Primary/SSLC	4	8
Degree	21	42
Post graduate	22	44
Retired	3	6
TOTAL	50	100
Age		
15-25	31	62
26-35	11	22
36-45	2	4
46-60	4	8
60+	2	4
TOTAL	50	100

Income			
	Below 15000	18	36
	15000-30000	2	4
	30000-50000	8	16
	50000-100000	9	18
	100000 or above	1	2
TOTAL		50	100

Source: Primary Data

Table 5.1 shows that majority (56%) is females and only (44%) are males. (66%) of them are single and (34%) of them are married. (58%) of them are students, (34%) working, (6%) are both student and working and only (2%) does not include in any of these category. A majority of (44%) are postgraduates, (42%) of them have completed their degree, (8%) have a qualification of SSLC and only (6%) of them are retired. (62%) of them are from the age group of 15-25, (22%) from the age group of 26-35, (4%) from the age group of 36-45, (8%) from 46-60 and (4%) from 60 and above. A majority of (36%) earns income below 15000 and only (2%) earn income above 100000.

Table 2: USAGE FREQUENCY

	Number Of Respondents	Percentage
Frequent User Of Social Media		
Yes	40	80
No	10	20
TOTAL	50	100

Source: Primary Data

Table 5.2 shows that a majority of (80%) is frequent user of social media and only (20%) are not frequent users.

Table 3: BRANDING THROUGH SOCIAL MEDIA

	Number Of Respondents	Percentage
Follow Brands Via Social Media		
Yes	45	90
No	5	10
TOTAL	50	100

Source: Primary Data

Table 5.3 shows that (90%) of them follow brands via social media and only (10%) do not follow brands via social media.

TABLE 4:USAGE OF SOCIAL MEDIA

	Number Of Respondents	Percentage
USAGE OF SOCIAL MEDIA FOR:		
Networking	27	54
For information on product or services	34	68
Entertainment	30	60
Deals and promotion	9	18
TOTAL	100	200

Source: Primary Data

Table 5.4 shows that a majority of the respondents (68%) use social media for receiving information on product or services and only a least majority of (18%) use social media for deals and promotions.

Table 5: INFLUENCING FACTORS

	Number Of Respondents	Percentage
Increased Brand Awareness :		
Agree	30	60
Strongly agree	17	34
Disagree	3	6
Strongly disagree	0	0
None of these	0	0
TOTAL	50	100
Likely To Respond To Marketing Messages:		
Agree	24	48
Strongly Agree	3	6
Disagree	12	24
Strongly Disagree	8	16
None Of These	3	6
TOTAL	50	100
Social Media Can Alter My View:		
Agree	24	48
Strongly Agree	15	30
Disagree	8	16
Strongly Disagree	2	4
None Of These	1	2
TOTAL	50	100

More Likely To Consume A Product That Is Promoted:		
Agree	19	38
Strongly Agree	6	12
Disagree	18	36
Strongly Disagree	3	6
None Of These	4	8
TOTAL	50	100
Quick Spread Of Information Via Social Media Has Lasting Effect:		
Agree	27	54
Strongly Agree	7	34
Disagree	3	6
Strongly Disagree	2	4
None Of These	1	2
TOTAL	50	100

Source: Primary Data

From table 5.5 it is clear that (60%) of the majority agree that social media has helped them in increasing their brand awareness whereas only (6%) of them disagree to this statement. (48%) of them are likely to respond to marketing messages communicated via social media whereas (6%) of them are less respondent. (48%) of them agree to the fact that social media can alter the view about a product and only (4%) of the respondents strongly disagree. (38%) of the respondents agree that they are more likely to consume a product that is promoted. When excellent promotional activities are undertaken to promote a product, consumers are likely to consume that product. (6%) of them disagree to it. Majority of them agree that spreading information through social media has a long lasting effect (54%) and only (4%) of them strongly disagree on it.

Table 6: PURPOSE OF USAGE

	No. of respondents	Percentage
Check social media for:		
User Reviews	38	76
Promotions	10	20
To Ask A Friend About A Product	17	24
Neither	7	14
TOTAL	72	134

Source: Primary Data

Table 5.6 shows that (76%) of them check social media for viewing user reviews and only (14%) of them check social media for any of the purposes.

Table 7:RETAIL PROMOTION

	No. of respondents	Percentage
Receive retail promotion via:		
Mail	25	50
Social media	26	52
SMS	16	32
Newspapers	17	34
Neither	1	2
TOTAL	95	170

Source: Primary Data

From table 5.7 it is understood that (52%) of the respondents receive retail promotion via social media, (50%) through mail, SMS (32%), News papers (34%) and (2%) of them does not receive any retail promotion.

Table 8:ADVERTISING

	No. of respondents	Percentage
Prefer to view an ad message via:		
Prefer traditional ads as it is less interactive.	5	10
Prefer social media as it is more interactive.	30	60
They are the same.	9	18
Neither.	6	12
TOTAL	50	100

Source: Primary Data

Table 5.8 shows that (60%) of them prefer social media as it is more interactive. (18%) feel that ads from both traditional and social media have the same impact and (12%) of them say that neither social nor traditional ads have any impact on the consumers.

Table 9: FEEDBACK

	No. of respondents	Percentage
Take Out Time To Give Feedback:		
Yes	10	20
No	12	24
Sometimes	28	56
TOTAL	50	100

Source: Primary Data

From table 5.9 it is clear that (56%) of the respondents don't often take their time to give feedback whereas (20%) of them take their time to give feedback.

Findings

1. Females mostly use the social media sites for purchasing and shopping
2. A majority of unmarried people are actively using social media rather than the married couples.
3. Majority of them are students compared to the those who are working and both working people and students
4. Only a few of them have primary/SSLC education, majority of them are post graduates.
5. A large number of respondents are from the age group of 15-25.hence the teenagers and youth are frequent users of social media.
6. A majority of the respondents are facebook users as facebook is more popular than other social media sites
7. A huge number of respondents earn income below 15000
8. Most people are frequent users of social media
9. Majority of the population follow brands through social media
10. Many of them use social media sites for information on products and services.
11. Social media has increased the brand awareness among consumers
12. It is found that most of the consumers are moiré likely to respond to marketing messages communicated via social media
13. The respondents feel that social media can alter a view about a product or organization
14. Most of the consumers are likely to consume a product that is extensively promoted via social media before launch
15. The quick spread of social media has lasting effect on the population about a brand for the consumers.
16. Most of the consumers check the user reviews on social media sites to know about a product
17. Most of the consumers review retail promotion via mail
18. Many of the consumers prefer social media as it is more interactive.
19. Most of the consumers prefer online transaction as they have trust in making transactions
20. The customers are not quite willing to take out time for giving feedbacks.

Suggestions

- They should have right information about the target audience only then good marketing decisions can be taken.
- Proper safety arrangement must be done for the targeted customers while they shop online.
- Experimentation in the digital field and new marketing techniques should be introduced.
- The customer's data must be taken care properly so that others don't do any malpractices.

Conclusion

Social media is a great boon to the business, at the same time a threat to the reputation. The main objective of social media as a marketing tool is to educate a wide range of people about brand, products and services and get a feedback for improvement. Social media provides a bunch of business for all sizes. It makes human interaction more convenient and much faster than actual interactions. It is concluded that though social media is an effective marketing tool, yet it is better when used along with traditional channels. Social media can create huge risks that process on repetition and trend name it can also create security issues which yet can be sorted.

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Consumer Perception Of Tupperware Products Among Youngsters In Kerala

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DR. A.S. AMBILY**

Abstract

Plastic is a material which consist of a wide range of artificial or semi- artificial compound that are flexible and so can be constructed into solid objects. Plastics are mainly used due their less consumption in factors like cost, manufacturing, versatility and impenetrable properties. Plastics used as a raw material for manufacturing of products of different scale, from paper clip to spacecraft. In today's era, plastic is completely replaced by specially designed product know as Tupperware which is mainly used for preparation, storage, serving products for the kitchen for home and beauty products. "No compromise in the quality of products" that is "Tupperware" to the society. The main aim of the study is to understand the customer opinion and preferences towards Tupperware products and to study the level of customer satisfaction towards the purchase and consumption of Tupperware products. The findings from our study is that Tupperware products are available in different size, color and it is eye-catching. These products are easily available and expensive. Tupperware products are convenient for daily use and go with the lifestyle. These products provide air or water tight containers. The study observed that Tupperware products have been the trusted choice for generations due to its satisfying and appealing factors like price, durability, better quality and ease of use. It considered not only the health of their consumer but also ensures that no harmful plastic dump is added to the environment. As it concerns about environment it emerges as one of the powerful drivers that influence eco-friendly purchases. Knowledge and awareness about green products can affect behavior and perception about the product which ultimately affect buying decision of the customers. Satisfying the needs and wants of the customer helps the business to improve and survive in the market. The success of a product depends on how they delight the customers need and improve their lifestyle.

KEYWORDS: Consumer Perception, Tupperware Products, Plastics, Market

Introduction

Plastic is a material which consist of a wide range of artificial or semi- artificial compound that are flexible and so can be constructed into solid objects. In 1907 Bakelite was used as fully-fledged synthetic plastic which was invented in New York by Leo Baekeland who named the term as plastics. In nineteenth century there was a rapid development in industrial chemistry during the industrial revolution. Plastics are mainly used due their less consumption in factors like cost, manufacturing, versatility and impenetrable properties. Plastics used as a raw material for manufacturing of products of different scale, from paper

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clip to spacecraft. The properties of plastics are mainly decided by the standards specified by ISO.

Even though the availability of plastic is perpetual, it can cause a negative impact on human as well as environment. Due to its slow decomposition process and low melting point it can badly affect the ecosystem. It also known as non-renewable resource which can produce toxic gases when burn and due to its low heat resistance, it can adversely affect the human health.

In today's era, plastic is completely replaced by specially designed product know as Tupperware which is mainly used for preparation, storage, serving products for the kitchen for home and beauty products. It is considered as the world's largest plastic food container company. It has expanded its production over countries and across the globe. It is a wholly owned subsidiary company of the US based Tupperware Corporation. It consists of world's leading manufacturer of high-quality plastic food storage and serving containers. In 1996 India has been recognized as the fastest growing market of Tupperware which first launched in Delhi. The present study focuses on the consumer perspective of Tupperware product among youngster in Kerala.

Review Of Literature

- **Dr. S. Meenakumari, Dr. I. Nagarjan (2018)** Volume 23, Issue 2, Ver.1 on the topic "Women's Buying Behavior Toward Tupperware Products in Madurai City"- this study reveals that most of the women's in Madurai city are satisfied with the reasonable price, durability, better quality and convenient usage of Tupperware products which proves that it is a product for health and life. most of them are middle class people, started giving more emphasis towards quality. women being the home-maker of the family and deciding authority in cooking made the author to the study in the leading Multi-Level Marketers in India the "Tupperware product".
- **V.P.T Dhevika, O.T.V Latasri and K Madhavi (2013)** on the topic "A study on customer satisfaction of Tupperware products"- this study reveals that the Unique Selling Proposition of Tupperware product that is, their special airtight and liquid tight seals, which lock in freshness and flavor made them more convenient for home-maker as well as working individual life much better. Main usage of product is avoiding the spoil of foods. Customers prefer this product even though the price is very high. There promising quality and lifetime guarantee ensured healthy lifestyle for its consumers.
- **Ms. K. Sudhalakshmi and Dr. K. M. Chinnadorai (2013)** on the topic "an analysis of customer perception towards Tupperware products with special reference to Coimbatore city"- this study reveals that knowledge and awareness about green products can affect attitudes and perceptions about the product. The increasing environmental consciousness makes it necessary on consumer marketers not just to respond to, but to lead the way in, environmental programs.

Objective Of The Study

- To study the consumers perspective towards Tupperware products among youth.

Methodology

The study is purely descriptive in nature both primary and secondary data are used for the analysis. Primary data is collected through questionnaire from a sample of 40 respondents and secondary data collected from simple percentage analysis was used for the study.

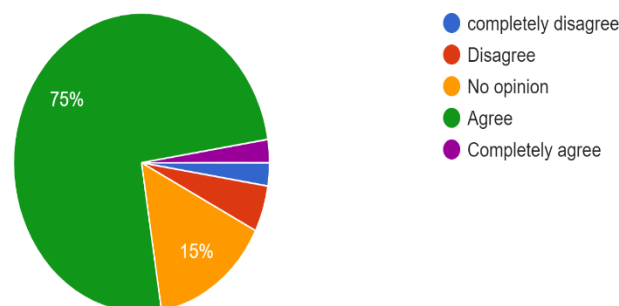
Analysis & Interpretation

- The study mainly concentrate on the state of Kerala majority of the sample belongs to the age group of 21-25 which comes nearly 42.5% and also 15-20 age group which is nearly 35% of the total study sample. Nearly 65% of them are graduates.
- The people are quite familiar with Tupperware products through advertisement and word of mouth.
- Nearly Rs 500 is spend in a month to purchase Tupperware products.
- Tupper products and 50% of them opinion that the products are not heavy to carry from one place to another.
- The sample also opinion that Tupperware are quite sturdy and shape of the products are eye-catching.
- Nearly 55% of the sample opinions that Tupperware keep adding new products and it is suitable to kitchen requirements.
- The products are convenient to use and not air and water tight.
- Relating to the company timely information on by the company, 42.5% of them does not have any opinion. It shows that people are not aware about new product.
- Parents feels very safe while their children are using this product.
- Nearly 70% of sample opinion that Tupperware are grow with lifestyle and the products are for daily use.
- Nearly 40% of the sample does not have any opinion relating to Tupperware products offer a lifetime warranty without any requirements of proof of purchase.
- 57% agrees that Tupperware are very expensive and nearly 47.5% opinion that space kept between Tupperware containers relating to original flavor for long.
- The Tupperware products provide a good look to the kitchen. The products are easily available in the market and majority of the groups use Tupperware products.
- Nearly 30% opinion that Tupperware products provides good value for money and the products are available in different colors and sizes and it is also provided as gift and they are made with the state of the art technology.

Graph 1

The products provide a good look to the kitchen.

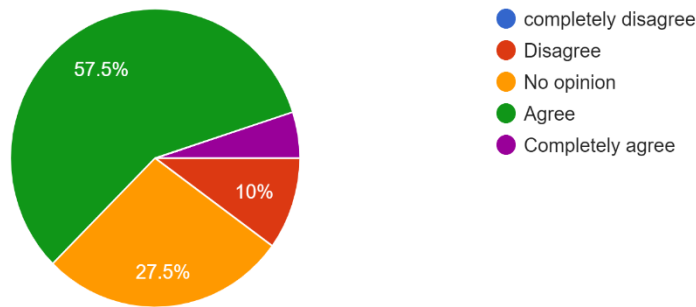
responses



Graph 2

Tupperware products are very expensive.

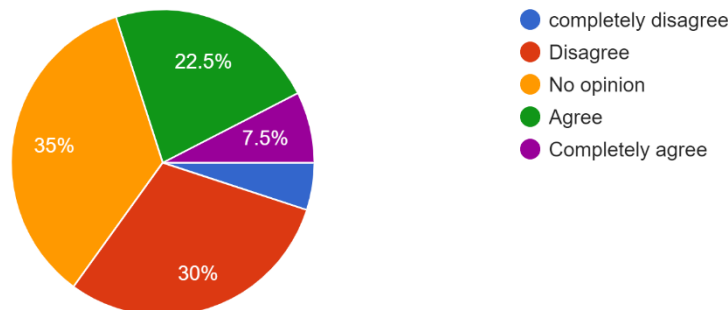
responses



Graph 3

The products do not provide good value for money.

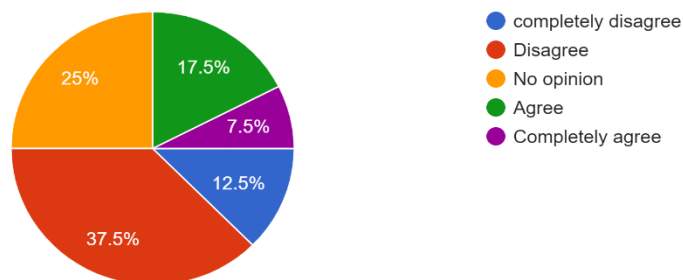
responses



Graph 4

The products are not easily available.

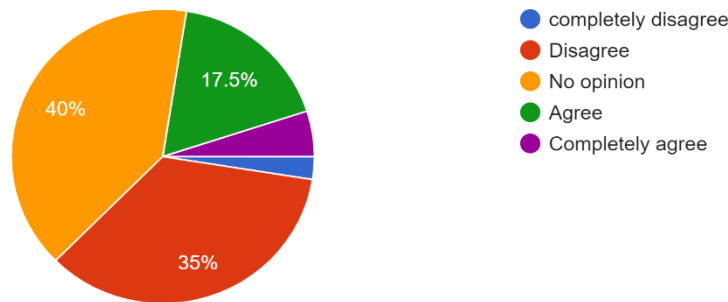
responses



Graph 5

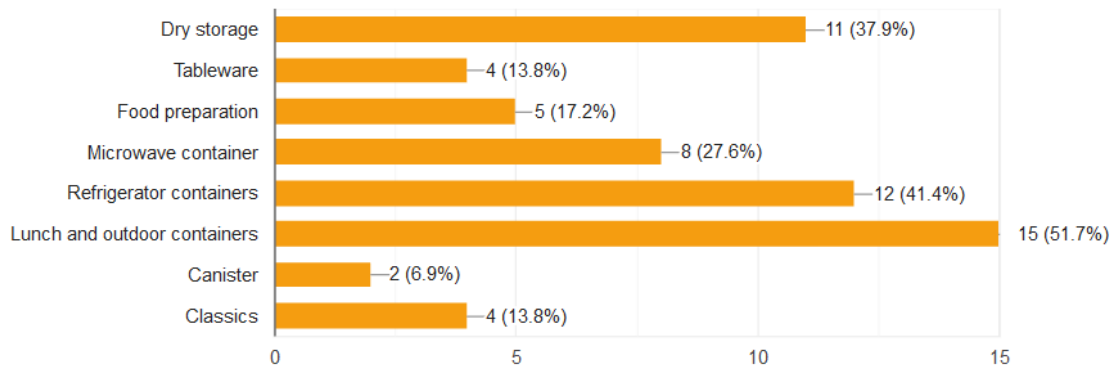
My peer groups do not use Tupperware products.

Responses



Graph 6

In your last purchase which of the following items were bought by you.



Suggestions

- The company should bring up more sales promotional activities to promote Tupperware products.
- The awareness about the products has to reach to all nook and corner of the world.
- As per the view of consumers the price of the Tupperware products is high, hence the manufacturing company should consider reducing the price of the products.
- Apart from using plastic product for storing food items as well as spices they can replace these plastic utensils with Tupperware utensils.

Conclusion

The study observed that Tupperware products have been the trusted choice for generations due to its satisfying and appealing factors like price, durability, better quality and ease of use. It considered not only the health of their consumer but also ensures that no harmful plastic dump is added to the environment. As it concerns about environment it emerges as one of the powerful drivers that influence eco-friendly purchases. Knowledge and awareness about green products can affect behavior and perception about the product which ultimately

affect buying decision of the customers. The success of a product depends on how they delight the customers need and improve their lifestyle.

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“Assessment of Performance of Expatriates working in selected MNC’s in Pune: A Critical Study”

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Dr. Ashutosh Misal**

Abstract

It may sound like a cliché, but the world today has become a much smaller place. Many companies now have a multi-national base. Even those companies that have not branched into international partnerships often utilize the resources and services of international companies on a weekly or daily basis. Given the growth of multi-national companies (MNCs) it is not surprising that expatriates assignments and international travel have increased as well.

The purpose of this study is to determine the important workplace elements affecting the expatriate performance, examine the three sources as predictors of expatriates adjustment and performance, understand the issues which are of significance to Expats performance after shifting to India and examine the attitudes and perceptions of the expatriates about their working experience with MNC’s in Pune. The study will allow suggesting ways of managing the workplace diversity and other elements for enhancing the performance of expatriates and also reduce the challenges of early repatriation.

Keywords: Cross Cultural adjustment, Expatriates job performance, Contextual Performance

Introduction

Globalization has played an extremely important role across Nations in changing and reforming the cultural set up of various cities and places across the globe. With the growth of MNC’s in India, companies that have not branched into international partnerships often utilize the resources and services of international companies on a weekly or daily basis. Given the growth of multi-national companies (MNCs) it is not surprising that Expatriates assignments and international travel have increased as well. The reality of today's global marketplace requires companies to relocate staff to foreign locations in order to establish and nurture a business presence abroad. Many executives and managers sent to man foreign operations are usually chosen for their skills and accomplishments within their native country. The assumption is that 'if they can do it at home, they can do it abroad'. Research suggests this is not the case; cross-cultural differences usually make such skills defunct in a new environment. Maximizing the chances of an employee's success in a foreign location is a critical business priority. If a manager or executive is sent abroad and fails to either settle into the new culture or work effectively with his/her new colleagues, the whole venture will be a waste of valuable time, effort and money. Expatriates relocation assignments fail for a variety of reasons .Cross-cultural differences account for or impact upon many, such as the inability to adapt, spouse dissatisfaction and poor job performance.

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Who is an Expatriate? Research typically defines Expatriates as someone who is traveling to a foreign country to complete a business assignment lasting 2 to 5 years. Many times the Expatriates bring his/her family with him and a new household is set up in the foreign location. As you might imagine, Expatriates assignments are quite expensive for companies to fund. The cost of a failed assignment where the Expatriates either returns home before completing the assignment or does not perform acceptably while on assignment ranges from \$500,000 to over 1 million dollars (depends on the position and location).

Given the cost of the assignments and the increasing numbers of MNCs, performance assessment of Expatriates becomes extremely important and assigning or hiring candidates that already have a successful Expatriates assignment would be a better bargain in the entire proposal. This may give us an assurance that the expatriate is likely to be successful on another similar assignment if needed, is familiar with cultural differences, and capable of flexibility. Expatriates assignments, despite their appeal, are not always easy. Not only are you away from your home, your friends, and in some cases your spouse, the food, the customs, and the expectations are all different from what you are accustomed. It is these difficulties and the cost of failure that has spurred research on how to predict Expatriates adjustment to new cultures and success on foreign assignments.

Effective performance of expatriates is recognized as a major detriment in the success or failure of an organization. Assessment of Performance is important and organizations use performance management as a comprehensive human resource management tool to evaluate the performance of employees through objective setting, performance appraisal and feedback, continuous training, and career development.

Black and Stephens (1989) identified three relevant facets of expatriates adjustment– work, general and interaction. Work adjustment means the expatriates psychological comfort to the work tasks of the foreign assignment. General adjustment is the adjustment to the general living conditions and culture of the foreign country. Interaction adjustment is with respect to the interaction with the host country nationals. Expatriates job assignments require adaptation to multiple environments. However, due to cultural differences and language barriers, it may be even more difficult for Expatriates to rely on current organizational members and native citizens in making sense of their new environment.

This research will review several theories in contemporary literature and offer guidelines to human resource professionals in their pursuit of managing a global workforce more effectively and suggested avenues for future research. Success on a global assignment is greatly influenced by an Expatriate's cross-cultural adjustment to the host country (Black and Mendenhall, 1990; Caligiuri, 1997; Kealey and Protheroe, 1996. Cross-Cultural Issues is the critical behavior of Individuals in organizations located in culture and nations around the world.

Review of Literature

Expatriates and Performance Meaning

Expatriates: An expatriate (often shortened to expat) is a person temporarily or permanently residing in a country other than their native country. In common usage, the term often refers to professionals, skilled workers, or artists taking positions outside their home country, either independently or sent abroad by their employers, who can be companies, universities, governments, or non-governmental organizations. However, the term 'expatriate' is also used for retirees and others who have chosen to live outside their native country. Historically, it has also referred to exiles. As we focused on Vale, we adopted the

definition used by this company, according to which an expatriate is an employee who is transferred to another country for a period of more than 3 months.

Multinational companies have a great advantage of working in and with different cultures to make their products and services accessible to a far wider community. The impetus for reaching beyond their own borders makes commercial sense.

The reality of today's global marketplace requires companies to relocate staff to foreign locations in order to establish and nurture a business presence abroad. Many executives and managers sent to man foreign operations are usually chosen for their skills and accomplishments within their native country. The assumption is that 'if they can do it at home, they can do it abroad'.

Suurati and Mäkelä discovered the key drivers for expatriates to pursue international careers were: breadth of responsibilities[disambiguation needed], nature of the international environment (risk and challenge), high levels of autonomy of international posts and cultural differences (rethinking old ways).

However, expatriate professionals and independent expatriate hires are often more expensive than local employees. Expatriate salaries are usually augmented with allowances to compensate for a higher cost of living or hardships associated with a foreign posting.

Other expenses may need to be paid, such as health care, housing, or fees at an international school. There is also the cost of moving a family and their belongings.

Another problem can be government restrictions in the foreign country.

Performance is defined as the accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.

Expatriate's performance criteria and goals are best established by combining the values and norms of each local environment with the home-office's performance standards. An individual country profile should be developed and should take into account the foreign subsidiary's environment. This profile should be used to review any factors that may have an effect on the expatriate employee's performance. Such factors include language, culture, politics, labor relations, economy, government, control, and communication.

Organizations today face considerable pressures to respond to the ever-increasing pace of globalization, compete effectively in international environments, and contain the cost of expatriation. To achieve these organizational objectives, international assignees must adapt not just to new workplace expectations but to a foreign culture and language, which can create added stress. Home country flexible work arrangements, if applied abroad, may come under increased pressure in a high-productivity, cost-conscious, and time-pressured expatriate environment.

Increased global competition has given rise to the need for human resource systems which foster and utilize individuals' global competence (Adler & Bartholomew, 1992). Globally competent managers who understand a diversity of foreign markets and cultures, are able to interact with people from other countries, and can effectively live and work outside of their own countries, are a premium human resource for MNCs.

Assessment of Expatriates performance in host country is of critical importance to the success of the organization. Despite the clear need for effective selection and training policies and programs for Expatriates, HR's have consistently employed rigid and simplistic methods in selecting and training Expatriates. Most of the MNC's send the foreign

executives and their family abroad soon thereafter, without any acculturation training whatsoever.

Maximizing the chances of an employee's success in a foreign location is a critical business priority. If a manager or executive is sent abroad and fails to either settle into the new organization culture or work effectively with his/her new colleagues, the whole venture will be a waste of valuable time, effort and money.

Expatriate relocation assignments fail for a variety of reasons. Lack of related performance to the Organizational Culture account for or impact upon many, such as the inability to adapt, spouse dissatisfaction and poor job performance.

Cross cultural training can and does reduce the chances of foreign executive relocations going wrong. Employees have now realized the importance of intercultural understanding and its potential impact upon relocations. Cultural training aids the employee and family to better approach and deal with the relocation, ensuring that the negative consequences of 'culture shock' are greatly reduced.

Assessment of Performance

Performance assessment is the “application of knowledge, skills, and work habits through the performance of tasks that are meaningful and engaging to employees.” Performance tasks “are both an integral part of the learning and an opportunity to assess the quality of employee performance.” also known as alternative or authentic assessment

Significance and Need of the Study

Pune has become an industrial hub with the entry of numerous MNC's. There are lots of expatriates who are present in Pune on specific assignments from their home country. There is an equal possibility of lot of expatriates who have to return to their home country due to inability to perform their tasks in the host country. It's of utmost importance to understand the reasons that affect the performance of the expatriates in Pune and suggest suitable remedial measures to prevent pre-mature return of expatriates to their home country.

In this context it becomes extremely important to study the performance of Expatriate. It is to signify the importance of factors affecting the performance of expatriate in the workplace. Also to identify various elements critically, to suggest the training method for pre and post expatriate relocation to India for expatriate success in the host country. Pune being a fast developing metro with numerous MNC's, Auto, Engineering and IT industries, there is a large inflow of expatriates working in MNC's and hence Pune will be the most ideal location to undertake such research studies. Also the study will help us to understand the various factors affecting expatriate performance related to cultural adjustment and workplace issues.

Scope of the Study

The following performance parameters of the expatriates shall be studied:

Contextual performance - is more likely to be voluntary in nature. Examples of contextual performance include volunteering for additional work, following organizational rules and procedures even when personally inconvenient, assisting and cooperating with coworkers, and various other discretionary behaviors.

- To study three sources of support (organization, supervisor, and spouse) as predictors of expatriate adjustment and performance.
- The study will be restricted to the professional commitments which expats might be having towards their respective organization.
- The study does not undertake the technical competence factor of performance in their respective organization.

Characteristics of performance including motivational state, language skills, relationship skills, and family, effective managerial skills, administrative competencies, strong relationships with the host country and headquarters' operations will be studied.

Why selected MNC's for the study?

After the liberalization in 1991, it has brought in hosts of foreign companies in India and the share of U.S shows the highest. They account about 37% of the turnover from top 20 companies that function in India. In consideration to the large number of multinational companies (with particular regard to their culturally diverse workforce) cultural frameworks can be considered the stepping stone upon which international human resource management builds its staffing policies and manages expatriates.

As specified a multinational company is a company that has operations across different borders in accordance to the complexity of its operations. MNC's recruit their talent either by employing nationals from the MNC's origin country or parent country nationals (PCN), appointing nationals of the host country (HCN) or by staffing nationals from a different county living in the host country or in the parent country known as third country nationals (TCN) (Branine, 2011). The latter indicates that a multinational company needs an outlined scheme by which to manage diverse human capital in order to develop and maintain its competitive advantage. Moreover, according to its international management orientation, staffing policies can have the

following approaches ethnocentric: in which the appointing of nationals from the parent companies predominates as it is believed they have a better understanding of the company, polycentric: quite opposite to the geocentric approach, executives from the host country are appointed as it is believed that they have more knowledge of the local market, geocentric: appoints teams from various nationalities while the region-centric approach appoints employees within a regional scope (Branine, 2011).

The effects of globalization and economic internationalization have preceded the existence of companies that operate across geographical and cultural borders, often known as multinational companies. These companies in turn, appoint nationals from the parent company or from the host country, and even from third countries depending on their international management orientation.

In order to effectively manage people from different cultural backgrounds, these countries have developed specialized schemes built upon cultural frameworks from scholars such as Hofstede, Trompenaars, and Adler, Hall etc., through which they maximize and develop foreign talent. Although the views of the scholars vary, they all contain valid conceptual framework upon which international human resource management can devise appropriate programs through which diverse talent can be managed.

Expatriate adaptation is a pressing matter for MNC's considering that appointing an international worker is usually a high investment. In order to promote smooth cultural transitions, to maximize expatriate performance and to reduce the existence of stereotypes it is essential to develop cultural intelligence and to promote cultural awareness through cross-cultural programs. Hence study in MNC's was undertaken.

MNC's in India

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There are a number of reasons why the multinational companies are coming down to India. India has got a huge market. It has also got one of the fastest growing economies in the world. Besides, the policy of the government towards FDI has also played a major role in attracting the multinational companies in India.

For quite a long time, India had a restrictive policy in terms of foreign direct investment. As a result, there were a lesser number of companies that showed interest in investing in Indian market. However, the scenario changed during the financial liberalization of the country, especially after 1991. Government, nowadays, makes continuous efforts to attract foreign investment by relaxing many of its policies. As a result, a number of multinational companies have shown interest in Indian market.

'Make in India' campaign of India's Prime Minister Narendra Modi is an opportunity for all the MNCs all over the world to establish their businesses in India.

Reasons to Encourage MNCs in India

There are certain advantages that the underdeveloped countries as well as the developing countries like India derive from the foreign MNCs that establish in India. They are as under:

1. Initiating a higher level of investment.
2. Reducing the technological gap
3. The natural resources are utilized in true sense.
4. The foreign exchange gap is reduced
5. Boosts up the basic economic structure.

Why Expatriates are selected working in MNC's in India

Expatriates are employees of organizations in one country who are assigned to work in other countries on long or short-term business projects. They help their companies establish operations in other countries, enter overseas markets or transfer skills and knowledge to their companies' business partners. The experience helps organizations develop their management skills base and their ability to succeed in a global marketplace.

Many companies face a high failure rate of expatriates. They return earlier or have a poor job performance. With the economic globalization, most Multinational Companies (MNCs) need expatriates to manage the subsidiaries, as expatriates are more familiar with management techniques and methods used in the MNCs than locals. Many companies face a high failure rate of expatriates. They return earlier or do not achieve optimal job performance. As an example: U.S. businesses lost 2 billion USD per year due to failed foreign assignments (Sandhu, 2002, p. 240). Furthermore, "an ill-prepared individual may inadvertently offend or alienate a foreign host and perhaps jeopardize existing long-term relations with a host country" (Earley, 1987 p. 686). Some of the reasons for Expatriate failures are the inability of a manager to adjust, the inability of a spouse to adjust, and other family problems. These reasons are also confirmed by other studies (Swaak, 1995; Chew, 2004).

Besides that expatriate managers do not meet the expectation of parent companies when they fail, such expatriate failure can result in substantive cost, including direct and indirect cost. Direct cost includes expatriate's salary, foreign service premium, allowances, benefits, which are calculable. However, indirect cost is invisible and might be much more expensive than the direct cost. Indirect cost could be jeopardizing market shares, and damaging relations with customers, partners, suppliers and local governments. What is more, expatriate failure also has a negative effect on individuals. He/she may lose self-confidence or honor; his/her later career development will be affected too. Sometimes an expatriate manager's

family may suffer unexpected emotional damage (Dowling, Schuler & Welch, 1994). With more expatriates working abroad, the culture shock is becoming a current debate. Because of the inability to adapt to the new culture, expatriate failure rate is still high (Chew, 2004). The expatriates are working and living in the host country, which may be quite different from the home country. The big difference comes from the diverse culture. Some expatriates may experience culture shock and feel much pressure. A possible negative effect of culture shock is to lead to a bad job performance (Stone, 2005). Hence for expatriates to be successful in global assignments it is important to ensure that we understand the elements and factors which affect their success in host countries.

The Purpose of the Research

Research Question

As stated above, this research aims to answer the following questions:

- What are the internal/external organizational factors affecting expatriates' performance when working with MNC's in Pune?
- How the Organization Culture and cross cultural adjustment does influence the performance of the expatriates?

Research Aim, objectives and Hypotheses

This research aims at assessment of performance of Expatriates working in MNC's in Pune. Six objectives of this research have been originally devised.

They are detailed as below. Table 1.1 shows the relationship between the research aim, the research objectives and the propositions.

Table 1.1: Research aim, objectives and related research hypotheses.

Research Aim	Objectives	Hypotheses
“Assessment of Performance of Expatriates working in selected MNC's in Pune: A Critical Study.”	To understand the issues which are of significance to Expats performance after shifting to India	There is significant relationship between cross cultural adjustment and its impact on expatriate performance.
	To examine the attitudes and perceptions of the expatriates about their working experience with MNC's in Pune.	The more the cross cultural adjustment, the more the impact on contextual performance.
	To determine the important workplace elements affecting the expatriates' performance.	Work adjustment can be positively related to contextual performance
	To suggest how the MNC's can manage the cultural diversity and other elements in the workplace for enhancing the performance of expatriates.	A family's cross cultural adjustment influences the expatriate's ability to perform his or her global assignment.
	To examine three sources of support (organization, supervisor, and spouse) as predictors of expatriate adjustment and performance.	
	To examine the relationship between expatriate adjustment and performance, this has received limited empirical attention.	

Research scope

The research scope involves an extant review of literature on factors affecting the performance of expatriates. A qualitative and quantitative survey will be done with a few Expatriates working in MNC's in Pune. The other scope of the study was as follows:

- The study has conducted a review of literature on the factors affecting the performance of Expatriates in MNC companies.
- The data will be collected from a mix of MNC's, IT companies situated in Pune.
- The quantitative data will be collected from the Expatriates working in MNC Companies.
- The qualitative survey will be done with Expatriates to find the factor affecting the contextual performance and also understand the performance of expatriate employees on their assignments in India.

We have explored studying the following performance parameters of the expatriates:

- ⊙ Contextual performance - is more likely to be voluntary in nature. Examples of contextual performance include volunteering for additional work, following organizational rules and procedures even when personally inconvenient, assisting and cooperating with coworkers, and various other discretionary behaviors.
- ⊙ To study three sources of support (organization, supervisor, and spouse) as predictors of expatriate adjustment and performance.
- ⊙ The study will be restricted to the professional commitments which expats might be having towards their respective organization.
- ⊙ The study does not undertake the technical competence factor of performance in their respective organization.
- ⊙ Characteristics of performance including motivational state, language skills, relationship skills, and family, effective managerial skills, administrative competencies, strong relationships with the host country and headquarters' operations will be studies.

Contributions to Knowledge

The main contributions to knowledge of this research are detailed below:-

This literature review research has used a quantitative and qualitative approach to provide a comprehensive understanding of the "Assessment of Performance of Expatriates working in selected MNC's in Pune"

- It has been found that cross cultural adjustment plays a vital role in the performance of Expatriates.
- This research has explored that there are various work place elements that affect the performance of expatriates.
- Cross Cultural Training may not be the only factor which can help to improve expatriate performance in organizations. Hence further research is needed to understand the various methods of ensuring effectiveness of expatriate job performance.
- Knowledge Management Strategy is an important aspect of expat performance.
- Family experiences of the employees are a crucial aspect of expatriate success.
- While the Hofstede cultural typology is used in some studies, other conceptualizations are perhaps more up-to-date and have been gaining in popularity (e.g. House et al., 2004; Trompenaars and Hampden-Turner, 1998). The GLOBE Research Project, for example, captures several of the Hofstede dimensions, but those of Performance Orientation.
- Human Orientation, and Assertiveness, provides additional insight into the relationship between cultural distance and expatriate adjustment.

- Inclusion of personal characteristics such as gender, spouse support, marital status and personal preference towards social and cultural aspects as the other determinant factors of expatriate job performance would provide better understanding about the effects of individual differences on expatriate performance.
- Is there a difference between the contextual performance of a technical expat and managerial expat is also mentioned in some of the research work done earlier.

Limitations of the Study

- The study is restricted to expatriates in Pune working in MNC's and hence the bias of the limited number of respondents should be taken into account. Future studies should test the proposed model and evaluate expatriate performance through host country nationals or peers in order to better understand expatriate performance.
- Potential moderators such as cultural distance (i.e. home vs. host country), assignment type (e.g., managerial vs. non-managerial), assignment tenure and prior overseas experience may help to further enhance our understanding on the phenomenon under investigation
- Further details can be studied on Pro-social behavior and Managerial performance.
- How Big 5 personality factors affect performance
- Need to further research if there are any specific factors which affect contextual performance.
- How does Language and culture of the Expatriate affect his performance.
- Countries and religion diversity not taken into consideration for the research

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The Study on the Status of Paddy Cultivators at Ambasamudram Block in Tirunelveli District

Mr. S. Isaac Christopher*

The study was conducted in Ambasamudram taluk of Tirunelveli district of Tamil Nadu. Agricultural is the backbone of India. In India, the majority of the places are occupied by agricultural land. Paddy cultivation is the major cultivation in the agriculture sector. This paper is going to study the status of paddy cultivators. There are lots of people working in this paddy field. Status of paddy cultivators plays a significant role in crop cultivation. a significant issue with the standard system of paddy production, notably revolution technology is input intensive and favours cash-rich farmers. Further, the small and marginal paddy farmers are trying to secure a livelihood by mitigating and ill effect of climate change through appropriate cropping mechanism. Totally 100 Paddy farmers were selected for the study. The study revealed that the majority of cultivators belonged to medium socio-economic status in Ambasamudram taluk. It is concluded that farmers in Tirunelveli District Prefer agriculture mainly due to the availability of land. The advanced technologies should be used in the agriculture sector to make more profits in agricultural activities. Thus, the farmers will be economically sound and so on.

Keywords: Agriculture, Cultivators, Socio-Economic, Paddy & Livelihood

Introduction

Agriculture is a very important sector of the Indian Economy. It contributes sizeably to the domestic product and also to exports. More than two-third of the work – force work in agriculture and large many depend upon agricultural trade and agro-based industries.

Agriculture provides food grains to feed the large population of this country. Besides, it provides fodder for an equally large cattle population. It is also the supplier of raw material to many industries. Thus, Agriculture and related sectors contributed 33 percent of GDP in 1989-90 and 25.5 percent in 1999-2000 respectively. In recent years, the share of agriculture and related sectors to GDP is reducing due to the fast pace of industrialization and for want of infrastructural facilities and services.

Statement of the problem

Agriculture has an important role to play in the economic development of an agrarian economy like that of India. Even though the share of agriculture in the country's Gross Domestic Product (GDP) has substantially gone down, Agriculture, particularly traditional farming is risky-riskier than other types of business because of the nature of the crop cycle. Various factors such as the time taken by the crops to mature, energy used for crop cultivation, resource availability and their production response, dependence on weather, proneness to natural calamities and markets are either too demanding or fraught with uncertainty. Owing to various factors, the growth rate in the agriculture sector decelerated during the last decade. Farmers' distress and cases of suicides were reported from some parts of the country.

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The accentuation of debt burden on farmers was attributed to the declining production efficiency, lack of access to institutional credit, high cost of inputs and unfavorable market conditions. In India, where nearly two thirds of the farmers primarily depend on rains for cultivation of crops, the consequences of inclement weather on crop production could affect even the livelihood of farmers, most of whom are small and marginal farmers.

Green Revolution Agriculture has turned to be "High External Input Agriculture. The farmers are facing more water, more fertilizers, more management costs, more loans, more interest and more debt problems.

Objectives

- To find out the socio economic status of paddy cultivators in the study area.
- To analyse the income and expenditure of paddy producers in the study area.
- To assess the yield and profit of paddy cultivation of the farmers in the study area.

Methodology

The present study was based on the primary and secondary data. The primary data were collected by the personal interview method. The Tirunelveli district was taken as the universe for the study which consists of 11 taluks. Random sampling method was employed to select the study area, namely Ambasamudram. 100 samples were selected from 5 villages at random based on the size of the land holding of the farmers. The pilot study was undertaken. Based on it, the questionnaire was restructured to collect the relevant information from the respondents in the study area.

The secondary data were collected from book reviews, journals, magazines, website and other sources, taluk officials and revenue officials of Ambasamudram taluk and Agriculture Extension centre officials also provided the necessary information pertaining to the study.

Importance of the study

- ❖ Agriculture plays a vital role in the district. Nearly 80 percent of the labour force is engaged in agriculture and allied activities. Tirunelveli District is predominantly an agricultural district. The district has mainly two cropping seasons namely. 1. Kuruvai, 2. Samba.
- ❖ The farmers in Ambasamudram Taluk are depending on Dry land and wet land farming. They are faced with many problems such as water logging, soil salinity, poor quality of the water and declining ground water level.
- ❖ A Rice Research Station is functioning at Ambasamudram. In order to study the impact of the station on the farmers, the study was undertaken.
- ❖ No researcher has made attempt to explore the possibility of organic farming and sustainable development of paddy cultivation in the study area.
- ❖ The farmers are familiar with the uses of chemical fertilizers and pesticides. It has deteriorated the quality of land and water. To promote and encourage organic farming, the study was undertaken.

Scope of the study

Tirunelveli district is basically an agricultural district. This study focuses on the socio economic status of paddy cultivators among the small, marginal and big famers in the Ambasamudram taluk of the Tirunelveli district. This study covers the data of age-wise classification, size of land holding, the sources of irrigation, application of organic inputs, cost structure, varieties of paddy, marketing channels and sources of finance.

So the present study made an attempt to analyse the paddy cultivation and also this study might help to know the socio economic status of paddy cultivators in Ambasamudram taluk of the Tirunelveli district.

Data Analysis and Interpretation

Table - 1 Age-wise distribution of the farmers in the study area

S.No	Age (years)	No. of Respondents	Percentage (%)
1	20-30	8	8
2	30-40	19	19
3	40-50	23	23
4	50-60	41	41
5	60-70	9	9
	Total	100	100

Source : Primary survey data.

The above table 1 reveals the age-wise distribution of the respondents. Among the sample farmers, 41 percent of them fall under the age group between 50-60 years, who are engaged in paddy cultivation. The age group of farmers between 40-50 years is accounted for 23 percent. Around 8 percent of the farmers come under the age group of 20-30 years. Among the farmers, the majority of them come under the age group of 50-60 years.

Table - 2 Educational status of the Respondents

S.No	Educational status	No. of Respondents	Percentage (%)
1	Primary Education	21	21
2	Secondary Education	12	12
3	Higher Secondary Education	27	27
4	Higher Education	9	9
5	Un Educated	30	30
	Total	100	100

Source : Primary survey data.

The table 2 indicates the educational status of the farmers in the study area. Most of the farmers had primary level of education constituting 21 percent of the sample. About 12 percent of the farmers had finished secondary level of education. But, only 8 percent of the farmers had finished college education with under graduate degrees. By and large, the majority of the farmers had finished primary level of education.

Table - 3 Religion – wise categories of the farmers:

S.No	Religion	No. of Respondents	Percentage (%)
1	Hindu	49	49
2	Christian	33	33
3	Muslim	18	18
	Total	100	100

Source : Primary survey data.

The above table 3 shows the religion wise classification of the Respondents. There are three religions practiced by the farmers in the study area. Among the farmers, 49 percent of them are practicing Hinduism. About 33 percent of them are Christians and 16 percent of them are Muslims. On the whole, the Hindus are the majority among the farmers in the study area.

Table - 4 Community – wise classification of the Respondents:

S.No	Community	No. of Respondents	Percentage (%)
1	SC	38	38
2	BC	32	32
3	MBC	19	19
4	OC	11	11
	Total	100	100

Source : Primary survey data.

The table 4 reveals the community-wise classification of the respondents. About 38 percent of the Respondent fall under the category of SC community, 32 percent of them come under BC community and 19 percent of the sample farmers belong to MBC community. Just 11 percent of them come under the Other Caste (OC) community. On the whole, the majority of the farmers belong to SC Community in the study area.

Table - 5 Categories of farmers

S.No	Categories of farmers	No. of Respondents	Percentage (%)
1	Marginal Farmers	42	42
2	Small Farmers	38	38
3	Big Farmers	20	20
	Total	100	100

Source : Primary survey data.

The above table 5 reveals the Categories of the farmers among the Respondents in the study area. The majority of the farmers are marginal farmers constituting 42 percent, and it is followed by 38 percent of small farmers. Whereas, the big farmers account for 20 percent. In short, the marginal and small farmers are greater in number than the big farmers in the study area.

Table - 6 Sources of Irrigation

S.No	Sources	No. of Respondents	Percentage (%)
1	River	27	27
2	Well	20	20
3	Tank	37	37
4	Canal	16	16
	Total	100	100

Source : Primary survey data.

The above table 6 indicates the sources of irrigation available for the paddy cultivation in the study area. The percentage of river irrigation available for the farmers is 27 percent, and the percentage of well irrigation available is 20 percent. Besides, 37 percentage of the farmers are utilizing tank irrigation, because there are many tanks located in the study area. In addition, 16 percent of the farmers have access to canal irrigation. On the whole, the paddy cultivation of the farmers is mainly dependent on tank irrigation.

Table - 7 Application of organic inputs (per acre):

S.No	Kinds of inputs	No. of Respondents	Percentage (%)
1	Organic manure	10	10
2	Neem	15	15
3	Cowdung	37	37
4	Azospirillum	10	10
5	Rhizobium	8	8
6	Leaves	20	20
	Total	100	100

Source : Primary survey data.

The above table 7 shows that 10 percent of the farmers are applying organic manure and 37 percent of the farmers are making use of cow dung. Whereas, 18 percent of them are using Azospirillum and Rhizobium in the study area. By and large, the farmers are open to the organic manures and they are applying them in paddy cultivation.

Table - 8 Cost structure of paddy cultivation per acre

S.No	Kinds of cost (per acre)	Amount (in Rs)	Percentage (%)
1	Seed	800	10.66
2	Labour cost	3000	40.00
3	Irrigation	300	4.00
4	Cost incurred on use of machinery	1500	20.00
5	Fertilizers	1300	17.34
6	Pesticides	350	4.66
7	Insecticides	250	3.34
	Total	7500	100

Source : Primary survey data.

From the table 8 it is obvious that the total cost of paddy cultivation is Rs.7500 per acre in the study area. Among the various costs incurred on the cultivation of paddy. The labour cost is the highest constituting 40 percent of the total cost. It is due to resistance of the farmers to modernization of agriculture. Besides, the cost incurred on the use of machinery is 20 percent of the total cost. About 17 percent of the expenditure goes to the use of fertilizers and the seed cost comes around 10 percent of the total cost of the paddy cultivation per acre in the study area.

Table - 9 Marketing channels of paddy

S.No	Market	No. of Respondents	Percentage (%)
1	Local Market	26	26
2	Govt Procurement	14	14
3	Co-operative society	10	10
4	Middle men	50	50
	Total	100	100

Source : Primary survey data.

The table 9 reveals the different marketing channels of paddy. About 26 percent of the farmers are selling their products in local market and 50 percent of them are selling their product to the middle men because, it is easy for them to have access to the middle men. A

very small percentage of farmers are in a position to sell the product in the procurement centers of the government and the co-operative society.

Table – 10 Sources of finance

S.No	Sources	No. of Respondents	Percentage (%)
1	Own	12	12
2	Agricultural cooperative bank	27	27
3	Nationalized bank	14	14
4	Private money lenders	41	41
5	Others	6	6
	Total	100	100

Source : Primary survey data.

From the table 10 it is clear that the vast majority of farmers avail agricultural loans from the money lenders constituting 41 percent of the total agricultural finance. They also borrow loans from agricultural cooperative banks which come around 27 percent. On the other hand, the nationalized banks advance loans to the farmers which stand at 14 percent of the total agricultural finance. In short, the role of money lenders in agricultural financing is remarkable and significant. On the contrary, the nationalized banks and Agricultural cooperative banks are not accessible to the farmer and their roles must be revived in rendering services to the farmers in the study area.

Salient Findings of the study:

The salient findings of the study could be summarized as follows.

- The farmers who are between 50 and 60 years of age occupy the highest number of farmers engaged in paddy cultivation in the study area. These farmers are following the traditional methods of cultivation.
- Most of the farmers had primary level of education, which constitute 39 percent of the sample farmers in the study area.
- About 38 percent of the farmers fall under the category of Schedule Caste (SC) Community. They are land less labourers and they cultivate the land on lease in the study area.
- The majority of the farmers are small and marginal farmers constituting 42 percent of the sample. These farmers have less than one acre of land. Since they are cultivating a small piece of land and their income is very low. So the small and marginal farmers are not able to compete with the big farmers.
- Most of the farmers are depending on the tank irrigation for the cultivation of paddy. About 37 percent of the farmers are using tank irrigation. The marginal and small farmers cannot benefit much from well irrigation. Hence, during drought, they are badly hit.
- About 37 percent of farmers are using cowdung as organic inputs, because the farmers own their cattle in the village.
- The labour cost is the highest constituting 40 percent of the total cost. The majority of the farmers are following the traditional method of cultivation. It is due to resistance of the farmers to modernization of agriculture.

- Nearly 50 percent of the farmers are selling their product to the middle men. The farmers were forced to sell their paddy immediately after the harvest, because, they had to repay their loans.
- The majority of the farmers avail agricultural loans from the private money lenders, constituting 41 percent of the total agricultural finance. Because, the majority of the farmers have small size of land and leased land, they can not easily borrow loans from the banks. Only the big farmers are at an advantage to borrow loans from the Nationalized Banks, without many hardships.
- The majority of the farmers are practicing Integrated farming method (Both organic and non-organic farming) because, it brings more profit than the organic method of farming. Besides, most of the farmers are giving more importance to quantity of yield rather than quality of yield from the paddy cultivation.

Suggestions

Keeping in view the objectives of the study, suggestions are offered for the sustainable development of paddy cultivation at Ambasamudram Taluk of Tirunelveli District.

- The farmers should be trained in modern methods of farming. So as to adopt modern technology in agriculture. Moreover they must be imparted training in the use of seeds, fertilizers, pesticides and organic inputs etc..
- The government must extend full support to the marginal and small farmers. Because, the size of land is very low and their income is also very low. Therefore, the government should provide loans with less interest on the purchase of farm equipments and subsidy to fertilizers, seeds and pesticides.
- In order to reduce the cost of labourers and increase the cultivation, the farmers must become aware of the modern techniques in agriculture. By using the modern methods, the time could be saved and the efficiency of the labourers might be increased.
- A favourable price must be offered to the farmers for their product. Besides, the farmers may be encouraged with financial incentives. It will motivate them to carry on agriculture with interest and involvement.
- The government banks should relax the rules and regulation of agricultural loans, keeping the interest of the marginal and small farmers.
- Research should be undertaken in the sustainability in agriculture. Training should be imparted to the farmers on the organic method of farming. Only by training, the farmers, they will come to realize the importance of organic farming.
- The Agricultural Extension Center and Non-governmental Organizations should involve in promoting the organic farming methods.
- More young and educated farmers should be involved in agriculture, to enhance the productivity of paddy cultivation in the study area.

Conclusion

Environment friendly agriculture is the path way to sustainable food and livelihood security. It is based on the non-exploitative use of natural resources. The paddy cultivation has assumed an important place in Indian Economy. The paddy cultivation provides ample employment opportunities for men and women. As far as the Ambasamudram taluk is concerned, the government should introduce High yielding varieties of seeds, fertilizers and improved technologies for farmers which can make the paddy cultivation sustainable. Besides, the High yielding varieties of seeds and fertilizer subsidy may be continued and it

may be increased in quantum, which will reduce the cost of cultivation and increase the productivity. As regards the price of paddy, it should be more remunerative even to the marginal and small farmers for their sustainability of paddy cultivation.

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Impact Of Organizational Citizenship Behavior (OCB) On Productivity Scale In Cement Industry Of Rajasthan

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Abstract

Organizational Citizenship Behavior (OCB) is one of the most powerful weapons by which various roadblocks in the way to achieve competitive advantage can be easily overcome and employees can be directed toward an organizational goal.

In the light of the insight gained from this study, it becomes easier for employees to understand the importance of OCB in increasing productivity in cement industry. Overall production is the biggest issue in cement industry and needs to determine factor in the success of an industry. So better understanding of OCB and its role in improving productivity will help organization to use OCB as one of the weapons to fight with this problem in cement industry.

This paper investigates the impact of Organizational Citizenship Behavior on overall productivity in the cement industry of Rajasthan has been identified with the help of cross tab, chi-square test, and symmetric measure. At the end of the paper Conclusion and suggestions has also given.

Introduction

Organizational Citizenship Behavior (OCB) has been explored by scholars over more than twenty-five years and it continues to be a vicinity of interest for researchers. OCB basically refers to a voluntary behavior of an employee in which he goes some extra miles for his organization i.e. he contributes (voluntarily without keeping any longing for the reward) to the organization's objective by going out of the call of the duty. An organ called it as good soldier syndrome (**Devasagayam, 2013**).

It has carved an important place among researchers because it plays a pivotal role in generating positive organizational outcomes such as employee retention, reduced absenteeism, reduced conflict etc.

In the current cut-throat competitive environment the only way to survive for an organization is to have a competitive edge over its competitors & for achieving such an edge organizations are looking forward to such employees who can go an extra mile for achieving company's objectives & who do not restrict themselves in the castle of job description.

OCB is one of the most powerful weapons by which various roadblocks in the way to achieve competitive advantage can be easily overcome and employees can be directed toward an organizational goal.

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It is a measure of the efficiency of a person and machine in converting inputs into useful outputs. Productivity is calculated by dividing the average output by the total costs incurred or resources consumed in that period. Productivity is a determinant of cost (**Melitz, 2003**).

Factors Affecting Productivity

Factors which can affect productivity include:



Although there are many factors affecting productivity one of the most important factors is OCB which help in improving productivity that too without incurring extra money over it.

Why Productivity Is Important?

- **Productivity is a key to prosperity:** Productivity is positively related to prosperity. High productivity leads to a reduction in cost per unit and hence increases profit which in turn leads to high wages of employees and also increases employment opportunities.

- **Social progress:** High productivity leads to a decrease in cost per unit hence it helps in providing products to the customers at a lower price hence help in improving the life of society. It also helps organizations to spend more on corporate social services and hence helps in social progress.
- **The decrease in wastage:** Productivity can be increased only by decreasing wastage. So productivity leads to low wastage.
- **Improvement in technology:** Productivity can be increased by improving the technology so the thrust of productivity can be quenched only updating technology. Hence productivity always motivates the organization to keep itself abreast of updated technology.
- **Productivity is a big necessity of our country:** In a developing country like us, productivity plays a vital role as it improves the living standard of people by reducing the price of various products and by providing employment.

Dimensions Of Productivity

- **Ability:** An acquired or natural capacity by which an individual can perform a particular job successfully. In simple words, it is a possession of necessary talent and skills to complete work in an efficient and effective manner (**Nishimizu & Page 1982**).

Hence ability is directly proportional to productivity.

- **Clarity of job role:** An employee experiences role clarity only when he knows what he needs to do and what is expected of him in terms of process, task, priorities etc. According to an article published in 2012 in HBR, author Erikson argues that without having a clear idea of the job role employee are more likely to waste their energies in the wrong direction rather than focusing on increasing productivity.
- **Help:** It is a perception of an employee that the organization acknowledges their contribution and stands behind them for their support. This support can be financial, moral, social etc. Such support helps employees to use their energy in a better way to achieve the organization's goal.

Hence organizational help is directly proportional to productivity.

- **Incentive:** Incentive word comes from Latin word *incentivum* which means incites. Incentives are supplementary rewards that act as a motivational factor for a desired action or behavior. In simple words, it is a payment or concession to stimulate greater output. Incentives can be financial or Non financial.

Hence incentives are directly proportional to productivity.

- **Proper appraisal:** Performance appraisal is a systematic and objective way of evaluating the ability of an employee in performing a certain task. It helps to differentiate between performers and non performers and the reason behind such performance. If performance appraisal is done consistently in a proper manner then it will help in identifying loopholes and ways of dealing with them efficiently.

Hence proper performance appraisal is directly proportional to productivity.

- **Environment:** The organizational environment is the set of forces which surrounds an organization and they have the ability to affect the organization. Scholars have divided environment in two parts :-

A) Internal B) External.

Internal environment comprises of Board of directors, culture etc. It includes the weakness and strength of an organization.

The external environment comprises of factors such as legal, economic and political one. It includes threat and opportunities.

Hence a healthy environment is directly related to productivity.

- **Feedback:** It is a process in which the effect of an action is fed-back to modify the next action. Feedback is the information sent to an employee about its prior behavior so that the entity may adjust its current and future behavior to achieve the desired results.

Hence feedback plays a vital role in productivity and it is positively related to productivity.

- **Absenteeism:** It mainly includes habitual evasion of work or willful absence without informing the organization.

Hence absenteeism is indirectly related to productivity.

- **Health:** As per WHO, it is a state of complete physical, mental and social well-being and not merely the absence of disease. Hence good health is directly proportional to productivity.

- **Participation:** Joint decision making, goal setting, and other such measures through which an organization can foster the employee's productivity are called participation. Participation is directly proportional to productivity.

OCB And Productivity

OCB helps in increasing employee retention, employee vigor, reducing absenteeism, reducing conflict, improving performance hence all such factor leads to an increase in productivity. So it can be said that OCB leads to increase in productivity.

OCB ∞ Productivity

Research Methodology

The scope of this research is confined to the cement industry of Rajasthan. The research design of the study is exploratory to be followed by causal and descriptive studies.

The convenient and judgmental sampling procedure, a non-random sampling technique utilized to choose the cement companies like Ambuja cement, Birla Cement, J K Cement, Shree cement, ultra tech cement etc. situated in the study area and a similar testing technique is embraced for the choice of respondents to break down their perception about the OCB and productivity scale.

This sample size 500 employees of cement industry has taken which is good enough by which the clear picture about the perception of employees and even very helpful for analyzing the relationship between the OCB and productivity scale at cement industry.

Objective

To study the Impact of OCB on Productivity Scale in Cement Industry of Rajasthan.

ANALYSIS AND INTERPRETATIONS

The impact of Organizational Citizenship Behavior on overall productivity in the cement industry of Rajasthan has been identified with the help of cross tab, chi-square test, and symmetric measure. For this purpose following hypothesis has been formulated;

H₀₁₁:- There is no impact of Organizational Citizenship Behavior on overall productivity in the cement industry of Rajasthan.

H₁₁₁:- There is an impact of Organizational Citizenship Behavior on overall productivity in the cement industry of Rajasthan.

Table 1: Table of Cross-tabulation (OCB * Productivity)

OCB * Productivity Crosstabulation				
Count				
		Productivity		Total
		Sometimes	Frequently	
OCB	Sometimes	136	42	178
	Frequently	60	213	273
	Always	0	49	49
Total		196	304	500

From the above **Table 1**, it could be interpreted that number of the respondents (178) believes that sometimes OCB impacts the overall productivity in the cement industry. Whereas 273 respondents said they observed frequent impact of OCB on overall productivity and 49 of them voted for always. From this it could be interpreted that majority of respondents feel overall productivity has been impacted by OCB very frequently.

Table 2: Table of Chi-Square Tests (OCB * Productivity)

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	168.942 ^a	2	.000
Likelihood Ratio	187.586	2	.000
Linear-by-Linear Association	157.766	1	.000
N of Valid Cases	500		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.21.

From the above **Table 2**, it could be interpreted that Asymp. Sig. (2-Sided) column value .000 is less than .05 which shows that Productivity scale is making a significant impact on employees at the cement industry of Rajasthan. So it could be decoded with the help of all productivity related parameters that productivity scale is impacting employees in the cement industry significantly.

Table 3: Table of Symmetric Measures (OCB * Productivity)

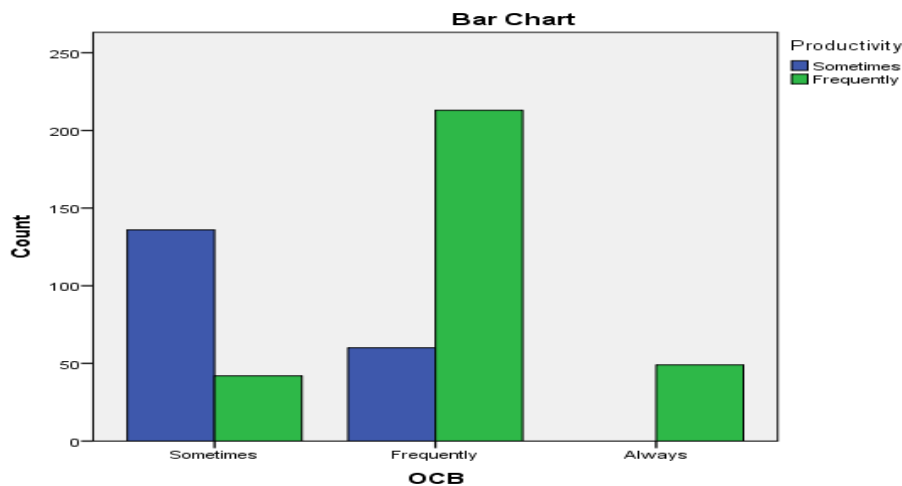
Symmetric Measures					
		Value	Asymptotic Standard Error ^a	Approximate T ^b	Approximate Significance
Interval by Interval	Pearson's R	.562	.030	15.174	.000 ^c
Ordinal by Ordinal	Spearman Correlation	.575	.032	15.692	.000 ^c
N of Valid Cases		500			

a. Not assuming the null hypothesis.
 b. Using the asymptotic standard error assuming the null hypothesis.
 c. Based on normal approximation.

From the above **Table 3**, we can interpret by value and Approx Sig. columns that significance between **OCB and productivity is positive**. Periodic observations were

performed by Pearson's and Ordinal at different intervals by Ordinal analysis which was performed by Spearman Correlation. The correlation found **positively significant** by observed values, like for Pearson's it was (0.562) and for Spearman it was (.575). Their Approx Sig. value for Pearson's R was .000 and for Spearman Correlation was also found to be 0.000.

Graph 1: Bar Chart of OCB and Productivity scale



The graph above shows the relationship between OCB and productivity. From the graph given above it is clear that OCB is frequently impacting the productivity of employees. Also from graph it is clear that number of respondents who voted for sometimes impacting is also comparable. However, for always the count is observed as low.

Conclusion

Results show that majority of respondents feel overall productivity has been impacted by OCB very frequently, also it could be decoded with the help of all productivity related parameters that productivity scale is impacting employees in the cement industry significantly. Result also reveals that productivity scale is impacting employees in the cement industry positively and significantly. Positive significance implies as OCB practices in cement companies increase productivity will gradually experience increase. A graph was plotted to show the relationship between OCB and productivity. From the graph, it is clear that OCB is frequently impacting the productivity of employees.

Suggestions For Employees

Following issues should be administered by the employees for the successful implementation of OCB Practices for better implementation in companies.

1. Employees should show his interest to understand the new or updated OCB practices employed by management.
2. Employees should ask for help as and when they face any problem in any OCB practices.
3. Employees should submit their feedback to improve the quality of OCB in an organization.
4. Employees should carefully read all the help directions properly so that they could make themselves aware of the informal system or procedure of the OCB.
5. Employees should focus on all the related services and factors of OCB for better implementation.

6. They should always help and support in evaluating and monitoring OCB effectiveness and efficiency.

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सूचना एवं संचार प्रौद्योगिकी (आईसीटी) के परिप्रेक्ष्य में पंचवर्षीय योजनाओं का अवलोकन

जयश्री शुक्ला*

संक्षेप

वर्तमान शिक्षा में तकनीकी प्रयोग ने शिक्षा को जहां एक ओर सरल, सुगम एवं सुलभ बनाया है, वहीं दूसरी ओर पूरे विश्व में तेजी से बदलते शैक्षिक दृष्टिकोणों में आईसीटी प्रयोगकर्ताओं की प्रतिभागिता को भी बढ़ाया है। उन्हें इस योग्य बनाया है, जिसके कारण किसी भी कार्य तथा अन्य क्रियाकलापों में निरंतर प्रौद्योगिकी का रूपांतरण होता रहे। भारतीय सूचना प्रौद्योगिकी एवं उद्योग 2009 के आंकड़े यह प्रदर्शित करते हैं कि जीटीपी और निर्यात आय में 5.9 प्रतिशत का योगदान प्रौद्योगिकी का ही होता है तथा यह अपने तृतीय क्षेत्र कार्यबल को संगठित करके 2.3 मिलियन लोगों को प्रत्यक्ष एवं अप्रत्यक्ष रूप से लाभान्वित कर रहा है।

वर्ष 1947 से 2017 का समय भारतीय अर्थव्यवस्था के लिए महत्वपूर्ण रहा। इस कालावधि को योजना आयोग (सन् 1951-2014) और नीति आयोग (सन् 2015-2017) द्वारा संचालित, निष्पादित एवं क्रियान्वित किया गया। जिसे पंचवर्षीय योजना के रूप में दृष्टिगत किया जा सकता है। सन् 2014 में निर्वाचित माननीय नरेंद्र मोदी जी के नेतृत्व वाली नई सरकार ने योजना आयोग का विघटन कर दिया और एक नये योजना आयोग "नीति आयोग" (नेशनल इंस्टीट्यूट फॉर इंफॉर्मेशन ट्रांसफॉर्मिंग इंडिया) की सर्वसम्मति से स्थापना की। सूचना प्रौद्योगिकी में प्रौद्योगिकी का उपयोग सूचना की प्राप्ति, संग्रहण, प्रचार-प्रसार एवं आदान-प्रदान आदि में किया जाता है। इन तकनीकों का प्रयोग करके शिक्षक-विद्यार्थी मल्टीमीडिया एवं जनसंचार के द्वारा शिक्षा की पहुंच दूर-दराज तक बढ़ी है। साथ ही शिक्षण सामग्री के खर्च में कमी लाना, साक्षरता दर में वृद्धि करना तथा गरीबी उन्मूलन में सूचना प्रौद्योगिकी का उपयोग महत्वपूर्ण भूमिका निभा सकता है। हमारी सरकार भी विभिन्न योजनाओं के अंतर्गत सूचना एवं संचार प्रौद्योगिकी को विभिन्न स्तरों पर तथा उससे सम्बन्धित सूचनाओं के आदान-प्रदान में लगी है। जिसका परिणाम भविष्य में सुखद होना संभावित है।⁽¹⁾

मुख्य बिंदु- आईसीटी, शैक्षिक तकनीकी, शिक्षा गुणवत्ता, साक्षरता वृद्धि।

प्रस्तावना

शैक्षिक प्रौद्योगिकी शिक्षा के लिए उपयोगी एवं प्रगतिशील कार्यक्षेत्र के रूप में है। एक तरफ शिक्षा के द्वारा मानव के व्यवहार में परिवर्तन करने का प्रयास किया जा रहा है तो, वहीं दूसरी ओर शिक्षा में तकनीकी संसाधनों एवं प्रौद्योगिकी का प्रयोग कर उसे सफल, संग्रही एवं रूचिपूर्ण बनाने की कवायत जारी है। प्रचलित शिक्षा पद्धति बाल केंद्रित है, जिसके कारण प्रौद्योगिकी का महत्व और भी बढ़ जाता है, क्योंकि शैक्षिक प्रौद्योगिकी के विभिन्न उपकरणों, तकनीकों एवं सूचना प्रौद्योगिकी के माध्यम से बालक अपने ज्ञान में वृद्धि एवं सृजन अपनी रूचि, समय, सुविधा एवं क्षमता के अनुसार कर सकता है।

शैक्षिक प्रौद्योगिकी विभिन्न तकनीकियों जैसे- इंजीनियरिंग, प्राकृतिक विज्ञान, व्यावहारिक विज्ञान तथा अन्य सभी तकनीकियों का प्रयोग कर शैक्षिक प्रक्रिया को सरल एवं सुदृढ़ बनाने का प्रयास करती है। शिक्षा के प्रचार के लिए शिक्षा में तकनीकी का प्रयोग वर्तमान समय की आवश्यकता बन गयी है। शैक्षिक प्रौद्योगिकी शिक्षण एवं प्रशिक्षण के उद्देश्यों को दृष्टिगत रखते हुए सरल सीखने की परिस्थितियों को प्रस्तुत करती है, अर्थात् शैक्षिक प्रौद्योगिकी शिक्षण एवं प्रशिक्षण में अधिगम एवं शिक्षण के वैज्ञानिक सिद्धांतों को व्यावहारिक रूप में उपयोग करने, उसे प्रभावी एवं उद्देश्य बनाने में अपना सहयोग प्रदान करती है।⁽²⁾

यूनेस्को के विशेषज्ञों ने कहा है कि "शैक्षिक तकनीकी दूर-दराज एवं बहुत ही पिछड़े इलाकों में बड़ी संख्या में निवास करने वाले जनसमूह तक शिक्षा की पहुंच का सफल साधन है। यह शिक्षा से वंचित विद्यार्थियों की उन्नति करती है, साथ ही असमानता को दूर करती है। यह विद्यार्थियों को उनकी गति एवं आवश्यकतानुसार वैयक्तिक अनुदेशन प्रदान करती है।" जबकि **National Policy of Education 1986 (NPE) and Programme of action 1992** के अनुसार शैक्षिक तकनीकी एक संप्रेषण प्रक्रिया है, जो शिक्षण अधिगम के व्यावहारिक विज्ञान पर वैज्ञानिक जनसंचार माध्यमों (जैसे- टीवी, रेडियो इत्यादि) को प्रयोग में ला भी सकती है और नहीं भी। **एम0एच0आर0डी0 2015** में शैक्षिक तकनीकी को मोबाइल के माध्यम से सर्व सुलभ बनाने हेतु ई-पाठशाला कार्यक्रम का भी शुभारंभ किया।⁽³⁾

* ICSSR, शोधकर्ता, शिक्षा विभाग, गुरु घासीदास विश्वविद्यालय, बिलासपुर, छत्तीसगढ़।

इतिहास

पंचवर्षीय योजना केंद्रीय और एकीकृत राष्ट्रीय अर्थव्यवस्था से संबंधित कार्यक्रम है। भारत के प्रथम प्रधानमंत्री माननीय जवाहरलाल नेहरू जी ने स्वतंत्रता के तुरंत बाद अर्थात् 1951 में अपनी पहली पंचवर्षीय योजना का शुभारंभ किया। चूंकि इन योजनाओं का कार्यकाल पाँच वर्ष का होता है इसलिए इन्हें पंचवर्षीय योजना (Five Year Plan) कहते हैं। इन पंचवर्षीय योजनाओं में कभी-कभी राष्ट्र की विशेष परिस्थितियों में वार्षिक योजना और चक्रक योजना का रूप भी दिखाई पड़ता है। परन्तु पंचवर्षीय योजनाएं एक वर्ष की कालावधि की इन वार्षिक और चक्रक योजनाओं के बाद भी राष्ट्रीय विकास की दृष्टि से चलती रहती हैं। पंचवर्षीय योजनाओं का कार्यकाल 1 अप्रैल से प्रारम्भ होकर पाँचवें वर्ष के 31 मार्च को समाप्त होता है।

अब-तक की पंचवर्षीय योजनाओं का संक्षिप्त विवरण-

सारणी-1⁽⁴⁾

योजना	योजनावधि	लक्ष्यवृद्धि	वास्तविक वृद्धि	प्राथमिकता के क्षेत्र
पहली योजना	1951-56	2.1	3.6	कृषि, बिजली, सिंचाई
दूसरी योजना	1956-61	4.5	4.2	पूर्ण उद्योग
तीसरी योजना	1961-66	5.6	2.8	खाद्य, उद्योग
चौथी योजना	1969-74	5.7	3.2	कृषि
पाँचवी योजना	1974-79	4.4	5	गरीबी उन्मूलन, आर्थिक आत्मनिर्भरता
छठवी योजना	1980-85	5.2	5.5	कृषि, उद्योग
सातवी योजना	1985-90	5	6	ऊर्जा, खाद्य
आठवी योजना	1992-97	5.6	6.6	मानव स्रोत, शिक्षा
नवी योजना	1997-2002	6.5	5.4	सामाजिक न्याय
दसवी योजना	2002-07	8.1	7.6	रोजगार, ऊर्जा
ग्यारहवी योजना	2007-12	8	7.9	समावेशी विकास
बारहवी योजना	2012-17	8	8	त्वरित

पहली पंचवर्षीय योजना (1951-56)

भारतीय प्रधानमंत्री जवाहरलाल नेहरू द्वारा 8 दिसंबर 1951 में भारत की संसद के समक्ष पहली पंचवर्षीय योजना प्रस्तुत की। इस योजना में देश की अर्थव्यवस्था से सम्बन्धित विभिन्न पक्षों पर ध्यान केंद्रित करने के साथ-साथ शैक्षिक प्रौद्योगिकी को भी स्थान दिया गया। 1956 में योजना अवधि के अंत तक 5 भारतीय प्रौद्योगिकी (आईसीटी) संस्थानों को प्रमुख तकनीकी संस्था के रूप में शुरू किया गया। विश्वविद्यालय अनुदान आयोग ने धन का ख्याल रखते हुए और संबंधित क्षेत्र के लिए देश में उच्च शिक्षा को मजबूती से स्थापित किया। साथ ही तकनीकी और व्यवसायिक शिक्षा के लिए अधिकतम सुविधाओं का विकास किया।

दूसरी पंचवर्षीय योजना (1956-61)

दूसरी पंचवर्षीय योजना उद्योग धंधे पर केंद्रित थी। जिसे औद्योगिक उत्पादकों के घरेलू उत्पादन के साथ-साथ शिक्षा पर भी केंद्रित किया गया। यह योजना महालनोबिस मॉडल का अनुकरण करती है। इस योजना में उत्पादक क्षेत्रों के बीच लंबे समय से चले आ रहे आर्थिक विकास को अधिकतम करने का प्रयास किया गया। साथ ही 1957 में एक प्रतिभा खोज और छात्रवृत्ति कार्यक्रम का शुभारंभ किया गया, जिसका उद्देश्य प्रतिभाशाली युवा छात्रों की खोज करके उन्हें शिक्षा से सम्बन्धित विभिन्न क्षेत्रों में आगे बढ़ाने के लिए प्रेरित करना था। साथ ही तकनीकी और व्यवसायिक शिक्षा की सुविधाओं का विस्तार करना समाहित किया गया।

तीसरी पंचवर्षीय योजना (1961-66)

तीसरी पंचवर्षीय योजना मुख्यतः कृषि पर केंद्रित थी, लेकिन 1962 में भारत-चीन युद्ध ने भारतीय अर्थव्यवस्था की कमजोरियों को उजागर किया तथा रक्षा उद्योगों की ओर सभी का ध्यान आकर्षित किया। यह योजना जॉन सेण्टी तथा सुखमय चक्रवर्ती मॉडल पर आधारित थी। सन् 1965-66 में भारत-पाकिस्तान के साथ युद्ध बढ़ गया। कृषि के साथ-साथ शिक्षा पर भी ध्यान केंद्रित किया गया और ग्रामीण क्षेत्रों में प्राथमिक स्कूल खुलवाये जाये। राज्यों में प्राथमिक शिक्षा बोर्ड का गठन किया गया। राज्य माध्यमिक और उच्च शिक्षा के लिए जिम्मेदार था। इस योजना में कहा गया कि सभी स्तरों पर व्यवसायिक एवं तकनीकी शिक्षा का विकास आवश्यक है।

इस योजना के बाद 1966-1969 (लगभग 3 वर्ष) में कोई भी नई योजना को लागू नहीं किया गया। इस कालांश को "अनवरत योजना" (Plan Holiday) का नाम दिया गया। यह योजना मिर्डन के मॉडल पर आधारित है।⁽⁵⁾

चौथी पंचवर्षीय योजना (1969-74)

इस योजना को संसद के समक्ष तत्कालीन प्रधानमंत्री इंदिरा गांधी द्वारा प्रस्तुत किया गया। इस योजना में मुख्य उद्देश्य 14 प्रमुख भारतीय बैंकों का राष्ट्रीयकरण किया गया तथा हरित क्रांति के द्वारा कृषि को उन्नत किया गया। यह योजना

अशोक रुद्र व ए० एस० मान्ने मॉडल पर आधारित थी। साथ ही इस योजना में शिक्षा के क्षेत्र में प्रगति हेतु प्रयास किए गए। यह योजना में विश्वविद्यालयीय शिक्षा में छात्रों का तकनीकी और वृत्तिक पाठ्यक्रमों की ओर परावर्तन और विज्ञान शिक्षण, स्नातकोत्तर शिक्षा तथा अनुसंधान की सुविधाओं का विस्तार किया गया। इस योजना में शिक्षा तकनीकी (टेक्नॉलाजी) में सुधार करके कम व्यय पर उत्तम परिणाम प्राप्त करने पर बल दिया गया।

पंचवर्षीय योजना (1975-78)

इस योजना का मुख्य उद्देश्य तनाव, रोजगार, गरीबी उन्मूलन और न्याय व्यवस्था को बनाए रखना था। 1978 में नवनिर्वाचित मुरारजी देसाई सरकार ने इस योजना को अस्वीकार कर दिया तथा इसे सरकार द्वारा विद्युत आपूर्ति अधिनियम 1975 लाया गया और भारतीय राष्ट्रीय राजमार्ग प्रणाली को भी प्रथम बार संसद में पेश किया गया। इसके अतिरिक्त सरकार शिक्षा के प्रति जागरूक थी, विशेष रूप से तकनीकी शिक्षा पर। इस योजना में भी तकनीकी शिक्षा के विकास पर बल दिया गया।

पाँचवीं योजना के चार वर्ष पूरे होने के बाद केन्द्र में सत्ता परिवर्तन हो गया और जनता सरकार ने इस योजना को समाप्त कर सन् 1978-79 तथा 1978-80 तक की एक-एक वर्षीय योजना बनायी। जिसका लक्ष्य बेरोजगारी की समाप्ति, जनता के निर्धनतम वर्ग में सुधार और मूलभूत आवश्यकताओं की पूर्ति करने के साथ-साथ तकनीकी शिक्षा के दायरे को विस्तृत किया गया।⁽⁶⁾

छठी पंचवर्षीय योजना (1980-85)

यह योजना भी उदारीकरण के लिए बनाई गई। यह नेहरूवादी युग का अंत था। यह योजना 1 अप्रैल 1980 से प्रारम्भ होकर मार्च 1985 तक चली। इस योजना में भी शिक्षा के विस्तार को प्रोत्साहित किया गया। इस योजना में प्रारम्भिक विद्यालयों का संख्या में वृद्धि करने, शिक्षकों की संख्या में वृद्धि करने के साथ-साथ प्रौढ़ शिक्षा और तकनीकी शिक्षा में प्रगति हेतु सरकार द्वारा वित्तीय सहायता प्रदान करने की बात कही गयी।

सातवीं पंचवर्षीय योजना (1985-1990)

इस योजना का मुख्य उद्देश्य आर्थिक उत्पादकता में बढ़ोतरी करना तथा रोजगार के अवसरों को पैदा करना था। इस योजना में 6 से 14 वर्ष की आयु तक प्रारम्भिक शिक्षा के सार्वभौमिकरण को की बात कही। साथ ही माध्यमिक शिक्षा हेतु पाठ्यचर्या और दूरस्थ शिक्षा कार्यक्रम प्रारंभ करने का प्रस्ताव रखा गया। तकनीकी और वैज्ञानिक शिक्षा को और अधिक सरलतम रूप प्रदान कर सभी तक पहुंचाने हेतु संचालित कार्य योजना को महत्वपूर्ण माना। इस योजना में तकनीकी शिक्षा के विकास हेतु सृष्ट आधार स्थापित किये गये। इसके लिए मानव संसाधन के विकास में तीव्र गति लाना, पाठ्यक्रम व शिक्षण-विधि में तकनीकी प्रयोग द्वारा गुणात्मक सुधार करना, अनौपचारिक शिक्षा प्रणाली को प्रभावी बनाना, राष्ट्रीय एकीकरण को बढ़ावा देना जैसे शैक्षिक कार्यक्रमों को अपनाये जाने का लक्ष्य रखा गया।

सातवीं योजना के बाद दो वर्ष दो वार्षिक योजनाये चलीं। 1990 से 1992 तक इन वार्षिक योजनाओं में शिक्षा पर विशेष बल दिया गया। इस योजना में तकनीकी शिक्षा पर 823 करोड़ रु० का व्यय कर इसकी स्थिति में सुधार की बात कही गयी। इस योजना में तकनीकी का प्रयोग शिक्षा के विभिन्न स्तरों पर करने की बात की गयी। जिससे शिक्षा की गुणवत्ता को बढ़ाया जा सके।⁽⁷⁾

आठवीं पंचवर्षीय योजना (1992-97)

इस योजना का मुख्य उद्देश्य उद्योग में आधुनिकीकरण को प्रोत्साहित करना था। भारत में उदारीकरण, निजीकरण और वैश्वीकरण की शुरुआत हुई। साथ ही जनसंख्या वृद्धि रोकने, रोजगार के अवसर मुहैया कराने, बुनियादी ढांचे का प्रबंधन आदि में इस योजना का हिस्सा रहें। इस योजना में शिक्षा पर भी चिंता व्यक्त की गई। इस योजना में पूर्ण साक्षरता प्राप्त करने के लिए 345 जिलों में प्रौढ़ शिक्षा कार्यक्रमों को प्रारंभ किया गया। सरकार द्वारा प्रत्येक जिले में नवोदय विद्यालय स्थापित किए गए। उच्च शिक्षा के क्षेत्र में सुधार का सुझाव दिया गया। त्रिभाषा सूत्र को एक समान रूप से लागू करने का सुझाव दिया गया। इस योजना में प्राथमिक शिक्षा पर व्यय 47 प्रतिषत, माध्यमिक शिक्षा पर 18 प्रतिषत, प्रौढ़ शिक्षा पर 9 प्रतिषत, उच्च शिक्षा पर 8 प्रतिषत तथा तकनीकी शिक्षा पर 14 प्रतिषत करने की बात कही गयी। इस योजना में प्राथमिक, माध्यमिक तथा उच्च शिक्षा स्तरों पर तकनीकी प्रयोग पर बल दिया गया।

नौवीं पंचवर्षीय योजना (1997-2002)

इस योजना का मुख्य उद्देश्य औद्योगीकरण, मानव विकास पूर्ण पैमाने पर रोजगार, गरीबी में कमी और घरेलू संसाधनों पर आत्मविश्वास जैसे उद्देश्यों को प्राप्त करने का प्रयास किया गया। यह योजना भी शिक्षा की दृष्टि से महत्वपूर्ण थी। इस योजना में सभी के लिए शिक्षा सुविधा प्रदान करने की बात कही गई थी। साथ ही महिला सशक्तिकरण को बढ़ावा दिया जाना चाहिए। शिक्षा के क्षेत्र में इस योजना में दूरस्थ शिक्षा तथा गणित शिक्षण, विज्ञान एवं कंप्यूटर शिक्षा के प्रावधान हेतु प्रयास किए गये। साथ ही विश्वविद्यालय और उच्च शिक्षा के लिए कार्ययोजना जैसे मीडिया का प्रयोग और शिक्षा तकनीकी के प्रयोग को भी बढ़ावा दिया गया।

दसवीं पंचवर्षीय योजना (2002-2007)

इस योजना का मुख्य उद्देश्य गरीबी अनुपात को कम करना, लाभकारी और उच्च गुणवत्ता वाले रोजगार को बढ़ावा देना, सभी बच्चों को 2007 तक पूरे 5 वर्ष की प्रारंभिक शिक्षा प्रदान करना, साक्षरता दर को बढ़ाना के लिए शिक्षा के क्षेत्र में सामान्य विद्यालय व्यवस्था पर बल देना, सार्वभौमिक प्राथमिक शिक्षा में नामांकन, माध्यमिक शिक्षा में विद्यालय प्रबंधन के

विकेंद्रीकरण पर बल तथा सूचना प्रणाली के इलेक्ट्रॉनिक प्रबंधन के विकास पर बल दिया गया। साथ ही इस बात पर भी बल दिया गया कि तकनीकी का प्रयोग शिक्षा के विभिन्न स्तरों एवं विभिन्न विषयों में करने से शिक्षा का गुणवत्ता को बढ़ाया जा सकता है।

ग्यारहवीं पंचवर्षीय योजना (2007-12)

इस योजना में शिक्षा के क्षेत्र में प्रगति हेतु शिक्षा पिरामिड में सभी भागों को समाहित करने की बात कही गई थी। इसके अंतर्गत सर्वशिक्षा अभियान के नामांकन में वृद्धि, माध्यमिक शिक्षा के विस्तार के लिए उच्च प्राथमिक शिक्षा को सुदृढ़ करने हेतु सुझाव, औद्योगिक प्रशिक्षण संस्थानों के आधुनिककरण को बढ़ाने हेतु प्रयास साथ ही तकनीकी शिक्षा की बढ़ोत्तरी हेतु सरकार से संबंधित सामाजिक संस्थाओं को अपना सहयोग प्रदान करना अपेक्षित है। सरकार द्वारा आईसीटी से संबंधित दो दिवसीय सम्मेलन में आईसीटी से सम्बन्धित कार्यक्रम के सफल संचालन हेतु सुझाव प्रस्तुत किये गये हैं।

बारहवीं पंचवर्षीय योजना (2012-17)

इस योजना में विज्ञान तथा प्रौद्योगिकी की संरचना में सुधार हेतु केंद्रीय सहायता केंद्र की स्थापना की गई। इस योजना में कहा गया था कि केंद्र व राज्य सरकार की भागीदारी से संबंधित कार्यक्रमों में शिक्षा तकनीकी योजना के विस्तार हेतु प्रबंधन किया जाएगा। जिससे इससे संबंधित विद्यार्थी लाभान्वित हो सके। इस योजना में शिक्षा में तकनीकी प्रयोग को महत्वपूर्ण माना गया तथा इसके प्रयोग से शिक्षा में हुये परिवर्तन को महसूस किया गया।⁽⁶⁾

निष्कर्ष

शिक्षा में सूचना और संचार प्रौद्योगिकी (आईसीटी) के अधिकतम महत्व को देखते हुए मानव संसाधन विकास मंत्रालय ने मिशन दस्तावेज के अंतर का आईसीटी के प्रयोग को शिक्षा के अंतर्गत एक उपकरण के रूप में स्वीकार किया। इसका उद्देश्य उच्च शिक्षा के वर्तमान नामांकन दर 15 प्रतिशत को बढ़ाकर 11वीं योजना तक 30 प्रतिशत करना था। मंत्रालय ने "सशक्त" नाम से एक वेब पोर्टल का भी शुभारंभ किया। जो शिक्षा के क्षेत्र में "वन स्टॉप शिक्षा पोर्टल" के नाम से चर्चित है। इसमें उच्च गुणवत्ता वाली विषयवस्तु, सभी विषयों एवं सभी विषय क्षेत्र से संबंधित अपलोड की गई। इससे प्राचीन काल से चली आ रही शिक्षण-प्रशिक्षण एवं अधिगम की व्यवस्था में क्रांतिकारी परिवर्तन होने की संभावना है।

वर्तमान में आईसीटी खड़कपुर द्वारा एक परियोजना संचालित की गई है, जिसके अंतर्गत विभिन्न कक्षाओं, बौद्धिक क्षमता तथा ई-अधिगम में शोध के लिए प्रयोग उपयुक्त शिक्षाषास्त्र प्रवृत्तियों का विकास की बात कही गयी। इस प्रकार राष्ट्रीय शिक्षा मिशन के अंतर्गत सूचना एवं सूचना प्रौद्योगिकी के माध्यम से अपने संरक्षण में विभिन्न कार्यक्रमों का संचालन किया जा रहा है। इसके अतिरिक्त किसी भी समय, कहीं भी, किसी भी माध्यम से, उच्च शिक्षण संस्थानों में शिक्षा सभी विद्यार्थियों के लिए इंटरनेट की सुविधा प्रदान की जाएगी। साथ यह भी प्रयास किया गया की 11वीं पंचवर्षीय योजना के अंतर्गत शिक्षा में नामांकन अनुपात में वृद्धि करने तथा उच्च शिक्षा में पहुंच एवं गुणवत्ता को सुनिश्चित करना आवश्यक है।

इस मिशन के प्रमुख तत्व- 1. विषयवस्तु का सृजन तथा 2. संस्थाओं और सीखने वालों के लिए उपकरणों का प्रबन्धन है। इस शिक्षा का उद्देश्य शहरी एवं ग्रामीण शिक्षकों और छात्रों के बीच पनपे डिजिटल अंतर को कम करना, उन्हें सशक्त बनाना, डिजिटल क्रांति इत्यादि था। दूसरी तरफ मिशन नई विषयवस्तु की गुणवत्ता को बढ़ाएये तथा देश में 18,000 से अधिक कॉलेजों के साथ-साथ विश्वविद्यालयों में भी तकनीकी उपकरणों को उपलब्ध कराया जायेगा।⁽⁹⁾

देश में परिवर्तन की लहर के अंतर्गत नीति आयोग की गवर्नमेंट काउंसिल की बैठक में, भारत में बदलाव लाने के लिए 15 साल का एक रोडमैप तैयार किया गया। इससे पहले पंचवर्षीय योजना के अंतर्गत 5 वर्ष का मैप रोड तैयार किया जाता था। 12वीं पंचवर्षीय योजना 31 मार्च 2017 को समाप्ति से पहले मंत्रालय ने इस योजना के विस्तार को 6 महीने के लिए और बढ़ा दिया। इस अवधि के साथ ही नेहरू समाजवाद का अंत हो गया और एक नई व्यवस्था का शुभारंभ हुआ। नयी व्यवस्था 3 साल का एक्शन प्लान बनाती है, जो 7 वर्षीय स्ट्रेजिडी पेपर और 15 वर्षीय विजन डॉक्यूमेन्ट का हिस्सा है। योजना आयोग की इस नीति का उपयोग 1 अप्रैल से तीन वर्षीय एक्शन प्लान के अन्तर्गत लॉन्च हो चुका है।⁽¹⁰⁾

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Northstar Server Architecture Driven Restructuring to Achieve Reliability

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Abstract: Northstar is an application designed mainly for the purpose of child safety, Northstar system architecture is designed of several servers where all the activities of the application depend on these servers. As some servers are outdated make the application work slow and also leads to loss of data. In order to supervise the status of the server to work faster with respect to real time, the server architecture restructuring scheme to achieve reliability is proposed. In the present architecture only few servers are used which lead to some data loss which would put all the work status down. The servers which are used to host the application where each server perform routed tasks such as receiving data traffic from various devices, segregations, computation, broadcasting and logging. Current servers setup is made up of few old versions of Linux which are little slow and unable to support recent class, also technologies which demands faster network, high RAM to denigrate by AWS (Amazon Web service) itself. So in order to upgrade the outdated servers and implement few new servers' class to increase the capacity of handling random access requests and assuring consistency, reliability in application while live tracking, study and implementation of servers to Northstar architecture is required.

Key words: AWS, Servers, Reliability, Database

I. Introduction

In the Northstar architecture some servers were disordered which resulted in the failure of memory, data loss, failure of hard disk etc. Considering the old architecture while performing the computation, there was some loss of data where the final data that is provided after computation will be erroneous. By using this erroneous data it was difficult to analyze the external issue of the application that was coming from the parents. So, in order to reduce the issue and bring the application to normal status which should give the accurate results, where these results will only be used to solve the Northstar issues such as device breakdown, network issues etc. In order to make the application stable some of the servers are installed and some servers back end code has been changed based on the requirements.

In recent times the utilization of servers has been increased which involves in the task such as receiving the data, sending the data, quick computation, increasing the cache speed. So, to obtain these features the Kafka server, storm and redis cluster are being installed. Each servers perform their specific task such receiving and sending the data, performing computation on the incoming data and storing them in the cache memory.

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In general the main reason to implicate the concept of load balancing is to reduce the utilization of resources, amplify the system performance, and to avoid more of workloads on particular systems. In dynamical scheduling scheme most of the data centers presently arrange hardware's to balance the workload, these hardware's are overpriced and non-elastic [1] [3].

As the information is increasing over the internet and cloud, this the problem that is occurring now a days, which has an impact on the characteristics of the serves such as performance, scalability, availability and many more [2] [3]. While dealing with large amount of data maintaining the data fields is difficult, because various applications will be running over the internet which shows immense variation due to some various factors such as expected and unexpected events the restructuring of datasets must not negatively impact the quality of service necessary for the system.

These disparities have been overcome by additionally changing the infrastructure, but this method is highly costly and risky. To overcome the problems mentioned above and while processing large amount of data, hence elastic cloud computing is involved, which has changed the way of thinking about the server web development, an idea for an application which can automatically extend as the workload changes. In this field the users use their own elastic technologies which allow every component to split into number of instances to acquire the need for computing power. With implementation of this technology which makes it as a best platform for the capacity and recurrence of the user interface connected with the micro blogging, this technique come under the domain cloud computing. Cloud computing involves in the distribution of different services and computation of the resources over the internet. Cloud computing assist for elastic parallel scalability for server infrastructure and permit the users to pay for the resources used by them [2].

In order to optimize the system performance and reduce the users endeavor of designing and verifying the IaaS cloud. A technology is proposed which satisfies the user's performance and requirements. Initially the performance and the start up time of the server which involves Docker containers, KVM virtual machines on Open Stack with changing number of virtual servers. This measures the performance and the stat-up time of the servers. Here the Open Stack version Juno is used as the cloud monitor. Functional characteristics generally discuss whether one can perform a live migration or not, can design the kernel or not, one can scale the server resources with short time or not. By analyzing the performance number of servers is changed [4].

II.Existing System

The servers used in the existing system are quite slow in reading the incoming data and analyzing them. The data coming from the device through the GPS will first enter into the NMEA, where the NMEA server will parse the data and send the parsed data to the storm server to calculate the route timings and other information. The data that will enter into the NMEA will take more time to parse the data since there is only one parser to parse the data which would also lead to loss of data and this would take more time for parsing the data and where all the other services would also delay.

III.Proposed System

Since the existing system is more time consuming, cost consuming some additional servers are implemented from the Amazon Web Service and some shell scripts and python scripts are written to make the system reliable and meet the consumer need. The servers implemented in the proposed system are Kafka server, Redis Cluster and some changes are

made in the NMEA. The Kafka server are used to store the data in the form of topics where the data can be stored in any number of topics and can be retrieved by any of the topic if any data loss occurs. Redis cluster is mainly used for storing cache data coming from the Storm server. In NMEA separate parsers are implemented using jar file to parse each and every data quickly. This implementation to the system will help in achieving reliability, cost optimization and time optimization.

IV.Related Work

In recent days large number of research works has been conducted in the field of server architecture to improve the efficiency, scalability, reliability. Since the data is increasing in the field of cloud computing [1], [2], [4] the single data center cannot accept all the incoming data which would lead to data overflow. Some of the data centers in cloud are built using colossal layered switches, where these data need to be transferred among thousands of servers. To reduce the end-to-end transmission delay and improve the resource consumption rate, data flows are actively programmed in load balanced way. The load balancing scheme is used for evenly distributing the data among the datacenter which reduces the continuous transmission delay [10]. Many patterns have been designed for load balanced scheduling scheme in Open based networks. Many patterns have been designed for load balanced scheduling scheme in Open based networks. As the data center network configuration becomes larger and more complex, the time required to select the initial path will also increase immensely. By observing the above situation a novel based dynamical load balanced scheduling (DLBS) approach is proposed to expand the data centers network and actively balancing data flows. The main reason to implement the load balancing technique is, to identify the data flow problems in big data centers in cloud, i.e., to device the DLBS problem. The main aim of this is to increase the network throughput on the clause that load balancing is certified on all links during every time slot. In some of the networks routers will be responsible for both discovering the routes and forwarding the data packets with respect to the routing table.

Controlling the data layout is difficult while processing the large volume of data, since the restructuring of large data sets is strictly confidential as the infrastructure should not negatively impact on the service quality required for the system. One of the difficult tasks involved here is controlling the data layout because the various applications are running over the internet. This problem can be overridden by additionally provisioning the infrastructure, but to implement this method is expensive and hazardous. Cloud computing allows the elastic horizontal scalability of server infrastructure which allows effectively allocate the resources as per the user demand and pay the charges for the resources used by the users. By using the effective allocation of resources by understating the nature of dynamics and minimizing the data traffic in the data center [2].

As the data is growing rapidly the datacenters are therefore required to introduce more nodes to their infrastructure or replace the existing hardware with more powerful systems to respond to the growing demand. This trend first increases the power consumption of servers, which is the main obstruction for scalability; other is an infrastructure cost which is the major financial issue which results in prolonging the break-even point of data center profit. The solution for this mentioned problem is by identifying the right computational platform for Big Data Analytics processing which will provide a balance between processing capacity and power efficiency. The two micro-architectures are proposed namely Intel Xeon and Intel Atom. Xeon, a big core for high performance server, and Atom a little core that advocates

the use the use of a low-power server to address the dark silicon challenge [3]. Infrastructure as a Service (IaaS) cloud service has been advanced recently, where virtual resources can also be used such as virtual servers, network. In order to reduce the user's efforts of designing and verifying, a technology has been proposed which satisfies the user's performance requirements. The performance and the start-up time of the server can be measured by Ironic and Docker containers. Server recommendation technology has been proposed based on the measured quantitative data. N automatic performance verification technology has been proposed which executes necessary performance tests [4]. Saving energy is one of the main concerns in cloud computing. There are three phases of saving energy for cloud storage which is based on Poisson distribution, queue length and Markov chain. In order to achieve the quick response with requirement of cloud resources, the researchers have proposed an intermediate state (MIDDLE) beyond the ON and OFF state for the physical servers in cloud data center. With a state a reasonable number of servers are turned on and kept available to wait and serve arriving jobs. As the servers are in the MIDDLE state the clouds can eliminate booting process and decrease the waiting time while serving arriving jobs into the system [5]. The rest of the papers deals with if some servers fail for some reason the call initiation or the termination message will not be proxied correctly. This can be overcome by adding the second server to the place of first server which has failed. The main goal of this is to provide the carrier grade capacity of one of ten million BHCA (Busy hour call attempts) for IP telephony using commodity hardware. In datacenters some of the servers would be disordered such as memory failure hard disk drive. The fault information can be provided by the server indicator LEDs which is important for information security. Region-based CNN (RCNN) was proposed to solve the localization problems of CNN by using region paradigm. RCNN is computationally expensive. Faster RCNN achieved advanced detection accuracy on PASCAL VOC and MS COCO datasets.

V.SYSTEM ARCHITECTURE:

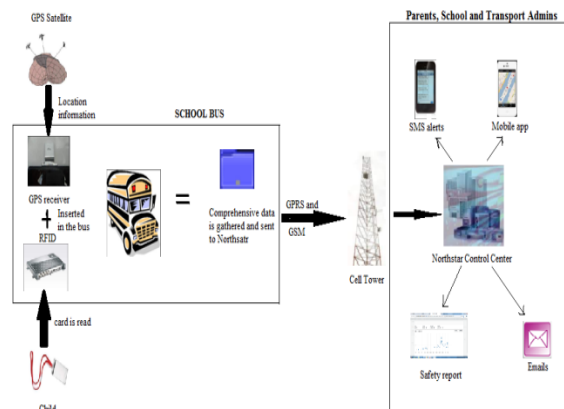


Figure 1: Northstar system architecture

The Northstar system architecture consists of GPS satellite, GPS receiver, RFID, child identity card, cell tower and Northstar control center. The device inserted in the bus consists of GPS receiver and RFID (Radio Frequency Identification). The GPS receiver will receive the location tracking in the form of latitude and longitude from the GPS satellite. The RFID will scan the identity card which has the RFID in it. By scanning this ID cards the attendance of the student is sent to the parents. This comprehensive data is collected and sent to the

Northstar through General Packet Radio Services (GPRS) and Global System for Mobile Communications) which moves to the nearest cell tower and finally moves into the Northstar Control Center. This Northstar Control Center consists of servers which will receive the data, parse the data, and calculate the data store the cached data and the data in the database. Through this working of servers in the Northstar Control Center the SMS alerts, safety reports, parent application, client UI, and emails are generated accurately without any obstacle. The servers are placed in the Northstar Control Center which will receive the data from the device. The data received from the device is raw data which will not be in the readable form. The raw data is sent to the Northstar control center which will compute the data and enables the working of parent application, and the School dashboard.

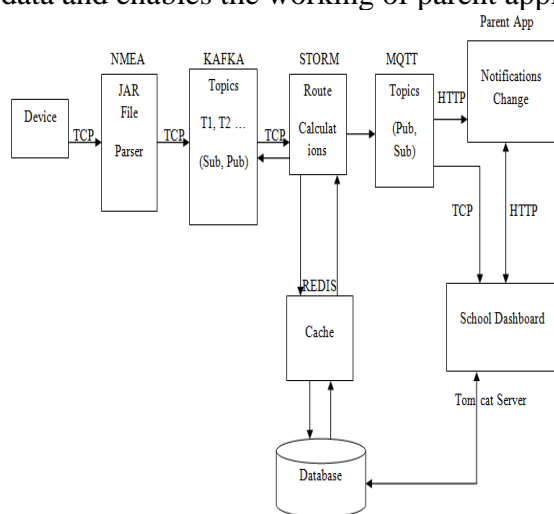


Figure 2: Overview of Northstar Server Workflow

VI.Methodologies

1. Implementing and enhancing the performance of Kafka Server
2. Enhancing the performance of Storm Server
3. Implementing Redis Cluster

6.1 The Kafka Server performance can be increased by Persistent Hash Algorithm

As the name suggests hash function is a function which locates for a piece of data usually which describes some kind of object of random size to other piece of data known as hash code or simply hash. Hash function inculcates many properties where each one of them has different properties.

Persistent Hashing knows most likely where the incoming keys must be located. This algorithm is capable of searching the values and also capable of maintaining the sorted ordering. The data coming from the NMEA server will be stored only in a single partition of the topic where if that topic goes wrong then partition along with the data will be lost so by using this algorithm the incoming data can be stored in the two or more partitions of different topics so that if one of the topic is lost the data will be present in partition of other topic in the form of key and value

i. Partitioning of topic

If there is enough load and if more number of instances are required for the load then the partitioning the data takes place.

ii. *Producer Partitioning and End user Partitioning*

- Producer partitioning: Producer will decide the partitioning of message.
- End user partitioning: The Kafka server ensures that partition is assigned to only one consumer.

6.2 The Storm performance can be increased by Computational Algorithm

The computational algorithm is introduced in the storm server which will compute the route data which will be provided by the Kafka server. Along with this the following must be adopted to improve the performance of the storm.

i. **Adjusting the rate of storm production and utilization**

- *Decrease the Parallelism of Producers:*

The parallelism means that the number of executor (threads) of components. More this is termed as the number of work processes in the storm. In this storm server the parallelism of producers are decreased where the data coming in must be slow to increase the server performance.

- *Increase the Parallelism of End users:*

Increasing the parallelism indicates more number of worker processes is added and thereby reducing the administrator-to-worker rate of the end user is increased to increase the service by receiving the incoming data in the sequence and improve the storm performance.

ii. **By increasing the buffer size:**

The size that we set for disruptor queue must be set to the power of 2

6.3 The Redis performance can be increased by:

Increasing the cache speed with respect to traditional database.

By increasing the cache speed the computed results coming from the storm server is stored in the database instead of computing them on demand.

VII.Results Evaluation

The main purpose of restructuring the server architecture is to achieve reliability. For this architecture some servers are added and some server properties are enhanced to achieve reliability. Each time when small changes are made to the server monitoring of that is made to check whether the server CPU utilization time, storage capability. Finally the changes made to the server will show the result in the database.



Figure 3: Kafka 1 CPU utilization time



Figure 4: Kafka 2 CPU utilization time



Figure 5: Kafka 3 CPU utilization time



Figure 6: REDIS 1 CPU utilization time



Figure 7: REDIS 2 CPU utilization time

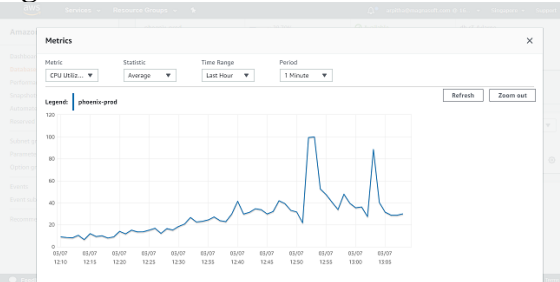


Figure 8: Database CPU Utilization Time

The figure 3, 4,5,6,7 shows the monitoring of Kafka and REDIS, the working of servers is good can be concluded by observing the CPU utilization time. If the CPU utilization time is below five then it is concluded that the servers are in good condition and all the computations have gone well. If in case the CPU utilization time exceeds between six to eight then some action must be taken such as restarting some servers, if it exceeds more than ten then the complete working of the application goes wrong which in turn arises some major critical issues. The fig 5 shows the working of database i.e. when the database will go high, and when does it come to normal condition.

VIII. Conclusion And Future Work

In this work the architecture restructuring is done to achieve reliability. Aiming for the reduce in the data loss, cost optimization, time optimization the persistent hash algorithm, computational algorithm, increasing the cache speed are proposed and implemented. Comparing with the existing system with the proposed system by introducing the Kafka server, storm server. Implementation of Kafka server as sender and receiver which will receive the incoming data in the sequence and send the data to the next server in sequence. Implementation of storm server involve in computation of the data that is sent by the Kafka server. This computed data is now stored in the cache memory instead of storing in the database. Through this data stored in cache memory can be used at any point of time in that day to resolve the issue and later the data stored in the cache will be moved to database.

As a part of future work instead of performing the entire task step by step Integrating APMs, Migrating data to nearest datacenters, implementation of SOS button in the school buses, designing the stat pop up messages in dashboard for viewing active and inactive routes.

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Examining The Impact Of Marketing Strategies On Export Performance Of Leather Products With Reference To Kanpur Leather Industry

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Prof. Mohd Yameen**

Abstract

This study intends to explore the effects of marketing strategy on export performance of leather sector in India. There has been a plenty of research to increase the quantity and quality of marketing research aims to find out the solutions towards overall firm performance. The study differs from previous marketing studies in that (1) to find out the key dimension of marketing strategies (2) the unit of analysis is based on individual leather product marketing (3) the study is based on the depth personal interview. This study proposes a conceptual framework of marketing strategy and export performance and tests it by regression analysis. The finding showed that there is significant impact of foreign strategy, pricing strategy although product strategy, promotion strategy and distribution strategy shows insignificant on firm performance and then discuss the implication for management and direction future research.

Keywords: Leather sector, marketing strategy, management, export performance.

Introduction

Merchandise and ventures don't move consequently from the producers to the clients. Marketing is the belt that interfaces the two noteworthy wheels of any economy in particular, makers and customers. Marketing is the procedure by which organizations make an incentive for clients and assemble solid client connections so as to catch an incentive from client return (Kotler et. al, 2010). So marketing focuses on customer needs in competitive environment. Looking at the formal definition in a more formal way we can take worldwide accepted definition of AMA "Marketing is an organizational functional set of process for creating, communicating and delivering value to the customer and managing customer relationship in ways that benefits the organization and its stakeholders. So in the daily life marketing management is often misunderstood, people often say marketing is promoting or advertising or marketing is sales of product but marketing management is more than this, marketing is the customer oriented rationality of the entire organization and it is rightly said in today's era customers are the king of the market, and in American philosophy it is said that customer is always right you cannot say wrong to your customer if you do so then you will lose your customers, so it is very necessary that's all the resources must be align according to the customer needs and wants.

Marketing management start with situation analysis where we look at customers and competitors and at our internal environment then we would derive our goals. Marketing goals will be implemented by using marketing strategies and the marketing strategies will

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be achieved by designing marketing activities, so called marketing mix which includes price, product, promotion and place, and then we have to build a marketing organization and a marketing controlling process.

The significance of marketing strategy to accomplish business benefits has been demonstrated in deciding the company performance. Many industries have developed aggressive methods by implementing artistic strategies on their merchandise or services so as to extend business profits and property competitive advantage. Worldwide stiff competition has placed nice pressure on export-based business to line new and effective methods so as to contend within the international competitive market. However a number of the methods enforced aren't as fruitful needless to say. Hence, the necessity to target promoting strategy on export performance in an exceedingly single business would offer higher understanding, whereas at the identical time together with new insights into international promoting literature.

Objectives Of The Study

This study attempts to examine the export performance in the Kanpur leather sector by examining the influence of marketing strategies i.e. foreign strategy, distribution strategy, pricing strategy, product strategy on firm performance and then discuss implication for management and future research.

Leather Industry In Kanpur

The Leather Industry holds an exceptionally conspicuous spot in the Indian economy and this industry is one of the highest export earnings in India. It gives work to about 2.5 million individuals and yearly turnover of around USD 5,000,000. This industry is blessed with huge raw materials; India represents 21% of the world's cattle hides and buffaloes hide and 11% of the world's goat and sheep populace. Aside from the simple accessibility of raw materials, financial assistance can appreciate simple and bottomless supply of talented labor, world-class innovation, equipped and positive ecological models, and the support of other allied enterprises. A few driving worldwide leather products fabricating brand names, for example, Hugo Boss, Tommy Hilfiger, Versace, Guess, and DKNY, have put resources into India and are occupied with sourcing leather products from India. Leather Industry divided between both the organized and the unorganized divisions. This business in India has experienced extraordinary change from being exporter of raw materials in early in 1960 turning into an exporter of complete manufactured products. The fundamental explanation for the change is the few approach activities taken by the legislature of India. Indian cowhide industry has achieved a conspicuous place in the Indian fare and has turned into the best 7 enterprises that gain remote trade for the nation. After the advancement of Indian economy in 1991, the leather business has thrived reliably in a few different ways and has contributed to the Indian exchequer.

The Indian government in its foreign trade policy for 2000–2009 has known the animal skin trade as attention sector in sight of its vast potential for export growth and triggering employment generation prospects and opportunities. Investment opportunities among the animal skin trade exist totally different segments associated with the industry, that embody the process units like tanning and finishing of animal skin product and producing units of leather products such as clothes, producing of animal skin footwear and footwear components, and producing of animal skin merchandise, like harness and saddlery amongst the bunch of different opportunities. However, the footwear trade specifically holds larger potential for investments in Asian

country. Asian nation produces or so 700 million pairs of animal skin footwear associate once a year and accounts for an eighteenth share of the whole Indian leather export. Once footwear producing, animal skin merchandise or product, like wallets, travel wares, belts, curtains, mat, designer articles and purses provide nice returns on investment to the bourgeois of animal skin product.

Looking at the future prospects, Master in Business Administration graduates and businessperson will build an approach to the selling and mercantilism sector of the Indian animal skin business inside the footwear and apparels section, which is increasing day by day. The structure of the animal skin business is unfold in varied segments, namely, tanning & finishing, footwear & footwear parts, animal skin clothes, animal skin product together with saddlery & harness, bags, wallets, curtains etc. firms are, for example, specializing in high-end fashion clothes and accessories, and footwear makers are diversifying into newer areas like manufacture of women's sandal and shoes kids sandal and shoes, fancy bags etc. Though this industry has huge potential to produce qualitative products but what this industry is lacking is marketing and it is well said by Ahmed "Indian products are good; what we need to develop is marketing".

Review Of Literature

In the world level market research, there have been numerous dimensions utilized by the researchers to point effective marketing management by adopting efficient marketing strategy. Previously the researchers were acknowledged firm strategy (Aaby and Slater, 1989), trade marketing strategy (Cavusgil and Zou, 1994; Akyol and Akehurst, 2003; Cavusgil and Zou, 1994; Koh, 1991; Chukwuemeka Patrick Ogbu, 2017), export/trade strategy (Aulakh et al., 2000; Chetty and Hamilton, 1993; Morgan and Katsikeas, 2011). However, most of the dimensions are supported marketing mix combination which includes the combination of 4P namely (product, price, promotion, place) and few researchers use more variables so as to form it additional significant direction in their studies.

The key factor which affects the export performance is depends on the strategy adopted by the exporter. Though not all the marketing strategy has a significant relationship with export performance at same time, different strategy has different significant impact on performance for different firms. Previously in a study by koh(1991) has found that only export valuation, direct channel of distribution and direct emptor have a significant on export performance. In contrast, a study by general(2003) examines the key factor which affects the export marketing performance and found in his study that export marketing strategy has no significant on Thai firms export performance.

In a study of European high technology industry (O'Sullivan et al, 2008), it was reveal that promoting performance measuring ability absolutely impacts of firm performance which reportage frequency mediates this relationship.

In a study of US fashion retailing industry (Moore et al, 2003), it was found that in to survive in this competitive industry it is very important for entrepreneur to developed their leverage core marketing capabilities. Result shows that image differentiation and promotion capabilities are the two most important marketing capabilities which influence firm performance.

In another study in Iran (Tabatabaei et al, 2014), the authors concluded that effective implementation of strategy resulted in higher customer satisfaction and price promotions had an influence on market share. Sharma (2004) undertook a study on Australian producing trade and located that stress on promoting strategy was given third

place once operations and R&D strategy. In effectiveness, operations and technology strategy is more effective than promoting strategy. The results conjointly counsel that the development of recent segments/customers is proportional to sales growth in each, domestic, additionally as export markets. Also, market foretelling encompasses a positive and important relationship with come on total assets. The study conjointly explored the link between discourse factors, promoting strategy and firm performance. It had been found that comparatively higher performance was placed on promoting strategy by companies that are massive, are concerned in commodity trade, are concerned in exports, have higher domestic sales growth, and have adopted a differentiation strategy combined with cost-leadership strategy.

In another study of B2B service companies in USA (Zahay et al, 2009), it had been found that client primarily based performance (marketing measures) is related to the selection of generic segmentation and positioning methods. Strategic positioning selection (i.e. low price versus differentiation) is indirectly, instead of directly, related to business growth performance. Companies that followed differentiation as well as inexpensive methods displayed improved performance.

In another study (White et al, 2003), it was found that implementation capability positively impacts firm performance. In this research study, attempt is being made to correlate strategy with business as well as marketing performance of the firms. The primary measure of performance is the growth of the firm. This implies that strategy is correlated with growth in sales and profits of the firm. Profitability of the firm is yet another measure of the performance of the firm. Another measure used is the percentage increase in the number of employees of the firm. ROI and ROA of the firm will also get measured. Strictly from the marketing point of view, measures such as gain in market share and gain in number of customers is being used in this study.

According to (Lee & Griffin, 2003) in his study examine the influence of promoting strategy on performance within the export driven developing economy of Korea. The results of the study indicate the difference of merchandise in step with foreign client tastes, adjustment of export costs to foreign market condition; direct commerce and trade promotion towards overseas distributors completely influence the performance of Korean exporters. Though during his study the researcher mention that expenses advertising and overseas selling aren't found to influence export performance and Gonca telli and Eser Eke(2011) mentioned in his study entitled "Marketing activities in the leather industry: Comparative country analysis" that marketing activities in leather industry are significant as the companies in the intercontinental competitive domain. Basis of intercontinental activities, recording the activities of rival countries, embracing models and upgrading marketing activities are utmost important. In his study he highlighted that developed countries gradually deserted the labor intensive leather and raw skin processing shifted towards the underdeveloped countries. With cheap labor and raw materials China leads the leather industry. Countries like Italy, Spain set up their brand images in the world market by emphasizing on their quality. According to an analysis India, China, Brazil has the most employees. Countries like Brazil, Argentina, Italy and Hong Kong endures on footwear. Germany founded an important special market of leather chemicals for herself. Italy, UK, Spain and Turkey give more priority over branding. Leather industry is affected by the changes around them on diplomatic terms. It must cope up with the changes to survive in the competitive environment. In order to improve its current situation, it must upgrade its

export potential and utilize advance technologies like choosing electronic commerce as a significant way.

Research Methodology

Questionnaire was adopted from Cavusgil and Zou (1994) that one was already tested and validated one. From 440 leather firms, 256 usable responses were collected and analyzed for the study. Direct face to face personal interview methods were accustomed in order to measure the scales of the variables. The units were selected for the analyses was the export oriented leather firms who is directly or indirectly incorporate in export of leather products manufactured in Kanpur. Marketing strategy was measured which comprised of 14 marketing strategy questionnaire. The instrument consist of product strategy ($\alpha=.765$), promotion strategy ($\alpha=0.704$), foreign strategy ($\alpha=0.649$), pricing strategy ($\alpha=.877$), and distribution strategy ($\alpha=0.614$). This instrument was measured using Five-point Likert scales ranging from 1 (none) to 5 (substantial).

Data Analysis And Result

The impact of marketing strategy on firm performance was tested by using regression analysis. Descriptive statistics and correlations are shown below in table1. Regression analysis has been used for testing the hypotheses which shown in table2. Multi-collinearity has been tested by Variance Inflation Factor (VIF). VIF scores vary between one.01and 6.06. VIF scores shows less than 10 counsel that lowest multi-collinearity and stability of the parameter estimates (Neter et al., 1985; Dielman, 1991).

Descriptive statics and correlation:

Table1- Pearson correlations between independent variables

Particulars	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
Investment in P&M	1.88	.327	1										
Education Qualification	2.84	.679	.459**	1									
Firm experience	2.05	.730	.534**	.587*	1								
Number of market in which firm operates	1.91	.620	.544**	.300*	.879*	1							
Type of product	1.22	.417	.200**	-.592*	-.035	.082	1						
PRO STRGY	2.72	.512	.767**	-.091*	.140*	.272*	.641**	1					
PROMO STRGY	3.02	.577	.658**	.062	.038	.163*	.265**	.740**	1				
FOREI STRGY	2.48	.525	.257**	.006	-.018	.043	.130*	.267**	.686*	1			
PRICI STRGY	3.62	1.12	-.110	-.049	-.180*	-.247*	.055	-.036	-.086	-.087	1		
DISTRIB STRGY	2.00	.655	.570**	-.079	.118	.291*	.396**	.617**	.447*	.411**	-.003	1	
FIRM PERFO	3.475	1.08	-.047	-.032	-.128	-.180	.079	.003	-.056	-.109	.811**	.019	1

NOTES: *correlation is significant at the 0.05 level (2 tailed), ** Correlation is significant at the 0.01 level (2 tailed)

Above table1 shows the correlation between the dependent of firm performance (FIRM PERFO), independent of product strategy (PRO STRGY), promotion strategy (PROMO STRGY), foreign strategy (FOREI STRGY), and pricing strategy (PRICI STRGY), distribution strategy (DISTR I STRGY).

Table 2: Multiple regression result on relationship between marketing strategy and export performance on leather sector of Kanpur

Variables	Beta coefficient	p-value
Marketing strategies variables:		
Product strategy		
Promotion strategy	-.104	.547
Foreign strategy	.208	.225
Pricing strategy	-.253	.074*
Distribution strategy	.781	.000**
Notes:	.086	.337
F=98.325, R square=.664, adjusted r square=.657,*significant at 0.10, **significant at 0.05		

H1 indicated that there is significant positive impact of product strategy on export performance. H1 was rejected (B=-.104, p=.547). H2 indicated that there is significant positive impact of promotion strategy on export performance.H2 was rejected (B=.208, p=.225). H3suggested that there is significant positive impact of foreign strategy on export performance.H3 was accepted (B=-.253, p=.074). H4 indicated that there is significant positive impact of pricing strategy on export performance. H4 was accepted (B=.781, p=.000). H5 suggested that there is significant positive impact of distribution strategy on export performance. H5 was rejected (B=.086, p=.337). Overall the models predictive power is significant, with an r- square value of .664 (F value=98.325).

Discussion And Implications

The main objective of this study was to examine the relationship of marketing strategies to export performance in the leather sector of Kanpur. The findings suggest that the marketing strategies have a positive impact on leather sector export performance, though in this study only pricing strategy and foreign strategy shows positive impact of export performance. Specifically, the result indicate that exporters who employing adaptive marketing strategies(as demonstrated by product strategy, pricing strategy, foreign strategy, promotion strategy, distribution strategy) achieved better export performance, this suggest that exporters who adjust themselves according to the foreign customer needs in the competitive environment achieved better export performance than exporter who employ standardized marketing strategies(characteristic of the low cost supplier role).

However importantly, the relative influence of each of the marketing strategies variables taken in this study is evident. The regression results indicate that Kanpur leather sector export performance was mostly influenced by pricing strategy followed by foreign strategy, though the findings shows that product strategy, promotion strategy and distribution strategy do not have a significant impact on export performance of leather sector of Kanpur.

Managerial Implications

For practical point of view, this study implies that export marketing strategies play an important role in performance of Kanpur leather exports. This study indicates that to improve the export performance of leather products can be achieved through the deliberate

implementation of adaptive export marketing strategies. The adaptation of export marketing strategies such as adaptation of products to foreign customers taste and preferences, allows exporter not only to meet the foreign customer needs but also helps the exporter to establish a competitive advantage and goodwill in the marketplace. A high degree of product adaptation can be sought when an exporter has high degree of international competition, the product is unique and luxury item and cultural specific. However product adaptation should be made jointly with an own brand strategy as well as adaptive pricing and distribution strategies.

In a developing economy like Republic of India the question of whether or not associate degree property ought to become an occasional value provider or a world level exporter, at a firm level management should choose its short term and long run ways with reference to marketing of their product in order to achieve the predetermine goals of the firm..

Limitation And Conclusions

This study provides new insights into the prevailing literature, like previous studies this study additionally has its limitations. Firstly, definitive conclusions on the connection between marketing ways and export performance in developing economies in Asian nation aren't guaranteed, as a result of this study deals with only a particular place in a particular state in Kanpur has been included, for more definitive conclusion to be reached, a much broader study including other important place of leather industries such as Kolkata and Chennai would need to be conducted for arriving more generalize results. Secondly, the sample used doesn't represent a random sample as a result of solely those managers and homeowners of leather exporters agency were qualified for and willing to participate within the study were interviewed. Thirdly, in this study researcher measured whether the firm performance in leather sector is profitable or not, but not the amount of profit as a result of responding managers were reluctant to reveal the relevant data. Fourthly, despite the massive range of variables enclosed within the study, not all the relevant variables are explored the relevant information. The researcher investigated only marketing mix instrument for performance measurement other model of marketing strategies has not been explored in this study. Other industry structure such as government intervention, impact of beef banned, closure of Kanpur leather industries on occasions of Kumbh Mela and other pollution related problem in Kanpur industries should be studies to measure the export performance.

Directions For Future Research

It is hoped that for future work may be undertaken by considering other necessary industries where cross sectional industries gives better insights into leather sector i.e. Kolkata and Chennai and a comparative study across industries can also be attempted. Further studies can be undertaken using other marketing strategies models like ANSOFF model, AIDA model, Boston growth matrix etc. Future research may also be undertaken on other aspect of leather sector such as HRM, working capital management and technology aspect by using more standardized scales for measurement of export performance in order to maximize the quality of data and arrive at more generalized results.

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Perception And Job Satisfaction In Teaching Faculty In Self Financing Arts And Sciences Colleges: A Study With Special Reference To Ernakulam City

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Abstract

Teaching is considered as the noble profession irrespective of the position, branch of study and the institution where they work. The teachers who are working in Government educational institution and government aided institutions lead their life peacefully and make development to them and their family members in a planned way because they get all the benefits of the government as their salary is fixed by the government. Further they have unions which always work for the welfare of the members (teaching faculties). Now-a-days in teaching line the government offers high package to even the primary school teachers. If we consider the salary of government college and government aided college, it is too high because in no their government sector this much salary is not provided. Hence with the high salary scale fixed by the government they enjoy their life peacefully with high prosperity. Further their work load is very normal. They do not have job security and also the lecturer who are working in self financing colleges face number of problems in their work place. They are given consolidate pay per month without any norms for calculating their basic pay their scale is fixed by the management. Further they are forced to do the clerical work when they are preparing for the class. They do not have job security. Due to the privatization policy many private institution have been given permission to start self financing colleges both arts and science and also the engineering colleges. As Coimbatore is familiar for its development both in industries and also in education in this districts nearly 200 self financing institutions functioning well.

Introduction

The Indian education system has undergone many changes during the past few decades and is gearing towards more growth and development .with the inclusion of many private institutions and universities, there has been a steep increase in the pace of growth complimented by the measures taken by the government so as to improve the quality of this sector.

India has a huge population which boasts 50% of it being the youth, who are now more interested in pursuing higher education as the financial capacity of providing education of an average Indian household has seen an increase, this further calls for more educational institutes to accommodate this rise, hence the education sector is growing day by day.

Today, the parents seek out the best education available for their children beginning from their primary education. This has led to the establishment of many foreign schools who promise international standards and better education.

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The digital age has induced a large demand of technology oriented courses to keep up with the new needs and demands of this age. And the much sought out fields such as engineering and medical colleges are seeing a rampant surge in demand. Also now universities have tied up with foreign institutes to provide better exposure to the global standards. India is a potential hotspot for many specialized courses and research as the jobs now calls for more expertise and quality professionals to meet their requirements

The foreign universities are gaining more popularity, following which a twinning system has been adapted wherein the collaborating institute offers curriculum of the other university in the first few semesters so as to let students gain credits which can be used to transfer to the foreign university. These programmes have been met with success and thus proving itself as a good investment.

Today many students are opting for e learning and distance learning programmes for the convenience and adaptability it provides, it has become easier to pursue quality education as it entails world class curriculum, comfort and low costs

The importance of education can be realized while practicing a profession .education provides us with the necessary knowledge and helps to lay foundation of the skills that the job requires

It enables us to think about the different perspectives and perceptions related to it, it makes humans empowered , it helps to build confidence, practicality, fuels the creative sides as well as helps to channelize our knowledge into applications .with the times changing, the education provided keeps changing to be up to date with the world. It has constantly undergone improvisations, innovations and recreations to meet the current demands. There was a time when only the privileged and rich people were granted education, however today the right to education is a one of the fundamental human rights.

Need And Importance Of The Study

Job satisfaction is of pivotal importance and it often drives employees towards commitment. High job satisfaction prompts better attendance, less job stress, and lower federation. Occupational stress stems from misaligned duties or overburdening responsibilities that does not confers with the person's capability. It is observed that job dissatisfaction is a significant factor of unionization.

A country's progress and development is dependent on its educational institutes where in the teachers are considered the pillars of the education, hence they should be having absence of job satisfaction to make things run smoothly.

Job satisfaction warrants commitment and devotion towards their duties. But often it's obstacle by some organizational as well as cultural phenomena.

Locke (1976) defined job satisfaction as a pleasurable or positive emotional state resulting from one's appraisal job or job experiences.

The pay, the financial benefits, the perquisites or punishment system, inter colleague relationship, senior and subordinate relationships, the institutional culture and society etc. contribute to affecting their satisfaction.

A teacher who is satisfied with his/her job develops a positive attitude. Mental health has often been linked to the job satisfaction. Job satisfaction provides improved efficiency and motivations towards the goals of the jobs. Several studies have indicated that job satisfaction of teachers is positively co related with their efficiency.

Objectives Of The Study

- To understand the education system in India

- To know the various theories of Job Satisfaction.
- To study the level of satisfaction of self-financing college teachers.
- To suggest the measures to overcome the problem faced by self-financing college teachers.

Research Methodology

Research Design: A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to research purpose with economy in procedure.

Sampling Design: Sampling Design refers to the technique or procedure that researcher would adopt in selecting items from the sample.

Sampling Size: 100 respondents are selected from within the Ernakulum district after considering time and cost. 100 of them are teaching faculties in self-financing arts and sciences colleges.

Sampling method: Simple Random Sampling method is used to collect the data from the respondents.

Data Collection: Data collected includes both Primary data and Secondary data. Primary data is the data collected for the first time by way of questionnaire. Secondary data is the data collected from published sources like previous reports of the company, articles and websites. And these sources act as means of reliable secondary data effective for analysis.

Literature Review

- Dave Nirav conducted a study on the topic - "A Comparative Study of Job Satisfaction of Management Teachers of Private Universities and Affiliated Colleges of a State University in Gujarat" (2017). The study showed that male management teachers are more satisfied with the constructs classroom teaching, student quality and institutional support. Female management teachers have a similar level of satisfaction. Higher education does not matter for the job satisfaction of management teachers. It also showed that satisfaction level of the management teachers of different age group is same for all the constructs, which indicate that age group does not matter for the job satisfaction of the management teachers. Higher level of teaching experience is directly proportional to high level of satisfaction from the construct salary.
- Menon and MP Bindu conducted research on the topic – "A study on job satisfaction and institutional commitment among school teachers in Kerala" (2014). Institutional Commitment and Job Satisfaction have been regarded as important constructs in organizational research for many years. This study was based on sample of 650 teachers by applying random sampling technique. The instruments used in this study are the Job Satisfaction Survey (JSS), the Organizational Climate Index (OCI), and the Organizational Commitment Questionnaire (OCQ). Tools used for the analysis of data consist of cross tabulation, descriptive statistics such as percentage, arithmetic mean etc. The statistical methods used for hypotheses testing include chi-square testing, three-way ANOVA, Factor Analysis, MANOVA and the Multiple Linear Regression Model. The study revealed that job satisfaction and commitment of teachers is influenced by three factors such as Collegial Leadership, Professional Teacher Behavior, and Institutional Vulnerability. Further the Overall Job Satisfaction influences teachers' Commitment towards Work Assignment, Commitment towards Image Building Activities and Commitment towards Institution.

- Kumari C conducted study on the topic – “Job satisfaction of teachers in the self-financed arts and science colleges of the Kanyakumari district” (2016). The study showed the areas where teachers are satisfied and not satisfied and ways to minimize their problems. It is observed that when the expectations from management, student, and colleagues are met it increases job satisfaction and reduces stress. The management can take suggestions from teachers to improve job satisfaction.
- B Lokeshnath conducted a study on – “Job satisfaction among teachers a study on pre-university college teachers in Dakshina Kannada district of Karnataka state” (2013). Moderate level of job satisfaction results in moderate morale and performance according to age wise analysis of job satisfaction, as the age progresses the job satisfaction also decreases. From the analysis of results it was evident that both male and female teachers experience more or less same level of job satisfaction. It was found that marital status has no effect on job satisfaction. It is suggested that the government should make all possible efforts to satisfy teachers. If the element of dissatisfaction is mitigated, then the talented people can be attracted by this profession in comparatively large numbers.
- Gurinder Kaur conducted a study on – “Job satisfaction of college teachers of Punjab with respect to their personal, professional and organizational characteristics” (2014). There was significant difference in the level of job satisfaction between teachers teaching in rural and urban areas. There was significant difference in the level of job satisfaction among Government Owned, Government Aided and Self-Financed college teachers. Government Owned college teachers were more satisfied followed by Self-Financed and Government Aided college teachers. There was positive relationship between the level of job satisfaction and age of college teachers. But when the same data was analyzed according to location of colleges, gender and type of management, following results were obtained: There was positive and significant relationship found between the level of job satisfaction and age of rural college teachers, urban college teachers and male college teachers. There was no significant relationship found between the level of job satisfaction and age of female college teachers, Government Aided and Self-Financed college teachers. There was significant correlation between the level of job satisfaction and professional characteristics of college teachers.
- Bhyun and Bobby conducted a study on – “A study of job satisfaction among teachers working in engineering colleges of Assam” (2011). Different levels of job satisfaction are found among the sample teachers of these educational institutions. Through the study it is established that the level of job satisfaction is inversely proportional to the age group of teachers. In the study female teachers were found to differ significantly from male teachers on their job satisfaction. Male teachers relatively are more ambitious than female teachers. Female teachers prefer teaching job on various grounds and remain satisfied with their job. Necessary efforts from concerned management committees are required to introduce new schemes and modification of the existing policy insecurity of job, service rule, regular salary and retirement benefit of Engineering College teachers.
- Cherabin Moslem conducted a study on – “Job satisfaction self-esteem and organizational commitment among faculty members of secondary level teacher training programme in India Mysore and Iran Tehran” (2018). The present investigation was a descriptive-cum-comparative study of Job Satisfaction, Self Esteem and Organizational Commitment among faculty members of secondary level teacher training programme in India (Mysore) and Iran (Tehran). The purpose of this investigation was to examine how certain demographic

variables) affect Job Satisfaction, Self Esteem and Organizational Commitment of faculty members of secondary level teacher training colleges in India (Mysore) and Iran (Tehran). In addition, the study aimed to find out the relationship between Job Satisfaction, Self Esteem and Organizational Commitment of faculty members in both countries (India and Iran). The study was carried on faculty members who were working in teacher training colleges in both countries; India (Mysore) and Iran (Tehran). The sample for the present study was drawn using simple random sampling technique and considered of 186 participants from Mysore sample and 254 participants from Tehran sample.

- Bazmi Farah Deeba conducted a study on -“A study of job satisfaction in relation to teaching aptitude and personal values of teachers in the schools for the visually disabled” (2012). The study found that there is a positive correlation between job satisfaction and teaching aptitude of teachers. It is also concluded that the teachers who possess higher religious value are also high on job satisfaction. The results show a negative relationship between job satisfaction and democratic values of special teachers. In the results job-satisfaction is found to be highly and positively correlated with the knowledge values of the teachers under study.
- Nazneen Afroze conducted a study on “Organizational role stress organizational commitment and job satisfaction among faculty of higher technical educational institutions a comparative study of Punjab and UP” (2015). The faculty members of Punjab Technical University affiliated institutions were shown moderate level of organizational commitment and dominant type was continuance commitment. The job satisfaction levels among the faculty members of Punjab affiliated institutions were found to be moderately high. Organizational commitment and job satisfaction were found negatively correlated with organizational role stress, as job satisfaction was shown a positive correlation with continuance commitment. The job satisfaction levels among the faculty members of Punjab affiliated institutions were found to be moderately high. Organizational commitment and job satisfaction were found negatively correlated with organizational role stress, as job satisfaction was shown a positive correlation with continuance commitment.
- Balamurugan G conducted a study on “A study of the influence of organizational climate and personality characteristics on the job satisfaction of college teachers: with special reference to Thanjavur District, Tamil Nadu State” (2017). The investigation showed job satisfaction of the sample of teachers was significantly above the neutral point. Therefore, the hypothesis, In general college teachers are satisfied with their job was accepted. The environment in terms of the management in which the teachers work, had no significant influence on their attitude towards teaching.
- Jivrakh bharat Vishwanathrao conducted a study on “A study of job satisfaction and occupational stress among primary and secondary teachers of granted and non-granted private schools Aurangabad district” (2015). It was concluded that granted school teachers had significantly high job satisfaction than non-granted teachers. Primary school teachers had significantly less job satisfaction than secondary school teachers. It also showed that male school teachers had significantly high job satisfaction than female counter parts. Female teachers had high occupational stress and there was no relation between knowledge of teachers and job satisfaction.

Muthu C conducted a study on “Professional development of teachers at Higher Secondary Schools” (2018). The professional development of teachers is the core of professionalization and forms the base for professional efficacy with job satisfaction. A teacher requires continuous personal and professional renewal in conceptual skills and redirection of professional activities

and expertise as the changing society necessitates. Hence every teachers needs to pursue training beyond his initial certification. Efficacy of teachers decides teachers' behavior and leader characteristics. It is considered that the teachers working at various climates namely open climate, autonomous climate, controlled climate, familiar climate and closed climate. The above said climate is marked by emphasis on achievement at the expense of satisfaction of one's job. Self efficacy of teachers is increasing the teaching capacity at maximum level. The present study gives suitable recommendations for educational implementations. This investigation serves as guidelines for further research work.

Vijay Vishnu Kumar conducted a study on "A study on the perception and job satisfaction among the teaching faculty of self financing arts and science colleges with special reference to Chennai city" (2016).The study has tried to discover the level of job satisfaction among the teaching faculty of self – financing Arts and Science colleges affiliated to University of Madras, Chennai considering the four dimensions namely Work place conditions, compensation , infrastructure and professional development. The study shows that Work place conditions, professional development and infrastructure significantly create overall job satisfaction of the teaching faculty, strategic attention need to be given specifically for the compensation dimension which is closely associated with overall job satisfaction. Formation of consortium at the state level would be the best choice to exercise compensation dimension with reasoning.

Afshan Anees conducted a study on "A comparative study of job satisfaction of teacher educators working in private and public funded institutions in relation to their work motivation and occupational aspirations" (2013).It was concluded that proper status of teacher educator and due public regard for the profession of teaching are of major importance for job satisfaction of teacher educator. The job satisfaction largely depends on financial means thus teachers working in public funded institutions have high satisfaction and work motivation. Job satisfaction and work motivation was positively correlated. As the work group relation and job situation increases classroom behaviour and social behaviour increases respectively among teacher educators working in private institutions.

Sehgal Honey conducted a study on "Role of career stages self-efficacy and school environment on job satisfaction of school teachers" (2016). School environment is an important factor required for building a higher level of job satisfaction in school teachers. It was conclude that self-efficacy has strong positive relation between job satisfactions indicating that higher perception of efficacy belief of school teachers better will be the job satisfaction. Teachers, who are permanent, teach in Urdu medium schools and girls' schools, teach both secondary and higher secondary classes, and get high salary are tend to be more satisfied with their jobs. Job satisfaction is relatively higher among the female teachers than the male teachers and among teacher of south zone than teachers from other zones.

Analysis And Interpretation

Table 1 – Designation of the respondents

Sl. No.	Designations	Frequency	Percentage
1	Faculty Associate	12	12
2	Lecturer	30	3
3	Assistant Professor	55	55
4	Professor	3	30
	Total	100	100

Source: Primary data

Interpretation

From the above table it can be observed that 12% of faculty in college is a faculty associate, 30% are lecturers, 55% of faculties are assistant professors and 3% of teachers are professors in various self financing arts and sciences colleges in Ernakulam district.

Table 2 - Analysis of personal satisfaction and contentment from classroom interactions

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	17	17
2	Satisfied	23	23
3	Neutral	20	20
4	Dissatisfied	15	15
5	Highly dissatisfied	25	25
	Total	100	100

Source: Primary data

Interpretation

From the above table it can be understood that 17% of the teachers are highly satisfied in getting personal satisfaction from classroom interaction, rest 23% are satisfied, 20% neutral, 15% dissatisfied and 25% highly dissatisfied.

Table 3 - Analysis of training and faculty development initiatives by respective colleges.

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	15	15
2	Satisfied	20	20
3	Neutral	15	15
4	Dissatisfied	27	27
5	Highly dissatisfied	23	23
	Total	100	100

Source: Primary data

Interpretation

From the respondents it can be interpreted that 15% of the faculty are highly satisfied, 20% are satisfied i.e. majority are satisfied with the training programs provided but rest 15% are neutral, 27% dissatisfied, 23% highly dissatisfied.

Table 4 - Analysis showing satisfactions with performance appraisal and performance feedback system from the college.

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	3	3
2	Satisfied	42	42
3	Neutral	15	15
4	Dissatisfied	11	11
5	Highly dissatisfied	29	29
	Total	100	100

Source: Primary data

Interpretation

From the above table it can be concluded that 3% of the faculty are highly satisfied with performance appraisal and performance feedback system from the college, 42% are just satisfied, 15% are neutral, 11% are dissatisfied and 29% are highly dissatisfied from the same.

Table 5 - Analysis of satisfaction with team spirit of faculty members at your college

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	21	21
2	Satisfied	21	21
3	Neutral	10	10
4	Dissatisfied	25	25
5	Highly dissatisfied	23	23
	Total	100	100

Source: Primary data

Interpretation

It is analyzed that the respondents find satisfaction with team spirit of faculty members at their college is highly satisfactory up to 21%, satisfactory up to 21%, 10% of the faculty feels neutral about the same. And 25% of faculties are dissatisfied and 23% are highly dissatisfied.

Table 6 - Analysis of satisfaction with infrastructure and technological facilities

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	16	16
2	Satisfied	49	49
3	Neutral	21	21
4	Dissatisfied	11	11
5	Highly dissatisfied	4	4
	Total	100	100

Source: Primary data

Interpretation

It can be interpreted that the infrastructure and technological advances provide high satisfaction to 16% of the faculties, 49% satisfied with it. 21% of the faculty feels neutral about the facilities, 11% are dissatisfied and 4% highly dissatisfied.

Table 7 - Analysis of satisfaction from student interaction, student IQ, and student curiosity and student eagerness to learn

Sl. no.	Category	Frequency	Percentage
1	Highly satisfied	33	33
2	Satisfied	48	48
3	Neutral	15	15
4	Dissatisfied	2	2
5	Highly dissatisfied	2	2
	Total	100	100

Source: Primary data

Interpretation

From the table 33% of faculty members are highly satisfied, 48% of the faculty is satisfied, 15% neutral, 2% dissatisfied and again 2% highly dissatisfied. It can be interpreted that more than 50% of the faculty are satisfied and less than 5% of the faculty are dissatisfied.

Table 8 – Recognition for extra work

Sl. No.	Category	Frequency	Percentage
1	Strongly agree	13	13
2	Agree	30	30
3	Neutral	7	7

4	Disagree	20	20
5	Strongly Disagree	30	30
	Total	100	100

Source: Primary Data**Interpretation**

From the above table, it can be seen that 13% of the respondents belonged to the category of Strongly agree, 30% belonged to the category of Agree, 7% belonged to the category of Neutral, 20% belonged to the category of Disagree and the remaining 30% belonged to the category of Strongly Disagree.

Table 9 – Satisfaction with the salary with reference to knowledge, skill, experience and other benefits provided

Sl. No.	Category	Frequency	Percentage
1	Highly Satisfied	22	22
2	Satisfied	21	21
3	Neutral	7	7
4	Dissatisfied	21	21
5	Highly Dissatisfied	29	29
	Total	100	100

Source: Primary Data**Interpretation**

From the above table, it can be seen that 30% of the respondents belonged to the category of Strongly agree, 21% belonged to the category of Agree, 7% belonged to the category of Neutral, 13% belonged to the category of Disagree and the remaining 29% belonged to the category of Strongly Disagree.

Table 10 – Satisfaction with the management style/management/philosophy/vision/mission/strategy at top management

Sl. No.	Category	Frequency	Percentage
1	Highly Satisfied	8	8
2	Satisfied	17	17
3	Neutral	13	13
4	Dissatisfied	39	39
5	Highly Dissatisfied	23	23
	Total	100	100

Source: Primary Data**Interpretation**

From the above table, it can be seen that 8% of the respondents belonged to the category of Strongly agree, 17% belonged to the category of Agree, 13% belonged to the category of Neutral, 39% belonged to the category of Disagree and the remaining 23% belonged to the category of Strongly Disagree.

Findings And Suggestions**Findings**

More than 50% of faculty respondents have assistant professor as their designation.

The personal satisfaction to dissatisfaction which teachers get from classroom interactions is 1:1. Training and faculty development programs and initiatives taken by individual colleges give satisfaction to 35% of the faculty.

Response from performance appraisal and performance feedback system is not up to satisfactory level since only 25% are satisfied.

32% of the respondents are satisfied with the team spirit of faculty members.

Colleges in the city provide highly good infrastructural and technological support. 68% of teachers are satisfied with it.

Student interaction, student's IQ level, student's curiosity and student's eagerness to learn gives encouragement to majority respondent teachers.

38% of teachers agree that they get recognition for their extra work.

33% of the faculty members are highly satisfied with their salary with reference to knowledge, skill.

With the management style/philosophy/vision/ mission, strategy at top management gives 25% of satisfaction to faculties.

Suggestions

It can be seen that out of 100 respondents, 25% of respondents are highly dissatisfied by personal satisfaction and contentment from classroom interactions. To improve those conditions one can establish better communication between themselves and their students also many interactive sessions can be arranged so that there shall be better contentment for the teachers.

When analyzed about the training and faculty development initiatives by the respective colleges, it was found out that 27% of respondents are dissatisfied by it. These needs can be improved by the college by giving them motivation and more development in the training programmes.

Analysis showing satisfactions with performance appraisal and performance feedback system from the college is very much poor as it has been observed that the respondents are highly dissatisfied by the feedback system and appraisal systems of the college. It is shown that 39% of the faculty members from several colleges have opted the option highly dissatisfied. It can be improved by giving them more incentives and bonuses, also by asking the students of the respective colleges to give the feedback of every faculty members in the college.

When the analysis of satisfaction with team spirit of faculty members from respective colleges, it was seen that 30% of respondents (faculty members) have chosen the option dissatisfied. To improve this scenario, some meetings or some group oriented competitions among the faculty members can be arranged so that the team spirit would improve.

The analysis for recognition for extra work by the faculty members was taken and it could be found out that 35% of respondents have opted strongly disagree option. Recognition for extra work done by the faculty members can be improved if the director or the head of the respective colleges would overlook the performances of the faculties and give them some appreciation in the means of cash or trophies or awards at any college functions.

Conclusion

Due to stumpy salary, delay in promotion, non-availability of accommodation, lack of appropriate facilities in the colleges and work life imbalance almost half of the teaching staff was dissatisfied with their jobs. Improper planning for appointment/posting of teaching staff was also found as a vital issue in the present study. Considering the results of the study, it is proposed that the pay and promotion policy should be reviewed and government accommodation with sufficient facilities should be provided to the teaching staff in-order to motivate them to work with more attention, dedication, hard work and commitment in the best academic interest. The college teaching staff should be provided sufficient trainings to update their knowledge improve their performance and face the challenges and stress during job. The teaching staff should also be provided latest trainings for improvement of their performance and

there should also be a better relationship with administrative authorities; the teaching staff may also be given sufficient freedom for decision making in their teachings for attaining higher satisfaction level. The workshops may also be organized from time to time in-order to update the knowledge of teaching staff, acquire latest teaching techniques and also to make work life balance. Moreover, the higher authorities should also focus to adopt the international standards in appointment/ posting of teaching staff and should also maintain the pupil-teacher ratio so that the workload of teaching staff should be maintained and the quality education should be provided to the students. Based on the findings of the results, it is further recommended that the teaching staff should be appointed on merit basis according to the knowledge /expertise/experience of individuals in the best interest of education. It is further recommended that the students should also be granted admissions only on merit basis, as the talented students always focus on their studies which will reduce the work-load of teachers and the academic activities of the college will be carried out smoothly. It is also suggested that the workshops may be conducted to reduce the stress among teaching staff from time to time. The class size should be reduced and the work load should be equally divided. It is further recommended that weekly meetings of college administration and teaching staff should be convened for discussion of routine problems/issues and their solutions for better performance of the college and staff.

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A Study On College Students' Satisfaction On Delivery Of Brand Promises By Autonomous Arts And Science Colleges In Coimbatore City

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Abstract

Branding is the process of creating a distinctive and appropriate visual representation of an organization and what it stands for and ensuring that it is used consistently across all communication platforms. A College with a bad reputation, along with poor branding initiatives has less chances of existence in the highly competitive Higher Education sector today. The aim of this study is to explore the satisfaction of students on the delivery of Brand promises by Autonomous Arts and Science Colleges in Coimbatore city .

Keywords : , *Brand promises* , *satisfaction*.

Introduction

Higher education institutions have to focus on how they project and communicate their educational services, distinguish themselves from other institutions, and how these factors influence the outward reputation and perception of their institution. In an increasingly competitive market for higher education, Colleges and Universities have turned their attention evaluating their reputation and brand perception among prospective students and employers.

Brand Promise

Consumer expectations about what the brand will deliver is brand promise .The experience — good or bad — one can expect from a brand. When an organization defines its brand promise, it should be differentiated, relevant, credible and irreproducible.Branding in Higher education is closely linked to the idea of “brand promise.” Brand promise is the actualization of the brand message communicated to stakeholders of an institution, including students, employees, alumni, and funding agencies. It is the “expression” of what stakeholders can expect from their interactions with the institution over time. Delivering the promise of the brand is the single most important aspect of branding a Higher education institution.”

For developing a brand that can positively impact an institution’s reputation over time is assessment of “constituents,” or university stakeholders, such as prospective students. Next, an institution should identify what target populations it would like to attract, and how its strengths align with motivators to attend for the selected population. Once the institution has identified its strengths, it can consider its brand positioning and how to communicate these attributes in a way that will differentiate it from competitor institutions. It is important to consider what communication channels will be most effective for the target population, and what resources are needed to implement brand promotion. Moreover, there

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is a need for ongoing brand monitoring and a system for evaluating the effectiveness of the brand message and promotional tactics over time.

Steps for delivering the brand promise

1. Seek to understand constituent needs : Surveys, focus groups, observations, a review of historical data, and the like are used to collect information for pattern matching of constituent behaviors and understandings that reflect their needs of the institution.

2. Identify market segments that are highly valued by the institution: Define the characteristics of each segment, including motivators and barriers to supporting the institution's objectives.

3. Determine which brand attributes will remove or lessen identified barriers and exploit motivators : Potential barriers for out-of-state prospective students may be distance from home or the perception that the school is a "suitcase campus." Motivators might include the reputation of a high profile academic program, tuition reciprocity, or the desire to experience new places.

4. Use relevant brand attributes to effectively position the institution against would-be competitors : What are your institutional strengths and competitor weaknesses associated with the needs of a particular market segment? How can you capture this niche and defend it against all who seek to encroach upon your market space?

5. Differentiate the institution from competitors through relevant communications: While remaining true to the brand statement, develop a value proposition that differentiates your institution from competitors and is relevant to the targeted segment. Describe how their unique needs will be met by your institution. Convey to them how your value proposition is different from direct competitors. So institutions should set realistic goals that can be maintained over the long term to positively impact reputation.

The brand promise should also be relevant to both internal and external stakeholders. Internal support of the university brand is vital, as employees are the "institutional trust agents" that deliver on the brand promise through their consistent daily interactions with students and other stakeholders. An internal and external campaign for the brand promise will communicate the institution's values and goals and build loyalty among stakeholders. It is important that the faculty and staff at the institution understand the reasoning behind the branding initiative

1. Define the brand promise. The definition must be based on the institution's personality, presentation, and institutional behavior. The brand promise must be relevant both to internal and external constituents, and should be defined collectively by the College community.

2. Live the brand promise. Consider the role of all faculty, staff, and administrators as "institutional trust agents." Whether the encounter occurs in the classroom, in an administrative office, through a campus event, online, in person, or on the phone, each experience either fosters or erodes institutional trust.

3. Operationalize the brand promise. The promise must be personified through institution services, business transactions, human interactions, information delivery, and learning experiences. It requires an unfaltering focus on identifying and eradicating promise gaps using some combination of people, processes, pedagogy, and technology.

4. Deliver the brand promise consistently. This starts with defining the desired constituent experience and ensuring employee experience is aligned with that experience. The campus environment must be one that values the contributions of individuals and proactively enhances human capacity.

5. Convey the brand promise. Effectively conveying the promise requires an ongoing internal and external campaign. It requires careful management of constituent expectations, the promotion of promise delivery successes, as well as intentional efforts to build the institution.

Significance of the Study

The most significant benefit of branding in Higher education is the focus it brings to an institution. For example, a student-centered college or University will respond to changing student needs and expectations. The brand is defined by where the institution's values and the constituents' expectations intersect. In this paradigm, the brand becomes the filter through which everything is vetted (e.g., strategic directions, resource allocations, hiring decisions, and curriculum development). It serves as a lens to strategically focus the institution in the midst of fluid internal and external pressures as well as opportunities.

Statement of the Problem

There must be congruence between what an institution claims to be and what its constituents actually experience when they interact with any individual or unit affiliated with the campus. At colleges and Universities where positive constituent experiences occur by chance or randomly rather than through a tightly integrated, promise-driven, and planned approach, a brand exists, but it suffers from benign neglect. To effectively shape how the constituents view an institution, you must begin first by understanding the promise inherent in the existing brand or the brand the institution aspires to have. Keeping this in mind an attempt has been made to study the satisfaction of College students on delivery of brand promises by Autonomous Arts and Science Colleges in Coimbatore city.

Objectives of the study

1. To study College students' satisfaction on delivery of Brand Promises by Autonomous Arts and Science Colleges in Coimbatore city.
2. To examine how strongly the students feel about their College's brand promises and whether the branding message has reached the students .

Research Methodology

The present study is empirical based on survey method.

Sources of Data

Both Primary and Secondary data have been used in the present research work.

Primary Data : Primary data was collected with the help of structured Questionnaires.

Secondary data : Secondary data was collected from online sources, journals ,magazines and newspapers.

Sampling Design

Sampling method

For the present study the Universe comprises of the 18 Autonomous Arts and Science Colleges in Coimbatore city Municipal Corporation limit. In order to get the total sampling unit of 750 students from the Colleges Proportionate Random sampling method was adopted and in each College the required sample of students were selected at convenience.

Sample size

The questionnaires were distributed to 750 respondents from 18 Autonomous Arts and Science Colleges in Coimbatore city.

Statistical Tools

Percentage Analysis and Weighted ANOVA

Area of Study

Coimbatore city has been taken as the area of study.

Period of Study

The period of study is **6 months** .

Limitations of the Study

- 1.The study is restricted to Autonomous Arts and Science Colleges in Coimbatore city only.
- 2..There is no comparative study.

Review of literature

1.Samsinar et al (2003) concluded that a student faces the hard choice of which particular discipline of study and institution of higher learning to enroll after completing secondary education.It is therefore critical for private institutions for higher education to influence the student decision making process by service offerings that are highly valued by the students.

2.Waeraas and Solbakk (2009) explained that “in order to achieve a uniform expression of the organization’s identity, the organization must not only strive for a consistent definition of its identity, it should also have a consistent, single identity”

3. Mubaira and Fatoki (2012) opined that students’ choice of universities is influenced by university attributes such as lecturer’s quality, availability of desired programs, international recognition, and quality of college facilities. Where all these are in place, it is suggested here that they should be visible in the university corporate brand.

Analysis and Interpretation

Table 1: Demographic, Socio-economic profile of the Respondents

S.NO	PROFILE	Details	RESPONDENTS	
			NO	%
1	Gender	Male	327	43.6
		Female	423	56.4
2	Age	17-19 yrs	422	56.3
		20-22 yrs	305	40.7
		23 yrs and above	23	3.1
3	Type of family	Nuclear	430	57.3
		Joint	320	42.7
4	Family size	Upto 3	204	27.2
		4-6	460	61.3
		7-9	60	8.0
		10 and above	26	3.5
5	Family income per annum	Upto Rs.2,00,000	368	49.1
		Rs.2,00,000-5,00,000	312	41.6
		Rs.5,00,000 and above	70	9.3
6	Parental education	Illiterate	125	16.7
		Matric	142	18.9
		HSC	163	21.7
		Graduation	153	20.4
		Post graduation	167	22.3
7	Parental occupation	Agriculture	129	17.2
		Business	369	49.2
		Profession	73	9.7
		Self-employment	79	10.5
		Govt. Servant	26	3.5
		Private sector employment	74	9.9
8	Place of residence	Rural	125	16.7
		Semi-urban	210	28.0
		Urban	415	55.3
10	Course currently pursuing	UG	413	55.1
		PG	335	44.9

Source : Primary Data

From the above table it can be understood that among the respondents, majority (56.4%) are females , 56.3 % of them belong to 17 -19 years of age group , 57.3 % of the respondents belong to nuclear family, 61.3 % of have a family size of 4-6, 49.1 % of them belong to upto two lakhs annual income group , 22.3 % of the respondents' parents are post graduates, 49.2 % of the respondents 'parents are business men, 55.3 % of them are urban residents, 55.1 % of them are undergraduates.

Table 2: LEVEL OF SATISFACTION ON DELIVERY OF BRAND PROMISES BY THE COLLEGE (PERCENTAGE ANALYSIS)

S.No	Brand Promises	HS	S	N	DS	HDS	TOTAL
1	Recognition of degree	358 (47.8%)	338 (45 %)	35 (4.7%)	19 (2.5%)	-	750
2	New programme offerings	323 (43.1%)	345 (46%)	55 (7.3%)	19 (2.5%)	8 (1.1%)	750
3	Innovative teaching and learning practices	270 (36%)	285 (38%)	127 (16.9%)	37 (4.9%)	31 (4.2%)	750
4	Expert lectures ,seminars, industry exposure	289 (38.5%)	367 (48.9%)	11 (1.5%)	60 (8%)	23 (3.1%)	750
5	Placement training and assistance	400 (53.4%)	163 (21.7%)	124 (16.5%)	40 (5.3%)	23 (3.1%)	750
6	Timely conduct of examinations and result publication	399 (53.2%)	236 (31.5%)	53 (7.1%)	62 (8.3%)	-	750
7	Tutorial and counseling of students	205 (27.3%)	305 (40.7%)	135 (18%)	86 (11.5%)	19 (2.5%)	750
8	Grievance redressal	74 (9.9%)	460 (61.3%)	155 (20.7%)	61 (8.1%)	-	750

From the table it is understood that 47.8% of the respondents are Highly satisfied with the recognition of degree, 46 % satisfied with new programme offerings, 38% satisfied with Innovative teaching and learning practices , 48.9% satisfied with Expert lectures ,seminars, industry exposure ,53.4 % Highly satisfied with Placement training and assistance , 53.2% Highly satisfied with Timely conduct of examinations and result publication , 40.7 % satisfied with Tutorial and counseling of students and ,61.3% satisfied with Grievance redressal promises of their Colleges.It can be concluded that the respondents are satisfied with most of the brand promises of their Colleges.

Level Of Satisfaction On Delivery Of Brand Promises By The College (Weighted Anova)

To estimate and compare the mean satisfaction score on delivery of brand promises by the College , weighted average analysis is performed using five rating score by assigning 5 for Highly satisfied; 4 for Satisfied; 3 for Neutral;2 for Dissatisfied and 1 for Highly Dissatisfied and the results are presented in the following tables.

Ho: There is no significant difference in the mean satisfaction scores on delivery of brand promises by the College among the respondents.

ANOVA TABLE

SOURCE	DF	S S	M S	F
Between groups	7	302.945	33.661	39.29**
Within groups	5992	5132.914	0.857	

** - Significant at 1 % level

Since the F is significant the null hypothesis of no significant difference in the mean satisfaction scores on delivery of brand promises by the College among the students is rejected. There is significant difference in the mean satisfaction scores among the respondents. The mean scores among the students are furnished below:

TABLE 3: LEVEL OF SATISFACTION ON THE DELIVERY OF BRAND PROMISES BY THE COLLEGES

S.No	BRAND PROMISES	Mean score	Rank
1	Recognition of degree	4.38	1
2	New programme offerings	4.27	3
3	Innovative teaching and learning practices	3.97	6
4	Expert lectures ,seminars, industry exposure	4.12	5
5	Placement training and assistance	4.17	4
6	Timely conduct of examinations and result publication	4.30	2
7	Tutorial and counseling of students	3.79	7
8	Grievance redressal	3.73	8

The above table showed that among the 8 brand promises delivered by the College , the mean score ranged from 3.73 to 4.38 . The promise ‘Recognition of degree’ secured highest mean score and stood at top, followed by ‘Timely conduct of examinations and result publication’ at second, ‘New programme offerings’ at third and finally ‘Grievance redressal’ secured least score and stood at last.

Conclusion

Branding serves the following functions: Creating instant recognition of a College’s name within target audiences, differentiating a College from its competitors ,promoting an understanding of what the College does and the value of that work, establishing an emotional connection with current and prospective stakeholders that motivates them to place their trust in the College and support it. Recognition of degree stood first in the eyes of the student customer followed by timely conduct of examinations and result publication. Hence quality education with excellent faculty , timely conduct of examinations and result publication,new programme offerings , infrastructure and ample placement opportunities should be provided to create a strong brand satisfaction in the Higher educational market for a College to survive in today’s competitive world.

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An in-depth study on the relationship between the Big Five personality traits and career expectations of Generation Y with a special reference to Business Management students

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Abstract

Each individual has varied and unique personality characteristics. This paper studies the personality traits as the contributor to the career expectations for employees compared to three generations; Baby Boomers, Gen X and Gen Y in public service setting. A survey of 110 Generation Y MBA students was conducted in Coimbatore. The study revealed that Generation Y is a levelheaded and practical generation, with realistic expectations of their first career job after MBA. Results indicated that students' community had a very realistic expectation of their salary, and that men generally expected a higher salary than the national average. This study is one of the first to compare the correlations between Generation Y's psychological sense of entitlement and their expectations of their first career job. It was found that entitlement did not correlate with any of the variables in this study, except for expectation of vacation time. Thus, proving that Generation Y does not let their sense of entitlement obscure their expectations of their future careers. Overall this article presents the analyses of the relationships between personality traits and career expectations of Generation Y.

Introduction

When a new generation is about to enter the workforce, a lot of debate and discussion is generated among researchers and human resource professionals to understand their work habits, values, characteristics, and behaviors in the workplace. It is critical for organizations to understand the new generation in order to set their goals and practices in a way that enables the organization to reach its strategic goals. Just like Baby Boomers and Generation X, when Generation Y (defined as those born during early 1980s) started to enter the workforce in the early 2000s, the same types of discussions about their characteristics and their impact on organizations began among the researchers around the world. In addition, an ongoing debate was started about whether the generational shift still being seen around the world shares common characteristics. This includes, whether we are heading towards generations that are no longer restricted to the boundaries of each country considering the fast growing changes in information technology and globalized economies, discussed in this article.

Bridging the generational gap at work is quickly becoming an essential part of running an effective business. As Generation Y (also known as "Gen Y" or the "Millennials") workers enter the workforce, changes in their expectations have dramatically revolutionized the way companies must compete to attract and retain these employees.

Members of Gen Y – those born during 1984-2004 – are blessed with entrepreneurial spirits, can rapidly adapt to changing business environments and are great at bringing new ideas and ways of getting things done to the table. But whether one likes their free-thinking ways or

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not, the business isn't going to be able to survive without them – by 2025, Gen Y will comprise roughly 75% of the available workforce.

Yes, these workers think differently, they expect more and they don't adhere to old standards – but don't be afraid. When managed appropriately, Gen Y workers can offer a whole new world of profitability and efficiency to the businesses they join.

What Gen Y Employees Want

Mobile Technology

It's no secret that the world is changing at the speed of technology, but it may surprise you just how much of that technology is mobile. According to a report conducted by Cisco, global mobile traffic was up 70% in 2012. In addition, the company predicts that this traffic volume will increase by 13 times between now and 2017 when – coincidentally – the number of mobile devices on the planet stands to eclipse the world's population!

Interestingly, most of that technology isn't being used for Facebook games or tweeting. It's being used by Gen Y's in the workplace, where mobile tablets gobbled up 1.5 times more traffic than all other devices combined.

The good part about this change is that Gen Y workers have grown up with this technology in their personal lives, so adapting it for use in the business should come as second nature to them. As a result, the Gen Y employees will be better equipped to work from home or other non-office environments – improving productivity and decreasing overhead expenses of the organizations.

Open and Cooperative Workplace

The way Gen Y's learned in school has been much different than older generations. Instead of rote recitation, Gen Y's were taught to actively engage in thought through the implementation of cooperative classrooms. This type of environment invites more give and take between students and teachers than was found in any other generation before. As a result, it's no surprise that Gen Y workers want this trend to continue into the workplace!

Robin Barbacane, President of BlueHawk Associates and SHRM certified executive, says "Gen Y employees are wired to seek and give feedback. They want their opinions to matter and they want to know how what they are doing is affecting the company."

A study by the Developmental Testing Service – called the GenY Project – supports this. Of the top seven attributes Gen Y's associate with good bosses, three are approachability, trustworthiness and respectfulness. Additionally, 50% of those polled said that working at a company that actively built community and encouraged collaboration was "very important" or "essential" to their future career considerations.

Flexible Job Descriptions

Gen Y's are powered by an entrepreneurial spirit – interestingly, "owner" is the 5th most popular job description listed on their Facebook profiles. But that doesn't mean we can't harness that energy to our own ends or that we have to give up control over our workplace. Simple solutions, such as letting Gen Y's work flexible schedules cultivate the feeling of "freedom" that Gen Y's crave. It's a trend the business world is moving towards anyway. The National Small Business Association reports that work from home arrangements jumped by 44% in 2012. Additionally, the Telework Advisory Group shows that the Gen Y workforce accounts for 42% of that telecommuting population.

In order to embrace this modern trend the businesses may have to adjust their management style to focus on goals rather than actions. Also, consider creating collaborative teams –

rather than structuring your workforce in the traditional top-down manner. This allows for inspiration and creativity, while still allowing the company to work towards set end goals. Finally, giving Gen Y's responsibility and allowing them an opportunity to shine could net unprecedented results. The GenY Project mentioned above discovered that 50% of Gen Y respondents listed "risk taking," "novel solutions to old problems" and "giving employees the freedom to do their jobs" as "very important" or "essential" in their career considerations – so don't be afraid to loosen your workplace policies and restrictions in some cases.

Opportunities for Advancement

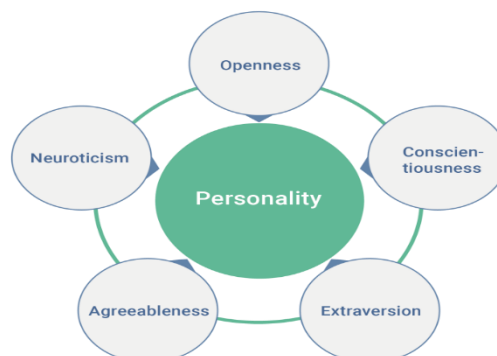
The majority of Gen Y's aren't content to sit around being cubicle monkeys and don't want a career made up of decades slowly climbing the corporate ladder. Unsurprisingly, personal development, professional development and ongoing education opportunities were rated as "very important" by a whopping 75% of Gen Y respondents when asked what they looked for in a good employer.

The bottom line is that Gen Y workers will become an integral part of the business environment – if they haven't already. By adapting to their expectations – rather than fighting to go back to the "old ways" – we can make the most out of their drive, spirit and ingrained skills in order to reap unprecedented rewards for the company¹.

Big Five personality traits

The **Big Five personality traits**, also known as the **five-factor model (FFM)** and the **OCEAN model**, is a taxonomy for personality traits. It is based on common language descriptors. When factor analysis (a statistical technique) is applied to personality survey data, some words used to describe aspects of personality are often applied to the same person. For example, someone described as conscientious is more likely to be described as "always prepared" rather than "messy". This theory is based therefore on the association between words but not on neuropsychological experiments. This theory uses descriptors of common language and therefore suggests five broad dimensions commonly used to describe the human personality and psyche. The five factors have been defined as openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, represented by the acronym **OCEAN** or **CANOE**. Beneath each proposed global factor, there are a number of correlated and more specific primary factors. For example, extraversion is said to include such related qualities as gregariousness, assertiveness, excitement seeking, warmth, activity, and positive emotions.

That these underlying factors can be found is consistent with the lexical hypothesis: personality characteristics that are most important in people's lives will eventually become a part of their language and, secondly, that more important personality characteristics are more likely to be encoded into language as a single word.



The five factors are:

- *Openness to experience (inventive/curious vs. consistent/cautious)*. Appreciation for art, emotion, adventure, unusual ideas, curiosity, and variety of experience. Openness reflects the degree of intellectual curiosity, creativity and a preference for novelty and variety a person has. It is also described as the extent to which a person is imaginative or independent and depicts a personal preference for a variety of activities over a strict routine. High openness can be perceived as unpredictability or lack of focus, and more likely to engage in risky behaviour or drug taking. Also, individuals that have high openness tend to lean, in occupation and hobby, towards the arts, being, typically, creative and appreciative of the significance of intellectual and artistic pursuits. Moreover, individuals with high openness are said to pursue self-actualization specifically by seeking out intense, euphoric experiences. Conversely, those with low openness seek to gain fulfillment through perseverance and are characterized as pragmatic and data-driven—sometimes even perceived to be dogmatic and closed-minded. Some disagreement remains about how to interpret and contextualize the openness factor.
- *Conscientiousness (efficient/organized vs. easy-going/careless)*. Tendency to be organized and dependable, show self-discipline, act dutifully, aim for achievement, and prefer planned rather than spontaneous behavior. High conscientiousness is often perceived as being stubborn and focused. Low conscientiousness is associated with flexibility and spontaneity, but can also appear as sloppiness and lack of reliability.
- *Extraversion (outgoing/energetic vs. solitary/reserved)*. Energetic, surgency, assertiveness, sociability and the tendency to seek stimulation in the company of others, and talkativeness. High extraversion is often perceived as attention-seeking and domineering. Low extraversion causes a reserved, reflective personality, which can be perceived as aloof or self-absorbed.^[7] Extroverted people may appear more dominant in social settings, as opposed to introverted people in this setting.
- *Agreeableness (friendly/compassionate vs. challenging/detached)*. Tendency to be compassionate and cooperative rather than suspicious and antagonistic towards others. It is also a measure of one's trusting and helpful nature, and whether a person is generally well-tempered or not. High agreeableness is often seen as naive or submissive. Low agreeableness personalities are often competitive or challenging people, which can be seen as argumentative or untrustworthy.
- *Neuroticism (sensitive/nervous vs. secure/confident)*. Tendency to be prone to psychological stress.^[6] The tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, and vulnerability. Neuroticism also refers to the degree of emotional stability and impulse control and is sometimes referred to by its low pole, "emotional stability". High stability manifests itself as a stable and calm personality, but can be seen as uninspiring and unconcerned. Low stability manifests as the reactive and excitable personality often found in dynamic individuals, but can be perceived as unstable or insecure. Also, individuals with higher levels of neuroticism tend to have worse psychological well being².

Literature Review

Clarence Anthony Puspanathan, Charles Ramendran SPR, PragashMuthurajan, Ninderpal Singh Balwant Singh (2017), The crucial step for organisations which are recruiting Generation Y into their workforce is to understand their perceptions and

expectations. This would help organisations emerge with the right strategies to attract and retain the Generation Y group. The aim of this paper is to contribute to the body of knowledge base in respect of Generation Y's expectations and perceptions on their career choices and its influence on leadership. However, due to lack of academic research on the career expectations and perceptions of Generation Y that deems to be important, popular literature and researches were included in this research (Vieira, 2010). The target sample and population were focused on Generation Y who is undergraduates within the Selangor area. A qualitative method was used in this study to gather perceptions. Although twenty participants were targeted as the sample, the findings and discussions of this research are based on fifteen responses due to the invalidity of the remaining five. The findings generated from the responses were found in line with the theories adopted and explained. Moreover, recommendations for both organisations in Malaysia and future researches are discussed³.

Z.Dilistan Shipman, BerilDurmuş (2016), The purpose of this study was to investigate the effects of generation X and Y consumers' personal traits on their intention to try new tastes (e.g. local food). In order to ascertain the role of personality traits in consumer's behavioral process of decision towards new tastes, personality traits variables - (Extraversion, Openness, Emotional Stability and Agreeableness) were introduced. Results were compared over two different generations (Generation X and Generation Y) to determine any difference of intention to try new tastes due to same personality traits⁴.

Significance of the study

This article aim to explore the relationship between the Big Five personality traits and career expectations of Generation Y with a special reference to Business Management students. Organizations should have a sound understanding of their expectations as this is a group which occupies a substantial space in their workforce at entry level, most of them which involve direct interaction with customers. Mostly the response time for making decisions is limited and puts in an enormous level of pressure on young managers and leading to emotional as well as intellectual exhaustion of these new recruits. The organization may witness rapid changes in its structure and culture as a consequence of the rapid expansion in its staff strength, putting the subtle relations under stress. The Researcher gets the result about the career expectations of Generation Y in future.

Statement of the problem

This study investigated the relation between the "Big Five" personality traits (Extraversion, Emotional Stability, Agreeableness, Conscientiousness, and Openness to Experience) and career expectations of Generation Y. It's important to preface this article by stating that people are individuals and that while it is sometimes efficient for experts to place people into generational groups for analysis, in the end, even with certain common traits and behaviors, individuals must be judged on their own merits.

To an extent, the individuals in this generation do have a sense of entitlement, but it's not an entirely inherent personality flaw but partly the fault of Baby Boomer parents who coddled their children, constantly telling them how special they were and that anything they sought was possible, and rewarding them for every little thing, providing trophies and prizes simply for participating.

Technology has allowed this generation to multitask and find shortcuts in achieving tasks. Texting, instant messaging, social networking, and Web surfing have all made Generation Y workers more competent, efficient, and productive (if not sometimes overwhelmed).

While this generation may be more anxious than others to rise quickly to the top, it's less about unrealistic expectations than it is about being better prepared for work than previous generations. This generation also has no interest whatsoever in working in a cubicle. In this article the researcher will get the result for the above said issues relating to Generation Y and personality traits.

Research Objectives

- a) To study the concept of big five personality traits.
- b) To study the expectations that Generation Y has towards their career choices.
- c) To analyse the relationship between the Big Five personality traits and career expectations of Generation Y.

Research Methodology

The research sample for this study consisted of 100 participants from Generation Y studying MBA. This sample consisted of 73 females and 27 males. The population of the study consisted of 757 individuals, 110 responses were collected but 10 responses were incomplete or unusable. All participants were recruited using social media networks such as Facebook and Twitter, as well as through direct contact by email. Due to the nature of the recruitment methods we compiled a convenience sample.

The five hypotheses

- H1: Conscientiousness, Extroversion and Openness will positively correlate with their career expectations.
- H2: Neuroticism and Agreeableness will negatively correlate with their career expectations.
- H3: Conscientiousness, Extroversion and Openness will positively correlate with their sense of entitlement.
- H4: Neuroticism and Agreeableness will negatively correlate with their sense of entitlement.
- H5: Sense of entitlement will positively correlate with their career expectations.

Correlation

Table 1: Correlation – Between Big Five personality traits and career expectations of Generation Y

		Conscientiousness	Extroversion	Openness	Agreeableness	Neuroticism	career expectations
Conscientiousness	Pearson Correlation	1					
	P – Value						
	N	100					
Extroversion	Pearson Correlation	.803**	1				
	P – Value	.001					
	N	100	100				
Openness	Pearson Correlation	-.027	.609**	1			
	P – Value	.684	.001				
	N	100	100	100			
Agreeableness	Pearson Correlation	.558**	-.695**	-.054	1		
	P – Value	.001	.001	.517			
	N	100	100	100	100		
Neuroticism	Pearson Correlation	.816**	-.528**	.903*	.716**	1	
	P – Value	.001	.001	.001	.001		
	N	100	100	100	100	100	
career expectations	Pearson Correlation	.954*	.842**	.178	.607**	.254	1
	P – Value	.001	.001	.058	.001	.001	
	N	100	100	100	100	100	100

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The above table shows the correlation between the variables, Conscientiousness (0.954) has positive and significant correlation with career expectations at 5% significant level. Extroversion (.842) and agreeableness (.607) has positive and significant correlation with career expectations at 1% significant level.

Factor Analysis

Factor Analysis To identify and test the underlying structure of the scales, exploratory factor analyses (EFA) were employed to personality and food liking measurements as the initial step.

H1= Generation X personality types has an impact on career expectation

H2= Generation Y personality types has an impact on career expectation

Table 2: Factor Analysis result of Personality Factor

Factor Name	Factor items	Factor loading	Reliability
Extraversion	Sociable	0.809	0.848
	Extraverted	0.799	
	Assertive	0.752	
	Energetic	0.720	
	Self-assured	0.630	
Agreeableness	Adaptable	0.823	0.835
	Sensitive	0.736	
	Acquiescent	0.719	
	Understanding	0.714	
	Respectful	0.627	
Conscientiousness	Self-disciplined	0.809	0.851
	Principled	0.763	
	Responsibility	0.737	
	Hard-working	0.639	
	Controlled	0.649	
Emotional Instability (Neuroticism)	Unworried	0.854	0.838
	Unagitated	0.851	
	Easy	0.842	
	Relaxed	0.636	
	Cool-headed	0.504	
Openness to experience	Progressive	0.772	0.814
	Prefers variety	0.737	
	Analytical	0.701	
	Creative	0.678	
	Open-minded	0.638	

By conducting exploratory factor analysis, it is found that personality is measured on five dimensions; Extraversion, Agreeableness, Conscientiousness, Emotional Instability and Openness to experience

Ranking Analysis

Based on the Big Five model of personality characteristics, 44 personality traits were included in the questionnaire and respondents were asked to rate themselves according to their thinking what they are. The respondents marked appropriate options as per following scale. 1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree, and 5- Strongly agree. The responses of the survey participants were recorded and analyzed through R.I. formula. Below Table demonstrates the ranking results. The highest scores of personality characteristics under Agreeableness and Conscientiousness categories illustrate more job expectation.

Table 3: Ranking analysis of personality traits

Category	Personality Characteristics	R.I.	Rank
Agreeableness	Is generally trusting	38.76	1
Agreeableness	Likes to cooperate with others	38.02	2
Conscientiousness	Is a reliable worker	37.77	3
Agreeableness	Is helpful and unselfish with others	37.19	4
Conscientiousness	Does things efficiently	35.95	5
Conscientiousness	Does a thorough job	35.62	6
Agreeableness	Is considerate and kind to almost everyone	35.20	7
Openness	Has an active imagination	34.55	8
Extraversion	Is outgoing, sociable	34.21	9
Extraversion	Is full of energy	34.21	10
Agreeableness	Has a forgiving nature	33.80	11
Openness	Is original, comes up with new ideas	32.81	12
Extraversion	Is talkative	32.73	13
Openness	Is ingenious, a deep thinker	32.65	14
Openness	Values artistic, aesthetic experiences	32.56	15
Conscientiousness	Perseveres until the task is finished	32.23	16
Extraversion	Has an assertive personality	32.15	17
Extraversion	Generates a lot of enthusiasm	31.98	18
Openness	Is curious about many different things	31.90	19
Openness	Likes to reflect, play with ideas	31.57	20
Openness	Prefers work that is routine	31.24	21
Conscientiousness	Makes plans and follows through with them	30.66	22
Neuroticism	Can be moody	30.58	23
Neuroticism	Remains calm in tense situations	30.33	24
Neuroticism	Is relaxed, handles stress well	29.67	25
Conscientiousness	Tends to be lazy	28.26	26
Openness	Has few artistic interests	28.18	27
Neuroticism	Can be tense	28.10	28
Conscientiousness	Is easily distracted	28.10	29
Openness	Is inventive	27.44	30
Extraversion	Is sometimes shy, inhibited	26.94	31
Openness	Is sophisticated in art, music, or literature	26.86	32
Conscientiousness	Can be somewhat careless	26.28	33
Neuroticism	Worries a lot	26.11	34
Agreeableness	Can be cold and aloof	25.54	35
Neuroticism	Gets nervous easily	25.45	36
Neuroticism	Is emotionally stable, not easily upset	25.04	37
Extraversion	Tends to be quiet	25.04	38
Extraversion	Is reserved	23.97	39
Agreeableness	Tends to find faults with others	23.47	40
Agreeableness	Is sometimes rude to others	22.73	41
Conscientiousness	Tends to be disorganized	21.82	42
Neuroticism	Is depressed, blue	18.43	43
Agreeableness	Starts quarrels with others	18.26	44

The results of ranking of personality traits show that “Agreeableness” and “Conscientiousness” types of personalities are normally more on job expectations. This helps the researcher to resolve the myth that which personality factor of Big Five Factor

model has high job expectation rate. With the best knowledge of the researcher, no study has been conducted in the past that attempt to find such details.

Findings

The perception of flexibility was highly agreed upon by the majority of the participants, when asked about its importance. In reference to the responses on family and friends, participant's desire for flexible working hours as they would like to ensure that there is work-life balance. Participants also mentioned their priority of spending time with their loved ones therefore, supporting the findings of Kranenberg, E (2014) quoting that, "the Generation Y group is said to be more integrated in their personal life compared to their professional life". However, one out of fifteen participants prefers the old fashioned working hours (9 a.m. – 5 p.m.). That particular participant reasoned her answer stating that, the usual 9 a.m. – 5 p.m. working hours would provide her with "something to look forward to, and something to achieve every day."

Lastly, Majority of the participants agreed that a leader is very important in determining the pathway a company will take in ensuring its objectives are achieved. Participants believe that a leader will be able to influence their team to achieve a better result. However, there seems to be a variance in the importance of Emotional Intelligence aspect of a leader. Even though majority of the participants did agree that age and experience is important is for a leader, five participants are of the opinion that personality determines the ability of a leader Emotional Intelligence.

The findings of primary research reveal that extraversion is significantly correlated with job expectation of MBA students and other personality traits apart from Neuroticism. People with agreeableness personality characteristics are even more job expectation. The primary research findings in this study confirm the literature review findings that people with agreeableness traits usually achieve high job expectation compared to other personalities

Suggestions

From the findings of this research, the main concern of the participants besides pay, were career advancements. Therefore, it is recommended that organisations are advised to consider programs that can enhance their work skills, such as "training or professional development programs". The researcher suggested recommendations to "offer competitive salaries, interesting and challenging work, and opportunities for advancement, if they (organisations) are to attract the, be stand brightest of talents".

Moreover, the results from this research study would help improve the recruitment and retention processes of organisations. Though it may be a challenge for some organisations to recruit this generation, once the challenge is overcome, the new and upcoming workforce of Gen Y would be "just the latest challenge and opportunity". Ultimately, the management would be able to capitalise the skills of these potential graduates and generate maximum value for the organisation.

Conclusion

In conclusion, management should understand that Generation Y may be labelled the "Entitled Generation" but Generation Y'ers do not let their psychological entitlement interfere with their future career expectations. This study proved that Generation Yers are a level headed generation that have fair and realistic expectations of the workplace. It is important for employers to note that women tend to be more agreeable, while males tend to be more open, and men tend to have a slightly higher expectation of pay than women. Managers should try and maintain a fair equitable pay structure, to help eliminate this

expectation gap. Managers will be able to use Generation Y's three expectation measures of salary, vacation time, and company loyalty to help secure top talented recent graduates. As observed during the interview process, the participants have mutual agreements and responses on certain questions. This shows that the perspectives of the Generation Y group are to a certain extent, pretty similar. Depending on the findings and discussion of this research, it can be concluded that the Generation Y group, have the expectations and perception of good pay and benefits, meaningful workplace experiences, and flexibility on their career choices. The responses from the participants, illustrated that Gen Y have certain criteria's that would influence their motivation, productivity, commitment and so on. Also, for the purpose of this research, the findings could also generate recommendations for organisations which are or will be recruiting the Generation Y group into their workforce.

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Artificial Intelligence (AI) in Recruiting and the role of E-HRM

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Abstract

This is from an era of human transition wherein, it says that years ago hominids turned people developed the art of fire. Richard Wrangham, an anthropologist from Harvard stated that the hominids have had this so-called master brain and small jaws, and they mastered the fire, which was primarily for cooking and meet the hunger. Later, several archeologist came forward to present his or her own versions of human transition and invention of fire. As the time progressed and the human life continued to exist and developed their existence from a traditional way of doing a work or a business to a much more advance way of performing the work or business. Technology has played a crucial role in revamping the businesses, and from a traditional way of performing a job manually (skilled worker job) to a moderate way of performing the business through analog devices and computers to a very advance way performing job through advance computers and robotics.

Introduction

Artificial Intelligence (AI) is a boom in this digital world. There seem to be a complexity in the society that we live in, which says that all the jobs done by human, will be taken over by the so called Robots in coming years, which in turn is causing an uncertainty in the minds of people. As the job market revolves on the skill sets and technology there seem to be either a scarcity of work force in the areas of business or there is a significant raise in the salaries of people performing the skilled jobs, which is creating a negative impact on the business. Recruiter's job is proving to be highly challenging, as there seem to be a dearth of quality candidates versus the amount of open positions that are available to close. Artificial intelligence in recruiting has the potential to boost the recruiting experience from a recruiter and a candidate point of view. Imagine how Amazon's Alexa uses AI to understand the voice commands to answer the basics of customer queries or an Otto, the self-driving truck that drove miles to deliver beer through Denver.

Methods & Procedure

The growing challenges in recruiting and with the scarcity of getting the right people for the right job there is always an element of whether or not a recruiter is able to give enough time to shortlist and select a right candidate. Here, Artificial Intelligence can come in to the picture by performing few basic checks that often a recruiter misses to validate thoroughly and push the candidates to the next round of interviews. At times, a recruiter cannot even validate certain credentials of the candidates, which is because there is a large pool of candidates attending interviews and affecting his or her workload or simply does not have the right access control to get in depth of a candidate profile and validate. For example: A machine-learning algorithm has the potential to judge the communication of candidates and the job fitment by giving a far better output and in addition to this, the question is how many

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candidates are actually receiving feedback on the interviews that they attended with a company in recent times. The recruiters or the HR literally falls short of the feedback chain mechanism to fulfill and close the loop during a complete hiring cycle.

There seems to be questions on what are all the top recruiting skills that AI is less likely to replace in comparison with a human involvement. Some of them could be candidate relationship, measuring the interpersonal skills of the candidates, negotiate the offers with candidates, and convince them to join the Company, analyzing the candidates potential and know-how beyond credentials, and analyzing the fitment of a candidate from a company's cultural point of view.

The whole process/set-up has to go through a common platform, which will be connected through a HRIS platform or a E-HRM platform where the entire process of opening a job role (open position) to filling the open position will be covered and automated to the maximum possible extent. Here, the E-HRM will have a significant role in terms of setting up the whole recruiting process and connecting the recruiting system of an organization to the AI (Artificial Intelligence) of recruiting process.

Literature review

Competence based model is an HR tool that helps the organization to manage their manpower by effectively recruiting, planning and developing the candidates.(Heene, 1997) G Liddon, (2006)[10], described the competence model as a description of Knowledge, Skills, Capabilities and Behaviors. These traits are required to successfully perform any job or functions. Organizations may use a competence based system as a business strategy to determine how competence model are functionally and multi-dimensionally used for hiring and selection, assessment, performance management, training and development and career development.

From the various reviews from literature and in reference to the study of the Artificial Intelligence in area of hiring, the primary parameters of the study would be in the lines of how AI can create that impact on selecting the right people for the right job, what are all the key challenges that can come into existence while using the AI for recruiting.

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Conclusion

With the introduction and implementation of Artificial Intelligence in recruiting, it is certain that the role and responsibilities of a recruiter is going to change from typical profile/bio-data pushers to a much more responsible role as Talent Advisors or Talent Consultants. Artificial Intelligence will come into existence as a medium to interact and help the recruiters to their job better. It can take up certain challenges to improve on the overall experience of a recruitment in terms of sourcing, screening applications etc. and recruiters can take up more challenges in terms of building relationships, talent mapping and act more like a strategic partner in the overall hiring process in an organization.

Feature Collection in the multiple task using correlations

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Miss Kavyashree H N

Abstract

In this paper, we have considered the multiple applications to collect the correlated information for preparing the semi-supervised feature selection. To avoid the wasting of the time in validating each features individually we had came up with the new method where the algorithm is capable of selecting the features from the batch of datasets. The proposed algorithm selects features in a batch mode, by which the correlations between different features are taken into consideration. Besides, considering the fact that labeling a large amount of training data in real world is both time-consuming and tedious, we adopt manifold learning which exploits both labeled and unlabeled training data for feature space analysis. Since the objective function is non-smooth and difficult to solve, we propose an iterative algorithm with fast convergence. Extensive experiments on different applications demonstrate that our algorithm outperforms other state-of-the-art feature selection algorithms.

Keywords: Labeling, semi-supervised learning, reconstruction of image, 3d imaging.

1. Introduction

In many computer vision and pattern recognition applications, dimension of data representation is normally very high. Recent studies have claimed that not all features in the high-dimensional feature space are discriminative and informative, since many features are often noisy or correlated to each other, which will deteriorate the performances of subsequent data analysing tasks [1], [2], [3]. Consequently, feature selection is utilized to select a subset of features from the original high dimensional feature space [4], [5], [6], [7], [8]. It has twofold functions in enhancing performances of learning tasks. First, feature selection eliminates noisy and redundant information to get a better representation, thus facilitating classification and clustering tasks. Second, dimension of selected feature space becomes much lower, which makes the subsequent computation more efficient. Inspired by the motivations, much progress has been made to feature selection during last few years.

Zhao et al. propose a semi-supervised feature selection algorithm based on spectral analysis. A common limitation of the existing supervised and semi-supervised feature selection algorithms is that they evaluate the importance of each feature individually, ignoring correlations between different features. To address this problem, some state-of-the-art algorithms are proposed to take feature correlations into consideration for feature selection. For example, [10] and [3] implement their methods in a supervised way and Ma et al. design their approach in a semi-supervised way in [5].

The semi-supervised algorithm proposed in this paper combines the strengths of semi-supervised feature selection and multi-task learning. Both labeled and unlabeled training data are utilized for feature selection.

Meanwhile, correlations between different features are taken into consideration to improve the performance of feature selection.



Fig1. Proposed algorithm for video classification

We name our proposed algorithm Semi-supervised Feature selection by Mining Correlations among multiple tasks (SFMC). The main contributions of our work can be summarized as follows: 1) We combine semi-supervised feature selection and multi-task learning into a single framework, which can select the most representative features with an insufficient amount of labeled training data per task. 2) To explore correlations among multimedia data, we leverage the benefit of manifold learning into our framework. 3) Since the objective function is non-smooth and difficult to solve, a fast iterative algorithm to obtain the optimal solution is proposed. Experimental results on convergence demonstrate that the proposed algorithm converges within very few iterations.

Organization of the paper

The rest of this paper is organized as follows: Section 2 summarizes the overview of the related work. A novel Semi-supervised Feature Selection by Mining Correlations among multiple tasks is proposed in section 3. We present our experimental results in section 4. The conclusion of our work is discussed in section 5.

2. Related Work

In this section, we briefly review the related research on feature selection, semi-supervised learning and multi-task learning.

2.1 Feature selection

Previous works have claimed that feature selection is capable of selecting the most representative features, thus facilitating subsequent data analysing tasks [15] [16] [17]. Existing feature selection algorithms are designed in various ways. Classical feature selection algorithms, such as Fisher Score [9], evaluate the weights of all features, rank them accordingly and select the most discriminating features one by one [18]. Although these classical feature selection algorithms gain good performances in different applications, they have three main limitations. First, they only use labelled training data to exploit the correlations between features and labels for feature selection. Labeling a large amount of training data consumes a lot of human labor in real-world applications. Second, the most representative features are selected one by one, thus ignoring the correlations among

different features. Third, they select features for each task independently, which fails to leverage the knowledge shared by multiple related tasks.

To overcome the aforementioned limitations, researchers have proposed multiple feature selection algorithms. L-norm regularization has been widely used in feature selection algorithms for its capability of selecting features across all data points with joint sparsity.

2.2 Semi-supervised learning

Semi-supervised learning has shown its promising performance in different applications [20], [21], [22], [23], [24], [25]. With semi-supervised learning, unlabeled training data can be exploited to learn data structure, which can save human labor cost for labeling a large amount of training data [26], [27], [28], [29]. Hence, semi-supervised learning is beneficial in terms of both the human laboring cost and data analysis performance.

In [32], Yang et al. propose a new semi-supervised algorithm based on a robust Laplacian matrix for relevance feedback. Their algorithm has demonstrated its prominent performance. Therefore, we propose to leverage it in our feature selection framework. These previous works, however, independently select features for each task, which fails to consider correlations among multiple related tasks.

2.3 Multi-task learning

Multi-task learning has been widely used in many applications with the appealing advantage that it learns multiple related tasks with a shared representation [11] [12] [33]. Recent researches have indicated that learning multiple related tasks jointly always outperforms learning them independently.

3. Methodology

In this section, we describe the approach of our proposed algorithm in detail.

3.1 Problem Formulation

Suppose we are going to select features for t tasks. The l -th task contains n_l training data with m_l data labeled. We can formulate the regularized framework for feature selection as follows:

$$\min_{W_l} \sum_{l=1}^t (\text{loss}(W_l) + \alpha g(W_l)) + \gamma \Omega(W), \quad (1)$$

where W_l is feature selection matrix for the l th task.

W is the the loss function which evaluates consistency between features and labels, $g(W_l)$ is a regularization function, $\Omega(W)$ is a regularization term which is used to encode the common components of different feature selection functions, α and γ are regularization parameters.

$$\|M\|_{2,1} = \sum_{i=1}^a \sqrt{\sum_{j=1}^b M_{ij}^2}, \quad (2)$$

The equation 2 is the normalization of the features

$$\|M\|_* = \text{Tr}(MM^T)^{\frac{1}{2}}, \quad (3)$$

Equation 3 is the definition of the trace normalization.

where $\text{Tr}(\cdot)$ denotes the trace operator. In the literature, there are many approaches to define the loss function.

The objective function is given by:

$$\min_{W_i} \sum_{l=1}^t (\text{loss}(W_l) + \alpha \|W_l\|_{2,1}) + \gamma \|W\|_* \quad (4)$$

State-of-the-art feature selection algorithms are implemented through supervised learning and select features for each task independently. In our work, we want to incorporate multi-task learning and semisupervised learning into (1). We propose to leverage semi-supervised learning by adopting the Laplacian proposed in [32].

To begin with, let us define $X_l = [x_1^l, \dots, x_{n_l}^l]$ as the training data matrix of the l -th task where m_l data are labeled and n_l is the total number of the training data of the l -th task. $Y_l = [y_1^l, \dots, y_{m_l}^l, y_{m_l+1}^l, \dots, y_{n_l}^l]^T$. For each data point x_i^l of the l -th task, we construct a local clique N_i^k containing x_i^l and its $k-1$ nearest neighbors. Euclidean distance is used to determine whether two given data points are within k nearest neighbors in the feature space.

$f_{pq} = G_{l1} \{q\}$ and $(S_{li})_{pq} = 0$ otherwise. Inspired by [32], we construct the Laplacian matrix by exploiting both manifold structure and local discriminant information denoted by L_{li}

$$\begin{aligned} L_l &= \sum_{i=1}^{n_l} S_{li} L_{li} S_{li}^T \\ &= [S_{l1}, \dots, S_{lm_l}] \begin{bmatrix} L_{l1} & & \\ & \dots & \\ & & L_{lm_l} \end{bmatrix} [S_{l1}, \dots, S_{lm_l}]^T \end{aligned} \quad (5)$$

Note that Manifold Regularization is able to explore the manifold structure possessed by multimedia data by applying Monifold Regularization to loss function we obtain,

$$\begin{aligned} \arg \min_{W, b} \sum_{l=1}^t \text{Tr}(W^T X_l L_l X_l^T W) + \alpha (\|W_l\|_{2,1} \\ + \beta \|X_l^T W_l + \mathbf{1}_{n_l} b_l^T - Y_{lL}\|_F^2) + \gamma \|W\|_*, \end{aligned} \quad (6)$$

where $\text{Tr}(\cdot)$ denotes trace operator, X and Y are the labeled training data and corresponding ground truth labels. According to [20] [5], F_l can be obtained as follows:

$$\arg \min_{F_l} \text{Tr}(F_l^T L_l F_l) + \text{Tr}((F_l - Y_l)^T U_l (F_l - Y_l)), \quad (7)$$

where U_l is the selection diagonal matrix of the l -th task. The diagonal element U is infinite. Following the work in [5], we incorporate (7) into (6). At the same time, all the training data and corresponding labels are taken into consideration. Therefore, the objective function finally arrives at:

$$\begin{aligned} \min_{F_l, W_l, b_l} \sum_{l=1}^t (\text{Tr}[(F_l - Y_l)^T U_l (F_l - Y_l)] + \text{Tr}(F_l^T L_l F_l) \\ + \alpha (\|W_l\|_{2,1} + \beta \|X_l^T W_l + \mathbf{1}_{n_l} b_l^T - F_l\|_F^2)) + \gamma \|W\|_*, \end{aligned} \quad (8)$$

3.2 Optimization

The proposed function involves the $l_{2,1}$ -norm and trace norm, which are difficult to solve in a closed form. We propose to solve this problem in the following steps. By setting the derivative of (8) w.r.t b_l to 0, we get

$$b_l = \frac{1}{n_l} (F_l - X_l^T W_l)^T \mathbf{1}_{n_l} \quad (9)$$

Substituting b_l in (8) with (9), we obtain

$$\begin{aligned} & \min_{F_i, W_i, b_i} \sum_{i=1}^k (Tr[(F_i - Y_i)^T U_i (F_i - Y_i)] + Tr(F_i^T L_i F_i) + \\ & \alpha(\|W_i\|_{2,1} + \beta\|X_i^T W_i + \frac{1}{n_i} \mathbf{1}_{n_i} \mathbf{1}_{n_i}^T (F_i - X_i^T W_i) - F_i\|_F^2) \\ & + \gamma\|W\|_* \\ \Rightarrow & \min_{F_i, W_i} \sum_{i=1}^k (Tr[(F_i - Y_i)^T U_i (F_i - Y_i)] + Tr(F_i^T L_i F_i) \\ & + \alpha(\|W_i\|_{2,1} + \beta\|H_{n_i} X_i^T W_i - H_{n_i} F_i\|_F^2)) + \gamma\|W\|_* \end{aligned}$$

Where $H_{n_i} = I_{n_i} - 1/n_i L_{n_i}^T$ is a centering matrix.

Perform derivative of above equation w.r.t F_i to 0, we have

$$2U_i F_i - 2U_i Y_i + 2L_i F_i + \alpha\beta(2H_{n_i} F_i - 2H_{n_i} X_i^T W_i) = 0$$

Therefore, we have,

$$F_i = (\alpha\beta H_{n_i} + U_i + L_i)^{-1} (\alpha\beta H_{n_i} X_i^T W_i + U_i Y_i) \quad (11)$$

Denoting $P_i = (\alpha\beta H_{n_i} + U_i + L_i)^{-1}$ and $Q_i = \alpha\beta H_{n_i} X_i^T W_i + U_i Y_i$, we have

$$F_i = P_i Q_i \quad (12)$$

By substituting F_i into (10) with (12), we can rewrite the objective function as follows:

$$\begin{aligned} & \min_{Q_i, W_i} \sum_{i=1}^k (Tr[(P_i Q_i - Y_i)^T U_i (P_i Q_i - Y_i)] \\ & + Tr(Q_i^T P_i^T L_i P_i Q_i) + \alpha(\|W_i\|_{2,1} \\ & + \beta\|H_{n_i} X_i^T W_i - H_{n_i} P_i Q_i\|_F^2)) + \gamma\|W\|_* \end{aligned} \quad (13)$$

$$\begin{aligned} \text{As } Tr(Q_i^T P_i^T U_i Y_i) &= Tr(Y_i^T U_i^T P_i Q_i) \text{ and} \\ Tr(\alpha\beta W_i^T X_i H_i P_i Q_i) &= Tr(\alpha\beta Q_i^T P_i^T H_i X_i^T W_i), \end{aligned}$$

the objective function can be rewritten as follows:

$$\begin{aligned} & \min_{W_i} \sum_{i=1}^k (\alpha\beta Tr(W_i^T X_i H_{n_i} (I_{n_i} - \alpha\beta P_i) H_{n_i} X_i^T W_i) \\ & - 2\alpha\beta Tr(W_i^T X_i H_{n_i} P_i U_i Y_i) + \alpha\|W_i\|_{2,1}) + \gamma\|W\|_* \end{aligned} \quad (14)$$

Denoting $R_i = X_i H_{n_i} (I_{n_i} - \alpha\beta P_i) H_{n_i} X_i^T$, $T_i = X_i H_{n_i} P_i U_i Y_i$ and $W_i = [w_i^1, \dots, w_i^2]$, the objection function becomes:

Algorithm 1: Optimization Algorithm for SFMC

```

Data: Training data  $X_{l|l-1} \in \mathbb{R}^{d \times n_l}$ 
        Training data labels  $Y_{l|l-1} \in \mathbb{R}^{n \times c}$ 
        Parameters  $\gamma, \alpha$  and  $\beta$ 
Result: Feature Selection Matrix  $W_{l|l-1} \in \mathbb{R}^{d \times c_l}$ 
1  $l = 1$ ;
2 while  $l \leq t$  do
3   Initialise  $W_{l|l-1} \in \mathbb{R}^{d \times c_l}$ ;
4   Compute the Laplacian matrix  $L_l|_{l-1}$ ;
5   Compute the Selection matrix  $U_l|_{l-1}$ ;
6    $H_{n_l} = I_{n_l} - \frac{1}{n_l} \mathbf{1}_{n_l} \mathbf{1}_{n_l}^T$ ;
7    $P_l = (\alpha\beta H_{n_l} + U_l + L_l)^{-1}$ ;
8    $R_l = X_l H_{n_l} (I_{n_l} - \alpha\beta P_l) H_{n_l} X_l^T$ ;
9    $T_l = X_l H_{n_l} P_l U_l Y_l$ ;
10 end
11 Set  $r = 0$ ;
12 Set  $W_0 = [W_1, \dots, W_t]$ ;
13 repeat
14    $l = 1$ ;
15   Compute the diagonal matrix as:
        $\bar{D}^r = (1/2)(W_r W_r^T)^{-1/2}$ ;
16   while  $l \leq t$  do
17     Compute the diagonal matrix  $D_l^r$ 
       according to Eq. (16);
18     Update  $W_l^r$  by
        $W_l^r = (R_l + \frac{\alpha}{\beta} D_l^r + \frac{\gamma}{\alpha\beta} \bar{D}^r)^{-1} T_l$ ;
19     Update  $F_l^r$  by  $F_l^r =$ 
        $(\alpha\beta H_{n_l} + U_l + L_l)^{-1} (\alpha\beta H_{n_l} X_l^T W_l + U_l Y_l)$ ;
20     Update  $b_l^r$  by  $b_l^r = \frac{1}{n_l} (F_l - X_l^T W_l)^T \mathbf{1}_{n_l}$ ;
21      $l = l + 1$ ;
22   end
23    $W_{r+1} = [W_1, \dots, W_t]$ ;
24    $r = r + 1$ ;
25 until Convergence;
26 Return the optimal  $W_{l|l-1}$  and  $b_{l|l-1}$ .

```

Denoting $R_l = X_l H_{n_l} (I_{n_l} - \alpha\beta P_l) H_{n_l} X_l^T W_l$ and $W_l = \{w_l^1 \dots w_l^d\}$, the objective of function becomes,

$$\min_{W_l} \sum_{l=1}^t (\alpha\beta T_l r (W_l^T R_l W_l) - 2\alpha\beta T_l r (W_l^T T_l) + \alpha T_l r (W_l^T D_l W_l) + \gamma \|W_l^T \bar{D} W_l\|_*, \tag{15}$$

where $\bar{D} = (1/2)(W W^T)^{-1/2}$ and D_l is a diagonal matrix which is defined as:

$$D_l = \begin{bmatrix} \frac{1}{2\|w_l^1\|_2} & & \\ & \ddots & \\ & & \frac{1}{2\|w_l^d\|_2} \end{bmatrix}. \tag{16}$$

By setting the derivative w.r.t W_l to 0, we have

$$W_l = (R_l + \frac{\alpha}{\beta} D_l + \frac{\gamma}{\alpha\beta} \bar{D})^{-1} T_l \tag{17}$$

4. Experiments

In this section, experiments are conducted to evaluate the performance of our algorithm on video classification, image annotation, human motion recognition and 3D motion data analysis, respectively. Additional experiments are conducted to study the performance w.r.t. influence of number of selected features and parameter sensitivity.

4.1 Experiment Setup

We use four different datasets in the experiment, including one video datasets CCV [37], one image datasets NUSWIDE [38], one human motion dataset HMDB [39] and one 3D motion skeleton dataset HumanEva [40]. In order to demonstrate advantages of our algorithm, we compare its performance with the following approaches.

- 1) All Features: We directly use the original features without feature selection as a baseline.
- 2) Fisher Score: This is a classical feature selection method, which evaluates importances of features and selects the most discriminating features one by one [9].
- 3) Feature Selection via Joint $l_{2,1}$ -Norms Minimization (FSNM): Joint $l_{2,1}$ -norm minimization is utilized on both loss function and regularization for joint feature selection [10].
- 4) SPEC: It uses spectral graph theory to conduct feature selection [19].
- 5) Feature Selection with Shared Information among multiple tasks (FSSI): It simultaneously learns multiple feature selection functions of different tasks in a joint framework [6]. Hence, it is capable to utilize shared knowledge between multiple tasks to facilitate decision making.
- 6) Locality Sensitive Semi-supervised Feature Selection (LSDF): This is a semi-supervised feature selection based on two graph constructions, i.e. within-class graph and between-class graph [41].
- 7) Structural Feature Selection with Sparsity (SFSS): It combines strengths of joint feature selection and semi-supervised learning into a single framework [5]. Labeled and unlabelled training data are both utilized for feature selection. Meanwhile, correlations between different features are taken into consideration.

TABLE 1
SETTINGS OF THE TRAINING SETS

Dataset	Size(n)	Labeled Percentage (m)
CCV	4,000	1, 5, 10, 25, 50, 100
NUS-WIDE	5,000	1, 5, 10, 25, 50, 100
HMDB	3,000	2, 5, 10, 25, 50, 100
HumanEVA	3,000	1, 5, 10, 25, 50, 100

We have to tune two types of parameters in the experiments. One is the parameter k that specifies k nearest neighbors used to compute graph Laplacian.

4.2 Video Classification

First, we compare the performances of different algorithms in terms of video classification task using Columbia Consumer Video dataset (CCV) [37].

The semantic categories include events like "basketball" and "parade", scenes like "beach" and "playground", and objects like "cat" and "dog", based on which we generate three different classification tasks. Since the original videos of this dataset have not been available on the internet, we directly use the STIP features with 5,000 dimensional BoWs representation provided by [37].

We set the number of selected features as {2500, 3000, . . . , 4500, 5000} for all the algorithms, and report the best results.

We show the video classification results when different percentages of labeled training data. From the experimental results, we can get the following observations:

- 1) The performances of all the compared algorithms increase when we increase the number of labeled training data.
- 2) The proposed algorithm consistently gains the best performance.

3) With 5% labeled training data, our algorithm significantly outperforms other algorithms.

For example, for subject 2, our algorithm is better than the second best algorithm by 6.6%. Yet the proposed algorithm gains smaller advantage with more labeled training data.

4.3 Image Annotation

We use NUS-WIDE dataset [38] to test the performance of our algorithm. This dataset includes 269648 images of 81 concepts. A 500 dimension Bag-of-Words feature based on SIFT descriptor is used in this experiment. It is difficult to report all the results of these 81 tasks, so the average result is reported. In this experiment, we set the number of selected features as {250, 275, . . . , 475, 500} and report the best results.

We illustrate the experimental results in table1. From the experimental results, we can observe that the proposed method gains better performance than the other compared algorithms. We give the detailed results with 1%, 5% and 10% labeled training data. It can be seen that the proposed algorithm is more competitive with less labeled training data.

4.4 Human Motion Recognition

We use HMDB video dataset [39] to compare the algorithms in terms of human motion recognition. HMDB dataset consists of 6,766 videos which are associated with 51 distinct action categories. These categories can be categorized into five groups:

- 1) General facial actions,
- 2) Facial actions with object manipulation,
- 3) General body movements,
- 4) Body movements with object interaction, 5) Body movements for human interaction.

Therefore, in this experiment, the five groups are considered as five different tasks.

we observe that our method outperforms other compared algorithms. This experiment can further provide evidence that our algorithm is more advantageous with insufficient number of labeled training data.

4.5 3D Motion Data Analysis

We evaluate the performance of our algorithm in terms of 3D motion data analysis using Human-Eva 3D motion database. We encode each action as a collection of 16 joint coordinates in 3D space and obtain a 48-dimensional feature vector. Joint Relative Features between different joints are computed on top of that, resulting a feature vector with 120 dimensions.

4.6 Comparison with Other Semi-Supervised Feature Selection Methods

In this section, experiments are conducted on CCV to compare the proposed algorithm with two state-of-the-art semi-supervised feature selection algorithms.

Following the above experiments, 1%, 5%, 10%, 25%, 50% and 100% training data are labeled in this experiment.

We can observe that our method consistently outperforms both LSDF and SFSS. Visible advantages are gained when only few training data are labeled, such as 1% or 5% labeled training data. From this result, we can conclude that it is beneficial to leverage shared information from other related tasks when insufficient number of training data are labeled.

4.7 Parameter Sensitivity

We study the influences of the four parameters and the number of selected features using CCV database with 1% labeled training data. First, we fix and the number of selected features at 1 and 3500 respectively, which are the median values of the tuned range of the parameters of our algorithm varies when the parameters and change. More specifically, MAP is higher when and are comparable. Then,

and are fixed. Note that the shared information among multiple feature selection functions $\{W_1, \dots, W_t\}$ by the parameter. From this figure, we can see that mining correlations between multiple related tasks is beneficial to improve the performance. We can also notice that better performances are gained when the number of features is around iterative and effective algorithm. To evaluate performances of the proposed method, we apply it to different applications, including video classification, image annotation, human motion recognition and 3D motion data analysis. The experimental results indicate that the proposed method outperforms the other compared algorithms for different applications.

5. Conclusion

In this paper, we have proposed a new semisupervised feature analysis method. This method is able to mine correlations between different features and leverage shared information between multiple related tasks. Since the proposed objective function is non-smooth and difficult to solve, we propose an iterative and effective algorithm. To evaluate performances of the proposed method, we apply it to different applications, including video classification, image annotation, human motion recognition and 3D motion data analysis. The experimental results indicate that the proposed method outperforms the other compared algorithms for different applications

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Gender pay gap

Nirlep kaur*

Abstract

Gender pay gap is a huge problem that world facing today it means women are paid less as compare to men for the equal level of work and qualification which mean less paid to women lead to less investment and growth. The study show the average difference in hourly and monthly wages in high upper middle, middle and low income countries and cause, cons of wages gap and suggest to overcome this problem and gini coefficient show the wages inequality report of 64 countries and study based on secondary data drawn from the publish report of international labor organization.

Introduction

Gender pay gap is the average difference between the remuneration for men and women paid for same level of job with equally working time period and qualification. Gender pay gap is based on hourly, weekly, monthly, earnings of specific or particular group of working women. The reasons for the difference salary payment include both individual choice (internal factor) and discrimination, motherhood. (External factor).

Objectives:- *To throw a light on the difference between the earnings in male and female. To highlights some cause behind this pay gap. To show a impact of annual average global real wage growth of past ten years .To suggest some point to improve over the different earnings of male to female.*

Cause:-*discrimination at the work place women paid less as compare to man for equal value job due to careers dominated by women being undervalued as a whole area.*

Marriage: *- women become less serious about work after getting married. Unmarried women get preference of job as compare to married.*

Maternity:-*another cause is maternity leave and half of the working women feel they will leave after maternity.*

Gender role notion: *- a notion in patriarchal system in Indian society that as compare to men women cannot put same number of hours.*

Cons:- *these factors don't only affect the women role in working places but affect the GDP of country. Women make up approximately half of the population and impact of the gender pay gap that women earn less over the life time period which results in lower retirement benefits and raise the risk of poverty. Three out of four don't work because of less wages paid to them or they have to look after their families and children called which are considered as their household responsibilities and its called unpaid work done by women.*

Literature review

Blau, khan (1999)*empirical research on gender pay gaps has focused on the role of gender –specific factors, like gender difference in qualification and difference between the treatment of equally qualification male and female workers and explores the determinants of gender pay gap and argues for factors wage structure ,the array of prices set for labor market skills and the rewards received for employment in favored sectors. Cook,Dong(2011)Harsh*

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choices: Chinese women's paid work and unpaid care responsibility under economic reform examines the social and economic trends that intensify the pressure on the care economy and dual role as a care given and income earners in post reform china. Gunderson (1989) male–female wage differentials and policy responses illustrated, the increased participation of women in the labor market generally has been accompanied by an increase in their earnings relative to those of men, although a substantial gap remains. Seguino(2000) Gender inequality and economic growth: a cross-country analysis tested primary hypothesis concerned semi-industrialized export oriented countries that lower wages was a stimulus to growth and analysis show that GDP growth positively related to gender wage inequality . klasen,lamanna(2009) The impact of gender inequality in education and employment on economic growth :new evidence for a panel of countries using cross country and panel regression investigated to what extent gender gap in education and employment reduce economic growth. Oostendorp(2004) Globalization and the gender wage gap study reveal that occupational gender pay gap appears to fall with increasing economic development ,foreign investment and trade ,but not always. The lack of evidence of a narrowing impact of trade and evidence of widening impact of FDI net inflows on the high-skill occupational gender pay gap in poorer countries show the globalization may not lower and in some instances may increase occupational gender pay gap. Previous studies shows an increment in wage inequality after trade liberalization in a number of developing countries, possibly reflecting skill complementarities. Olsen,walby(2004) Modeling gender pay gap research used statistical methods to identify how much of gender pay gap is associated with different factor. Research findings shows that the gender difference in life time working pattern (fulltime or part time)rigidities in labor market that women concentrate into particular occupational and more likely to work in smaller and non-unionized firms and due to direct discrimination and motivationzaned preferences of women as compared with men and remaining is due women's qualification attainment in the past. Morrison,Raju,Sinha(2007) the paper shows the impact of two type of empowerment and opportunities that's women decision making power (with households on poverty reduction and increase the productivity at household and individual level)and women access to market (land ,credit, labor) and this paper shows the relationship of gender equality , poverty and growth at the micro level .Polacheck,Solomon W.(2004) How the human capital model explain why the gender wage gap narrowed. paper through a light on to explore secular change in women's pay as compared to men's and show the use of human capital model to predicts a smaller gender pay gap as man-women lifetime work expectations become more similar and provide an explanation about why relative women wage rose almost unabated from 1890 to the early-1990 in U.S. and answer that why relative wage growth taped off since 1993. Meiyang(2005) Gender wage differentials in china's urban Labor market paper show the main reasons that female get low wages is unequal pay within sectors and the wage gap caused by the difference in sectorial attainment in small and unequal payment of wages is attributes to discrimination rather than to human capital difference between male and female .Tzannatos((1999) women and labor market change in the global economy : Growth helps ,inequalities hurt and public policy matters paper conclude level and change in participation rate of male and female , employment segregation and female relative to male wages across the world economy. Menon,Rodgers(2009) International Trade and the gender wage gap: new evidence from India's manufacturing sector study show how increasing competitive force from India's trade liberalization have effected women's relative

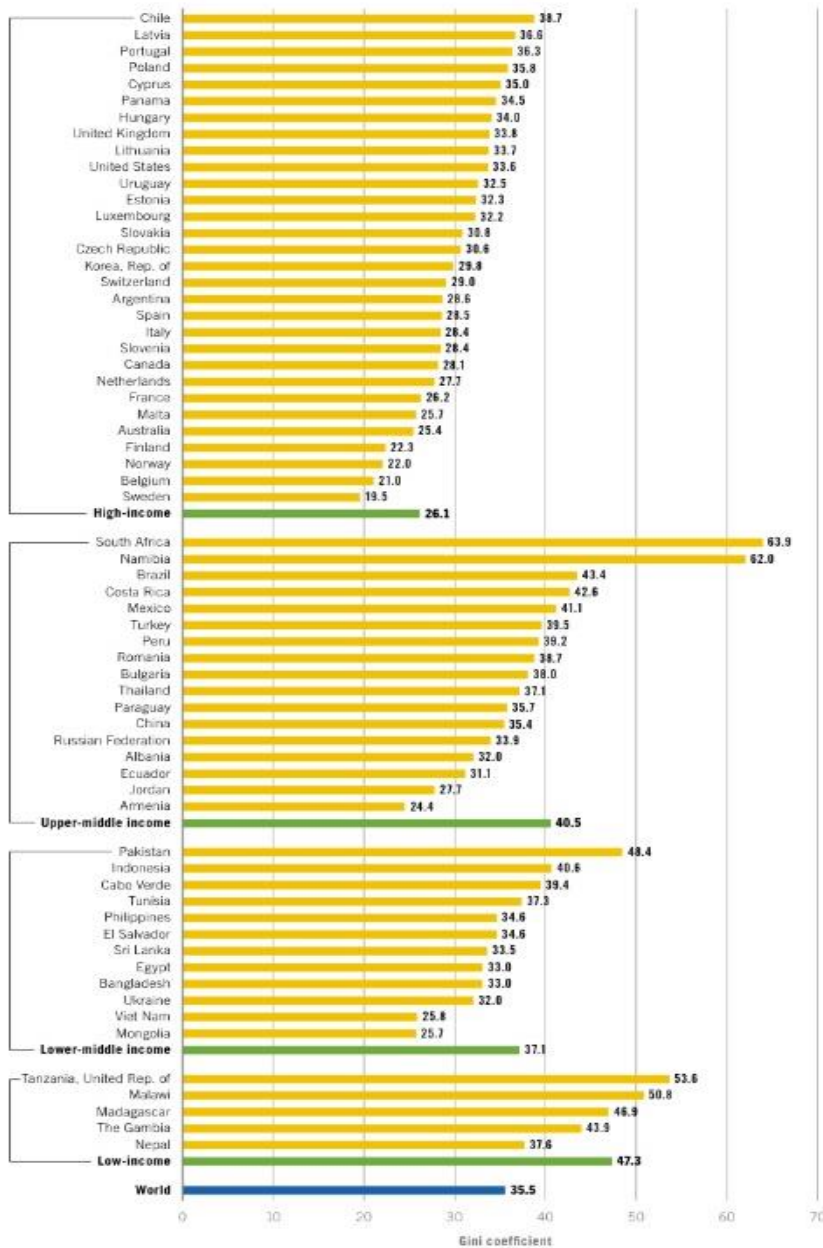
wage and employment and using theoretical model of competition and industry concentration and test the model using repeated cross sections of India's national sample survey household survey data merged with trade and production data from 1983 to 2004. **Mihaila(2016)** female labor force participation and gender wage discrimination paper results provide strong evidence for the effect of global trade on gender pay gap and female participation in labor force, gender dissimilarities in labor market outcome and the function of gender in labor market. **Razavi (2012)** World development report 2012: Gender equality and development –A Commentary about to understanding of gender inequality embracing, gender difference in economic opportunities and gender difference in voice and agency. **.Seguino, Floro(2003)** Does gender have any effect on aggregate saving? An empirical analysis shows that as some measures of women's relative income and bargaining power increase, gross domestic saving rates rise. The implied gender disparity in saving propensities may be linked to difference in saving motives based on gender role and well as divergent experience of economic vulnerability.

Research methodology

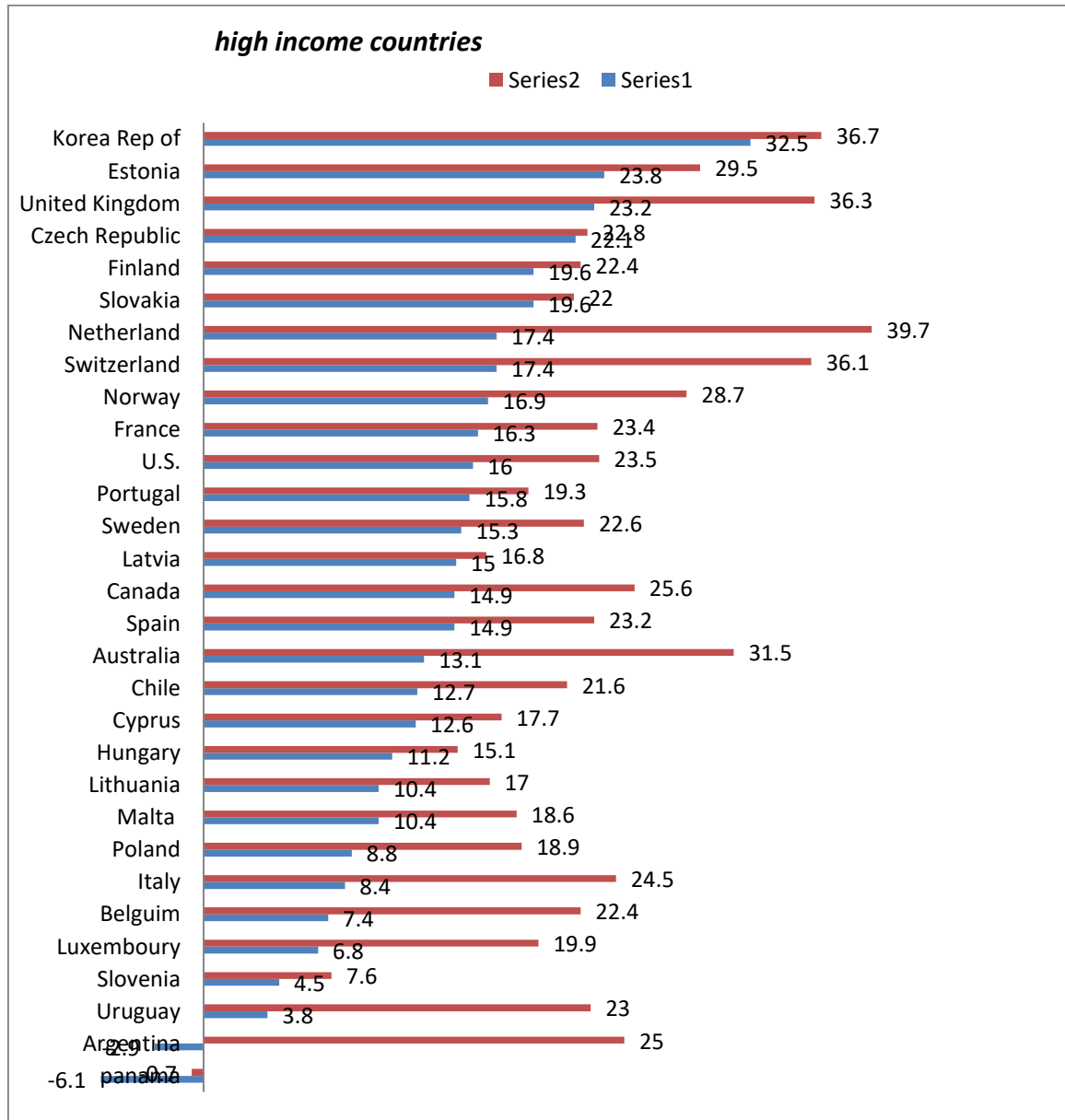
Research paper is based on the secondary data source. Reports of ILO (INTERNATIONAL LABOR ORGANIZATION) has been referred for preparing this paper.

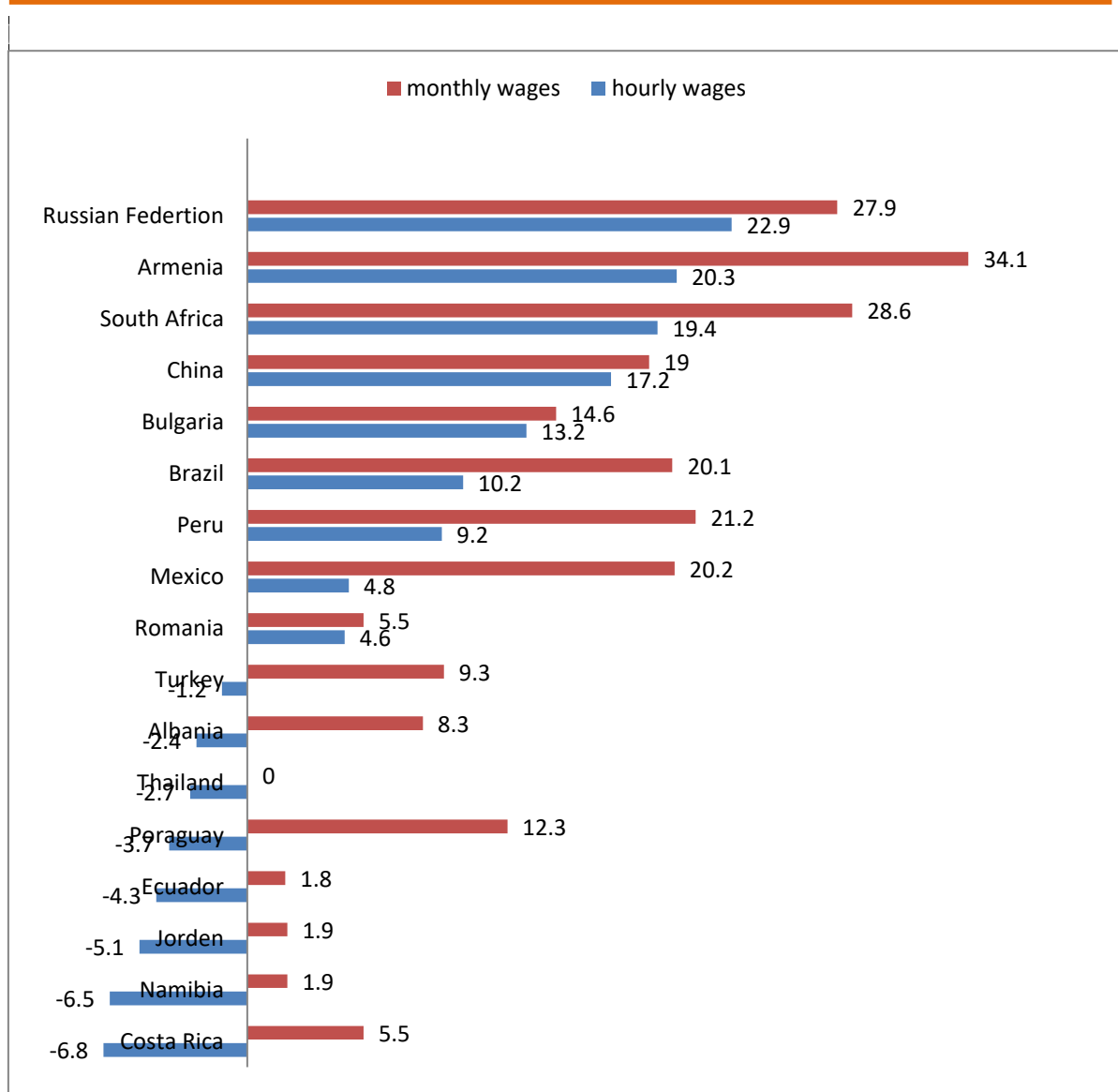
GINI COEFFICIENT: - Gini coefficient is one of the way to measure the General wage inequality of a country and used commonly for the comparing income inequality across the different countries of world. Formula of Gini coefficient for measuring :-dividing the area between a country's Lorenz curve the perfect equality line by the total area under the equality line. A country's Lorenz curve is the plot of the % of income receivers (citizens) against the % of the total national income. Gini coefficient with the lower values which is closer to the 0 indicating the lower level of inequality and higher value which means close to 100 indicating the lower level of inequality. The equality line depicts perfectly equal income distribution. A survey of wage data collected from 64 countries which reflect the 75% of the wages distribution of the world's wage workers. figure show wages inequality within and between of the different countries and it divided the countries in to four category :-high income group of countries include 30 countries where Gini coefficient rang is high in Chile (38.7) and lowest on in Sweden (19.5) and in next group of 17 countries include in upper middle income category in which south Africa Gini coefficient rang is high (63.9) and on lowest Armenia (24.4). Third group of 12 countries with lower middle income where Pakistan with the highest Gini coefficient rang (48.4) and Mongolia considered at the lowest rang (25.7). fourth group include 5 countries with low income where Tanzania, United Rep. of have a highest rang of Gini coefficient and Nepal at the lowest (37.6). group of high income countries have lowest total rang of Gini coefficient (26.1) and low income group of countries have a total highest (47.3) Gini coefficient rang. Among the total 64 countries south Africa have highest rang of coefficient (63.9). world total rang of Gini coefficient is 35.5.

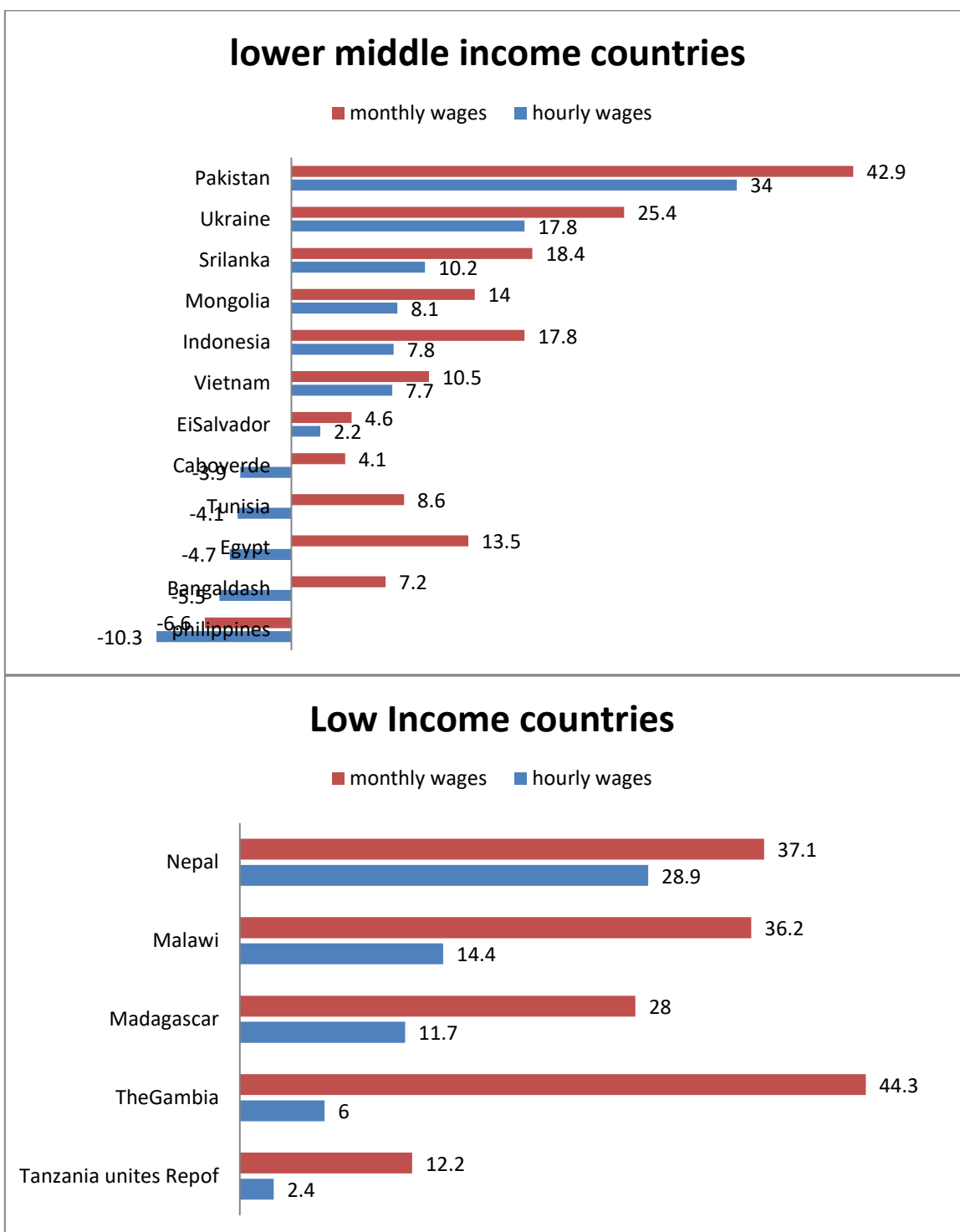
Figure 13 Gini estimates of wage inequality in 64 countries (hourly wages)



Gender wages gap :- Mean value of monthly and hourly wages paid around the world. Below given charts reveal the data of 64 countries and it divided in high, upper middle, middle and low income countries.



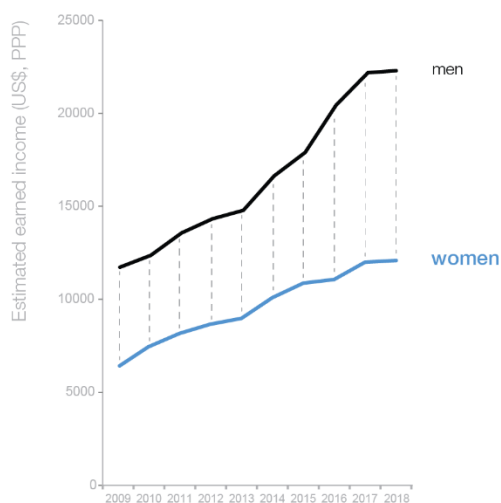




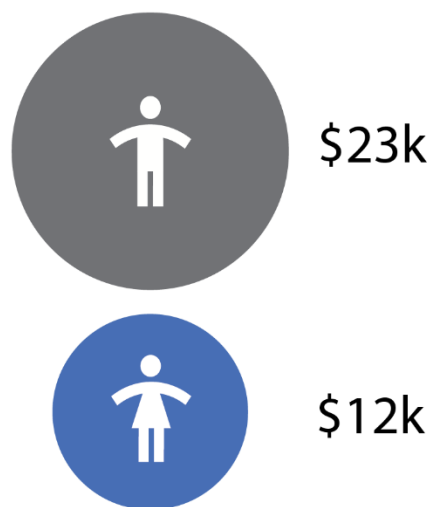
Gender pay gap shown on upper charts reveal the mean data of monthly and hourly wages paid around the world in low income countries to high income countries . In high income countries country name PANAMA show negative indicated which means women earned more then man both hourly and monthly mean value of wages show the average value of wages paid and KOREA (rep. of) indicated the highest gender pay gap in hourly wages where as in monthly wages Netherlands indicating the highest gender pay gap. Hourly

wages are more fluctuate as compare to monthly wages. Monthly wages reveal more accurate results about gender pay gap. In case of Upper middle countries data indicated negative results which means women paid more them men in hourly wages COSTA RICA have highest negative indication about hourly wages and highest hourly wages in RUSSIAN FEDERATION and monthly wages data indicating ARMENIA at the highest and THAILAND indicating zero gender wages gap in monthly wages. Where as in lower middle countries PAKISTAN indicating the highest gender pay gap and PHILIPPINES shows it negative. Low income countries revealing the indication of gender pay gap NEPAL have a highest gender pay gap hourly and monthly .TANZANIZA(united rep of)have lowest gender pay gap in low income countries. Upper charts reveal the gender pay gap included 64 countries those data was given adequately in ILO report of 2018-19.monthly and hourly wage data show mean value of the wages paid in these particular countries which means the average wages paid in countries. Motive of this report to reveal the gender wages gap in world countries and given some points how badly it can affect the growth of different countries and to suggest some point to overcome this problem .difference in wages shown through Gini points and Mean value of monthly and hourly wages of 64 countries which indicating how badly world is facing gender pay gap where as few countries show negative results which means women paid more then men.

Over 10 years



Global Average, Annual Earnings



above chart show the income gender gap of last ten years represented in graph where data reveal that income in USA dollar(US\$,PPP) and show a huge gap between men and women income .

Suggestion:-1)Gender neutral practices and policies should be structured by government which provide equal opportunities to female to be educated ,trained ,work and equally pay scale for the same level of job with same qualification skills.2)designing flexible job include shorten working hours and home working 3)job rotating to reduce the work monotonous as well for training purpose so that women can get trained in different department at the same

level and job enrichment to boost the confident of employees 4)reservation of women in private firms which provide opportunity to involve in every field of business.5) enhance the maternal leave period so that every women get chance to work with same level after motherhood

Summary: - now a days world facing various problems related to women on of them is gender pay gap where women are remain underpaid for the same level of job with equally qualification to men. Cause behind the gender pay gap is discrimination faced by women on the work place as well at home like no preference is given to the women education as compare to the men education .married life and motherhood also affect the working women where organistion less likely to appoint married women and prefer unmarried . Data related to the gender pay gap is collected from IOL which provide pay gap indication on hourly and monthly wages and gini coefficient show the wages inequality included the data of 64 countries which are further divided into high ,upper middle ,middle and low category and suggested few points to overcome this problem .increment in women wages lead to more investment and improve the living standard of family which lead to improve over the country growth.

Suggesting for the further research on part-time wage gap ,factors –weighted gender pay gap wages,factor-weighted gender pay gap in public organization versus private organization etc.

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Human Resource Accounting Practices in Indian Industries: A SWOT Analysis

S.Revathy*

V.Soundarapandiyan**

“Our core corporate assets walk out every evening. It is our duty to make sure that these assets return the next morning, mentally and physically enthusiastic and energetic.”

- **N.R. Narayana Murthy, Chairman and Chief Mentor, Infosys Technologies**
opening statement of the Infosys Annual Report, 2007 - 2008

Abstract

Human are the most important asset in the organization. Humans can work without machine but machine cannot work without human's help. In each and every activities 'Human' are the biggest part in the organization. Human Resource Accounting (HRA) is to measure the cost and the value, economic value of the employees. Also submit their report according to their performance in hierarchy manner to the higher officials. This process is we call HR Report. And basically it shows how HRA works and fulfills the objectives of tangible investment on intangible asset of HRD and the other human resource activities. This article also highlights the implication of HRA in India contest.

Key words: Human Resource Accounting, HRD, Human

Introduction

The main resources of an organization are men, machine, money, material, methods. These resources are classified as physical and human. Physical assets are not independent and they do not have emotions and feelings. Capital is compared as human asset. It can only be done with the help of human asset. Human asset cannot be ignored at any cost. Organization must need human in every activity. Organization can be performed only when the physical and human asset merge together and to find out the total cost of the organization.

In 1960 Renis Likert along with their researchers made an attempt of Human Resource Accounting (HRA).

In 1964 Hermanson was the first man to attempt to include Human Capital in the balance sheet, which became known as Human Resource Accounting (HRA).

Human Resource Accounting Meaning

Human Resource Accounting is an activity to identify the cost for to invest employees recruitment, training, salary payments and for their benefits for to know their contribution towards the organization for its profitability.

Human Resource Accounting Definition

The American Accounting Society Committee in 1973 defines, “Human Resource Accounting is the process of identifying and measuring data about human resources and communicating this information of interested parties”

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Hermanson in 1964 defines, "It is an extension of the accounting principles of matching costs and revenues and of organizing data to communicate other information in financial terms. It involves measuring the cost incurred by business firms and other organisations when they recruit, select, train and develop human assets. It also involves measuring the economic value of people to organisations"

Eric Flamholtz of university of California, Los Angeles explains "Human Resource Accounting is the measurement of cost and value of people for the organization"

Woodruff defines, "Human Resource Accounting is an attempt to identify and report investments made in human resources of an organization that are presently not accounted for in conventional accounting practice. Basically it is an information system that tells the management what changes over time are occurring to the human resource in the business"

According to Management Consultant Stephen Knauf (1983) defined HRA as "The measurement of qualification of human organization inputs such as recruitment, training, experience and commitment"

Davidson and Roman L Weel defines, "A term used to describe a variety of proposals that seek to report and emphasize the important of human resource – knowledge, trained and loyal employees in a company earning process and total assets"

Objectives of HRA

The core idea of HRA is to depict the potential of HR in monetary terms, i.e.

1. The investment in HR and
2. The value of HR

The investment in HR is the expenditure incurred for the HR activities like – recruitment, selection, training and development etc. Such investments are increased productivity and profit to the organization.

Approaches of HRA

The approaches of HRA is grouped into

1. Monetary Measures
2. Non Monetary Measures

Monetary Measures: It focuses on cost or economic value. The methods are

Historical Cost Method: In this method the human resource are valued by capitalizing the costs of firm which incurred on recruitment, selection, training and development of the employees and they treat them as asset in the firm.

Replacement Cost Method: The cost of replacement of existing personnel and the re-building cost of organization is assessed to find HR asset value of the individuals and organization.

Opportunity Cost Method: In this method the value is taken as the basis for estimating the value of human resources employed by the organization.

Economic Value Method: In this method the compensation made to the employees in the form of salary, allowances and different benefits are estimated and discounted appropriately to arrive at the present economic value of the individual.

Valuation Models: Human Resource is valued quite complicated. The models are

Lev and Schwartz Model: In this model the employees will stay with the firm till retirement and this model is estimating the group spending and group income in the firm.

Eric Flamholtz Model: This estimate the value of an individual

Jaggi- Lau' Model: In this model the "group" as the basis of calculation on historical data regarding employee turnover patterns.

Non Monetary Method: This method indicates like rating and rankings of the employees.

The Skill or capability inventory: This method implies that the simple listing of the employee's education, knowledge, experience and skills of the organization.

Performance Evaluation: This method measures the rating and ranking of the employees. This rating reflects a person's performance to set the scales. Ranking is the form of rating to rate the superiors to their subordinates.

Assessment of Potential: This method measures that the employees capability for their promotions and development.

Attitude Measurement: This method is to assess whether they are satisfied or not. For this they assess their attitude towards their job nature, pays, working conditions in the organization.

HR Accounting Development

In 1691, the only man Sir William Petty is first developed the concept of Human Resource Accounting.

In 1960, the research begins by Rensis Likert founder of The University of Michigan Institute of Social Research. He started his work (Likert1961 – 1967) on management style and management theory along with their faculty member R.LeeBrument and their Ph.D Scholar William C.Pyle and Eric Flamholtz worked together in the research projects for to design and developed the concepts and methods of Accounting in Human Resource.

In early periods the HRA concepts provide the inspiration for the HRA measurement models development. Later, in 60's and 70's the researches finds that the capital is recognized as Human Resource Cost as investment rather than as expenses which is known as HRA.

According to Eric G.Flamholtz developed the HRA in detailed activities and he designed systematic during sixties. He divided HRA development into five stages.

First stage (1960-66) is the beginning stage, this mark as academic interest area of HRA and it focuses on primarily concept.

Second stage (1966-71) this stage was developed for HRA models validation. This model covered the cost of monetary and non – monetary value of HR and this stage is to develop some of the tools, that will help the organization to managing and assessing the HR in realistic manner.

Third stage (1971-76) this period was remarkable in his research project. This stage makes more interest on HRA and it showed rapidly growth in the research area. This causes the application of HRA in the organization.

Forth stage (1976-80) this stage is the decline period of HRA concept. Because, the organizations are not sponsored for the researcher. They thought HRA concept is god but it's not work effectively in long term.

Fifth stage (1980 onwards) this stage is the beneficial period of HRA concept. Because, most of the economics are shifted their manufacturing into service economics and they realized Human Asset is important for the organization. So, some of the countries are like India, China, Nigeria are accepted the concept of HRA.

Human Resource Accounting in India

In India HRA is still in early stage. Because, organizations are not knew about the concept of HRA. But after it started in India it is popularized. Because, of Neyveli Lignite Corporation (NLC) and Bharat Heavy. When these two organization is followed the HRA concept, it is popularized in India.

And now, in India some of the companies are following HRA concepts, they are

1. Bharat Heavy Electricals Ltd (BHEL)
2. Neyveli Lignite Corporation (NLC)
3. Infosys Technologies Ltd (ITL)
4. The Steel Authority of India Ltd (SAIL)
5. The Oil and Natural Gas Commission (ONGC)
6. Oil India Ltd (OIL)
7. The Southern Petrochemicals Industries Corporation of India (SPIC)
8. The Cement Corporation of India Ltd (CCI)
9. The Minerals and Metals Trading Corporation of India Ltd (MMTC)
10. The Hindustan Shipyard Ltd (HSL)
11. Madras Refineries Ltd (MRL)
12. National Thermal Power Corporation (NTPC)
13. Satyam Computer Services Ltd

Discussion of HRA

SWOT Analysis

SWOT Analysis is the tool to identify the strength, weakness, opportunities, and threats of an organization's activities. In organization SWOT analysis is viewed as internal and external issues. Internal is strength and weakness. External is opportunities and threats. Let's see how internal and external works together and gives their output.

Strength

1. HRA is practicing in few companies particularly in public sector like NLC, BHEL, ONGC, SAIL, SPIC etc.,
2. HRA is to measure the present economic cost and value of the employees in the organization.
3. HRA measures proper investment decision of the human resource.
4. HRA increases labor productivity.
5. Depending on the employee's skill and ability, HRA helps the organization to place the right person in the right job.
6. It provides present and future information to the investor, from that information the investor can choose the best company to invest their money.
7. HRA helps to developing the management principles in the organization.
8. HRA consider as key factor while merger and takeover occur.
9. HRA is creating goodwill for the organization to attract their investments.
10. HRA improves the employee's efficiency in the organization.

Weakness

1. Companies felt that it is time waste and money waste of using HRA concept.
2. Indian Companies Act does not provide information about human in the financial statement. HRA is not introduced any legislation about human resource. In Indian public and private companies recognized as human is an asset and they are only in their balance sheet and annual report.
3. The Institute of Chartered Accountant of India (ICAI) measures Accounting Standard (AS). They issue various aspects of accounting but it is not possible to do the exact AS practicing report of human resource in the organization. This was the greatest weakness of HRA concept.

4. There are so many valuation models in HRA concept. Organizations are using different models for their convenience so it is become difficult.
5. In India HRA concept is having less awareness among the organization and they are not accepting this concept because they are not publishing the HRA data.
6. There is no proper guidelines and procedure to find out the value and the human resource in the organization. So it is consider as drawback to the society.

Opportunity

1. HRA improving their management quality and its giving detailed information of the employees performance in the sense to direct recruitment or promotion, training or retention, retrenchment or retention etc.,
2. The organization is using HRA information internally to compare.
3. In organization HRA helps to take management decision according to the employees necessity worth
4. And it can make compensation decision while measuring HRA concepts. Because this concept will show each and every employees net worth.
5. Organization place right person to the right job with the help HRA.

Threat

1. In organization the management treats their employees as expenses rather than resource.
2. Here HRA is not having clear idea of how depreciation of human resource is made.
3. HRA is not able to follow in small scale business because they don't have any awareness about HRA.
4. The ICAI is not formulated the Accounting Standard on measurement and report of the cost and value of human resource. At the same time Companies Act 1956, has not issued any disclosure of human resource value in the financial statement.
5. In HRA, the models are in pre stage because the models are not universally accepted for valuing human asset.

Conclusion

The article summaries the concept of SWOT analysis in HRA and the above information provides both internal and external environment of the Organization in common basis. Until now the efforts are taking for the HRA growth to be popular but it is not yet gain more attention in India. Overall HRA is more important to the organization but most of the organizations are not recognized and they are not value their Human Resource. And they don't have any interest to implement their Human Resource into measurement. For betterment, the organization should evaluate the Human Resource in a systematic manner and to record that information into financial statement.

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Teacher Satisfaction With The Administration Of Government Secondary Schools In Srinagar

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Dr. Vibha Doorwar**

Abstract

The purpose of this study is to explore the different aspects of teacher satisfaction with the administration of different government secondary schools of Srinagar, Jammu and Kashmir. We examine the teacher satisfaction with administrative support, involvement of decision making, working conditions, educational environment, recreational activities, job satisfaction, and exercise of technology in education. Statistical analysis revealed that the government secondary school teachers are satisfied with the school administration although there is need to upgrade the technological aspect particularly to meet the quality education in the modern era in the government secondary schools. The study emphasize the administrative support is the essential requirement for the better school environment.

Keywords: Teacher satisfaction with administration, secondary school teachers, school environment, administrative support, job satisfaction

1. Introduction

Education is the fundamental need of any developing nation and should be the prime focus for India. The education sector of our country is way behind the rankings of the various countries in the world. In the year 2018, India's latest human development ranking is 130 out of 189 countries which are released by the United Nations Development Programme (UNDP), the Human Development Index (HDI) is directly associated with the education index. In the year 2015, according to the United Nations Educational, Scientific and Cultural Organization (UNESCO), India is ranked 168 out of 234 countries with the literacy rate of 72.10 percent. The phenomenon indicates that the implementation of the administration system of the education sector in India has not been up to the mark in comparison with the other countries of the world.

Subjective prosperity is a term used to represent the dimension of prosperity that individuals experience dependent on subjective evaluations of their lives. These evaluations can be both positive as well as negative which incorporate decisions and approach about life satisfaction, interest, responsibility, and accountability in the administration of different life events. They also incorporate approach of satisfaction with work, enrichment of learning, health, recreation, professional purpose, educational environment and other significant areas (Diener & Ryan, 2009). During childhood and adolescence the most important aspects of worth of the life is satisfaction with the school in the school context (Verkuyten & Thijs, 2002). Satisfaction with the school is defined as "the subjective and cognitive admiration of the perceived worth of life in the school" (Baker, Dilly, Aupperlee, & Patil, 2003, p. 210). The fundamental significance to identify with how students value their school and to know the reasons related to their stage of satisfaction with it (Elmore & Huebner, 2010). In spite

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of the fact that during childhood and adolescence adequate time is spent in the school context and the interest paid to the study of satisfaction with school is not enough. By and large, recommendations for the educational and school reforms concentrate mostly on academic achievement than the evaluation of desired outcomes (Verkuyten & Thijs, 2002). On the other hand, it is apparent that an advance comprehension of the conditions under which effective learning and the sound improvement of students can occur and give the keys to structuring programs for the advancement of achievement in both academic and administrative outcomes. Concentrating on academic performance as the main outcome of interest neglects to perceive the contextual problems of significance for students' development. This requires considering an unnoticed aspect, satisfaction with school experiences (Elmore & Huebner, 2010; Verkuyten & Thijs, 2002). One variable that it is measured as a significant predictor of school satisfaction is school engagement (Elmore & Huebner, 2010; Korobova & Starobin, 2015; Ros, Goikoetxea, Gairín, & Lekue, 2012; Wang & Fredricks, 2014). Many analysts have the same opinion that this is a development that encompasses manifold dimensions of school administration, participation and interest in the learning (Appleton, Christenson, & Furlong, 2008; Christenson, Reschly, & Wylie, 2012; Lam et al., 2012). In addition, administrative support is also related to academic achievement, recreation activities, job satisfaction and satisfaction with school administration.

School environment

Schools are social organization in which administrators, teachers, students, and other service human resources take up different positions and are anticipated to maintain professionalism. The relationships among different types of people in the schools facilitate to carry forward the school administration effectively (Campbell, Corbally & Nystrand, 1983). All the educational organization has an atmosphere that works from the other schools differently and influences performance and approach of teachers and students for the school (Sergiovanni & Starratt, 1988). Tye (1974) refers environment as a group of factors which "offers every school a character, a potential, a culture". As many studies have revealed that school environment impacts the student cognitive and affective outcomes and values (Dorman, 2002; Webster & Fisher, 2003). Further studies also confirmed teacher job satisfaction is inclined by environmental aspects of school (Chen and Sun 1994; Feng 1996). Elementary school teachers have a tendency are more likely to be very much satisfied with their working conditions than secondary school teachers as stated by the studies (Choy et al., 1993). Study revealed that among teachers with analogous levels of benefits, remuneration, and other work conditions are set up to be related to turnover, including the level of faculty approach over school policy, control over classroom assessments, and the level of student misconduct (Ingersoll et al., 1995).

Job satisfaction: "the teacher's perspective"

Job satisfaction can be commonly characterized as "the positive or negative evaluative decisions that individuals construct about their jobs" (Skaalvik & Skaalvik, 2015), a natural approach derived from the realization of desires and requirements from one's vocational experiences (Hoekstra, 2014), and how nation think about their jobs (Kitchel et al., 2012). Where the concern of teachers are job satisfaction which include factors like secure working conditions, salary and performance incentives, professional admiration and identification, job security, a compassionate administration, and self-sufficiency (Foor & Cano, 2011; Matsuoka, 2015; Skaalvik & Skaalvik, 2015; Tran, 2015). Conversely, lower levels of job

satisfaction among teachers result from improved time force, performance and disciplinary problems, and constant fret (Matsuoka, 2015; Skaalvik & Skaalvik, 2015; Tran, 2015). The teacher is most significant factor affecting the student achievement in the classroom. Thus, a perfect teacher translates to expand student persistence and enhanced learning outcomes (Hoekstra 2014).

The teacher job satisfaction leads to maintenance, responsibility, efficiency, and effective education, this is a fundamental problem when confer about teacher deficiency and instructional quality (Hoekstra, 2014; Kitchel et al., 2012; Song & Mustafa, 2015). Administrators should consider job satisfaction as an essential component for the progress among faculty. It does not merely leads to job permanence and improved motivation but also improved coordination with supervisors; enhanced interpersonal dealings with the colleagues, parents and students; and advanced quality of instruction (Foor & Cano, 2011; Hoekstra, 2014; Tran, 2015). Considering the high proportion of teachers contemplating retirement or departure of schooling due to job dissatisfaction, resulted with the time consuming and the high cost of recruiting new teachers, there is exists a need to study the factors which increase the job satisfaction in schooling (Song & Mustafa, 2015).

Job dissatisfaction leads to anxiety and eventually exasperating for teachers (Pearson & Moomaw, 2005). Teachers' job satisfaction is an essential bond in the chain of successful didactic reform. Thus, identifying variables that have a direct effect on teachers' job satisfaction is very important to reduce teacher dissatisfaction and make possible proper reform in schooling (Shann 1998). Qualities of teachers' schools, teachers' experiences, remunerations, benefits, and also working conditions have been examined in the school, so as to distinguish their relevant dealings to teachers' job satisfaction. Inside the class of working conditions, administrative support and direction, student performance, school environment, and teacher self-sufficiency were observed to be related with teachers' job satisfaction. Of course, there was a positive connection between constructive working conditions and job satisfaction. As indicated when teachers share a voice in setting up and pushing towards institutional objectives, and their assurance to a school and job satisfaction increases (Woods and Weasmer 2004). While estimating the job satisfaction can be complex and the study is beneficial, provided the fact that teacher job satisfaction has been a predictor of teacher retention, a factor of teacher responsibility, and thus, a philanthropist to school accomplishment. There is a direct link between teacher job satisfaction and teacher return (Shann 1998).

Administrative support

Administrative support defined as "the school's efficiency in sustaining teachers with the concerns such as student discipline, instructional techniques, curriculum, and transforming to the school environment" and focusing on the responsibility of school management (Borman and Dowling 2008). Efficient administrative support defined as the four fundamentals of management practices: (1) building school foresight; (2) developing goals and priorities; (3) offering personalized support; and (4) developing collaborative school traditions (Leithwood and Jantzi 2006).

Administrative support is crucial for teachers' job satisfaction, students' prosperity, and curriculum development and it is one of the major predictors of the teachers' intent to continue in teaching (Weiss 1999). Find out the impact of school contexts such as teachers' participation in the plan of school decision, student conduct, administrative support, facility, and protection by surveying and interviewing teachers in government schools. The authors

recognized working conditions, exclusively administrative support, as a decisive factor to maintain teachers' satisfaction (Boyd, Grossman, Ing, Lankford, and Wyckoff 2009).

2. Method

Participants and procedure

The sample of this study was taken from teachers teaching in government higher secondary schools of Srinagar district of Jammu and Kashmir. A sample of 60 respondents from 18 higher secondary schools was collected in which 36 women and 24 men participated to respond the questionnaire after the approval from their respective head of the schools.

To contain a basic sample of teachers teaching in the higher secondary schools of district Srinagar, this study is based upon convenience sample method. A questionnaire was prepared to take the information from the teachers about the various satisfaction aspects with the school administration.

Measures

Teachers' satisfaction with the administration of the school was measured by an 8-item scale and has been used for measuring teachers' satisfaction with the administration of school: Recreational activities, teacher satisfaction with work condition, teacher job satisfaction, and technology used in education, educational environment, teacher decision-making involvement, educational goals, and administrative support for the development. The items that comprise this scale are rated on 5-point Likert scale as (1 = strongly disagree; to 5 = strongly agree). In this study, the Cronbach's alpha was found to be 0.85.

Analysis

To identify the teachers' satisfaction with the administration of the school, we performed the analysis of frequency to test the level of satisfaction. In addition, Cronbach's alpha was also calculated to test the internal consistency and reliability of the scales used in this study using SPSS version 22.

3. Results

Table 1. Students' opportunities in recreational activities

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	1.7	1.7	1.7
Disagree	14	23.3	23.3	25.0
Neither Agree nor Disagree	3	5.0	5.0	30.0
Agree	28	46.7	46.7	76.7
Strongly Agree	14	23.3	23.3	100.0
Total	60	100.0	100.0	

Table 1 provides descriptive statistics for the students opportunities in recreational activities that out of 100% respondents, 23.30% of respondents are strongly agree, 46.70% are agree, 5% are neutral case, 23.30% are disagree, 1.70% are strongly disagree with the statement. It can be said that majority of the teachers are satisfied with the involvement of students in recreational activities in the school.

Table 2. Teachers satisfaction with the work conditions

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	15	25.0	25.0	25.0
Neither Agree nor Disagree	10	16.7	16.7	41.7
Agree	32	53.3	53.3	95.0
Strongly Agree	3	5.0	5.0	100.0
Total	60	100.0	100.0	

Table 2 provides descriptive statistics for the teachers satisfaction with the work conditions in the school that out of 100% respondents, 5% of respondents are strongly agree, 53.30% are agree, 16.70% are neutral case, 25% are disagree with the statement. It can be said that the teachers are moderately satisfied with the work conditions in the school.

Table 3. Teacher job satisfaction

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	1.7	1.7	1.7
Disagree	5	8.3	8.3	10.0
Neither Agree nor Disagree	4	6.7	6.7	16.7
Agree	40	66.7	66.7	83.3
Strongly Agree	10	16.7	16.7	100.0
Total	60	100.0	100.0	

Table 3 provides descriptive statistics for the teachers job satisfaction in the school that out of 100% respondents, 16.70% of respondents are strongly agree, 66.70% are agree, 6.70% are neutral case, 8.30% are disagree, 1.70% are strongly disagree with the statement. It can be said that majority of the teachers are satisfied with their job in the school.

Table 4. Technology used for the enrichment of education

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	1	1.7	1.7	1.7
Disagree	19	31.7	31.7	33.3
Neither Agree nor Disagree	7	11.7	11.7	45.0
Agree	25	41.7	41.7	86.7
Strongly Agree	8	13.3	13.3	100.0
Total	60	100.0	100.0	

Table 4 provides descriptive statistics for the use of technology for the enrichment of education in the school that out of 100% respondents, 13.30% of respondents are strongly agree, 41.70% are agree, 11.70% are neutral case, 31.70% are disagree, 1.70% are strongly disagree with the statement. It can be said that teachers are moderately satisfied with the use of technology for the enrichment of education in the school.

Table 5. School administration offers the perfect educational environment

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	6.7	6.7	6.7
Disagree	15	25.0	25.0	31.7
Neither Agree nor Disagree	7	11.7	11.7	43.3
Agree	28	46.7	46.7	90.0
Strongly Agree	6	10.0	10.0	100.0
Total	60	100.0	100.0	

Table 5 provides descriptive statistics for the administration offers perfect educational environment in the school that out of 100% respondents, 10% of respondents are strongly agree, 46.70% are agree, 11.70% are neutral case, 25% are disagree, 6.70% are strongly disagree with the statement. It can be said that teachers are moderately satisfied with the perfect educational environment in the school.

Table 6. Participation of the teacher in the decision to increase the efficiency

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	2	3.3	3.3	3.3
Neither Agree nor Disagree	1	1.7	1.7	5.0
Agree	35	58.3	58.3	63.3
Strongly Agree	22	36.7	36.7	100.0
Total	60	100.0	100.0	

Table 6 provides descriptive statistics for the participation of teachers in decision making to increase the efficiency in the school that out of 100% respondents, 36.70% of respondents are strongly agree, 58.30% are agree, 1.70% are neutral case, 3.30% are disagree with the statement. It can be said that majority of teachers are satisfied with the involvement of teachers in decision making for the development of school.

Table 7. School administration work to achieve the desired educational goals

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	11	18.3	18.3	18.3
Neither Agree nor Disagree	9	15.0	15.0	33.3
Agree	30	50.0	50.0	83.3
Strongly Agree	10	16.7	16.7	100.0
Total	60	100.0	100.0	

Table 7 provides descriptive statistics for the administrative work to achieve the desired educational goals in the school that out of 100% respondents, 16.70% of respondents are strongly agree, 50% are agree, 15% are neutral case, 18.30% are disagree with the statement. It can be said that teachers are moderately satisfied with the administration for the achievement of educational goals in the school.

Table 8. School administration support for the development

Options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	4	6.7	6.7	6.7
Disagree	13	21.7	21.7	28.3
Neither Agree nor Disagree	10	16.7	16.7	45.0
Agree	26	43.3	43.3	88.3
Strongly Agree	7	11.7	11.7	100.0
Total	60	100.0	100.0	

Table 8 provides descriptive statistics for the administrative support for the development in the school that out of 100% respondents, 11.70% of respondents are strongly agree, 43.30% are agree, 16.70% are neutral case, 21.70% are disagree, 6.70% are strongly disagree with the statement. It can be said that teachers are moderately satisfied with the administrative support for overall development in the school.

4. Conclusion

The findings derived from the study revealed that the satisfaction of teachers with the administration for the development of school is imperative. When teachers are satisfied with the numerous activities performed by the school administration then it is apparent that the desired objectives of the institution will be achieved at the optimum level. The teachers were satisfied with the job satisfaction and the working conditions provided in the school. It is also observed that the use of technology for the enrichment of education in the schools needs much improvement for the establishment of perfect environment. Administrative support is the fundamental element for the progress and prosperity of the school to achieve the desired goals; it is also observed that the improvement to strengthen the administrative support in all the dimensions is extremely needed.

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Factors Influencing Online And Offline Shopping: A Case Study Of Srinagar City In Jammu & Kashmir

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Abstract

The fast-changing technology provides good opportunities for producers to make their products cheaper and more qualitative by improving and reforming their techniques and help sellers to reach the customers faster, easier and in economic way. Internet has gained huge popularity and emerged as one of the important, meaningful and effective way of communication. Online shopping makes way of shopping easy and fast particularly for those people who are very busy in their life. In online shopping, a customer purchases goods and services which are available 24*7 (24 hours a day, 7 days a week) on internet websites by sitting at their homes, workplaces, etc. without going to real shops in market. In offline shopping, customers purchase goods and services from real shop market where they can feel and touch a product. The brief objective of this study is to find out factors that motivate customers to decide whether they go to online shopping or offline shopping. The data for this study was collected from both primary and secondary sources. Primary data was collected through questionnaire and secondary data was collected from journals, books, periodicals, etc.

Keywords: *Technology, Online Shopping, Offline Shopping, 24*7, Choice Progression.*

1. Introduction

The expansion in innovation gives great chances to the merchant to achieve the client in a lot quicker, simpler and in financial way. Nowadays online shopping is exceptionally quick and easy because most of the people are very busy with their personal and professional lives. Millions of individuals shop on the internet websites. There are number of online shopping websites available over the internet like Amazon, flip cart, Snap deal, Pay Tm, etc. on which customer can compare and purchase products. A person can purchase almost every product online. There are many advantages to purchase products on online like availability of close substitutes, easy mode of payment, discount, cash back offers, easy mode of refund, etc. Then again, the obtaining of item from customary market is going from long time. In offline market a customer can feel and touch a product which is not possible by purchasing products on online. There are many advantages to purchase products on offline like bargaining, feel and touch of product, no wait for services or products which you buy, choices are plenty, no need to looking for when the prices are falling, etc. A person with high level of income is more favourable to purchase goods and services on online shopping. The expansion in innovation makes a great frame of mind towards the buyer for internet-based shopping. A

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person who is illiterate or has very little knowledge about internet shopping prefer to purchase goods and services from wholesalers or retailers at shops or malls. Many of the customers prefer to go for both sort of shopping.

2. Factors Affecting Online Shopping

Most people prefer online shopping nowadays because online shopping retailer provides a lot of benefits to their customers which offline retailers do not provide to their customers. Following are some factors which affect online shopping:

Risk: When a person purchases any product online there is some sort of risk involved because he can neither touch nor feel a product. There is also a risk whether it will reach at proper time or not. There are also risks of colour differ, product size and damage of product.

Convenience: Online shopping is much easier than offline shopping. You can purchase any product without moving from your places. It saves lot of time and energy of customer because you do not have to move from one place to another.

Anxiety: A person who did not have too much experiences of online shopping feels it very difficult to find products on Shopping sites. He feels it is very difficult task to purchase products online. A lack of knowledge about online sites takes time to even understand the product about its details.

Previous online experience: Previous online shopping experience plays very important role whether a person go to online shopping or not. There are two experiences one is good experience and another one is bad experience which has a great impact on a mind of customers.

Pricing Policy: Online shopping retailers has a great advantage in pricing because they did not have to bear expenses like store rents, bills, etc. They can offer less price as compared to offline shopping retailers. Even after including shipping charges, it is better than offline charging. Lower the price, high will be the demand and higher the price, there will be contraction in demand because there is an inverse relationship between demand and price.

Information: Information given on online shopping sites may not be correct or not be full. A full information about a product doesnot reach to a customer. Information about a product given by online sites may not be the same about the detail of product. Hence it will affect the online buying of a customer. Some customer purchase products only when full details about a product is available. So, it is very important to provide full product's information and in appropriate way to a customer, so that he will not shift to offline shopping.

Offers: Apart from providing products at lower prices, some online shopping sites provides discount offers which ensure customers to get saving while buying products online. Not only in festivals but in normal days also a number of discount offers are available. Offers have a great influence in online shopping.

Available product and services: Online shopping provides variety of goods and services to their customers. There are some products which are not available in offline. By online customers not only choose products but he can also compare products before purchasing.

Income: A person whose income is more will prefer to online shopping as compared to a person whose level of income is low. Income has a great impact on online shopping.

Delivery time: By purchasing good and services on online shopping, it takes 5-7 days for delivery a product to a customer. But in offline shopping a possession of a product is transferred immediately to a customer. People want possession of products in a desired and short time.

Tangibility of the product: By purchasing products on online customers are not able to touch and feel products. Without touch and see a product nobody can get its security about the worthiness or quality or sense of any preferred product.

Online trust: Purchasing products online is mainly depends upon trust. Some people trust on online dealing and some are not.

Quality: Quality has a great impact not only on online shopping but also on offline shopping. Customers want qualitative products because they spent their money on purchasing.

3. Factors Affecting Offline Shopping

Offline shopping has existence since the existence of mankind. Offline shopping gives different types of benefits to a customer. Following are some factors which affect the shopping offline:

Taste and preference: Customers taste and preference are changing each and every time. By purchasing a product on offline a customer has a flexibility to check its outfit but in online purchasing it is not possible.

Bargaining: In offline shopping a customer can do physical bargaining on pricing, discount offers, etc which is not possible on online shopping because in online shopping the price of goods and services are fixed. Some customers believe that online shopping products are more costly than offline.

Time consuming: By purchasing goods from offline retailers it takes lot of time because distance from home to market place is time consuming. By purchasing goods and services offline you have to spend extra money by moving from one place to another which you can save by purchasing goods and services on online.

Feel and touch: By purchasing products offline, a customer can see, feel and touch a product which is totally impossible on online shopping. Some people do not purchase products until they can touch and feel products.

Information: Sometimes information given by shopkeeper about products may not be correct and we purchase products accordingly what he shares with us. Such situations arise when we do not have adequate knowledge about the product.

4. Review of literature

Andrews (2004) analysed to get a good understanding of channel choice by developing a theoretical framework that shows the relationship between the antecedents and intermediaries of perceived and purchase intention in both channels. The result indicates the main determinants of channels choice and enables comparison between online and offline Shoppers's perception. The result of his study determined the factors that inspire or avoid consumers to engage in online shopping.

Chui et al. (2005) Consumers online purchase intention may increase when consumers think that their privacy information are protected and insured.

Gondwe (2010) many companies have transformed or expanded their businesses from traditional physical stores to online stores (e.g. E-Commerce websites) to focus on transactions of commodities or services through electronic systems such as Internet and other computer networks.

Shun & Yunjie (2006) in their study revealed that there are different kinds of product, which are additional possible to be sold online such as book, software, electronics and music. Motive for such belongings is that when buying these kinds of products, one does not need individual examination, if not all products, can be drawn in the product explanation and descriptions. Most goods in the mobile phone family fit to this group. According to the new

study on customer behaviour, there are four different customer groups with diverse purposes and motivations. They also found that regular efficient collection of music videos. A great level of technical assurance inside this cluster tends to be a hopeful feature when it comes to product evidence research online.

Jarvenpaa et al. (2000) explore how customers professed store size and status inspire their trust in risk perception, attitudes and willingness to purchase from the specific store. They realize that there is a positive correlation between customer belief in internet stores and the stores supposed reputation and scope. Higher customer belief correspondingly decreases perceived risks related to internet shopping and produces more promising attitudes near to shopping at a specific store, which in turn raises readiness to buying from store.

Chaing and Dholakia (2014) carried out a study in which he inspected the purpose why the customer purchase goods and services online or offline? Mainly there are three variables in his study which affects the consumer to purchase goods and services on online shopping or to go offline shopping. The features of the shopping sites, types of goods and services their characteristic and the real price of the product plays very important role to purchase goods and services on online or offline. If a consumer faces problem on purchasing goods and services on online he will switch to offline and when he faces same situation while purchasing on offline, he will shift to online.

Lee (2015) investigated to find out the factors which influencing online shopping. This paper seeks to identify internet consumer's demographic attitude towards shopping and reasons of online buying behaviour. He finds out in his study that a consumer purchase goods and services on internet to save time and extra money which he has to spent if he does shop offline. The result of his study suggests several recommendations for the design of online shopping environment such as shopping sites should make it more suitable to buy standard to repeat purchase items, full information about products should be available and purchasing process should be calm for the consumer. He also finds out a consumer having high level of income and more awareness about internet purchases more goods and services on online sites as compared to a customer having low level of income and less awareness about using internet.

Sen et. al (2014) investigated in her exact examination in Finland that there are numerous online data searchers who stop the shopping procedure just before the completing purpose of the exchange. The purpose for this is seriously established in the internet-based trust results. The examination centres around internet business foundation i.e. Security and classification issue, that how buyer select their buying channels. The finding of this examination demonstrates that consistency, trust value, and value just as simplicity of the utilization of the framework are basic, while the primary engraving of online merchant is huge, thinking about the conduct expectation.

Iyer and Eastman (2014) inspected on the correlation of the distinction that exist between the reception of internet business by potential buy and the acknowledgment of the channels by experienced e-client along these lines his paper tries to test the impact of online shopping. They found that the impact of self-viability and handiness increments as the purchaser increases internet shopping background

5. Objectives of the Study: The main objective of this study is to compare online and offline shopping. Following are some specific objectives of my study:

- To find out factors that influence customers switch from online shopping to offline shopping and offline shopping to online shopping.

- To analyse whether the income of the consumer affect the online shopping and offline purchasing.
- To find out what kinds of goods or services customers prefer to purchase from online and offline shopping.
- To analyse the significant difference between the online and offline consumer groups in terms of demographic, technology use, availability and attitude of the consumer.

6. Hypothesis of study

H0₁: There is no relationship between income and way of shopping of respondents.

H0₂: There is no relationship between way of shopping and delivery of products on online shopping.

7. Methodology

The data required for this study was collected from both primary and secondary sources. Secondary data was collected from published books, journals, periodicals, websites, etc. These sources were also used for framing a questionnaire required for the collection of primary data. The primary data was collected from 90 respondents by structured questionnaire. Out of which 10 questionnaires were found incomplete and not right for study and remaining 80 questionnaires were selected for study. Appropriate sampling tools were used for data collection and testing of data.

8. Analysis and interpretation

Data analysis is an important stage in research process, as it carries the potential to diminish or amplify the result expected. Data analysis is also the crucial stage for analysing and presenting the outcomes of the research done. For data analysis of this study, percentage analysis, simple charting and tabulation tools are used to understand the behaviour of the respondents for online shopping and offline shopping. The collected data (n=90) was collected from a survey of questionnaires filled by respondents in the Srinagar of Jammu and Kashmir. 89% response rate, which is supposed to be good observation and data for the study. The following section of tables summarized demographic nature of the respondents.

8.1 Sex Ratio of the respondents

Table 1

GENDER	Number of Respondents	Percentage
Male	39	48.8
Female	41	51.3
Total	80	100.0

90 respondents were taken into consideration for this study, out of which only 80 respondent's response was appropriate and fit for study. The Table 1 shows the number and percentage of male and female who are doing online and offline shopping. It shows 48.8% of male go for the shopping while 51.3% female do the shopping. This shows that more of the female involved on the shopping than male. This gives us idea of the sex ratio who is more involved in shopping.

8.2 Age of the respondents:

Table 2

AGE	Number of Respondents	Percentage
Below 18 Years	15	18.8
18-25 Years	20	25.0
25-35 Years	31	38.8
Above 35 years	14	17.5
Total	80	100.0

The above Table 2 shows the age category of population who are included in sampling. The above Table 2 indicated that most of the respondents were between the age group of age 25-35 years (38.8 %), then 18-25 years (25%), then below 18 below 18 years (18.8%) and last above 35 years.

8.3 Qualification of the respondent:

Table 3

Qualification	Number of Respondents	Percentage
High School	8	10.0
Intermediate	14	17.5
Graduate	20	25.0
Others	38	47.5
Total	80	100.0

Table 3 shows the qualification of the respondent who are included in the study. Respondents whose qualification is others i.e. Post Graduate, PhD, MPhil, Diplomas, etc constitute 47.5% in the total respondents and others respondent's qualification is Graduate (25%), Intermediate (17.5) and High School (10%).

8.4 Income group of the respondents

Table 4

INCOME LEVEL	Number of Respondents	Percentage
Less than Rs.15000	8	10.0
Rs. 15000-30000	15	18.8
Rs. 30000-40000	21	26.3
Above Rs. 40000	36	45.0
Total	80	100.0

From the Table 4 we find out income level of respondents. Income level of respondents plays a very crucial role whether a person do online shopping or offline shopping. 36 out of 80 respondents are above Rs 40000income, 21 respondents are Rs 30000-40000, 15 respondents are Rs 15000 -30000 and only 8 respondents are below Rs 15000.

8.5 Designation of respondents

Table 5

Designation	Number of Respondents	Percentage
Student	20	25.0
Housewife	13	16.3
Employee	32	40.0
Others	15	18.8
Total	80	100.0

Table 5 help us to find out the occupation of the respondents of study. This helps us to know whether designation of a person have any impact on choice of a consumer to do shopping on online or offline. In this study 32 respondents are employees (public and private employees), 20 are students, 15 are others i.e. shopkeepers, businessmen, etc. and 13 are housewives.

8.6 Way of shopping of Respondents:

Table 6

Way of shopping	Number of Respondents	Percentage
Online Shopping	35	43.8
Offline Shopping	25	31.3
Both	20	25.0
Total	80	100.0

Table 6 helps us to find out number of respondents who are doing shopping on online or offline or on both ways. Out of 80 respondents, 35 respondents (43.8%) are purchasing goods and services on internet, 25 respondents (31.3%) are doing offline shopping and remaining 20 (25%) are doing both ways of shopping.

8.7. Preference of product when its price is same at shop and internet:

Table 7

Preference	Number of Respondents	Percentage
Internet	47	58.8
Shop	33	41.3
Total	80	100.0

The findings of Table 7 show us that if the product has same price both in the market shop and internet, then 58.8% of population prefers buying the product over the internet as it saves time, energy and transportation cost while buying the product, if same product will purchase at shop.

8.8 Preference of product when its price on internet is lower than market

Table 8

PREFERENCE	Number of Respondents	Percentage
Internet	60	75.0
Shop	20	25.0
Total	80	100.0

From the findings of Table 8, it is clearly indicated when a product's price at internet is lower than shop price, a consumer will always prefer to purchase product on internet. 75% people

admit that when price of product is lower at internet than shop, we purchase that product from online shopping.

8.9 Is online shopping as secure as traditional shopping:

Table 9

Is online shopping as secure as traditional shopping?	Number of Respondents	Percentage
Yes	35	43.8
No	33	41.3
Can't Say	12	15.0
Total	80	100.0

Table 9 shows that 43.5% of population think online shopping is secure as offline shopping, 41.3 % says it is not secure as traditional way of shopping and remaining 15% says, they did not have any idea regarding this.

8.10 Selection and choice of goods and services on internet is very broad than shops

Table 10

Selection and choice	Number of Respondents	Percentage
Yes	40	50.0
Sometimes	25	31.3
Never	10	12.5
Can't Say	5	6.3
Total	80	100.0

Table 10 shows 50% population indicates that the selection and choice of products on internet is very wide as compared to offline shopping because you can choose and select a product among different brands available on online sites. Large number of same products of different brands is available on a single online website which is very rare in a single shop. It saves time, energy and transportation cost from moving one shop to another.

8.11 Types of advertisements that mostly attract consumers towards offline shopping:

Table 11

Types of advertisements	Number of Respondents	Percentage
Discount ads	15	18.8
Festival ads	25	31.3
Sale ads	30	37.5
Others	10	12.5
Total	80	100.0

Advertisements plays very important role not only in offline shopping but online shopping too. Consumers are very eagerly waiting for such ads so that they can purchase products. Table 11 finds out that 37.5% of population attracts from sale ads of offline markets to purchase goods and services during that time.

8.12 Types of advertisements that mostly attract consumers towards online shopping:

Table 12

Types of advertisements	Number of Respondents	Percentage
Discount ads	30	37.5
Sale ads	20	25.0
Festival ads	25	31.3
Others	5	6.3
Total	80	100.0

Table 12 indicated that 37.5 % of population attracts towards online shopping by their discount ads. Even sometimes customers postpone their shopping and wait till online sites offer some discount offers to customers.

8.13 Mostly products purchased from online shopping and offline shopping:

Table 13

Products	Number of Respondents	Percentage
Offline Shopping		
Clothes	40	50.0
Electronic tools	10	12.5
Books	8	10.0
Shoes	14	17.5
Others	8	10.0
Total	80	100.0
Online Shopping		
Clothes	14	17.5
Electronic tools	30	37.5
Books	20	25.0
Shoes	11	13.8
Others	5	6.3
Total	80	100.0

Table 13 shows that 50% of population purchases clothes from offline shopping while as on online shopping only 17.5 % of population purchases clothes at shops or malls. Table also shows that 37.5 % of population purchases electronic tools on online sites while as in offline shopping only 12.5 % of population purchases electronic tools at shops or malls.

9. Hypothesis of study

H0₁: There is no relationship between income and way of shopping of respondents.

H₁: There is relationship between income and way of shopping of respondents.

Table 14

Income level * Way of shopping Crosstabulation

	Way of shopping			Total
	Online Shopping	offline shopping	Both	
Income level Less than 15000	0	4	3	7
15000-30000	4	4	7	15
30000-40000	8	7	7	22
More than 40000	23	10	3	36
Total	35	25	20	80

Table 15

Chi-Square Tests

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-Square	17.537 ^a	6	.007
Likelihood Ratio	20.711	6	.002
Linear-by-Linear Association	14.804	1	.000
N of Valid Cases	80		

The above table of Pearson Chi Square Tests showed that way of shopping and income level have a significant relationship with each other because Chi Square value is 17.537 (df=6, N=80), $p < 0.05$ is significant at 6 degree of freedom. It is shown that alternate hypothesis is accepted and null hypothesis is rejected.

Cross tabulation shows that there is direct relationship between income level and way of shopping on online and offline. As per above table different income level have different level of relationship with way of shopping in which most of them are liking to purchase products on internet.

H0₂: There is no relationship between way of shopping and delivery of products on online shopping.

H₂: There is relationship between way of shopping and delivery of products on online shopping.

Table 16

Delivery of products on online shopping * Way of shopping Crosstabulation

	Way of shopping			Total
	Online Shopping	offline shopping	Both	
Delivery of products on Right Time	25	0	10	35
online shopping Delay	5	15	5	25
Both	5	10	5	20
Total	35	25	20	80

Table 17
Chi-Square Tests

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-Square	31.188 ^a	4	.000
Likelihood Ratio	40.496	4	.000
Linear-by-Linear Association	4.308	1	.038
N of Valid Cases	80		

The above table of Pearson Chi Square Tests showed that way of shopping of respondents and delivery of products on online shopping have a significant relationship with each other because Chi Square value is 31.188 (df=4, N=80), $p < 0.05$ is significant at 4 degree of freedom. It is shown that alternate hypothesis is accepted and null hypothesis is rejected. Cross tabulation shows that there is direct relationship between delivery of products on online shopping and way of shopping on online and offline. As per above table delivery of products on online shopping have different level of relationship with way of shopping in which most of them are liking to purchase products on internet because of its right time delivery.

10. Findings Of The Study

- The above findings suggest that women are doing more shopping than men at Srinagar of Jammu and Kashmir.
- Most of the consumers purchased electronic goods on online shopping as compared to offline shopping where consumers purchased clothes mostly.
- The above findings suggest that most consumers do online shopping because discount offers, cashback offers, absence of transportation cost, door to door delivery, time saving attracts them towards online shopping.
- Availability and selection of goods and services are more widely available on internet sites as compared to shops and malls.
- Most of the respondents felt that online shopping is secured as traditional way of shopping.
- Income level of consumers also plays very important role whether a consumer go online shopping or offline shopping.
- The study also finds out that if a price of a product is same at both online and offline, consumers prefer to purchase such product on online because it saves their extra money and energy which they have to spend if they want to purchase that same product at shops or malls.
- Delivery of products also plays very important role to choose a way of shopping.

11. Conclusion

Both online and offline shopping plays an important role in society. People whose income level is high and are very busy with their personal and professional lives like to purchase goods and services on online and other peoples whose income level is less and have not adequate knowledge about internet prefer to purchase goods and services in traditional way of shopping. But nowadays due to fast change of technology people try to change themselves according to changing environment. The young generation wants to purchase each and every item on online because they are able to use technology more comfortably than other age

group. There are expanding request of internet shopping on the grounds that the wide range of alternatives for the customers to pick at a sensible cost and at some point, even less cost than the market. Amazon is an online shopping website which most consumers preferred to purchase products on online. Security issues related with internet-based shopping ought to minimize, with the goal, that an ever-increasing number of individuals favour internet-based shopping way.

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Status in Quo Retrenchment Strategies in Agriculture Marketing that Impact of Changes in Pricing and Consumer Buying

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D.Rajesh**

Abstract

The paper examines the concepts related to the retrenchment strategies on the marketing of agricultural produce. India has successfully achieved the targets in agriculture production government of India has put agriculture development as its prime responsibility as the producer/farmer must get a maximum share in the consumer rupee the paper highlights some alternatives service available in agriculture marketing in India provides additional value in the agriculture development. In ends provides some suggestion to retrenchments in agriculture marketing services better that changes in pricing and consumer buying behavior more valuable and economical for the producer/farmer, the consumer and country as a whole. The study of consumer behavior is a very challenging task. If a company wants to survive, it should be able to compete well.

Key Words: Retrenchment Strategies, Agriculture Marketing, Pricing, Consumer Behavior.

Introduction

The word retrenchment in agriculture as changes in policy that more state-society relations from a state-assisted paradigm toward a liberal market one. Moreover, only those who can survive in the free market should remain active in agriculture. Finally, although farming has its risks, so does any other business; therefore, producers, not the state, should bear the responsibility for protecting themselves again the loss of income due to natural conditions. The second phase of the reform process emphasized the liberalization of rural markets through the establishment of marketing institutions and competitive pricing mechanism. By late 1993, grain purchases in most urban markets were at market prices, since the state grain subsidies had practically been eliminated. Similar to an earlier episode of policy retrenchment during 1988-1989, the second wave of policy retrenchments during 1994-1995 was characterized by increased government intervention in the grain market. To stabilize grain prices, the government retreated once again from its past market reforms by restructuring grain trade and restoring grain rationing to consumers. During the latter years of the 1990's China experience a high level of surplus grain production and falling prices. In earlier retrenchment policies in the mid-1990s, the government used different policy measures.

Review Of Literature

D. Keith Robbins and John.A.Pearce II (1992), Found that retrenchment as an integral part of the turnaround process and to assess it is utilizing in facilitate business recovery systematically. They focus on ensuring a change in company strategy, known as the recovery

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response. **Marvin Druker & Betty Robinson (1994)**, have measured retrenchment strategies and decision making processes a significant issue in agriculture marketing. It gain insight into the similarities and differences in the way organizations respond to an environment of the economic decline of particular interest are the following issue; short-term cut back policies or more permanent restructuring; they adopting more participative processes in developing cutback strategies. **Olusanya Olufunso Omolade & Oluwasanys Adewale Tony (2014)**, described to increase in global competition and liberalization of markets combined with a shift in consumer demand and preferences have prompted the drive for lower cost margins and greater efficiency. **Titus Wafula Simiyu and Daniel Onwonga Auka (2016)**, revealed Which a company may practice retrenchment is to downsizing in one market that is proving unprofitable and build up the company in a more profitable market if our market has become obsolete due to modernization or technology, then a company may decide to change with the times to remain profitable determined.

Statement Of The Problem

Lack of mechanization:

In provocation of the large scale mechanization of agriculture in small number parts of the country, practically of the agricultural operations are reassigned on by a human member of the working class using conventional tools and implements like quickly done rice milling course of action, oil expeller, mini dal mill, etc.

Agricultural Marketing:

Agricultural marketing lead is in bad arouse in suburban India. In the absence of sound marketing facilities, the farmers have to depend upon local traders and middle-man for the disposal of their farm produce, which is sold a throw-away price.

Inadequate storage facilities

Storage facilities in suburban areas are as a substitute totally distracted or grossly insufficient. Under such conditions, the farmers are compelled to sell their produce immediately after the harvest at the market prices which are bound to be low. Such distress sale deprives the farmers of their precise income.

Inadequate transport

One of the main handicaps mutually Indian agriculture is the lack of low-cost and pragmatic means of transportation. Even at disclose, there are lakhs of villages which are not well connected with highways or market centers.

Conditions of Agricultural Laborers

Most of the agricultural laborers in India are far from satisfactory. There is also the problem of surplus labor or disguised unemployment. Pushes the wage rates below the subsistence levels.

Need For The Study

The agriculture marketing sector needs well-functioning markets to drive growth, employment, and economic prosperity in rural areas of India. To provide dynamism and efficiency into the marketing system, investments required for the development of post-harvest and cold-chain infrastructure nearer to the farmer's field. A portion of this investment expected from the private sector, for which an appropriate regulatory and policy environment is necessary to promote investment in marketing infrastructure, thereby motivating the corporate sector to undertake direct marketing. Agriculture marketing provides a fair price to farmers, eliminating the middleman and former to obtain maximum

profit, as well as end consumers, to get at the lowest price. Hence it is the aspect of Indian Economy to grow GDP as well as to maintain stability in food chain management.

The Object Of The Study

The objectives of the study included:

- To find retrenchment strategies in agriculture marketing in Vellore District.
- To understand the impact of pricing and consumer buying behavior.

Statement Of Hypothesis

H₁: There is a significant difference between retrenched producers among the different Producers.

H₂: There is a significant difference between pricing and consumer buying behavior.

Data Analysis And Discussion

Table 1 Characteristic of the Respondents

Gender	Frequency	Percent
Male	116	82.9
Female	24	17.1
Total	140	100.0
Age (Years)		
20-30 Years	37	26.4
31-40 Years	52	37.1
41-50 Years	41	29.3
51-60 Years	10	7.1
Total	140	100.0
Marital Status		
Married	131	93.6
Unmarried	9	6.4
Total	140	100
Education Qualification		
SSLC/HSC	116	82.9
Degree	17	12.1
Postgraduate	7	5.0
Total	140	100.0
Monthly Income		
Less than 10,000	39	27.9
10,000-20,000	49	35.0
20,000-30,000	43	30.7
More than 30,000	9	6.4
Total	140	100.0

Source: Computed worth using primary data

The above table 1 illustration that characteristic of the respondent. The total number of respondents were 140, out of which 116 (82%) were male and 24 (18%) were female, In connection with age classification 37 (26.4%) were in the age group 20-30 years, 52 (37.1%) were in the age group 31-40 years, 41 (29.3) were in the age group 41-50 years, 10 (7.1%) were in the age group 51-60 years, In addition the marital status 131(93.6%) were married, 9(6.4%) were unmarried, Further 116 (82.9%) were passed HSC, 17 (12.1%) were Degree, 7 (5%) were Postgraduates, Regarding monthly income 39 (27.9%) were less than

Rs.10,000, 49 (35%) were Rs.10,000-20,000, 43 (30.7%) were Rs.20,000-30,000, 9(6.4%) were more than Rs.30,000.

Independent sample t-test

Independent sample t-test is applied to find whether there is a significant difference between male and female respect to the innovative agriculture producer getting price and consumers in the following table.

Table 2: Independent sample t-test of gender on finding markets for their products

Factors	Gender	N	Mean	Std. Deviation	t value	p-value
Innovative Agriculture producers	Male	116	4.47	0.715	5.671	0.001**
	Female	24	3.54	0.779		

Source: Computed worth using primary data

The above table results of Independent sample t-test between male and female respondents respect to innovative agriculture producers. It is identified from the table, the p-value of the factors finding markets for their products is less than 0.01, and therefore, these are statistically significant at 1% level. Hence it is concluded that there is significant pertinent between male and female respondents. Based on the mean value results, it is identified that the innovative agriculture is a factor that affects the male employees (4.47) more than female employees (3.54) processing in the study area.

One sample t-test

One sample t-test is applied to test the significance of the technology prospects for my agriculture support business or agency will be next 5 or 10 years with market support. It also tests the Impact of decreasing price and increasing consumer buying behavior effect is presented in the following tables.

Table 3: One sample t-test for price and consumer buying behavior

Impact of pricing	N	Mean	Std. Deviation	t value	p-value
Decreasing price and increasing consumer buying behavior	140	4.28	0.72	70.274	<.001**

Source: Computed worth using primary data

The above table shows the results of one sample t-test to find whether there is an impact of decreasing price and increasing consumer buying behavior. From the table, it is found that t value 70.274 and p-value is <0.001, which proves statistically significant at 1% level. Hence

it is concluded that there is an impact of decreasing price and increasing consumer buying behavior among the respondents in Vellore District.

Summary Of Findings, Suggestions

- ◆ The study found that majority 82.9% of respondents are male, and 17.1% of respondents are female. In connection with age-wise distribution of respondent's majority 26.4% of respondents are in the age group of 20-30 years, followed by 37.1% of respondents are in the age group of up to 31-40 years, 29.3% of respondents are in the age group of 41-50 years, 7.1% of respondents are in the age group of 51-06 years. Regarding the marital status wise distribution of respondent's majority, 93% of respondents are married and 7% of respondents are single.
- ◆ The study also found that majority 5.0% of respondents are PG, followed by 12.1% of respondents are UG, and 82.9% of respondents are up to HSC qualified.
- ◆ It is noted from the study majority 27.9% of respondents monthly income was up to Rs.10,000, followed by 35.0% of respondents monthly income was Rs.10,000 – 20,000, 30.07% of respondents monthly income Rs.20,000 – 30,000, and 6.4% of respondents monthly income above Rs.30,000.
- ◆ The study established frequency is simply the number of a given variable while the percentage revealed each variable occurrence over the total multiply by 100. The table above shows paddy as having the highest number of agriculture marketing representing 50.7% followed by pulses 32.1 % and oil-seeds 23 %, finally other crops 1 %. This data imply that the majority of crops getting revenue the category used for this study.
- ◆ This study identified that among the four statements used to measure the purpose of a good market for innovative agriculture producers; the majority of the participant is either strongly agreed or agreed with the statement. To know the managerial focus of our respondents, we asked them to indicate their tool or machinery focus in the areas of their products/service, customers, and relationship with other producers or farmers.
- ◆ A significant difference was observed between respondents of the different age group in terms of factor of retrenchment strategies, namely product directly to consumers. The respondents of the age below 30 years earning more profit.

Suggestions To Retrenchment Strategies

- ◆ To arrange awareness program for rural farmers to improve their knowledge in the agriculture marketing process and recent updates in the latest technologies.
- ◆ Creation of direct contact between the farmers and customers will help in reducing many functionaries involvement.
- ◆ Encourage the farmers to create and enhance local outlets in the village level to selling the products directly.
- ◆ Planning helps the farmers to reduce the unnecessary brokerage and commission to the functionaries
- ◆ As the technology to enhance quality product and storage efficiency in the workplace to a competitive market.
- ◆ Introduction of new technology-enabled increased in production and increased profit to processors.

Conclusion

This study was conducted in Vellore District in farmer to explore the retrenchment strategies in agriculture marketing. The antecedents of retrenchment were examined and found to have

a significant impact on changes in pricing and consumer buying behavior. When farmers made, retrenchment will reflect in the profit more and less wastage of the production. The study found that farmer using various technology invariably encounter transport and wastages.

Optimize procurement management can establish procurement channels, with large-scale farms or agriculture cooperatives signed to the acquisition of fresh agricultural products, reduce intermediate links. Direct purchase has more advantage: first to ensure supply can also intermediate links, reduce costs: second, purchase platform to products to ensure the quality of goods, to ensure food safety of fresh products, once again, to adjust agricultural products based on seasonal changes to solve the problem of a single category established farm, part of self-produced self-marketing.

Limitation Of The Study

This study has intentionally studied a farming sector where there appear to be high levels of strategic diversity. While similar patterns of strategy may exist for other farm types, the changes. Undertake would be likely to be more subtle and further research which examines if strategic groups exist in other farming sectors would be valuable. Developing more comprehensive measures which relate the strategy to performance would allow a better understanding of the strategy/performance relationship and the role that environmental variables have in moderating this relationship. A longitudinal study may provide information regarding how farmer's strategic approaches vary over time and ascertain whether farmers move from one strategic group to another. Further explicative studies, including cross-sectional and time series research, will enhance the value of these research findings.

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A Study On “Comparative Analysis Of Venture Capital Financing By ICICI And IDBI

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Abstract

Venture capital firms have unique capabilities in terms of dealing with high uncertainty, high degrees of information asymmetry, and providing access to a strategic network. This study examines the association between the presence of venture capital and the growth of startups. It explores whether venture capital leads to growth or, alternatively growth signals the need for venture capital. It also investigates the impact if any of venture capital financing events and the growth of these firms. Finally, it documents the relationship between growth in startup financial valuation and changes in the number of employees over successive rounds of financing. This paper focus on venture capital and its methods of financing in the ICICI&IDBI.

Keywords: Venture Capital ,Strategic Network ,Financial Market

Introduction

Venture capital sector is the most vibrant industry in the financial market today. Venture capital is money provided by professionals who invest alongside management in young, rapidly growing companies that have the potential to develop into significant economic contributors. Venture capital is an important source of equity for start-up companies. Venture capital can be visualized as “*your ideas and our money*” concept of developing business. Venture capitalists are people who pool financial resources from high net worth individuals, corporate, pension funds, insurance companies, etc. to invest in high risk - high return ventures that are unable to source funds from regular channels like banks and capital markets.

Five critical success factors have been identified for the growth of VC in India, namely :

- The regulatory, tax and legal environment should play an enabling role as internationally venture funds have evolved in an atmosphere of structural flexibility, fiscal neutrality and operational adaptability.
- Resource raising, investment, management and exit should be as simple and flexible as needed and driven by global trends.
- Venture capital should become an institutionalized industry that protects investors and investee firms, operating in an environment suitable for raising the large amounts of risk capital needed and for spurring innovation through start-up firms in a wide range of high growth areas.
- In view of increasing global integration and mobility of capital it is important that Indian venture capital funds as well as venture finance enterprises are able to have global exposure and investment opportunities
- Infrastructure in the form of incubators and R&D need to be promoted using government support and private management has successfully been done by countries such as the US,

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Israel and Taiwan. This is necessary for faster conversion of R&D and technological innovation into commercial products.

Venture Capital is defined as providing seed, start-up and first stage finance to companies and also funding expansion of companies that have demonstrated business potential but do not have access to public securities market or other credit oriented funding institutions.

Venture Capital is generally provided to firms with the following characteristics:

- Newly floated companies that do not have access to sources such as equity capital and/or other related instruments.
- Firms, manufacturing products or services that have vast growth potential.
- Firms with above average profitability.
- Novel products that are in the early stages of their life cycle.
- Projects involving above-average risk.
- Turnaround of companies.

Venture Capital derives its value from the brand equity, professional image, constructive criticism, domain knowledge, industry contacts; they bring to table at a significantly lower management agency cost.

A Venture Capital Fund (VCF) strives to provide entrepreneurs with the support they need to create up-scalable business with sustainable growth, while providing their contributors with outstanding returns on investment, for the higher risks they assume

The three primary characteristics of venture capital funds which make them eminently suitable as a source of risk finance are:

- it is equity or quasi equity investment
- it is long term investment and
- it is an active form of investment.

Difference between a Venture Capitalist and Bankers/Money Managers

- Banker is a manager of other people's money while the venture capitalist is basically an investor.
- Venture capitalist generally invests in new ventures started by technocrats who generally are in need of entrepreneurial aid and funds.
- Venture capitalists generally invest in companies that are not listed on any stock exchanges.
- They make profits only after the company obtains listing.
- The most important difference between a venture capitalist and conventional investors and mutual funds is that he is a specialist and lends management support and also
- Financial and strategic planning
- Recruitment of key personnel
- Obtain bank and other debt financing
- Access to international markets and technology
- Introduction to strategic partners and acquisition targets in the region
- Regional expansion of manufacturing and marketing operations
- Obtain a public listen

The bulk of the banking business in the country is in the public sector comprising the State bank of India and its seven associate banks and twenty nationalized commercial banks. Till 1991, the Indian banking was operating in a highly regulated and protected regime. But with the acceptance of Narsimham Committee recommendations, competition has been injected into the banking industry in two forms

Liquidity

Liquidity indicates the ability of a firm to meet its current / short term obligation and hence, is a pre-requisite for the very survival of the firm. The ratio used here to measure the liquidity of IDBI and ICICI bank is:

- Current Ratio
- Cash Ratio
- Net Working Capital Ratio and
- Current Liabilities to Tangible Net worth Ratio

Review of Literature

1. Jha DK and D S Sarangi (2011): The financial performance of seven public sector and private sector banks during the period 2009-10. They used three sets of ratio, operating performance ratio, financial ratio and Efficiency ratio. The study revealed that Axis bank was on the top of these banks followed by ICICI, BOT, PNB, IDBI .

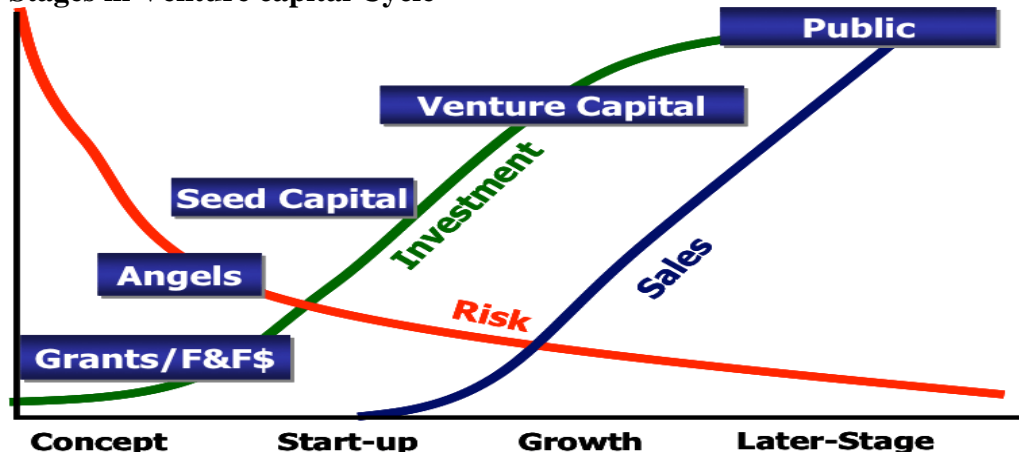
2. Neeru Mundrai, Kamni Tandon, Nidhi Malhotra (2011) excel books found that there is significant impact on the IDBI 's performance due to entry of new private sector banks as the new banks are profit oriented institutions while traditional banks are operating with the shackles of social responsibility towards the society. The other reasons that can be attributed are slow technological up gradation, poor staffing and employment practices which affect long term profitability of public sector banks. The study revealed that profitability of IDBI is lower than that of private sector banks even predicting of private sector banks (business per employee) is higher than state banks.

3. Fernando Ferreng (2012) it is generally agreed that recent economic crisis intensified worldwide competition among financial institution. This competition has direct impact on how bank deal with their customer and achieve its objectives performance evaluation of banks is the key function for improving banks performance. Banks profitability and success to a large extent depends on bank branch financial performance

4. Ramchandran Azhagasahi and Sandanvn Gejalakshmi (2012): In their study found the impact of assets management operational efficiency and bank size on the financial performance of the public sector and private sector bank. The research revealed that bank with higher total capital

5. deposits and total assets do not always mean that they have better financial performance. The overall banking sector is strongly influenced by assets utilization, Operational efficiency and interest income.

Stages in Venture capital Cycle



		ICICI BANK	IDBI BANK	ICICI BANK/ IDBI BANK
P/E (TTM)	x	20.9	-1.8	-
P/BV	x	1.8	0.5	381.5%
Dividend Yield	%	0.9	1.1	81.3%
FINANCIALS				

Venture Capital activity in the past was possibly done by the developmental financial institutions like IDBI, ICICI and State Financial Corporations. These institutions promoted entities in the private sector with debt as an instrument of funding. For a long time funds raised from public were used as a source of Venture Capital. This source however depended a lot on the market vagaries. And with the minimum paid up capital requirements being raised for listing at the stock exchanges, it became difficult for smaller firms with viable projects to raise funds from public. In India, the need for Venture Capital was recognized in the 7th five year plan and long term fiscal policy. In 1973 a committee on Development of small and medium enterprises highlighted the need to faster VC as a source of funding new entrepreneurs and technology. VC financing really started in India in 1988 with In India the Venture Capital plays a vital role in the development and growth of innovative entrepreneurs. Venture Capital activity in the past was possibly done by the developmental financial institutions like IDBI, ICICI and State Financial Corporations. These institutions promoted entities in the private sector with debt as an instrument of funding. For a long time funds raised from public were used as a source of Venture Capital. This source however depended a lot on the market vagaries. And with the minimum paid up capital requirements being raised for listing at the stock exchanges, it became difficult for smaller firms with viable projects to raise funds from public. In India, the need for Venture Capital was recognized in the 7th five year plan and long term fiscal policy of GOI. In 1973 a committee on Development of small and medium enterprises highlighted the need to faster VC as a source of funding new entrepreneurs and technology. VC financing really started in India in 1988.

In recent years the growth of Venture Capital Business has been drastically decreasing due to many reasons. The regulator has to liberalize the stringent policies and pave the way to the venture capital investors to park their funds in most profitable ventures. Though an attempt was also made to raise funds from the public and fund new ventures, the venture capitalists had hardly any impact on the economic scenario for the next few years. At present many investments of venture capitalists in India remain

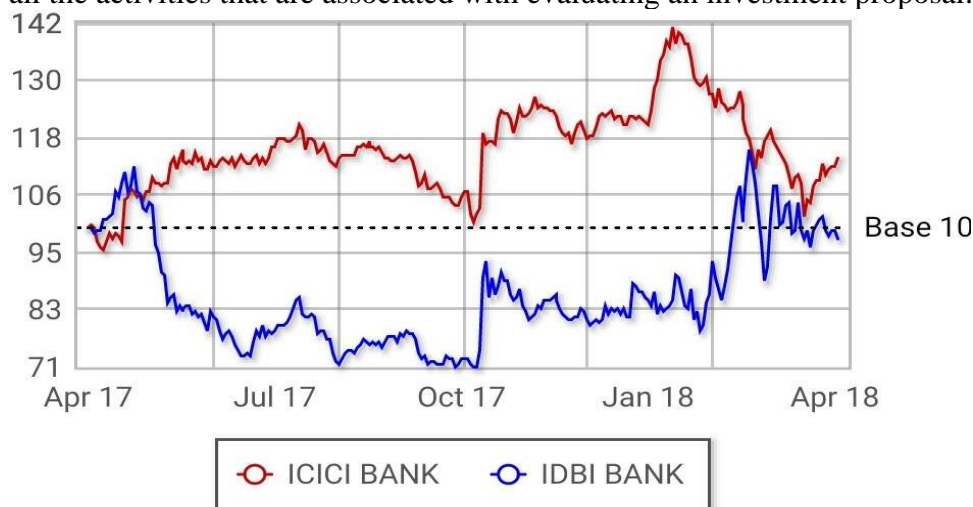
on paper as they do not have any means of exit. Appropriate changes have to be made to the existing systems in order that venture capitalists find it easier to realize their investments after holding on to them for a certain period of time.

Due diligence is the industry jargon for all the activities that are associated with evaluating an investment proposal. The venture capitalists evaluate the quality of entrepreneur before appraising the characteristics of the product, market or technology. Most venture capitalists ask for a business plan to make an assessment of the possible risk and return on the venture. Business plan contains detailed information about the proposed venture. The evaluation of ventures by VCFs in India includes;

In India the Venture Capital plays a vital role in the development and the formation of Technology Development and Information Company of India Ltd. (TDICI) - promoted by ICICI and UTI. The first private VC fund was sponsored by Credit Capital Finance Corporation (CFC) and promoted by Bank of India, Asian Development Bank and the Commonwealth Development Corporation viz. Credit Capital Venture Fund. At the same time Venture Finance Ltd. and APIDC Venture Capital Ltd. were started by state level financial institutions. Sources of these funds were the financial institutions, foreign institutional investors or pension funds and high net-worth individuals.

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on paper as they do not have any means of exit. Appropriate changes have to be made to the existing systems in order that venture capitalists find it easier to realize their investments after holding on to them for a certain period of time. Due diligence is the industry jargon for all the activities that are associated with evaluating an investment proposal.



1d 1w 1m 3m 6m 1y 3y 5y Max

Conclusion

State Bank of India (IDBI) and ICICI Bank are the two largest banks in India in public and private sectors respectively. To compare the financial performance of the banks, various ratios have been used to measure the banks' profitability, solvency position, and management efficiency.

According to the analysis, both the banks are maintaining the required standards and running profitably. The comparison of the performance of IDBI and ICICI Bank indicates that are significant difference between performance of IDBI and ICICI Bank in terms of Deposits, Advances, Investments, Net Profit, and Total Assets. It is inferred that IDBI have an extensive operation than ICICI Bank.

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A Web-Application For Automatic Content And Layout Extraction Of Previously Published Scientific Papers

Gujjula Sindhura*

Abstract—Traditionally word processing applications or template applications were used for publishing papers. One issue with such method is that the author is expected to have an awareness of templates and programming in that application. The author otherwise is supposed to maintain a consistent document with matching styles at all times. Every journal has a set of rules. Since there are thousands of journals in the world, this means thousands of templates as well. Instead, it would be a smarter approach if we could extract template from HTML or PDF on run-time and assign those templates to the new documents without using the traditional approaches of paper writing like word processing tools and LaTeX. In our research, we tried to identify some parameters of a paper that vary from one journal to another. We termed such parameters as variation points and further categorized them as layout based variation points and content based variation points. Parameters like Headings, margins, Font size, Font Family, Font Style, No. Of Pages were placed under layout based variation points and parameters like Title, Abstract length, Order of chapters, No. of keywords, Abbreviations, Double-blind review, No. of citations(related work) and No. of authors are called content based variation points.

A sample set of papers are taken from various journals and tried to extract some of these variation points using traditional text mining, pattern recognition and template mining methods.

I. Introduction

The widespread use of internet in the past few years has increased the volume of information and its availability to a large extent. Research is one area that has taken a lot of new changes. There has been a rise in the number of journals under various domains over the web in the past few years. Researchers today have a wide range of journals to present their findings. The authors today are bombarded with a wide range of paper formatting styles so as to suit the needs of different journals. The de facto solution for writing a paper and submitting it to a journal until now was to use any word processing application. Many WYSIWYG¹ kinds of word processing applications provide an optimal level of convenience to the author in adjusting the layout of their paper. New entrants in the area of paper writing are markup languages that provide separation of content from style.

Traditional word processing applications and LaTeX though provide convenience to the user and are quite simple to use, falter when it comes to consistent performance. The main drawback of word processing application is the non-automatic styling process. Starting from font size of the title until the margin length of the references, all the styling parameters has to be set manually. Though word processing applications provides templates for certain journals, they aren't not accurate enough to rely on. Disappearing pictures, lost formatting

¹<http://radar.oreilly.com/2013/09/html5-is-the-future-of-book-authorship.html>

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and large documents getting corrupted are some disadvantages of using these applications.

LaTeX² is another document preparation system, which requires coding to set the template to the document. However, it provides a precise output by involving a complex tag based structuring system. These markup languages need a steep learning curve for new users and make layout changes difficult to implement. Whatever choice to write a paper those authors tends to make they still have to remember the layout requirement of each and every journal. As such, we developed a automatic template extraction method that can parse a particular paper, identify the overall layout and content details of a paper.

II. State Of The Art And Related Work

A detail discussion is carried in this section about existing work and the way it helped in developing developed applica- tion.

A. Identification of template elements and components

Applicable auxiliary components can include both geo- metric (e.g. pages, sections, squares, or tables) and coherent units (e.g. titles, abstracts, headings, passages, or references)— where (preferably) geometric and intelligent report structure play as an inseparable unit to a degree that can make it difficult to draw clear separating lines now and again (e.g. in separate or numbered records). To date, the predominant standard for authentic electronic record is the Portable Document Format (PDF). There are four basic types of elements that can, at present, be extracted from text and formed into templates. They are Entities, Attributes, Facts and Events.

Template component assignments (TEs) are free or non- partisan concerning situation or space. Every TE comprises of a non-specific protest and a few properties that depict it. This empowers isolating area free from space subordinate parts of extraction. The Template relationship assignment (TR) communicates an area free relationship between elements as contrasted and TEs, which simply distinguish substances themselves. The objective of the TR errand is to discover the connections that exist between the template components separated from the content (amid the TETask). Much the same as the meaning of a substance, element characteristics rely on upon the issue and the way of the writings being investigated; the connections that may exist between template components is area subordinate as well.[4] Here this concept was used to filter out the geometric components and identify the coherent units of the given document.

B. Layout Aware PDF Text Extraction

Document layout investigation is a key stride in changing over archive pictures into the electronic frame. Report layout investigation distinguishes key parts of a record, like titles, modified works, areas, page numbering, and puts the content on a page into the right reading order, which is an essential for optical character acknowledgment (OCR), and also most types of report recovery. Conventional record layout examination techniques will work for the most part in first attempt to total global segmentation of the archive into particular geometric areas comparing to elements like sections, headings and pas- sages utilizing features like vicinity, surface, or white space. Segmentation into areas is frequently completed utilizing heuristic strategies based on morphology or smearing based approaches, projection profiles (recursive X-Y cuts), surface based examination, investigation of the foundation structure. Every individual area is then considered independently for undertakings like content line finding and OCR. The issue with this approach lies in the way

²<https://www.latex-project.org/>

that acquiring an entire and solid segmentation of a report into independent parts is hard to accomplish. A few choices about which locales to join may well include semantic imperatives on the yield of an OCR framework.[1][5]

By examining the physical or logical layout of documents they are retrieved from database consisting of, for example, by Doermann et al.[3] The thought is to first play out a layout investigation of the reports in the database and the question report and after that to look at the layouts for the reasons for recovery.

This concept was used in my thesis as a container concept for identifying necessary individual components related to writing a research paper from the parsed document. The developed model categorizes the document to physical layout components like Margins, Font size and logical components like Title, Abstract and Introduction.

A model can have many interfaces depending on the type of example involved. The physics engine used in gazebo is open dynamics engine. The reason for ODE is it can simulate the dynamics and kinematics associated with rigid bodies. Open scene graph is the default visualization tool used in gazebo. It avoids the slow user interface and it also leads to fast rendering environment.

III.Variation Points

A Variation Point correspond to the different sections of a journal consisting a set of unique parameters, imposing a structural difference to every journal. For an instance, let's consider Title of a Journal. It is one of the crucial variation point which varies from journal to journal because of its textual properties like Font-size, Word spacing, Alignment, and so on. Similar to title, there exist many other salient textual variation points which enforce transition on a journal's outlook. If we look into content based variation points there are many and among them abstract, keywords, No. of citations, Related Work etc. are the variation points which are shared by most journals.

This section emphasizes on identifying variation points based on the physical layout of text in documents and variation points based on the logical content embedded within the text of a given document.

A. Layout-Based Variation Points

Layout based Variation points are those dimensions whose parameter changes brings out the structural variation in the journal. For example, The layout of a variation point like Title may be categorized based on its parameters like Alignment(left, right or center), Font size, Font Style and so on. All these parametric differences bring out structural difference in the paper. Following are few of the other Layout-based Variation points.

- Sub-Title
- Author Details
- Quotations
- Author Details
- Header and Footer
- Citations
- Footnotes
- Equations
- Appendix
- Nomenclature
- References

All these textual variation points share common text-based parameters like

- Font-Family
- Font-Size
- Text Color
- Text Decoration
- Font-weight
- Alignment
- Margins and Padding

Furthermore, there also exists certain variation points like Tables, Figures, Charts and Graphs, used to convey numerous and complicated data in a simpler form.

B. Content-Based Variation Points

This section concentrates on variation points based on the logical layout and content embedded in the document. Some of the variation points covered are Title, Abstract length, Order of chapters, No. of keywords, Abbreviations, Double-blind review, No. of citations (related work) and No. of authors. The following contents gives an overview on some of the content based variation points previously identified and the way in which they affect the impact created by a paper in a journal. In this paper let us consider two important variation points Title and Abstract and discuss their importance.

Title: The title is the most read part of a paper. Most often it is read first and at times it is the only thing that is read. The accuracy of the title helps users to find papers that are appropriate for their research using electronic indexing services. An effective title helps in identifying the main issue of the paper. It is unambiguous, accurate, complete and specific. It has the capability to catch the attention of readers. Based on the knowledge levels of the target readers a good title uses abbreviations very carefully. Some titles explain what the paper is all about while others tend to formulate a statement about the results that are presented in the paper. A good title is always simple, striking and precisely reflects the investigation. Acronyms could be used only if they can be identified by a large section of readers but should be avoided if they are known only to a specific community.

Abstract:[2] An Abstract is a short summary of the content of a paper. It is a single paragraph that embodies Introduction, Methods, Results, and Conclusions of the research paper in that sequence. However, it does not contain Figures and tables, Information not present in the paper, Literature review or reference citations or Abbreviations. It should comprise only those elements that could attract prospective readers. It should highlight elements like the purpose of research, procedures employed in solving the problems, results obtained and conclusions drawn.[2] An instructive abstract extracts everything applicable from the paper, such as research objectives addressed, methods that are employed in solving the problems, results obtained and conclusions were drawn. Such abstracts act as a substitute for full text. On the contrary, an investigative or expressive abstract rather highlights the content of the paper and may thus serve as an outline of what is presented in the paper.

An abstract should focus on depicting major findings in a manner that a general readership can identify with after reading. It justifies the purpose of choosing that particular problem with recommended solution and means to achieve that solution.

IV.Implementation Of Variation Points

This section describes the execution process of current application. It starts with extracting text from PDF and in- tegrating it into current application. The following sections also describes possible methods to extract variation points and finally we discuss about the procedure of automatic template creation.

A. Rendering text from PDF

PDF.JS¹⁴

Earlier rendering a PDF is a task which native application could deal with. However, it is now possible to recreate these native applications within the browser using many new HTML5 APIs and JavaScript engines. In native applications, the user(who uses the application) is outside developers control. They cannot change the program according to their requirements and needs. So now this tool PDF.JS solves the problem by giving full programmatic access to the user. PDF.JS is created by Mozilla labs. It is building faithful and efficient PDF renderer in a web browser. It uses HTML5 technologies and can be used without installing additional plugins. It is used by applications like Dropbox, CloudUp, and Jump share to allow users to view PDF documents unlike relying on native PDF viewing applications.

Integration of PDF.JS into our application

PDF.JS is a JavaScript library used in web browsers. These are the two JavaScript files pdf.js and pdf.worker.js necessary for PDF.JS to work efficiently. The purpose of these files is to first fetch the data then parse and render a PDF document. PDF.JS contains many methods and below are few of the important methods which are used in this application to fetch the content from PDF document PDFJS.getDocument, pdf.getPage, page.getTextContent().



Fig. 1: Processing steps in PDF.JS

The above diagram explains how PDF.JS is processed in current application

B. Extraction Methods of variation points

This section explains the extraction methods of few variation points.

Title Extraction Method: In any journal, Title of paper in most cases have largest font size when compared to any other sections in scientific papers and always occupies the first page of the journal. This methodology is to find all the font sizes of the first page and find the average of it. Words whose font size is greater than the average of all the font sizes are selected and pushed into stack and based on the below conditions it is constituted as Title.

Condition 1: check if the words in the single line are of same height.

Condition 2: Check if the words with same height are within range of 2 lines because in almost all the cases the Title lies within 2 lines.

If the string satisfies this conditions it is supposed to be the Title of the Journal.

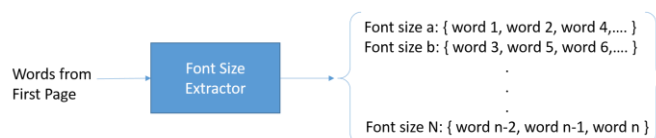


Fig. 2: Working of Font Size extractor

The above Figure2 Where a, b, c, are the different extracted font sizes and n is the total number of words Average Font Size = $\frac{\text{Font size a} + \text{Font size b} + \dots}{N}$ Where $N =$

¹⁴<https://github.com/mozilla/pdf.js>

a total number of extracted font sizes.

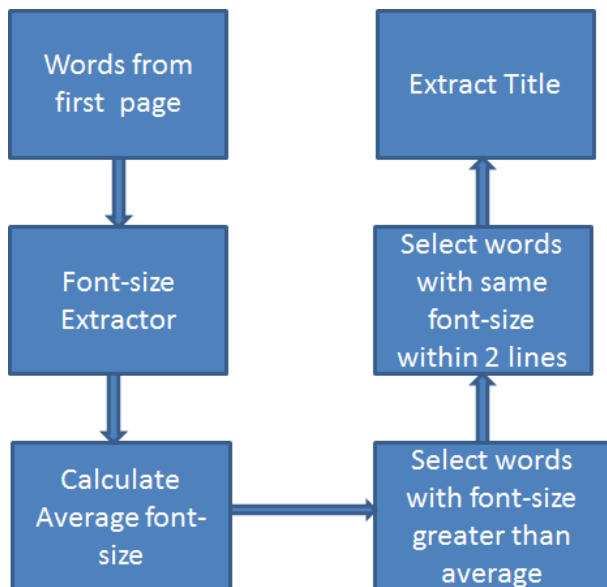


Fig. 3: Title extraction process

From Figure 3 we get the process of extracting title of the page. Once we found the title of the paper we can extract height of the title i.e. font-size by using objects (see Figure 5). Here font-size is text based parameter of title (see Figure 2). Hence, we found layout based information of the Title.

Abstract Extraction Method: This approach is similar to that of Keywords Extraction method, where the label "Abstract" is being searched on the first page. The possibilities of expressing word abstract are Abstract, abstract, Abstract:, A B S T R A C T etc. Now, start the count from the word where it matches one of the possibility until it reaches another heading like 'Keywords, Introduction, Table of Contents or until white space is found and there are no words after that space. We also check the condition i.e. The word count should be greater than 10. Here we assume the abstract is longer than 10 words if not the count is set to undefine.

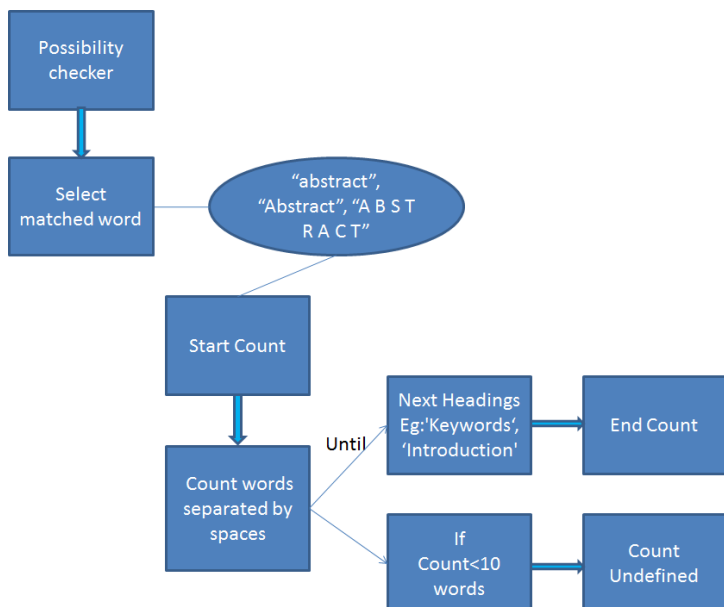


Fig. 4: Abstract extraction process

The Figure 4 explains the extraction process of abstract in current application

V.Evaluation

Table I evaluates the results of how extraction methods worked on 7 papers each from the listed journals

X=1 to 7

Journal 1= Frontiers in Aging Neuroscience Journal 2= Frontiers in Physics

Journal 3= Journal in Chemical Physics Journal 4= The Journal of Pediatrics

Journal 5= Industrial Marketing Management Journal 6= Qualitative Social Research

Journal 7= IEEE Conference Proceedings

Result in denomination x/y in the below table, x indicates the number of papers which showed up positive extraction results for a Journal and y indicates the total number of papers accounted for testing from that Journal. Most of the test cases shown in the above table showed positive outcome but there also exists certain cases where the test has failed to extract the results.

Case 1: Journal in chemical physics (Abstract) Case 2: IEEE Conference

Proceedings(Abstract)

TABLE I: Evaluation results, Result= Number of paper with correct result/ Checked papers of Journal X

Variation Points	Journals						
	journal 1	journal 2	journal 3	journal 4	journal 5	journal 6	journal 7
Title Result Percentage	7/7 100%	7/7 100%	6/7 85.7%	6/7 85.7%	7/7 100%	7/7 100%	3/7 42.8%
Title Result Percentage	7/7 100%	7/7 100%	7/7 100%	6/7 85.7%	7/7 100%	7/7 100%	3/7 42.8%
Title Result Percentage	7/7 100%	7/7 100%	6/7 85.7%	6/7 85.7%	7/7 100%	7/7 100%	3/7 42.8%
Abstract Result Percentage	7/7 100%	7/7 100%	1/7 14.2%	7/7 100%	7/7 100%	7/7 100%	5/7 71.4%

```

▼ 26: Object
  dir: "ltr"
  fontName: "g_d2_f1"
  height: 7.1731
  line: 26
  str: "-substituents lower the exci-"
  ► transform: Array[6]
  width: 97.60140829999999
    
```

Fig. 5: Example of object

VI. Conclusion

This thesis has described the problems faced by authors in adapting their papers according to the layout requirement of various journals and presented an approach to discover the template of the paper.

In identifying the varying layout and content requirements of a journal factors like Title, Abstract and Font size were taken into consideration. The proposed model was able to parse sample data and successfully generated an automatic template.

Reason: In above cases, this is due to that, in this papers, words are stored as split letters in different objects instead of a whole string in a single object(see figure 5). So, when we

search for word abstract or keyword we could never find them. Hence our algorithm fails to extract.

Case 3: IEEE Conference Proceedings (Title)

Reason: In this case, there are papers which contain Title with different font-sizes.

Hence it has become practically impossible to extract those variation points in this cases through our methodologies.

The below screen shot shows the elements present in object for example height, string, width etc. and also how they are structured.

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A Review on Big data in Healthcare

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Abstract

The world is generating a high volume of data in all domains, such as industries, stock markets, social media and healthcare systems. Most of data volume has been generated in the past years. This massive amount of data can bring benefits and draw knowledge to individuals, governments and industries and assist in decision making. In healthcare, an enormous volume of data is generated from healthcare providers and stored in digital systems. Hence, data are more accessible for reference and future use. The ultimate vision for working with health big data is to support the process of improving the quality of service in healthcare providers, reducing medical mistakes and providing a promoting consultation in addition to providing answers when needed. This paper gives systematic review of importance of big data analytics in healthcare system and also the analysis of different machine learning algorithms in the prediction of diabetic disease in big data healthcare.

Keywords: Big Data, Healthcare, EHR, Machine learning

1. Introduction

Big data is defined in a number of ways. Gartner defines big data as “high-volume, high-velocity, and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.” [1] Their “3V” definition is used by many other organizations. Health care data does appear to fit the “3V” portion of the Gartner definition. According to Health Catalyst, [2] Health care firms with more than 1,000 employees store over 400 TB of data per firm. This places health care fourth after securities and investment services, communications and media, and manufacturing. This certainly qualifies health care as a high-data volume industry. The transactional data in the health care industry changes rapidly. Claims are paid on a daily basis; patient data is abstracted into electronic health records (EHRs) multiple times a day; and the results of diagnostic tests are recorded electronically in real time. All of these attributes support the assertion that health care data meet the high-velocity criteria. Finally, health care data vary from discrete coded data elements to images of diagnostics tests to unstructured clinical notes. Although health care data meet the volume, velocity, and variety criteria, historically that data has not been used to enhance insight or decision making to its fullest extent.

Big data refers to the tremendous amounts of data made by the digitization of everything that gets united and broke down by explicit innovations. Applied to healthcare, it will utilize particular health information of a population (or of a specific individual) and possibly help to avoid epidemics, cure disease, cut down costs, and so on. The big data analytics application in healthcare has a lot of positive and also life-saving results.

“Now that we live longer, treatment models have changed and many of these changes are namely driven by data. Doctors want to understand as much as they can about a patient and

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as early in their life as possible, to pick up warning signs of serious illness as they arise – treating any disease at an early stage is far simpler and less expensive. With healthcare data analytics, prevention is better than cure and managing to draw a comprehensive picture of a patient will let insurances provide a tailored package. This is the industry’s attempt to tackle the siloes problems a patient’s data has: everywhere are collected bits and bytes of it and archived in hospitals, clinics, surgeries, etc., with the impossibility to communicate properly.”

To be sure, for quite a long time gathering colossal measures of information for therapeutic use has been expensive and tedious. With the present continually improving innovations, it winds up simpler not exclusively to gather such information yet in addition to change over it into significant basic bits of knowledge, which would then be able to be utilized to give better mind. This is the reason for human services information investigation: utilizing information driven discoveries to anticipate and take care of an issue before it is past the point of no return, yet additionally survey techniques and medicines quicker, monitor stock, include patients more in their very own wellbeing and enable them with the devices to do as such.

Processing of big data can be organized into four layers (Fig. 1). To process large amount of data collected from different sources which can be in different formats is a challenging task. Due to unstructured data, traditional database management system cannot be used for knowledge extraction form data. Big data may include structured, semi-structured, and unstructured data [10]. First, we collect data that is generated from different source and then collect and store it into one common platform. Most commonly, we use Apache Hadoop that is open source framework and provides Hadoop Distributed File System (HDFS) for distributed storage and fault tolerance [11]. MapReduce is the programming model of Hadoop which can be used to process huge amount of data as quick as possible [12]. The dataset is partitioned into training and testing subsets [13]. Machine learning algorithm can be implemented to perform intelligent analysis on input data and produce information that can be used to produce reports in processing layer.

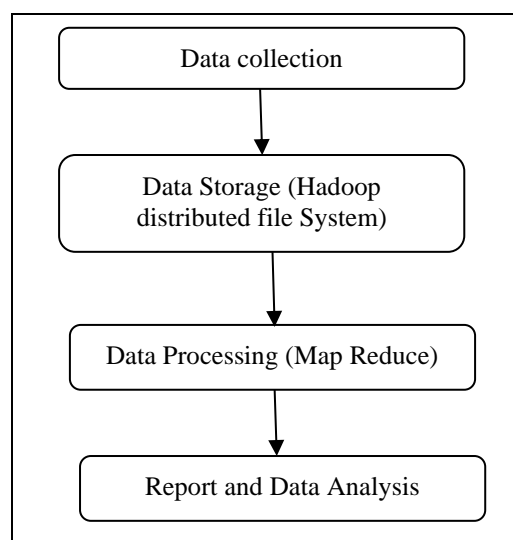


Fig. 1: Big data processing

2. Challenges in Big Data Healthcare

One of the greatest difficulties hindering the utilization of enormous information in drug is the means by which curative information is spread crosswise over numerous sources administered by several states, emergency clinics, and managerial offices. Coordination of these information sources would need building up another foundation where all information suppliers work together with one another.

Likewise imperative is executing new web based revealing programming and business insight methodology. Human services needs to make up for lost time with diverse ventures that have officially moved from standard relapse based methods to progressively future-situated like prescient examination, AI, and diagram investigation.

Be that as it may, there are some radiant examples where it doesn't fall behind, for instance, EHRs (especially in the US.) So, paying little respect to whether these organizations are not some sort, you are a potential patient, consequently you should consider new medicinal services examination applications. Furthermore, it's great to investigate some of the time and observe how diverse ventures adapt to it. They can rouse you to adjust and embrace some smart thoughts.

3. Comparison of disease prediction algorithms in Big Data Healthcare

In [3], authors have presented to increase in burden of chronic disease is hurting the economic and the prosperity of the country with the global risk, financial loss with increased expenditure, and loss of productivity and likely to affect India's economic development adversely over the next couple of decades. Instantaneous measures are to be taken to create awareness to thwart epidemic among Indian Population. A Big Data unified data analysis and evaluation framework is proposed to analyse the awareness of risk factors of Diabetes among young, middle-aged Indian population. As a first phase data acquisition is done from heterogeneous data sources with different formats (Xml, Log files, Text document, Whats app, Emails) using Scoop. The data acquired is converted from different structure to a structured format using ETL and Text mining engine, Diabetic corpus is formed using with the reference of the food chart and the domain consultant for further processing its stored in HDFS. The data analysis is done as a MapReduce task using machine learning algorithms and the results are visualized. The results show devastating effects on the middle aged Indian population. High intake of refined carbohydrate foods and significant reduction of physical activity resulted in many younger generations being more prone to endemic diabetes. Rapid nutrition transition due to westernized diet and lifestyle increase the rate of diabetes. More than half of the young adolescents are more prone to diabetes. Extensive studies and clinical evidences show that type-2 diabetes is almost preventable through lifestyle changes and food habits. To hold back the growing outbreak of diabetes, the primary prevention must be through advertise of a healthy diet, food nutrition value and good physical activity as a global public policy priority.

In [4], authors have presented Identification of Diabetes Risk Using Machine Learning Approaches. With the numerous sizes in digital Healthcare data processes, the classification and prediction based on the statistical data is very tough. This survey discusses several machine learning approaches such as supervised learning, clustering and regression for Diabetes Risk this paper shows the advantages and disadvantages of several traditional classification algorithms based on different techniques.

In [5], authors proposed a deeply supervised ResNet approach to classify the severity of DR automatically. In this new convolutional neural networks (CNN) architecture, they add three

sets of additional side-output layers to intermediate hidden layers of an 11-layer ResNet. By introducing these deeply supervised layers, they can provide additional regularization during training network. More importantly, they can perform multi-scale learning by leveraging the predictions of intermediate supervised layers, thus improving the final performance. Furthermore, to combat the issue of class-imbalance in the dataset, they adopt cost sensitive learning and an oversampling method of cropping images. They train and evaluate our network on the publicly available Kaggle dataset, and the results show that our method outperforms the state-of-the-art method.

In [6], authors have presented a novel adherence detection algorithm using Deep Learning (DL) approaches was developed for type 2 diabetes (T2D) patients, based on simulated Continuous Glucose Monitoring (CGM) signals. A large and diverse amount of CGM signals were simulated for T2D patient's using a T2D adapted version of the Medtronic Virtual Patient (MVP) model for T1D. By using these signals, different classification algorithms were compared using a comprehensive grid search They contrast a standard logistic regression baseline to Multi- Layer Perceptrons (MLPs) and Convolutional Neural Networks (CNNs). The best classification performance with an average accuracy of 77:5% was achieved with CNN. Hence, this indicates the potential of DL, when considering adherence detection systems for T2D patients.

They have investigated the possibility of building different classification models for adherence detection using CGM signals. The included models consist of logistic regression, and more complex models with Multi-Layer Perceptrons (MLPs) and Convolutional Neural Networks (CNNs). Additionally, in order to achieve better predictive performances, assembling was examined. In this context, Google's Tensor Flow (r0.12) was used as the platform to develop the algorithms, allowing straightforward configuration of the models. A robust adherence detection algorithm is essential, considering effective insulin therapy, avoidance of hypo- and hyperglycaemia in addition to finding subject-specific optimal (insulin) doses.

Sl. No	Title of the Paper	Techniques Used	Functions	Limitations
1	A Big Data framework to analyse risk factors of diabetes outbreak in Indian population using a Map Reduce algorithm.	Map Reduce using machine learning algorithm	(i) Important to identify the high risk populations and to implement policies to delay or prevent Diabetes onset. (ii) Type-2 diabetics can be preventable. Medical data analysis with accuracy, (iii) early prediction for disease, (iv) Patient oriented data with accuracy.	Early diagnosis must be done to decline the effect of diabetes affecting the health.

2	Identification of Diabetes Risk Using Machine Learning Approaches	clustering and regression model	This achieves effective prediction.	Prediction based on the statistical data is very tough.
3	Diabetic Retinopathy Classification using Deeply Supervised ResNet.	Convolutional Neural Networks(CNN)	The accuracy and timing of the diagnosis is maintained here.	It encounters issues when classifying the classes of mild and moderate diabetic retinopathy.
4	A Deep Learning Approach to Adherence Detection for Type 2 Diabetics	Convolution Neural Networks and Deep learning	(i) Investigated the possibility of building different classification models for adherence detection using CGM signals. (ii) Provide better diagnostic accuracy.	If large amount of real CGM data is not available, the possibility of patient-specific detection systems, based on DL models, should be complex to examine.
5	Application of Data Mining Techniques to Predict the Length of Stay of Hospitalized Patients with Diabetes.	Data mining method	Applied the stacked ensemble (or super learning) data mining method to predict the short-term vs. long-term length of hospital stay of hospitalized patients with diabetes.	The limitation of this work is that only the classification LOS prediction approach was applied.
6	An Early Detection System for Foot Ulceration in Diabetic Patients.	Tekscan Flexiforce sensors	(i) Early detection system for foot ulcer formation (ii) The device monitors high-risk areas on the soles of the feet for symptoms indicating ulceration.	A greater change in temperature may indicate the beginnings.
7	Comparative Analysis of Segmentation techniques for Progressive Evaluation and Risk Identification of Diabetic Foot Ulcers	K means clustering	(i) Thresholding method: Easy method and does not require any prior information. (ii) Edge based Method: More useful for different Contrast objects.	(i) Only the highest peaks are represented and there are no spatial details considered. (ii) Identifies many edges or boundaries leads to confusing results.

In [7], authors have applied the stacked ensemble method, with deep learning as the meta-learning algorithm, to predict long vs. short LOS (length of hospital stay) for diabetic patients in hospitals. The obtained results show that stacked ensemble technique is promising in this field because stacking multiple classification learning algorithms resulted in a better predictive performance than that obtained from any of the constituent learning algorithms. Having a reasonable estimate on LOS for patients with diabetes can help in optimizing the use of hospital resources, reducing healthcare cost, and improving diabetic patient satisfaction.

Motivated by the importance of predicting LOS for diabetic patients, they aim to develop a predictive model that can predict LOS for patients having diabetes as an existing condition. All patients considered in this study are diabetic patients. They might have diabetes only or diabetes in conjunction with other diseases.

In [8], authors have presented the research, design, and testing protocol of a device intended to act as an early detection system for foot ulcer formation. The device monitors high-risk areas on the soles of the feet for symptoms indicating ulceration. Pressure and temperature sensors placed at the targeted high risk areas of an insole are used in conjunction with a data acquisition system to read the necessary data from the soles of patients' feet. Pressure values they're taken from the big toe, the ball of plantar, and the heel of a 75kg healthy male while the subject was standing and walking. The data gathered indicates areas of the plantar that experience the most localized pressure and therefore are at the highest risk for ulceration.

The aim of this paper was to design a device that is capable of detecting when a patient is at an elevated risk for ulcer formation. Because the patient likely suffers from some degree of peripheral neuropathy, the device must be able to sense the things that he or she cannot. There are several subtle warning signs that precede ulcer formation. The two most notable of these warning signs are inflammation and dryness.

In [9], nowadays there is different imaging techniques such as CT, MRI and PET used in diagnosis of human body. Among which Infrared thermography is best suited for interpreting the pathophysiologic information on metabolic, thermal and vascular conditions of human body. This method of scanning is noninvasive, non-destructive and do not require any physical contact for the scanned object. Studies and clinical observations prove that IR thermography detects the diseases in early phase and provides the information for suitable therapeutic treatment. It is usual fact that accuracy of diagnosis in IR imaging depends on segmentation of Region of Interest (ROI).

Image segmentation algorithms automatically detect the region of interest and optimize the result for accurate extraction of measurements when compared to other methods. The present work defines some of the segmentation algorithms with various results in optimizing ROI's. The above Table 1 depicts the working methodologies of various big data techniques which can be used to achieve machine learning based prediction of disease.

5. Conclusion

Due to rapid enhancement in big data prediction and analysis, healthcare domain has got a valuable attention from recent few years. All machine learning techniques have less capability to perform better classification of big data in healthcare domain. There are numerous research from various domains are continuously working towards the development of achieving the prediction of diseases in the healthcare domain. The aim of this survey is to give the comparison based on functions and limitations of various techniques in the prediction of diabetic disease.

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Assessing the performance of higher education institutes in India through the lens of Times Higher Education World University Ranking

Dr. Kinjal V. Ahir*

Abstract

Higher education can play a pivotal role in knowledge production and dissemination in knowledge economy. If Indian economy is to leverage her demographic dividend, higher education will have to be of high quality to be able to create a mark in the global economy. While higher education in India is largest in terms of number of institutions, not a single higher education institute ranks in top 100 in any of the reputed global university rankings like THE, ARWU and QS. Hence, current research paper is an inquiry into the performance of Indian higher education institutes in THE rankings. Five Indian Institutes ranked in top 500 institutes in THE. However, the overall score for none of the five exceeded 50 points. Scores for some IITs in criteria like citations and industry income are comparable to the 99th ranking institute and thus raises hope for improvement in ranks in forthcoming years. While policy makers can use the ranks selectively and with caution, higher education institutes in India should put greater efforts in improving the quality of education and thereby score better ranks for global visibility and reputation.

Introduction

Indian economy is a strong contender in the contemporary competition among knowledge economies. Present Indian demographics and its future prospects, historical legacy in terms of knowledge production and dissemination since ancient times of Nalanda and Takshashila, growing aspirations of the citizens to pursue education, favorable socio-economic conditions, growing global importance of knowledge production and dissemination hold promises for the improvement of the performance of India amongst the global knowledge economies. Whether India will be able to leverage upon these strengths will depend upon the efficiency with which India succeeds in converting its human resource into human capital. Human capital enhancement lays emphasis on procuring good health and education. While education at all levels is vital for the economic development, knowledge production and dissemination largely happens at the level of higher education. India's is the world's largest higher education system by the number of institutions and second largest in terms of enrolments (Joshi and Ahir, 2013, 2014). However, none of the higher education institutes of India rank in top 100 global university rankings by Times Higher Education World University Rankings (THE, 2018), Quacquarelli Symonds World University Rankings (QS, 2018) and Academic Ranking of World Universities (ARWU, 2018). Hence the current research paper is an assessment of the performance of Indian higher education institutes in the global university ranking – THE and exploring the prospects for improvement in the rankings.

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Structure of the research paper

Objective of the research paper

The current research paper is an enquiry into the performance of those Indian institutes that ranked in the top 500 global universities in the Times Higher Education World University Ranking 2019 (THE, 2018). It is an attempt to understand the strengths to be enhanced and challenges to be dealt with in assuring a better performance of higher education institutes in India in the THE WUR.

Methodology, time frame and data sources

While there are majorly three reputed global university rankings including QS world university rankings and Shanghai Jiao Tong World University Rankings (ARWU), and THE WUR, THE WUR is highly recognized in the literature related to university rankings. Accordingly the data used in the research paper is sourced from the latest rankings available on THE WUR website to compare and analyze the performance of higher education institutes of India, ranking in the top 500 institutes in 2019 ranking. Scopes for improvement in these higher education institutes are identified and accordingly suggestions are provided for various stakeholders (THE, 2018).

Limitation of the study and area for further research

While the study is restricted to the analysis based only on THE, similar analysis can also be undertaken for other rankings. Such analysis can then be undertaken over a period of decade to recognize the trend in the performance of higher education institutes in India in such rankings. However the limitations of the rankings become inherent limitation of the current research paper further.

Times Higher Education World University Rankings

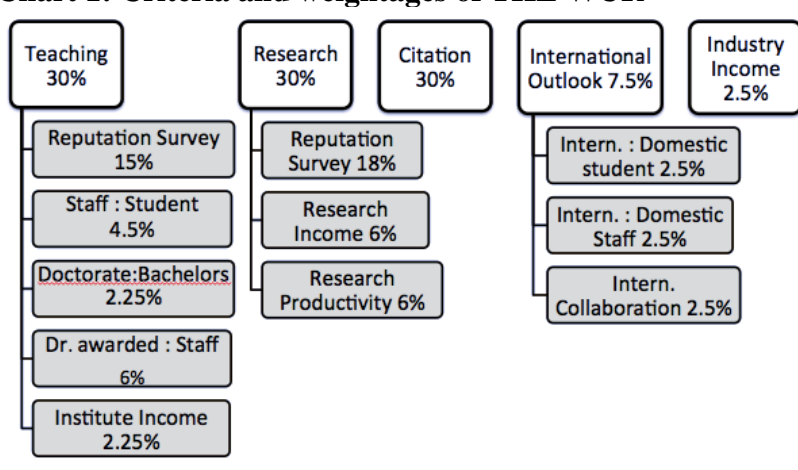
THE rankings

Times Higher Education World University Rankings are declared for top 1000 universities from about 1500 world universities. The data are released with ranks, overall score, and score on each criteria. The entire table can be filtered according to regions, countries and each criteria. Countries are ranked across 13 indicators broadly categorized among 5 criteria with different weightages. The five broad criteria include teaching, research, citation, international outlook, and industry income. Thus, if any student who is willing to identify and compare a higher education institute in a particular country with neighboring countries' performance on the basis of only research or international outlook, it can easily be filtered. 30 subject-wise rankings, overall scores and criteria-wise scores are released for each institute. Other than world university rankings and subject-wise rankings, THE also releases Emerging Economies Rankings (that ranks 350 universities from 42 nations. 7 out of 10 of these universities are located in China. A crucial ranking - World Reputation Rankings is a ranking 'by invitation only' from the academic experts and is necessarily a subjective opinion survey. Inputs of this survey also serve as sub-criteria in teaching and research and hence is a vital ranking. Young University Rankings ranks universities 'under 50 years' with changes in the weightages in the criteria. Additionally location specific rankings are also released such as Asia University Rankings, Latin America Rankings, US college Rankings (for which more than 2,00,000 college going students are surveyed), Japan University Rankings, Arab world Rankings, and Asia-Pacific Rankings.

THE methodology

Weightages and criteria differ for various additional rankings and are customized as per the ranking requirements, and for certain subjects. THE world university rankings provides different weightages for various criteria as shown in chart 1.

Chart 1: Criteria and weightages of THE WUR



Source: THE, 2018

As can be observed from chart 1 citation criteria alone is assigned a weightage of 30% over and above 30% weightage to research. Reputation survey in total accounts for 23%. Besides the output-based criteria related to the industry like industry income, research income, research productivity, and institute income have been assigned different criteria though lesser compared to other criteria.

Certain universities are considered ineligible if a particular university does not teach undergraduates, or teaches only one subject or produces on an average lesser than 200 research papers per annum.

Performance of Indian higher education institutes in THE world university rankings

As can be observed in table 1, none of the higher education institutes of India could mark its presence among the top 100 globally ranked institutes in THE WUR. The highest ranking Indian institute is Indian Institute of Science (IISc, Bangalore) ranked in the group of 251-300.

Table 1: A comparison of performance of higher education institutes in India in THE WUR

THE 2019							
Rank	Insti Name	Overall	Teaching	Research	Citation	Industry Income	Intern Collaboration
1	Uni of Oxford	96	91.8	99.5	99.1	67	96.3
99	Uni of Helsinki	62.4	46.2	57.6	87.5	37.4	54.4
251-300	IISc	46.4-49.4	56.7	51.4	41.7	50.7	20.2
351-400	IIT, Indore	41.7-43.9	25.1	20.2	86.5	34	18.2
401-500	IIT, Bombay	37.1-41.6	44.3	33	47	71.9	19.6
401-500	IIT, Roorkee	37.1-41.6	34.9	29.6	53.4	82.9	16.2
401-500	JSS Academy	37.1-41.6	37.1	7.7	80.8	35.1	25.7

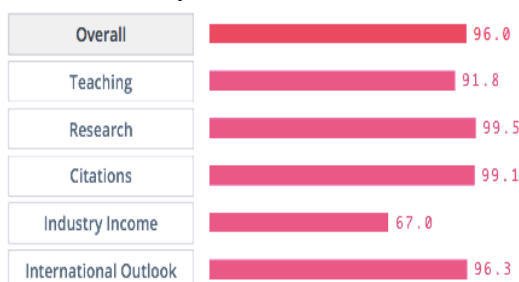
Source: THE, 2018

Besides IISc, IIT Indore, IIT Bombay, IIT Roorkee and JSS Academy of Higher Education and Research also ranked among top 500 globally ranked institutes. IIT Indore and JSS academy made their debut with an impressive score in the category of citations, higher than other established institutes ranked in THE.

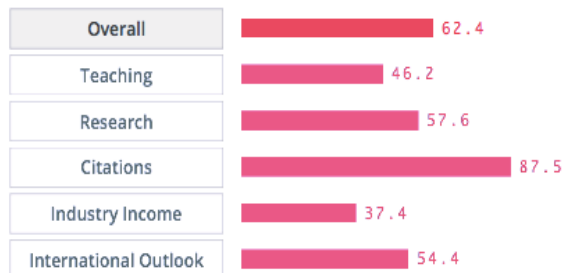
To bring the performance of higher education institutes in India into a global perspective, the performance of the top ranking university, University of Oxford is also displayed in table 1. Since the first goal post for higher education institutes in India is to reach among the top 100 ranks, the 99th (since 99 and 100 ranked institutes both shared the rank 99 and so 100th rank was skipped in 2019) ranked institute's score for University of Helsinki has also been displayed. It is expected to identify the avenue and the difference in the gap between Indian higher education institutes and the 100th ranking institute. For a better understanding of the data in the table1, figure 3 has been displayed, showing the same data as presented in table 1.

Figure 3: A comparison of performance of higher education institutes in India in THE WUR

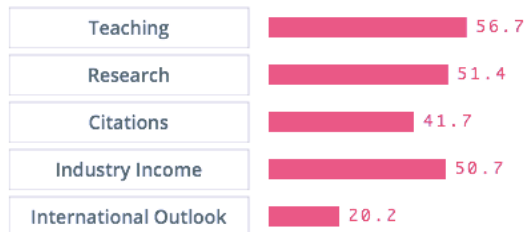
3.a University of Oxford (Rank 1)



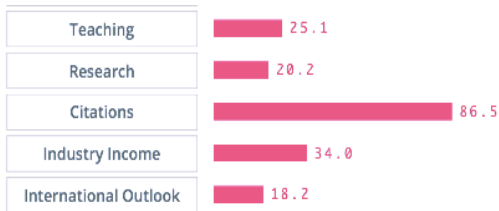
3.b University of Helsinki (Rank 99)



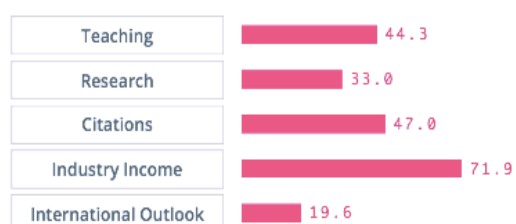
3.c IISc (Rank 251-300)



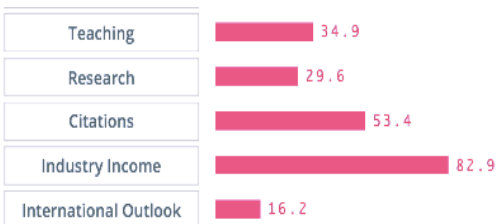
3.d IIT Indore (Rank 351-400)



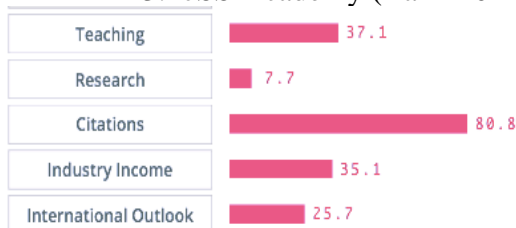
3.d IIT, Bombay (Rank 401-500)



3.e IIT Roorkee (Rank 401-500)



3.f JSS Academy (Rank 401-500)



Source: THE, 2018

As can be observed from the graphs on the criteria of industry income the score for IIT Bombay and IIT Roorkee is even higher than that for University of Oxford. the highest citations being the highest singularly weighted criteria, score of Indian institutes barring IIT Indore and JSS academy, is hardly comparable with Oxford university. Though in context of International outlook, the scores for Indian institutes is fairly less. Except IISc, scores for Indian institutes in the criteria of teaching and research is also not commendable. However the most noteworthy and vital difference is for the criteria of citation. Since citation is singularly allotted a weightage of 30%, the performance of Indian Institutes has been shown separately in figure 4.

Figure 4: A comparison of the score of higher education institutes for 'citation'

4.a IISc

4.b IIT, Bombay

4.c IIT, Roorkee



Source: THE, 2018

As seen in figure 4 the performance in terms of score on citation for IISc has been deteriorating. Score on citation for IIT, Bombay is neither commendable. Comparatively off late IIT, Roorkee scored relatively better in citation. IIT, Indore (86.5) and JSS Academy

(80.8) being ranked first time by THE, their performance deserves applause, but they should be able to sustain the same.

Subject-wise THE ranking 2019

The boxes with a 'yes' in table 2 depict the subject being offered by the respective institute. It can be observed from table 2 that the higher education institutes of India can improve their rankings by introducing more subjects. IISc is not ranked for many subjects that are non-technical and related to humanities and social sciences. Besides, the 19 subjects listed in table 2, 11 more subjects were not ranked for any Indian higher education institutes.

Table 2: Subject-wise ranking of Indian higher education institutes in THE, 2019

Subjects	IISC	IIT, I	IIT, B	IIT, R	JSS
Biological Science	Yes			Yes	Yes
Psychology		Yes			Yes
Physics and Astronomy	Yes	Yes	Yes	Yes	
Chemistry	Yes	Yes	Yes	Yes	
General Engineering			Yes	Yes	
Geology, Environmental, Earth and Marine Sciences	Yes			Yes	
Mathematics and Statistics	Yes	Yes	Yes	Yes	
Civil Engineering	Yes	Yes	Yes	Yes	
Computer Science	Yes	Yes	Yes	Yes	
Sociology		Yes			
Politics and International Studies		Yes			
Business and Management				Yes	Yes
Languages, Literature and Linguistics		Yes		Yes	
History, Philosophy and Theology		Yes			
Mechanical and Aerospace Engineering	Yes	Yes	Yes	Yes	
Architecture				Yes	
Electrical and Electronic Engineering	Yes	Yes	Yes	Yes	
Chemical Engineering	Yes		Yes	Yes	
Medicine and Dentistry					Yes
Total Subjects	10	12	9	14	4

Source: THE, 2018

Additional THE rankings for higher education institutes in India

Performances of higher education institutes in India in additional rankings presented by THE 2019 are displayed in table 3. Additionally it also displays the score based on various disciplines in THE 2019.

Table 3: Additional rankings for Indian higher education institutes

Rankings	IISC	IIT, I	IIT, B	IIT, R	JSS
Asia University Ranking	29		44	65	
World Reputation Ranking	91-100				
Emerging Economies	13		26	56	
Engineering and Technology	95	301-400	151-175	201-250	
Life Sciences	251-300		301-400	501-600	
Physical Science	251-300	251-300	401-500	501-600	
Computer Science	176-200		176-200	201-250	
Clinical, pre-clinical and health					251-300

Source: THE, 2018

Suggestions and conclusion

While India's higher education institutes make it the biggest higher education system in the world, the quality aspects as measured by the global university rankings pose a lot of challenges that still remain to be surmounted. Particularly in context of THE world university rankings, more coveted efforts are required. In terms of industry income IITs are doing better than the top ranking institution of the world, the University of Oxford. However, Institutes should become more multidisciplinary (like IISc should enhance non-engineering and non-technical programs). Getting a better score in reputation survey will benefit up to 23 % (15% through Teaching and 18% through Research) and hence efforts should be focused on enhancing the global outreach of the experts of these institutions. Improving on citation alone can influence 30 % of the evaluation Citation score is calculated on the basis of 25000 Elsevier Scopus Journals analyzing 14.1 million publications and 67.9 million citations. Accordingly, efforts should be enhanced to improve the publications in Elsevier Scopus journals. Besides, the regulatory framework should be improved to facilitate the movement of teachers and students, particularly inward movement of foreign students and teachers.

Global university rankings serve an important purpose of facilitating informed decision making for its various stakeholders like students, teachers, funding agencies, and employers. Nevertheless, global university rankings pose a lot of influence on national higher education policies. Nations should however be on guard that in the process of blindly chasing the criteria of improving global university rankings, the national goals expected to be achieved by higher education institutes are not sacrificed (Altbach, 2007). Like for India, given a low GER and equitable access to all deserving candidates is a very important objective to be fulfilled, even if it does not find a place in global university rankings, thereby demanding resources for such objectives.

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Macronutrient Distribution To Athletes

DR. PRATHEEPA.C*

Abstracts

Sports nutrition is a specialization within the field of nutrition that partners closely with the study of the human body and exercise science. Sports nutrition can be defined as the application of nutrition knowledge to a practical daily eating plan focused on providing the fuel for physical activity, facilitating the repair and rebuilding process following hard physical work, and optimizing athletic performance in competitive events, while also promoting overall health and wellness. The area of sports nutrition is often thought to be reserved for only "athletes," which insinuates the inclusion of only those individuals who are performing at the elite level. Differences may exist in specific nutrient needs along this designated spectrum of athletes, creating the exciting challenge of individualizing sports nutrition plans. In order to fully understand and subsequently apply sports nutrition concepts, professionals instructing athletes on proper eating strategies first need of have an idea on general nutrition as well as exercise science. The second step is to gain the knowledge of how nutrition and

exercise science is intertwined, understanding that physical training and dietary habits are reliant on each other in order to produce optimal performance.

Nutrients are environmental substances used for energy, growth, and bodily functions by organisms. Depending on the nutrient, these substances are needed in small amounts or larger amounts. The nutrients in the food are also categorized according to the relative amounts required by your body. Carbohydrate, protein and fat are termed macronutrients, as they are required in relatively large on a daily basis. These nutrients are also the energy-providing nutrients of your diet.

Basic Nutrients And Macronutrients

Foods and beverages are composed of six nutrients that are vital to the human body for producing energy, contributing to the growth and development of tissues, regulating body processes, and preventing deficiency and degenerative diseases. The six nutrients are carbohydrates, proteins, fats, vitamins, minerals, and water. These six nutrients are classified as essential nutrients. The body requires these nutrients to function properly; however, the body is unable to endogenously manufacture them in the quantities needed daily, and therefore these nutrients must be obtained from the diet. Carbohydrates, proteins, and fats are classified as macronutrients because they have a caloric value and the body needs a large quantity of these nutrients on a daily basis. The micronutrients include vitamins and minerals; the prefix micro-is used because the body's daily requirements for these nutrients are small. Water fits into its own class, and requirements for it vary greatly among individuals. Macro nutrients are more essential to the system, which is well discussed here.

Carbohydrates: Carbohydrates are compounds constructed by carbon, hydrogen, and oxygen molecules. Carbohydrates are converted into glucose in the body, providing the main

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source of fuel (4 calories per gram of carbohydrate) for all physical activity. Carbohydrates are found in a wide variety of foods including grains, fruits, and vegetables, as well as in the milk/alternative (soy, rice, nut, or other nondairy products) group. Humans need carbohydrates in the largest amounts. Currently, the USDA recommends that adults get 45-65% of their daily caloric intake from carbohydrates.

Proteins: Amino acids are the building blocks of proteins, constructed by carbon, hydrogen, oxygen, and nitrogen molecules. Amino acids can be made within the body (nonessential) or required from dietary sources (essential). Proteins are involved in the development, growth, and repair of muscle and other bodily tissues and are therefore critical for recovery from intense physical training. Proteins ensure the body stays healthy and continues working efficiently by aiding in many bodily processes. Protein can also be used for energy, providing 4 calories per gram; however, it is not used efficiently and therefore is not a source of energy preferred by the body. Proteins are found in a variety of foods including grains and vegetables, but are mainly concentrated in the milk/ alternative as well as meat and beans/alternative (soy products, nuts, seeds, beans, and other non-animal products) group. Currently the USDA recommends 10% - 35% of calories in the human diet come from protein. The typical American diet contains more protein than is strictly necessary.

Fats: Fats consist of oils and fat-like substances found in foods such as cholesterol and phospholipids. Fats are commonly referred to as lipids. With 9 calories per gram, fats are a concentrated source of energy. Fat is primarily used as a fuel at rest and during low to-moderate intensity exercise. Fats are also involved in providing structure to cell membranes, aiding in the production of hormones, lining of nerves for proper functioning, and facilitating the absorption of fat-soluble vitamins. Fats are concentrated in butter, margarines, salad dressings, and oils, but are also found in meats, dairy products, nuts, seeds, olives, avocados, and some grain products.

Classification Of Dietary Carbohydrates

The primary role of carbohydrates (sugars and starches) is to provide energy to cells in the body, particularly the brain, which is the only carbohydrate-dependent organ in the body. The Recommended Dietary Allowance (RDA) for carbohydrate is set at 130 g/d for adults and children based on the average minimum amount of glucose utilized by the brain. This level of intake, however, is typically exceeded to meet energy needs while consuming acceptable intake levels of fat and protein. The median intake of carbohydrates is approximately 220 to 330 g/d for men and 180 to 230 g/d for women. Carbohydrates can be broken down into three general categories: monosaccharides, disaccharides, and polysaccharides. Monosaccharides and disaccharides are commonly referred to as sugars or simple carbohydrates, while polysaccharides are called complex carbohydrates. Monosaccharides are carbohydrates that have one sugar molecule. Common sources include glucose, fructose, sorbitol, galactose, mannitol, and mannose. Disaccharides are carbohydrates with two sugar molecules. Common sources include sucrose and lactose. Polysaccharides are carbohydrates with three or more sugar molecules. Sources include dextrin, cellulose, and starches. Another kind of carbohydrate is fiber, which is composed mainly of indigestible polysaccharides.

Macronutrient Distribution And Diet Plans

Major health organizations define healthful diets as those providing 55 to 60% of total calories from carbohydrates, 10 to 20% from protein, and no more than 30% from fat. This general balance of energy-yielding nutrients is supported by the Dietary Guidelines for

Americans and has been translated into food guidance as part of the Food Guide Pyramid. The recent popularity of high protein, low carbohydrate diets, particularly for weight loss, is raising questions about the optimal distribution of carbohydrate, protein, and fat in the diet for health and disease prevention. Recommendations, both proven and unproven, are being made to alter the macronutrient distribution of diets to reduce chronic diseases such as obesity, Type 2 diabetes mellitus, syndrome X (insulin resistance), and cardiovascular disease, as well as to enhance athletic performance. Physically active people are advised to consume a high carbohydrate, low fat diet containing 55 to 65% of calories from carbohydrate, 25 to 30% from fat, and 10 to 15% protein. Endurance athletes (triathletes, cyclists, marathon runners) who train exhaustively on successive days or who compete in prolonged endurance events may need to consume 65 to 70% of their total calories from carbohydrates to maintain the body's relatively limited glycogen stores. The 40/30/30 diet does not provide adequate energy to sustain most athletes' performance. Further, there is no scientific evidence that this dietary regime improves performance. Carbohydrates in the form of glycogen are the primary source of energy during physical activity. Recently, four health professional associations - the American Dietetic Association, the American College of Sports Medicine, the Women's Sports Foundation, and the Cooper Institute for Aerobics Research - issued a joint statement indicating that high protein diets do not improve athletic performance nor are they the solution for weight loss. However, recommended (moderate) protein intakes can be used as a source of energy and are important for tissue repair, maintenance, and growth.

Macronutrient Requirements For Exercise

The fuel burned during exercise depends on the intensity and duration of the exercise performed, the sex of the athlete, and prior nutritional status. All other conditions being equal, an increase in the intensity of an exercise will increase the contribution of carbohydrate to the energy pool as the length of the exercise continues, the source of this carbohydrate may shift from the muscle glycogen pool to circulating blood glucose, but in all circumstances, if blood glucose cannot

be maintained, the intensity of the exercise performed will decrease. Fat contributes to the energy pool over a wide range of exercise intensities, being metabolized at somewhat the same absolute rate throughout the range; however, the proportion of energy contributed by fat decreases as exercise intensity increases because the contribution of carbohydrate increases. Protein contributes to the energy pool at rest and during exercise, but in fed individuals it probably provides less than 5% of the energy expended. As the duration of exercise increases, protein may contribute to the maintenance of - blood glucose through glucose genesis in the liver. In experiments in which subjects are tested in a fasting state, the contribution of fat to the energy pool will be greater than in people who are tested post periodically when exercise performed is moderate (approximately 50% of maximal oxygen uptake [V_{O2max}]). With exercise of higher intensity (greater than 65% of V_{O2max}), neither prior feeding nor training markedly affects the fuel used, however, to suggest that athletes need a diet substantially different from that recommended in the Dietary Guidelines for American or the Nutrition When energy intake is 4,000 to 5,000 kcal per day, even a diet containing 50% of the energy from carbohydrate will provide 500 to 600 g of carbohydrate (or approximately 7 to 8 g/kg for a 70 kg athlete), which is sufficient to maintain muscle glycogen stores from day to day.

Similarly, if protein intake in such a diet was even as low as 10% of energy intake absolute protein intake (100 to 125 g per day) would exceed the recommendations for protein intake for athletes (1.2 to 1.7 g per day or 84 to 119 g in a 70 kg athlete). Conversely, when energy intake is less than 2,000 kcal per day, even a diet providing 60% of the energy from carbohydrate may not provide sufficient carbohydrate to maintain optimal carbohydrate stores (4 to 5 g/kg in a 60 kg athlete). Typically, diets containing 20-25% energy from fat have been recommended to facilitate adequate carbohydrate intake and to assist in weight management where necessary. Thus, specific recommendations for individual energy components may be more useful when they are based on body size, weight and body composition goals, the sport being performed, and sex of the athlete. Protein needs of athletes have received considerable investigation, not only in regard to whether athletes' protein requirements are increased, but also in relation to whether individual amino acids are a benefit to performance. Mechanisms suggested to increase athletes' protein requirements include the need to repair exercise-induced micro damage to muscle fibers, use of small amounts of protein as an energy source for exercise, and the need for additional protein to support gains in lean tissue mass. If protein needs are increased, the magnitude of the increase may depend on the type of exercise performed (endurance vs resistance); the intensity and duration of the activity, and possibly the sex of the participants. For endurance athletes, nitrogen balance studies in men suggest a protein recommendation of 1.2 g/kg per day.

Resistance exercises increase protein requirements even more than endurance exercise, and it has been recommended that experienced male bodybuilders and strength athletes consume 1.6 to 1.7 g/kg body weight per day to allow for the accumulation and maintenance of lean tissue. Athletes should be aware that increasing protein intake beyond the recommended level is unlikely to result in additional increases in lean tissue because there is a limit to the rate at which protein tissue can be accrued, whereas other sources have suggested an intake of 1.2 to 1.4 g/kg per day. It must be ensured their energy intake is adequate otherwise; protein will be used as an energy source, falsely elevating estimates of the requirements under conditions of energy balance. It is worth noting that the customary diets of most athletes provide sufficient protein to cover even the increased amounts that may be needed. One proposal is that administration of branched chain amino acids (BCAA) may enhance endurance performance by delaying the onset of central nervous system fatigue. It has also been proposed that BCAA may extend performance by serving as substrates for energy expenditure. The results of human studies, however, have been inconsistent. Because the safety and efficacy of these mixtures has not been established, their use cannot be advocated. Some studies have proposed a positive effect of relatively high-fat diets (more than 70% of energy intake) on athletic performance. Careful evaluation of these studies shows little evidence supporting this concept. Fat is a necessary component of a normal diet, providing energy and essential elements of cell membranes and associated nutrients such as vitamins E, A, and D. However, the long-term negative effects of high-fat diets on health are well known. The Dietary Guidelines for Americans and Nutrition Recommendations for Canadians make recommendations for the proportion of energy from fatty acids (10% saturated, 10% polyunsaturated, 10% monounsaturated). Athletes should follow these general recommendations, and should also ensure that their fat intakes are not excessively low. The 1999 study by Deron and colleagues suggests that there are negative effects on blood lipid profiles in some people when total dietary fat intake is less than 15% of energy.

Dietician' S Responsibility

Every competitive and recreational athlete. needs adequate fuel, fluids, and nutrients to perform at their best. It is the role of the sports nutrition expert to advise athletes regarding appropriate nutrition needs before, during, and after exercise, and for the maintenance of good health_ and optimal body weight and composition. Qualified health and nutrition professionals can help athletes and active people in the following ways:

- Maintain the proportion of macronutrient in the diet plan, based on their requirements for their metabolism to be successful to produce energy for various types of activities in the sports discipline.
- Educate athletes about energy requirements for their sport and the role of food in fueling the body. Discourage unrealistic weight and body composition goals and emphasizing the importance of adequate energy intake for good health, prevention of injury, and exercise performance.
- Assess the body size and composition of an athlete for the determination of an appropriate weight and composition for the sports in which he or she participates. Provide the athlete with nutritionally sound techniques for maintaining an appropriate body weight and composition without the use of fad or severe diets. Undue pressure on athletes for weight loss or the maintenance of a lean body build can increase the risk of restrictive eating behaviors, and in extreme cases lead to a clinical eating disorder.
- Assess the athlete's typical dietary and supplement intake during training, competition, and the off-season. Regular assessment to provide appropriate recommendations for energy and nutrient . Intakes for the maintenance of good health, appropriate body weight and composition, and optimal sport performance throughout the year.
- Assess the fluid intake and weight loss of athletes during exercise and make appropriate recommendations regarding total fluid intake and fluid intake before, during, and after exercise.

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A Study On Customers' Perception On Service Of Star Hotels In Coimbatore City

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Abstract

Hotel industries are provide best service to their customers which is come under service sector. Service sectors are different from manufacturing sectors, all customers are important to this service sectors. Travel unavoidable to the families, business and professionals, hotels are very important to the travelers. Reasons for travel are different, according to that the travelers perception different. The hotel industries have to fulfill their customers' requirements, with in the available facilities. The following are the objectives of the study : (i) To present the socio economic profile of the study (ii) To formulate the impact variables of the hotel service and to find the impact variables of star hotels in the study area and (iii) To give suggestions to the hotel management and customers. the hotel management fails to identify the impact variables, this study help find the impact variables which influence the customers. There are twenty five 4 star hotels and forty eight 3 star hotels are available in Coimbatore, out of it ten leading 3 star and 4 star hotels were selected for this study. Seventy five questionnaires each were issued and collected back by the researcher, so total samples were 150 based on convenient sampling method. researcher concluded that the management should appoint more workers and staff to take care of their health. Customers are expecting good food, the star hotels providing quality and taste food, the customers felt the price are high but they are satisfied about the quality.

Keywords : hotel service, customers perception and hotel management

Introduction

Hotel industries are provide best service to their customers which is come under service sector. Service sectors are different from manufacturing sectors, all customers are important to this service sectors. Customers' expectations are different from one another, the management in need of adequate knowledge about the customers and their expectation. Service which they provide is an investments, today's investment will give good returns in future in the form of more valuable customers. There are lots of variables to measure the customers service which providing by the hotels. The management is getting feedback from their customers regarding their service after check out the hotels over phone and email. New customers steps in through existing customers reference, word of mouth has more value than advertisements. Online reviews and ranking systems helps the new customers to identify the hotels, it helps the management to get new customers without promotion activities. Travel unavoidable to the families, business and professionals, hotels are very important to the travelers. Reasons for travel are different, according to that the travelers perception

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different. The hotel industries have to fulfill their customers' requirements, with in the available facilities.

Importance of the study

Hotel industries providing lot of service to the customers, customers may impress and like some facilities. Hotel managements are know the customers expectation and give best service to the customers through their staff and amenities. There are lot of variable influence the customer satisfaction, the management should importance to the particular variables. But, the hotel management fails to identify the impact variables, this study help find the impact variables which influence the customers.

Objectives

The following are the objectives of the study :

1. To present the socio economic profile of the study.
2. To formulate the impact variables of the hotel service and to find the impact variables of star hotels in the study area.
3. To give suggestions to the hotel management and customers.

Research methodology

The researcher has taken Coimbatore city to conduct this present study, there researcher taken only 3 star and 4 star hotels at Coimbatore. Structured questionnaire used to collect data from the sample respondents, there are two part in the questionnaire. Part I used to collect the personal information of the customers and second part used to find the impact variables. There are ten variables formulated by the researcher to find the impact variables. Garret ranking used to find the impact variable of service which providing by the hotels. There are twenty five 4 star hotels and forty eight 3 star hotels are available in Coimbatore, out of it ten leading 3 star and 4 star hotels were selected for this study. Seventy five questionnaires each were issued and collected back by the researcher, so total samples were 150 based on convenient sampling method. The data collected done during the month of February 2019.

Research gap

Researcher gone through many studies which were conducted world wide, but there were no study conducted about this 3 star and 4 star hotels service at Coimbatore City. The researcher taken this chance and find as research gap to conduct study in Coimbatore City.

Analysis and interpretation

Percentage analysis adopted to present the socio economic factors of the sample respondents of this study. Garret ranking used to find the impact variables which were taken by the researchers.

Personal profile was collected from the sample respondents to conduct this study, there are some relationship between personal profile and perception of hotel service.

Table 1 : Gender of the sample respondents

Sl. No.	Gender	Number of respondents	Percentage
1	Male	96	64.00
2	Female	54	36.00
	Total	150	100

Source : Survey data

The above table presents the gender of the sample respondents, ninety six (64.00%) respondents are male and remaining fifty four (36.00%) sample respondents are female. Majority (64.00%) of the respondents are male.

Table 2 : Age group of the sample respondents

Sl. No.	Age group	Number of respondents	Percentage
1	Up to 35 years	24	16.00
2	36 years to 45 years	33	22.00
3	46 years to 55 years	51	34.00
4	Above 55 years	42	28.00
	Total	150	100

Source : Survey data

The above table shows the age group of the sample respondents, twenty four (16.00%) sample respondents are up to 35 years old. Thirty three (22.00%) sample respondents are between 36 years and 45 years old. Fifty one (34.00%) sample respondents are between 46 years and 55 years old and remaining forty two (28.00%) sample respondents are above 55 years old. Majority (34.00%) of the respondents are between 46 years and 55 years old.

Table 3 : Occupation of the sample respondents

Sl. No.	Occupation	Number of respondents	Percentage
1	Government employee	13	8.67
2	Private employees	70	46.67
3	Professionals	59	39.33
4	House wife	8	5.33
	Total	150	100

Source : Survey data

The above table shows the occupation of the sample respondents, thirteen (8.67%) sample respondents are government employees. Seventy (46.67%) sample respondents are private employees. Fifty nine (39.33%) sample respondents are professionals and remaining eight (5.33%) sample respondents are house wife. Majority (46.67%) sample respondents are working in private companies.

Table 4 : Monthly Family Income of the sample respondents

Sl. No.	Monthly Income	Number of respondents	Percentage
1	Up to Rs. 40,000	22	14.67
2	Rs.40,001 to Rs. 80,000	29	19.33
3	Rs. 80,001 to Rs. 1,20,000	61	40.67
4	Above Rs. 1,20,000	38	25.33
	Total	150	100

Source : Survey data

The above table presents the monthly family income of the sample respondents, twenty two (14.67%) sample respondents' monthly family income is up to Rs. 40,000. Twenty nine (19.33%) sample respondents' monthly family income is between Rs. 40,001 and Rs. 80,000. Sixty one (40.67%) sample respondents' monthly family income is between Rs. 80,001 and Rs. 1,20,000 and remaining thirty eight (25.33%) sample respondents' monthly family income is above Rs. 1,20,000. Majority (40.67%) of the sample respondents monthly family income is between Rs. 80,001 and Rs. 1,20,000.

Table 5 : Purpose of stay of the sample respondents

Sl. No.	Purpose of visit	Number of respondents	Percentage
1	Tour	27	18.00
2	Official visit	68	45.33
3	Medical treatment	39	26.00
4	Other reasons	16	10.67
	Total	150	100

Source : Survey data

The above table presents the purpose of stay at Coimbatore start hotels. the researcher identified four major purpose of visit i.e. tour, ii. official visit through their companies and own business. iii. medical treatment purpose and iv. other reasons. Twenty seven (18.00%) sample respondents come to Coimbatore for tour in this regard they stay in star hotels. sixty eight (45.33%) sample respondents come for official visit regarding their companies and / of own business purpose. Thirty nine (26.00%) sample respondents are come for medical treatment that time they use to stay at star hotels in Coimbatore remaining sixteen (10.67%) sample respondents are coming for other than above said three reasons. Majority (45.33%) of the sample respondents are coming for official and / or business purpose.

Table 6 : Source of Awareness of the hotel of the sample respondents

Sl. No.	Source of awareness	Number of respondents	Percentage
1	Friends and relatives	42	28.00
2	Advertisement	24	16.00
3	Internet and other source	57	38.00
4	Book by company	27	18.00
	Total	150	100

Source : Survey data

The above table shows the sources of awareness of hotel in Coimbatore. Advertisement are necessary for all manufacturing and service sectors, it depends the media. The management trying to find suitable media to shows their advertisement apart from that word of mouth is high influencing the new customers. Internet play major role in advertisement and review writing, customers are knowing these things to find the hotels. So, getting of new customers are also possible through existing customers. Forty two (28.00%) sample respondents are selecting the hotels through their friends and relatives reference. Twenty four (16.00%) sample respondents are selecting through advertisements. Fifty seven (38.00%) sample respondents are aware of through internet and other sources remaining twenty seven (18.00%) sample respondents said that their company books the hotel for their stay. Majority (38.00%) of the sample respondents are getting awareness through internet and other sources.

Table 7 : Opinion about the Hotel Room Rent of the sample respondents

Sl. No.	Opinion	Number of respondents	Percentage
1	High	41	27.33
2	Moderate	84	56.00
3	Reasonable	25	16.67
	Total	150	100

Source : Survey data

The above table shows the opinion about the hotel rent of the sample respondents. Opinion about the rent and other charges are based on the customers income and their standard of living. Out of one hundred and fifty sample respondents, forty one (27.33%) sample respondents felt that the room rent is high. Eighty four (56.00%) sample respondents felt the room rent is moderate and remaining twenty five (16.67%) sample respondents felt the room rent is reasonable. Majority (56.00%) of the sample respondents felt the room rent is moderate.

Table 8 : Level of satisfaction of hotel service of the sample respondents

Sl. No.	Level of Satisfaction	Number of respondents	Percentage
1	Highly satisfied	28	18.67
2	Satisfied	84	56.00
3	Dissatisfied	38	25.33
	Total	150	100

Source : Survey data

The above table shows the level of satisfaction of the hotel service of the sample respondents. Twenty eight (18.67%) sample respondents said they are high satisfied about the hotel service. Eighty four (56.00%) sample respondents said that they are satisfied and remaining thirty eight (25.33%) sample respondents said that they are dissatisfied about the hotel service. Majority (56.00%) of the sample respondents said that they are satisfied about the hotel service.

Table 9 : Perception on service – Ranking

S. No.	Variables	Rank							
		1	2	3	4	5	6	7	8
1	The star hotels are located in the convenient places	8	11	13	18	19	15	27	39
2	The rooms in the star hotels are spacious	11	17	21	28	11	33	11	18
3	The rooms in the star hotels are always clean and comfortable	38	28	17	15	27	10	9	6
4	The rooms in the star hotels have hygienic bathrooms and toilets	57	31	21	8	4	6	8	15
5	The star hotels provide the guests with complimentary items	27	10	8	6	18	27	22	32
6	The furniture in the star hotels modern and comfortable	15	14	11	24	19	22	18	27
7	The star hotel service providers are always punctual in their service	16	11	27	18	14	27	22	15
8	Safety to the customers belongings	37	24	13	22	34	5	6	9

Source : Survey data

The researcher taken eight variable which are influence the customers' perception of star hotel service. The variables are ; (i) The star hotels are located in the convenient places ; (ii) The rooms in the star hotels are spacious ; (iii) The rooms in the star hotels are always clean and comfortable ; (iv) The rooms in the star hotels have hygienic bathrooms and toilets ; (v) The star hotels provide the guests with complimentary items ; (vi) The furniture in the star

hotels modern and comfortable ; (vii) The star hotel service providers are always punctual in their service and (viii) Safety to the customers belongings. The sample respondents are asked to give rank 1 to 8 for the above said variables according to their experience in the star hotels.

Table 10 : Garret Ranking, Percentage and score

Sl. No.	Formula	Percentage	Score*
1	$100*(1-0.05)/8$	11.88	73
2	$100*(2-0.05)/8$	24.38	64
3	$100*(3-0.05)/8$	36.88	57
4	$100*(4-0.05)/8$	49.38	51
5	$100*(5-0.05)/8$	61.88	45
6	$100*(6-0.05)/8$	74.38	37
7	$100*(7-0.05)/8$	86.88	28
8	$100*(8-0.05)/8$	99.38	5

Source : Computed data

** taken from garret ranking table*

The above table shows the garret ranking table with formula, percentage and score which can be taken to find the rank through total score. Garret ranking table used to find the mean score, according to the mean score the impact variables find out by the researcher.

Table 11 : Garret Rank total score, mean and rank

Var. No.	Rank								Total Score	Mean	Rank
	1	2	3	4	5	6	7	8			
1	584	704	741	918	855	555	756	195	5308	10.62	8
2	803	1088	1197	1428	495	1221	308	90	6630	13.26	5
3	2774	1792	969	765	1215	370	252	30	8167	16.33	2
4	4161	1984	1197	408	180	222	224	75	8451	16.90	1
5	1971	640	456	306	810	999	616	160	5958	11.92	7
6	1095	896	627	1224	855	814	504	135	6150	12.30	6
7	1168	704	1539	918	630	999	616	75	6649	13.30	4
8	2701	1536	741	1122	1530	185	168	55	8038	16.08	3

Source : Computed data

The garret ranking score taken based on the means score which sample respondents given while data collection. The sample respondents given first rank to “the rooms in the star hotels have hygienic bathrooms and toilets”. Second rank was given to “the rooms in the star hotels are always clean and comfortable”. Third rank was given to “safety to the customers’ belongings”. Fourth was rank given to “the star hotel service providers are always punctual in their service”. Fifth rank was given to “the rooms in the star hotels are spacious”. Sixth rank was given to “the furniture in the star hotels modern and comfortable”. Seventh rank was given to “The star hotels provide the guests with complimentary items” and eighth rank was given to “the star hotels are located in the convenient places”. It concluded that the customers are consider the hygienic bathrooms and toilets and next preference for cleanness and comfortable of hotel rooms.

Findings

The following are the findings of the study

1. Majority (64.00%) of the respondents are male.

2. Majority (34.00%) of the respondents are between 46 years and 55 years old.
3. Majority (46.67%) sample respondents are working in private companies.
4. Majority (40.67%) of the sample respondents monthly family income is between Rs. 80,001 and Rs. 1,20,000.
5. Majority (45.33%) of the sample respondents are coming for official and / or business purpose.
6. Majority (38.00%) of the sample respondents are getting awareness through internet and other sources.
7. Majority (56.00%) of the sample respondents felt the room rent is moderate.
8. Majority (56.00%) of the sample respondents said that they are satisfied about the hotel service.
9. It concluded that the customers are consider the hygienic bathrooms and toilets and next preference for cleanness and comfortable of hotel rooms.

Suggestion

The following are the suggestion to the management and customers.

1. The customers are expecting hygienic bath room and rooms which providing by the star hotels. The management should appoint more workers to maintain and hygienic bath room and room to satisfy the customers.
2. The customers may spent more time in hotel, they are expecting television and more channels. Customers might see the place from their hotel room itself, so the management have to concentrate while selecting place to construct the hotel buildings.
3. The customers should expose their views about their experience through internet, it helps the other customers to select the hotels.
4. The management should read all the customers' reviews to overcome the issues. The existing customers' less rate might be over come through the new customers' high rate.

Conclusion

This study conducted to find the impact variable about the star hotels in Coimbatore. Only 3 star and 4 star hotels were selected for this study. Car parking facility is must for star hotels, but the customers do not see the car parking. The hotel management could go for valet car parking and spent that money to improve the hotel service quality. It concluded that People are having some health issues while travel to new places, the reasons might be official or personal. They are expiring hygienic hotel bath rooms and rooms, it will highly influence the customers. The management should appoint more workers and staff to take care of their health. Customers are expecting good food, the star hotels providing quality and taste food, the customers felt the price are high but they are satisfied about the quality.

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Role Of Social Media:-Youngsters Browsing Intention And Behaviour Outcomes

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Abstract

In Ancient days, the day break was started with worships but the trend has changed, now the day break starts with Social networking sites for the youth. Social networking sites like Myspace and Face book have seen tremendous growth over the past few years by attracting youngsters. In recent years social networking sites are playing vital role in youngster's life. The main objective of this study is aimed to know the Impact of social Networking sites on Young Consumer Buying Behaviour. The present study is empirical in nature .A Stratified sample of 380 respondents was taken for data collection. For Data analysis, Correlation analysis, Mean, Chi-square test are constituted.

Key Words: Social networking sites, Young Consumer, Buying Behavior, Correlation analysis, Chi-square test

Introduction

According to Boyd & Ellison In late 1990's social network born with Web 2.0 introducing features of blogging and posting with the website named '6⁰.com', promotes itself as a tool to guide and help people connecting with each other and providing E-messaging facility. Presently numbers of social networking sites are available. Social networking sites like MySpace and Face book have seen tremendous growth over the past few years by attracting youngsters. In recent years social networking sites are playing vital role in youngster's life. Youngster's minds are always been influenced by media, social websites which impact on youth creating additional challenges and opportunities. A recent Information which was published by Nielson found that nearly 80% of Internet users visit social media sites (Nielson, 2014). For young people technological revolutions and parents too much caring provide a key to open door for accessing such as the Internet on cell phones, iPads and other tablets, and better computer opportunities make access to social media easier.

Social Media concept:-

Web services which are Internet based; namely, Netflix, encyclopedias, social networking environments forums, podcasts and other environments where online sharing is possible. For many people, is representing technologies that makes our lives easier such blogs, WhatSapp, Facebook, Instagram .HeloApp these technologies socialize the internet. Social Media is a catalyst that reflects and accelerates changes in technology and society. By this Technological innovation, consumers can give or post Reviews, feedback and share their ideas with others. Presently in today's world individuals are free to make their own choices and decisions based on the information presented to them. The situation changes the methods that businesses use to communicate with consumers. In olden days companies could decide the image presented to consumers. However, Today, companies must be in constant contact with consumers in order to control their image. In this way, anyone using the internet is included in a bilateral communication process. YouTube, Twitter,

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LinkedIn and Facebook, known by almost everyone today, are the most important components of social media. Social Media networks create environments that can facilitate communication within the business world or can bring individuals with common interests together.

Objectives

The following are the main objectives of the study

- To Study Scio-economic profile of the respondents
- To study the relation between Social Networking sites usage
- Brand Awareness
- Word of Mouth
- Brand Loyalty

Hypotheses

Based on the Objectives the following hypotheses are formulated

H₀₁: There is no relation between Social Networking sites usage and Brand Awareness

H₀₂: There is no relation between Social Networking sites usage and WOM (Word of Mouth)

H₀₃: There is no relation between Social Networking sites usage and Brand Loyalty

Methodology of Study

For this study the following methodology was followed

- Sampling Method : Convenience
- Sample Size : 380
- Primary Data : Questionnaire.
- Secondary Data : Journals, Magazines, Books, Websites.
- Data analysis : Percentages, Rank Analysis, Correlation analysis

Data Analysis

Demographics of the respondents for this study are as follows.

Gender: Males 208, Females 174, Education: Up to Inter/Diploma=34, UG=138, PG and above=210, Age 30 and below =187, 31-40years=122, 41 and above=73, Marital Status: Married= 132, unmarried=250.

Diagram-1 Marital Status: Married= 132, unmarried=250

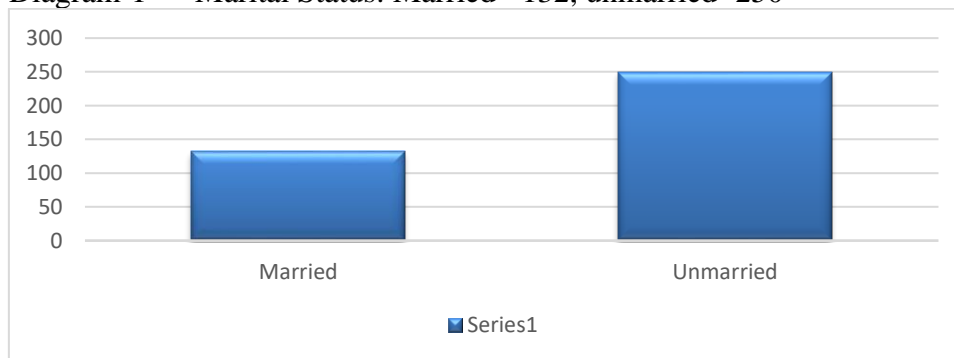


Table 1. Factor Loads

FACTORS LOADS

1	2	3	4	5	6	7	8	9	10	11	12	13	14
15	16	17	18	19									
.763	.801	.646	.724	.779	.621	.693	.762	.774	.719	.754	.662	.696	.823
.803	.793	.805	.818	.776									

Reliability of the questionnaire is calculated with alpha Cronbach test. The reliability coefficient calculated for a psychological test to be .70 and over is regarded to be sufficient for the reliability of test scores. The scale's Cronbach alpha reliability coefficient, prepared to determine the relationship between consumer buying behaviors and social media, is .965.

Source: Primary data

Hypotheses

H₀₁: There is no relation between Social Networking sites usage and Brand Awareness

Table-1

	Social Networking sites usage	Brand Awareness
Social Networking sites usage Pearson Correlation Sig.(2-tailed)	1	.540 .000
Brand Awareness Pearson Correlation Sig.(2-tailed)	.540 .000	1

Source-Primary data

Interpretation

Sig .value is <.05 hence rejected null hypotheses and accepted alternative hypotheses. Concluded that there is a positive relation between Social Networking sites usage and Brand Awareness

H₀₂: There is no relation between Social Networking sites usage and Word of Mouth

Table-2

	Social Networking sites usage	WOM(Word of Mouth)
Social Networking sites usage Pearson Correlation Sig.(2-tailed)	1	.601 .000
WOM(Word of Mouth) Pearson Correlation Sig.(2-tailed)	.601 .000	1

Source-Primary data

Interpretation

Sig .value is <.05 hence rejected null hypotheses and accepted alternative hypotheses. Concluded that there is a positive relation between Social Networking sites usage and WOM (Word of Mouth)

H₀₃: There is no relation between Social Networking sites usage and Brand Loyalty

Table-3

	Social Networking sites usage	Brand Loyalty
Social Networking sites usage Pearson Correlation Sig.(2-tailed)	1	.327 .000
Brand Loyalty Pearson Correlation Sig.(2-tailed)	.327 .000	1

Source-Primary data

Interpretation:

Sig .value is <.05 hence rejected null hypotheses and accepted alternative hypotheses. Concluded that there is a positive relation between Social Networking sites usage and Brand Loyalty

Conclusion

It is concluded that there is a positive relation between Social Networking sites usage and Brand Awareness, WOM (Word of Mouth), Brand Loyalty

Limitations

1. Sample size was limited to 382 because of limited time which is small to represent the Whole population
2. The research was limited to Andhra Pradesh only

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Problems And Prospects Of Tourism Industry In India

Amit Kumar*

Abstract

Tourism is unique. It involves industry without smoke, education without classroom integration without legislation and diplomacy without formality. Tourism means the business of providing information, transformation, accommodation and other services to travelers. Now-a-days the tourism industry has a greater importance. India has a great heritage of historical place like the Taj Mahal, Various Forts, Natural sites etc. Since 2000 tourism industry has been giving number of benefits to India. India has tremendous potential to become a major global tourist destination and Indian tourism industry is exploiting this potential to the hilt. Travel and tourism industry is the second highest foreign exchange earner for India, and the government has given travel & tourism organizations export house status. The main objectives of this Study are

1. To take review of tourism industry of the country
2. To study the growth and performance of tourism industry in India
3. To study the trend of foreign tourist arrival in India
4. To identify the problems of tourism industry in India and suggest remedies

The number of foreign tourist visited to India which has given foreign exchange earning to the Country. Here, we have focused the growth and performance of the Indian tourism industry. We have also analyzed the causal analysis of the Indian tourism industry for overall development of the Indian economy. National tourism policy 2002 and its implications are important in this context

Keyword: Tourism Industry, Growth and Performance, Problems and Prospects, Tourism Policy.

Introduction

Tourism is unique. It involves industry without smoke, education without classroom integration without legislation and diplomacy without formality. Tourism means the business of providing information, transformation, accommodation and other services to travelers. It is a situation where person from one country, or region to other region and country for a short run period, is included in the concept of tourism. Now-a-days the tourism industry has a greater importance. India has a great heritage of historical place like the Taj Mahal, Various Forts, Natural sites etc. Since 2000 tourism industry has been giving number of benefits to India. The number of foreign tourist visited to India which has given foreign exchange earning to the Country. Here, we have focused the growth and performance of the Indian tourism industry. We have also analyzed the causal analysis of the Indian tourism industry for overall development of the Indian economy. National tourism policy 2002 and its implications are important in this context. India has tremendous potential to become a major global tourist destination and Indian tourism industry is exploiting this potential to the hilt. Travel and tourism industry is the second highest foreign exchange earner for India, and the government has given travel & tourism organizations export house status.

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The buoyancy in the Indian tourism industry can be attributed to several factors. *Firstly*, the tremendous growth of Indian economy has resulted in more disposable income in the hands of middle class, thereby prompting increasingly large number of people to spend money on vacations abroad or at home. *Secondly*, India is a booming IT hub and more and more people are coming to India on business trips. *Thirdly*, aggressive advertising campaign “Incredible India” by Tourism Ministry has played a major role in changing the image of India from that of the land of snake charmers to a hot and happening place and has sparked renewed interest among foreign travelers.

Travel & Tourism industry's contribution to Indian industry is immense. Tourism is one of the main foreign exchange earners and contributes to the economy indirectly through its linkages with other sectors like horticulture, agriculture, poultry, handicrafts and construction.

Tourism In India

India abounds in tourism potential in all spheres, be it historical or cultural, be it hills and forests or other places of scenic beauty, be it wildlife, be it hot springs, and be it fairs, festivals and people. For the tourists, India has two special attractions which few other countries can offer – rich and varied wildlife and a wealth of ancient monuments. The remains and relics of the prehistorically ‘civilization, the temples, sculptures and holy sites associated with Buddha, the Hindu temples and caves at Ellora, Elephanta, Khajuraho, Khandagiri, Udaygiri and Tanjore; the monuments, palaces and forts of Muslim rule – the exquisite Taj Mahal – and the remains of European rule like the Portuguese forts and churches at Goa, Diu and Bandel and the British forts and residencies at Chennai, Surat and Lucknow and the beauty spots on the Himalayas are all tourist attractions.

There has been widespread awareness of the potential benefits of tourism, but very little has been done in practice to tap this vast potential. Spain, Portugal and Mexico are much smaller countries than India but earn 50 times more from tourism.

The Department of Tourism has been responsible for injecting dynamism and enthusiasm into the industry. The tourist-is-enthusiastically welcomed – airport placards declare: “Tourists are our honored guests”- and cared for with greatest courtesy and hospitality.

Between 1951-81, the compound growth rate of tourist arrivals in India was 14 Per cent as against the world average of 8.2 per cent and India's share of world tourist traffic went up fivefold, but it is still a meager 0.29 per cent. In absolute terms India's foreign tourists visited India against 800, 150 in 1980. We have this opportunity to tap a much bigger share of the world tourist traffic.

Future Of Tourism

Tourism has developed to a level where it has become a major industry, a major force for social change and a major power for good, for evil.

The world is in a period of rapid transition; the traditional tourist generating countries are moving from an industrial stage to becoming post-industrial societies. With this change, lifestyles and values are also changing; the old desire to accumulate material possessions shows signs of abating; this will result in a new desire to accumulate experience as avidly as we formerly collected possessions. This changing lifestyle will influence consumers' demand for travel.

The following variables will shape tourism in the future:-

Demographic and Social Trends

Future demographic and social trends will influence tourism demand to the year 2000 and beyond. Demographic trends, such as ageing populations in the major generating countries and the declining number of young people, are particularly important, Demographic trends are mixed up with the social Trends which lead to late marriages, couples having children in later life and increased numbers of single child and childless – couple households. In the Third World, growing labour force will lead to immigration to the developed world and the growth of knowledge and interest in other countries will see a convergence of lifestyles worldwide. With increased level of education, these trends will give people more time, resources and inclination to travel. This will be encouraged by the growth and spread of discretionary incomes and the liberalization of trade on an international scale.

Political Developments

In the late 1980s we saw a change of the political map of the world, and this has a number of implications for tourism. The fall of communism has led to expansion of tourism because huge numbers thronged to see the outside world. The emergence of market economy in Eastern Europe and the opening of the borders will pave the way for east European countries to participate more fully in travel movements, particularly to western countries. Already Hungary has become a – leading international destination for tourism and other parts of Eastern Europe will become important destinations as travel restrictions are eased.

Transportation Development

Tourism is highly dependent upon transport technology and the consequent improvements in efficiency and safety of travel. Although it is generally accepted that total deregulation of the international airline industry is not practical, the trend towards deregulation will continue in 1990s in Europe. In the US deregulation has led to domination by a small number of larger airlines- a trend which is emerging in other sectors of the tourism industry.

Forecasts of international transport over the next 10 years predict that technological developments, increased airline efficiency and labour productivity savings will offset any rises in aviation fuel prices and thus fares will continue to fall. This will support the continued trend towards long haul travel.

Other Influences

There are other variables which also influence the future of tourism. These include the changing value systems of the consumers as well as global warming. The raising of the earth's temperature and the consequent rise in sea level will affect tourism.

Human behavior too is a threat to tourism as the spread of AIDS may render some otherwise attractive destinations no-go areas; increasing incidence of skin cancer⁴ may reverse the fashion for a suntan; and disease in some parts of the world decreasing levels of safety will constrain the uninhabited expansion of tourism.

Some futurologists have predicted that there will be no need to travel away from home in the twenty-first century. Holographs are capable of reproducing an environment artificially, so that we will be able to recreate in the home any environment of our choosing in order to 'experience' foreign travel.

Significance Of Tourism

As already mentioned, tourism is unique because it involves industry without smoke, education without classroom, integration without legislation, and diplomacy without formality.

The importance of tourism was highlighted when the UN General Assembly designated 1967 as the International Tourist Year. It recognized that tourism is a basic and desirable human activity deserving the praise and encouragement of all peoples and governments.

The so-called Manila Declaration supports the view that tourism is an activity essential to the life of nations because of its direct effects on social, cultural, educational and economic sectors of societies.

It stated its conviction that the world tourism can contribute to the establishment of a new international economic order that will help to eliminate the widening economic gap between developed and developing countries and ensure the steady acceleration of economic and social development and progress, in particular of the developing countries.

Tourism is the world's largest export industry which, according to WTO, generated about US\$372.6 billion during 1995 by some 567 million tourists worldwide. In the same year travel and tourism is said to have provided direct and indirect employment for 212 million people accounting for 10.7 percent of global workforce. Tourism, thus, provides a major contribution to foreign exchange earnings of several developing and even developed countries. In 1990, world tourism generated 12 percent of world GNP. Domestic tourism is assumed to be nine times greater than international tourism.

Today, tourism is a major item of international trade – perhaps the biggest international business activity after all. International tourism is the largest single item in the world's foreign trade and for some countries; it is already the most important export industry and earner of foreign exchange.

The economic gap between rich and poor countries has widened over the past decades. To create new industries and to transform rural life of a developing country like India is a gigantic task. The relevance of tourism in this situation is that income from international tourism can bring the foreign exchange essential for major.

By appreciating other people's ways of life and institutions, tourism may create goodwill for a country. Tourists travel to participate in many events like conferences, exhibitions, etc; their visits also provide an opportunity to improve cooperation as well as to project an image of a country to the outside world. When tourists come in contact with other people, social exchange takes place. Tourists often carry back home with them new ideas and a new outlook on life.

Tourism has an educational significance. It has a beneficial effect which is brought about through contact between people of different races and nationalities. To a Soviet Writer, tourism is a form of culture contact between peoples of different countries.

Tourism is an integral part of modern life. As a force social change's tourism has had an impact of the same order as the industrial revolution. In the last three decades, tourism has transformed the way the world looks and works.

No place in the world is isolated. The realms of space have been conquered and many remote corners of the globe are now accepted holiday centers. Distance is no longer so much costly. All this has transformed not only world economics but also human lifestyles. Now businessmen and politicians travel from one country to the next, covering thousands of miles, in a matter of hours, some even live in one country and work in another.

Objectives Of The Study

The main objectives of this Study are

1. To take review of tourism industry of the country
2. To study the growth and performance of tourism industry in India

3. To study the trend of foreign tourist arrival in India
4. To identify the problems of tourism industry in India and suggest remedies

Data and Methods

Data And Methods

The present research paper is mostly based on secondary data sources. We have collected secondary data required for this paper from Reports of the Ministry of Tourism, Govt. of India 2017, India Tourism Statistics at a Glance 2017, Statistical Handbook of India, and other related information has been collected from the policy papers as well as research papers published in various journals. All collected data was analyzed with the help of trend line analysis.

Review Of Indian Tourism Industry

In India, the Central Government and State Government have announced separate tourism policy concern to their state time to time. Tamilnadu, UP, Andhra Pradesh, Karnataka, Maharashtra, MP, Kerala, Rajasthan, Gujarat and West Bengal are the important states where tourism industry has developed. Due to the increasing importance of tourism sector Seventh five year plan of the Government of India has announced the tourism sector as industry. The first public milestone in the history of the Indian tourism sector is the establishment of Indian Tourism Development Corporation (ITDC) in 1966. On the Basis of this, majority of the states have given the facilities through ITDC separately.

The literatures on the various aspects of tourism are quite enough. But literature on the various aspects of travel, tourism, recreational and hospitality are found only in the western country. Many scholars have written books dealing with their views with different issues of tourism.

Dr. M.M. Khan (2009), wrote an important book series on, "*Encyclopedia of Tourism*". He emphasized on theoretical framework of tourism development such as fundamental aspects, salient features and various organization. He gives the role of tourism organization at the international and national levels for the development and promotion of tourism industry, all phenomenon has been explained in Vol-I. In Vol-II, he stated the origin of tourism, types of tour operations, system of social organizations, different theories of criminality, relation between tourism and hotel industry. Vol - IV deals with the basic aspects of ticketing and booking, global ticketing, complete history of ticketing and booking of air, rail, water and road transportation for travelling.

M. B. Potdar (2003) in her research work (Unpublished doctoral Thesis) entitled "*Tourism Development in South Konkan*" reveals a treasure of tourism, beaches, horticulture, scenic beauty, historical monuments, temples and churches, local folk arts, handicrafts, food and festivals, biotic life are the resources available for ideal tourism in South Konkan. Therefore there is tremendous scope for tourism development in South Konkan. She studied economic and socio-cultural impact on local people by considering case studies in study region. In her research work, she lighted on some problems and suggested remedial measures for better development of tourism in south Konkan.

Subhash N. Nikam (2003), has presented in his research work (unpublished doctoral thesis) entitled "*Potential and Prospects for Tourism Development in Nasik District*". His attempt has been made to understand for the tourism development by considering four case studies and find out the potential and prospects for the planning at different destinations in the district. His also gave valuable suggestions for tourism development in the Nasik district.

National Tourism Policy 2002

The important features of National Tourism Policy 2002 are as follows;

1. Tourism is an important tool for employment generation, economic development and rural transformation in India
2. To take advantage of global trade transaction through travel and tourism
3. This policy is based on seven key indicators of tourism development. These indicators are i) welcome ii) information iii) facilitation iv) seaftyness v) Co-operation vi) infrastructural development vii) cleanliness
4. To use human resource, natural resources and technical resources for sustainable development
5. To use labour intensive technique in tourism sector for employment generation and up gradation of quality of life.
6. To focus on rural areas for low cost programmes related to tourism centers
7. To create forward and backward linkages in the tourism sector for overall development
8. To increase the foreign earnings through export of tourism services
9. To promote understanding, peace and to contribute national unity and regional stability
10. To develop shopping centers for the revenue generation and other rural tourism products

Growth Of Tourism Industry In India

A growth of Tourism industry in India since 2005 to 2018 is continuously growing in respect of number of foreign tourists' arrivals and foreign exchange earnings. According to the annual export of tourism industry of 2013-14, the progress of Tourism industry is shown in the Table No-1

Table No1: Foreign Tourist Arrivals (FTAs) in India, 2005-2018		
Year	FTAs from Tourism in India (in Millions)	Percentage (%) change over the
2005	3.92	13.3
2006	4.45	13.5
2007	5.08	14.3
2008	5.28	4.0
2009	5.17	-2.2
2010	5.78	11.8
2011	6.31	9.2
2012	6.58	4.3
2013	6.97	5.9
2014	7.68	10.2
2015	8.03	4.5
2016	8.80	9.7
2017	10.04	14.0
2018	10.55	5.2

Table No1 indicates the growth of foreign tourists' arrival in India. If we consider the trends in foreign tourists arrivals in India since 2005 to 2018 there is continuous growth.

In the nut shell every segment of; ecotourism in the state has huge potential for economic gains. These financial benefits are necessary for desired positive impacts on the economy which are identified as follows:

1. Financial Benefits`

According to The United Nations Environment Programme, Only \$5 of every \$10 spent by tourists in the developing world stays there. As ecotourism advocates the participatory approach of the locals, the involvement of local people in ecotourism helps to prevent this "financial leakage" of tourist income out of the host country through international hotel chains and tour operators.

2. Empowerment of Local Communities

As ecotourism ventures are planned and managed at a local level. Community members stay involved at all stages of the process. Involving local people not only tends to make them more positive about tourism, but also empowers them as a community while encouraging travelers to visit their areas. Generally, mass tourism ignores the local's welfare but with ecotourism, money goes directly into local communities, thus making them self reliant.

3. Eradication of Poverty / Raises the living standard of locals

Ecotourism provides a longer-term solution to poverty than the "quick fix" of a charitable handout. further brings a better standard of living through development and improvement of infrastructure facilities for the communal benefits such as hospitals, drinkable water facilities, education, new roads, electricity etc. Indirect incentives in Sunder ban Project, it has been noted that a part of the increased income from ecotourism is used to finance the Education of their children. The great Himalayan National Park is another bright example of ecotourism project in India.

4. Generating employment opportunities

Ecotourism plays a particularly important role in creating jobs especially in remote regions that are least benefited from economic development programs. In these remote areas even a few jobs can make a big difference where populations are low and livelihood alternatives are few. Ecotourism in the Kumaon Region can provide various jobs and business opportunities to local communities close to Protected Areas, mountain climbing routes, scenic locations and trekking routes as tour guides, drivers porters etc. Also some businesses like resorts, lodges, guesthouses, Home stays, restaurants and shops around the destinations are also owned by local people.

Table: 2 Employment Opportunities for Ecotourism Participants in the Protected Areas

Inside Park	Outside park
Wages from employment in the park (Patrolling staff, Plantation worker, gatekeeper, housekeeping , gypsy drivers, mahawat)	Self-run enterprises like lodge, restaurants, transport, home-stays
Eco-development run enterprise (Souvenir shop, canteen, Eco-lodges)	Wages from employment in lodges, restaurants, Transport
Professionals like nature guides,	Wages from construction and developments activities.
Temporary workers for park related construction and Other development activities	Earnings from parking fees for vehicles Shopping by the tourists

Moreover ecotourism also promotes cottage and small local industries that run by using locally available resources – forest products, local agriculture products, animal herding etc. further generating more employment opportunities in the region

5. Benefits to other industries

The growth linkage possibilities of ecotourism development can have far reaching effects on other sectors of the economy. For example, a visit to the Corbett Tiger Reserve entails not only entrance fee, but also a bus ride to the park, a stay in a private resort or forest rest house, dining in the restaurants, and the purchase of souvenirs from local vendors etc. Thus, tourist expenditure can stimulate other economic activities from the communications industry to agriculture. The money spent by visitors goes into quick circulations and permeates in the economy.

6. Transfer of wealth from rich to poor

Tourism is an excellent vehicle for transferring income from wealthy nations and persons to the poorer sectors of society. Ecotourism is especially effective in this transfer since travelers often venture into remote, economically-disadvantaged regions. Generally the majority of eco-tourists have above average income profiles with high affordability. They are willing to spend more for the satisfaction of their travelling quest. Sometimes they also make donations for conservation efforts.

7. Foreign Exchange Earnings(FEE)

As there is more demand for ecotourism from the developed countries, therefore it can be a good source of Foreign Exchange Earnings. FEE enters through the visitors from these countries and injects new money in the country.

8. Utilisation of Idle Resources

Generally, natural areas such as parks, forests, rivers, dams etc. are considered as potential places for ecotourism development. The ecotourism creates value for these products which would have remained idle. Also the natural resources which are abundant in the local areas can be utilized for designing various kinds of souvenirs for the tourists such as in Pine cones are used to make decorative hand -made items by the locals in Nainital.

9. Balanced regional development

Ecotourism development can greatly benefit underdeveloped regions of the state. These economically backward regions mostly have places of high scenic beauty like Champawat, Bageshwar which if targeted for the development of the Eco tourism, will help to bring a lot of prosperity to the local people.

Conclusion

At last after considering the total up of all the pluses and minuses, it can be concluded that rational utilisation of existing resources available in the state for effective functioning of ecotourism projects is must. But any commercial tourism venture without conservation motive into unspoiled, fragile natural places with "eco" prefix is injustice to the very purpose of ecotourism.

Eco-tourism without any long term planning can spoil the very purpose of ecotourism. Ecotourism will be converted into again mass tourism with its all negative impacts. Then there will be no difference in tourism and ecotourism. Ecotourism can be described in mathematical expression as-

Tourism - Negative impacts = Ecotourism

Therefore, Ecotourism +Negative impacts = Tourism

There seems to be only a thin line of difference between tourism and eco tourism. If tourism is damaging a natural resource, then it is not ecotourism. True ecotourism is be one of the most powerful tools for protecting the environment. Therefore it must be used with intense care. Though, increased interest in nature and nature travel can lead to conservation but over exploitation of the sites leads to degradation of the environment and disruption of local cultures and values. Ecotourism benefits should not be oversold at any cost to avoid negative impacts. It has to be realized that tourism and environment have to go hand in hand, in a symbiotic manner.

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Role Of Women Entrepreneurship In The Rural Areas Towards Financial Inclusion

SUKRITI BAGH*

Abstract

The strong linkage between financial inclusion and women entrepreneurship still generate tremendous interest among researchers, practitioners, policy manufacturers, and alternative stakeholders each at the national and international levels. The key goal remains a way to deepen financial inclusion of women to modify their participation in entrepreneurship activities. Financial inclusion is that the increasing stretches of banking or financial services at an inexpensive price to a huge section of deprived teams of society which can give them a financial cushion for his or her sustenance still as social direction. In India wherever women represent forty sixth of total population majority of them area unit denied to opportunities and rights because of their monetary dependence. Financial inclusion is far required for women because it helps in increasing quantity of standard savings alongside cultivate women to acquire small insurance and acquire credit. This paper chiefly deals with-Importance of women's financial inclusion, Women's specific financial wants in relevance men's, Functions of finance and role of women, Growth, development and financial inclusion, financial acquirement as a tool for women entrepreneurship, Institutional framework in India for monetary education, Economic and social development of women and financial inclusion, Gender difference and lack of access to financial services, sure problems and aspects connected with financial inclusion and women entrepreneurship. The paper concerns women entrepreneurship by means that of effective financial inclusion and financial skill by learning the connection between women entrepreneurship and financial inclusion.

Keywords: All-Inclusive financial access, financial inclusion, women entrepreneurship

Introduction

Financial inclusion isn't simply a policy initiative of governments and state. It has additionally attracted the eye of academician and researcher there are an infinite variety of studies highlight the importance of financial inclusion within the whole economic development of a country. This chapter is meant to create a review of the contribution created by scholars and additionally to require stock of various schemes and programmes declared by the government at completely different level to bring the financially excluded community into the fold of financial inclusion.

Poverty does not mean simply deficiency of financial resources, however has larger connotations like rights denied, opportunities curtailed & voices suppressed (CARE, 2005). The patriarchal society of India has put a check on women's potential, capabilities similarly as confidence simply because of their financial dependence on men folks. There emerges the requirement of financial inclusion for women entrepreneurship. Financial inclusion is "the method of guaranteeing access to acceptable financial merchandise and

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services required by vulnerable teams like weaker section and low income groups at an inexpensive value in a fair and clear manner by thought institutional players.”

(Rangarajan, 2008), the committee on Financial Inclusion), Micro finance programs have important potential for contributing to women`s economic, social and political management. Financial skill aids financial inclusion in some ways because it provides information and awareness within the following aspects-

- Why save,
- Why save with banks,
- Why borrow for income generating purposes,
- Why to repay loans in time,
- What is interest and how moneylenders charge it,
- What is the need of insurance etc?

Though government has initiated several plans and completely different steps are taken there is a needed strategic action to extend financial inclusion of women. An attempt has been created through this paper to analysis financial skill and financial inclusion as a tool for women entrepreneurship.

Today countries throughout the world have completed that women represent a strong human resource which might be used as a mediator of growth and development. Women entrepreneurship is a method of doing that. Women entrepreneurs not only produce new job opportunities however also give society with completely different solutions to management, organisation and business issues. The increasing presence of women within the business field as entrepreneurs over the past two decades has modified the demographic characteristics of business and overall economic growth within the country. However, the entrepreneurial world in India remains dominated by men. Female entrepreneurs are focused within the areas of small-scale entrepreneurship characterized by restricted growth and have a tendency to be home-based. Their role within the giant scale and technology primarily based industries remains quite restricted. several research studies suggests that one in all the most important factors proscripting the expansion of ladies enterprises in Asian nation is lack of finance. girls typically have fewer opportunities than men to realize access to credit for numerous reasons as well as lack of collateral, an disposition to just accept household assets as collateral and negative perceptions of women entrepreneurs by loan officers within the absence of credit ratings and a correct business set up. A general lack of expertise and exposure, significant work and high dealing value related to accessing credit conjointly restricts women from venturing out and addressing banking establishments. As a result, they typically rely upon the relations or informal sources for his or her capital necessities that restricts the growth and survival of their enterprises.

Financial Inclusion focuses on the poor who do not get pleasure from the formal financial institutional support and find them out of the clutches of native cash lenders. The actual fact is that the poorest individuals within the world still lack access to basic financial services, whether it is savings, credit facility or insurance service. The nice challenge is to deal with the constraints that exclude BoP families from full participation within the money sector.

The thought of financial inclusion is not a brand new one. The G O I and also the R B i have been creating united efforts to push financial inclusion mutually of the necessary national objectives of the country. A number of the most important efforts created within the last five decades include -Nationalization of banks, priority sector lending stipulations, the lead bank scheme and service. Establishment of Regional Rural Banks, launch of self facilitate teams

–bank linkage programs were all a part of the reserve bank of India's (RBI) initiative to produce financial access to the unbanked and under banked masses.

Meaning:

The committee on financial inclusion defines financial inclusion as “Financial inclusion is also defined because the method of guaranteeing access to financial services and timely and adequate credit wherever required by vulnerable teams like weaker sections and low income groups at a reasonable value “(Rangarajan 2008).

Financial inclusion will be defined as a method that ensures the convenience of access, accessibility and usage of the formal economic system for all members of an economy. An inclusive financial system facilitates efficient allocation of productive resources and reduces cost of capital. “Inclusive growth method ought to go towards the improvement of quality of basic services as well as education, power, attention and water system for each individual across, ought to be not only to the distribution of economic gains however also an empowering people in enjoying their social life and at making employment opportunities” (WBR 2006).

Objectives of the study:

- To study the development of women entrepreneurs.
- To understand the problems faced by the women entrepreneurs.
- Attempt to give some solution for the problems faced by the women entrepreneurs
- To provide knowledge regarding the financial assistance.

Review of Literature

The report made by OECD (2015) on Women's economic empowerment reports that economic management of women is that the requirement for sustainable development and pro-poor growth particularly in developing economies. To attain this there is need for sound public policies, a holistic approach and long-run commitment. The report also suggests that gender specific views should be integrated at the look stage of the policy formulation itself. The study suggests that women should have additional equitable access to assets and services and employment opportunities should be improved to profit the society as a full.

Hina Shah and Punit Saurabh (2015) in their study on women entrepreneurship in developing countries conclude that although there are some self-made strategies towards the event of women entrepreneurship, there has to be done additional towards this so such ventures will facilitate in poverty alleviation of South Asian region.

G.Malyadri (2014) in her study on Role of women Entrepreneurs within the Economic Development of India indicates that women entrepreneurs are found to be operating in troublesome things in comparison to their male counterparts and factors like political instability, poor infrastructure, high production prices and no conducting business setting are affecting women entrepreneurs more than men. Although there were several studies that were concentrating on role of ladies entrepreneurs within the country and also on the issues featured by them less number of studies were undertaken to search out a way to bring on and property growth of women entrepreneurs particularly within the Indian context. This research is an effort towards developing a model exhibiting the factors contributing to the property development of women entrepreneurship.

Importance of women`s financial inclusion

Financial Inclusion of women is important requirement for financial condition alleviation, upholding human rights and for sustainable development. Assam Human Development Report (2003) threw light on difference within the achievement between men and women of

Assam in numerous spheres of life. This report viewed poverty; violence and lack of political participation were main problems with concern women of Assam. It is only if women management choices relating to credit and savings, they're going to optimize their own and household's welfare resulting in financial property and management. Financial inclusion permits women for- Economic decision making, Enhancing getting capability, control over loans and control over income, and savings, borrow for investment and insure against risk.

Impact of financial inclusion efforts

An increasing body of proof shows that applicable financial services will facilitate improve individual and family welfare and spur small enterprise activity. Differing kinds of financial merchandise will profit poor people in several ways that.

- **Credit:** Microcredit helps encourage investments into assets that modify business homeowners to start out or expand little enterprises. In several countries, it's been demonstrated that access to credit will lead to larger and additional profitable businesses.
- **Savings:** Building savings helps households manage income spikes and smooth consumption, further as build capital.
- **Insurance:** Vulnerability to risk and therefore the lack of instruments to deal with external shocks build it difficult for poor people to escape poverty. Micro insurance are often a vital instrument for mitigating risk
- **Payments and mobile money:** Having an efficient means of constructing payments reduces households' dealing prices. Instead of travel long distances, people have the convenience of doing business on their mobile phones.

Women and women frame a touch over half the world's population; however their contribution to measured economic activity, growth, and well-being is way below its potential, leading to vital socio-economic consequences. Globally, only half women participate within the labour force, compared to a few quarters of men. Financial inclusion of women and girls will produce gender equality by empowering them and giving them bigger management over their financial lives. Savings accounts will give women with a secure and formal platform to avoid wasting their earnings for future investments in business operations and build a credit history. Digital payments facilitate women take management of their own finances and strengthen their control over family budgets. This, in turn, usually ends up in higher outlay on requirements like health and education.

Women play multiple roles in society not solely as a home maker however additionally as a contributor to socio economic development and financial sector facilitates ways that to play these roles effectively.

Example is also cited of-

- **Monetary independence of girls as costumier** is one amongst the necessary aspects. Differing kinds of costumier merchandise bought and investment choices are created counting on who controls the money at intervals a unit.
- **Women as holder of assets** is a smaller amount probably ascertained in most of the components of our country. However once they become formal owner of land, property or different assets by means that of monetary inclusion their self-assurance and social responsibility can mechanically enhance.
- **Though gender variations in labour market** is ascertained with women typically earning less or specializing in sure styles of employment in several of the cases women as income earners plays important role in socio economic setup.

Need for the study

To inspire the women's to become entrepreneurs to realize a flourishing economy in India. Here we discover the issues featured by the women entrepreneurs also the government is supporting the women entrepreneurship although its financial help however the issue is that the several of the woman's don't have plan concerning the advantages they will get from government to become the entrepreneur. Conjointly a number of the banks in India have reduced their interest rates on the advantages concerned by the women, and lots of small finance establishments also are serving to the women's through SHG (self facilitate groups) many of them are lacking in to amass such facilities. We will say that women entrepreneurship is one amongst the tools to realize women authorization. present we have a tendency to might realize women entrepreneurs in less numbers thus we've not however achieved equality during this male dominant society and additionally the problem in providing a education, wherever the woman child don't seem to be allowed to induce educational activity they'll stop when their schooling. The government is encouraging to up raise the women's educational activity through its schemes by providing, instructional loan, laptops etc. However the issue is that the people are lacking in they don't have a correct data provided by the government. thus this issues effecting adversely to the women due to their less instructional data had cause several quite issues, thus in India the business operations administrated by the women entrepreneurs are but the leads entrepreneurs there's a forceful modification in their business operations additionally they find several constraints like higher cognitive process, strategy designing, managing human resources and overall functioning of the organization, they'll feel tough as a result of the tread their legs into two boats at a time one is their personal life and another one is career. Therefore the education plays a necessary role within the women entrepreneurship.

Research methodology

Based on the preceding discussion, this paper is geared toward exploring the linkage between financial inclusion and women entrepreneurship. Using a library research approach, the papers review each empirical and abstract paper on women entrepreneurship and financial inclusion and examine the link between the two ideas as they have an effect on women entrepreneurship.

Women's specific financial needs in respect to men's

Women tend to be financially excluded in several countries. They're considered to be weaker section in society. Women has specific financial wants in relation to men`s. Programs for money inclusion of women ought to be planned consistent with their wants such as-

- Saving schemes ought to aim enhanced decision-making power for girls with increase in product purchased by women,
- Financial acquirement program with a read to supply money coaching for women resulting in larger uptake of loans,
- For village savings and loan association providing coaching and capital to earn cash,
- In case of micro finance schemes reduction in violence and enhanced empowerment etc.

Function of finance and role of women

Women play multiple roles in society not only as a home maker however also as a contributor to socio economic development and financial sector facilitates ways in which to play these roles effectively. Example could also be cited of-

•Financial independence of girls as costumer is one in every of the necessary aspects. Differing kinds of costumer product bought and investment choices are created betting on who controls the cash within a household.

•Women as holder of assets is a smaller amount probably determined in most of the components of our country. However after they become formal owner of land, property or alternative assets by suggests that of monetary inclusion their sureness and social responsibility can automatically enhance.

•Though gender variations in labour market is determined with women usually earning less or specializing in sure varieties of employment in several of the cases women as income earners plays important role in socio economic setup.

Economic and social development of women and financial inclusion

Financial Inclusion helps in Social and Economic development because it develops a way of awareness regarding numerous programmes/activities of health, education, water and sanitation and legal rights together with encouraging to adopt health practices, like regular medical checkups, supplementary nutrition to kids and planning etc. It facilitates skills in maintaining accounts, utilizing the loan amounts from consumption to production wants, accumulation of assets and get of agricultural inputs.

Policy initiative

- i. Creating accessible basic banking “no frills” account either with ‘nil’ or terribly low minimum balance.
- ii. Issue of general credit cards to eligible beneficiaries without insistence on security, purpose or finish use of credit.
- iii. Introduction of KCC (Kisan Credit Card)
- iv. Permitting banks to utilize the services of NGOs, SHGs, MFIs and different civil society organization as intermediaries in providing financial services.
- v. Credit linking of SHGs, support to MFIs.
- vi. Introduction of financial sector (regulation and development) bill 2007 to develop and regulate the MFIs.
- vii. Constitution of financial inclusion fund and financial inclusion technology fund to strengthen the institutional and technological infrastructure for larger financial inclusion.
- viii. Finance skill would facilitate in mistreatment savings, credits and insurance services.
- ix. Stipulation of Priority sector loaning. Priority sector contains agriculture, SSIs, small road and water transport operator, tiny business, retail monger, self utilized persons, housing loan, micro credit, artisan, village and small industries etc.

Gender inequality and lack of access to financial services

There prevail several social stigmas concerning position of ladies in society. Their roles are closely connected to their socially outlined gender roles, responsibilities and social system. Gender difference remains a serious constrains for financial inclusion of women. Women`s financial inclusion will build a very important contribution to women`s economic and broader empowerment. A financial inclusion program has to take into account whether or not or to not promote access to alternative services like health, education for increasing the program`s impact on women`s empowerment. Programs for women`s financial inclusion ought to take into account the context within which they're living and multiple levels of exclusion and discrimination. Gender connected barriers that inhibit women`s ability to access financial services and block women empowerment ought to be thought of carefully whereas getting ready these programs.

Some problems related with women`s financial inclusion

- Financial exclusion: it has been found that financial services are used only by a small variety of women. There is demand for these services however it has not been provided. The excluded regions are rural, poor regions and additionally those living in harsh weather conditions wherever it is tough to supply these financial services. The excluded population then should depend upon informal sector (moneylenders etc.) for availing finance that's sometimes at steep rates. These leads to a vicious cycle. First, high value of finance implies that initial poor person should earn way more than somebody who has access to lower cost finance. Second, the most important portion of the earnings is paid to the shark and therefore the person will ne'er initiate of the impoverishment.
- Non-price barriers: Access to formal financial services additionally needs documents of proof concerning a persons' identity, income etc. The poor women and man don't have these documents and so are excluded from these services. They'll additionally take the services at first however might not use them as actively as others due to high distance between the bank and residence, poor infrastructure etc.
- Behavioural aspects: analysis in activity political economy has shown that a lot of girls don't seem to be comfortable using formal financial services. The explanations are problem in understanding language, numerous documents and conditions that include financial services etc.
- Credit isn't simply available: Poor girls cannot give ancient sorts of collateral, and are so excluded from several loan programs. Moreover, illiterate girls usually notice that they can't deal with sophisticated loan procedures designed for conservative purchasers.
- Transaction costs of borrowing are high: normal loan applications take time to method, and poor girls lose precious daily wages attempting to get loans.
- Transaction costs of using savings facilities are high: Transportation to the bank, additionally to wages lost whereas visiting the bank, additionally creates a price. Forward that poor women use their bank account once a month, an estimated 15 % of their monthly savings are going to be spent accessing the account within the initial place, in keeping with studies conducted on poor women`s use of economic FIs.
- Formal options of the banking industry clash with women`s needs: The rigidity of loan terms and therefore the lack of timeliness of formal credit, specifically, more negate the results of low interest rates.

Suggestions to overcome the challenges

No doubt, women must move to begin up the enterprise. However she desires a bit support within the initial stages of setting up the business.

- a) Finance cells: Finance cells ought to be opened in order that the women entrepreneurs can get finance and additionally applicable guidance concerning the financial schemes available to them.
- b) Education and awareness: The negative social perspectives of the society are often modified by conducting totally different awareness programs and educate the women and additionally the society concerning the fruits of women humouring within the entrepreneurial activities. Women additionally ought to be created tuned in to the importance of education, totally different line courses, in order that they will form up their mind for beginning enterprise.
- c) Training Facilities: women lack totally different skills just like the managerial skills, communication skills, language issues, etc. numerous training programs are often developed

so that the women take full advantage and with confidence have interaction themselves into any commercial activity.

d) Planning: women should never enter into any business while not correct coming up with. They need to make applicable ways. A blue print of the activities to be undertaken should be ready which is able to specify the product/service, the target customers, the mode of funding and therefore the method the business are going to be undertaken on daily. This can provides a correct plan to the woman enterpriser of her responsibilities and her commitments.

e) Team Building: the woman enterpriser has got to forget the actual fact that she is that the only one that can do the actual task absolutely. She should have a team, the members of that have totally different skills and strengths and therefore the ladies should be able to coordinate with the team and so bring out all the strengths and skills within the members for the success of the business.

f) Avoiding getting too close with the employees: women, naturally, are family familiarised. they're connected to anybody as if he/she is that woman's family member. She gets too near her workers which is able to create her troublesome many a times to keep up professional relationship with them. So the women should be able to be skilled and sensible invariably and be informal at some times.

Role of government for the develop women entrepreneurship in India

The growth and development of women entrepreneurs needed to be accelerated as a result of entrepreneurial development isn't potential while not the participation of girls. Therefore, a congenial setting is required to be created to change women to participate actively within the entrepreneurial activities. There's a desire of state, non- Government, promotional and restrictive agencies to return forward and play the corroborative role in promoting the women businessperson in Bharat. The government of India has also developed numerous training and development cum employment generations programs for the women to begin their ventures. These programmes are as follows:

In the seventh five-year set up of India, a special area on the "Integration of women in development" was introduced by Government with following suggestion:

Specific target group: it absolutely was recommended to treat ladies as a selected target teams all told major development programs of the country.

Arranging training facilities: It is also recommended within the chapter to plot and diversify education facilities for girls to suit their dynamic desires and skills.

Developing new equipments: Efforts ought to be created to extend their potency and productivity through acceptable technologies, equipments and practices.

Marketing help: It absolutely was recommended to supply the desired assistance for selling the merchandise made by women entrepreneurs.

Decision-making method: It absolutely was conjointly recommended to involve the women in decision-making process.

The Government of India devised special programs to will increase employment and income-generating activities for women in rural areas. The following plans are lunched throughout the Eight-Five Year Plan:

- Prime Minister Rojgar Yojana and EDPs were introduced to develop entrepreneurial qualities among rural women.

- 'Women in agriculture' scheme was introduced to give training to women farmers having marginal and small holdings in allied activities and agriculture.

•To generate a lot of employment opportunities for women KVIC took special measures in remote areas.

•Women co-operatives schemes were fashioned to assist ladies in agro-based industries like husbandry, poultry, farming, agriculture etc. with full resource from the government.

•Several different schemes like integrated Rural Development Programs (IRDP), coaching of Rural youth for Self employment (TRYSEM) etc. were began to relieved poorness. Under these schemes 30-40% reservation is provided to women. Economic development and growth is not achieved totally without the event of women entrepreneurs. The government of India has introduced the subsequent schemes throughout Ninth Five-Year set up for promoting women entrepreneurship as a result of the long run of tiny scale industries depends upon the women-entrepreneurs:

•Trade connected Entrepreneurship help and Development (TREAD) scheme was launched by Ministry of tiny Industries to develop women entrepreneurs in rural, semi-urban and concrete areas by developing entrepreneurial qualities.

•Women part Plant, a special strategy adopted by Government to supply help to ladies entrepreneurs.

•Government took another step with introducing Swarna Jayanti Gram Swarozgar Yojana and Swaran Jayanti Sekhari Rozgar Yojana to supply reservations for women and inspiring them to begin their ventures.

•New schemes named women Development companies were introduced by government to assist women entrepreneurs in composition credit and selling facilities.

•State Industrial and Development Bank of India (SIDBI) has introduced following schemes to help the women entrepreneurs. These schemes are:

- i. Mahila Udyam Nidhi
- ii. Micro cordite scheme for women
- iii. Mahila Vikas Nidhi
- iv. Women Entrepreneurial Development Programmes
- v. Marketing Development Fund for women

Further, the tenth five Year plan aims at empowering women through translating the recently adopted National Policy for management of women into action and guaranteeing survival, Protection and Development of women and kids through rights base approach. Group of women entrepreneurs of India provides a platform which helps the women entrepreneurs to develop new, innovative and artistic techniques of production, finance and selling. There are different bodies like voluntary organizations, self-help groups, NGOs, institutions and individual enterprises from concrete and rural areas that put together facilitate the women entrepreneurs in their activities. The subsequent training schemes particularly for the self employment of women are introduced by government:

- Support for training and Employment Programme of women (STEP).
- Development of women and children in Rural Areas (DWCRA).
- Small Industry Service Institutes (SISIs)
- State financial corporations
- National small Industries corporations
- District Industrial Centres (DICs)

SIDBI has developed this fund for the entrepreneurial development of women particularly in rural areas. Mahila Vikas Nidhi grants loan to women to begin their venture within the field like spinning, weaving, knitting, embroidery merchandise, block printing, handlooms

handicrafts, bamboo merchandise etc. In 1993, Rashtriya Mahila Kosh was founded to grant micro credit to poor women at cheap rates of interest with terribly low dealing prices and easy procedures.

Conclusion

All inclusive financial access to formal financial system will increase asset ownership, wealth creation and serve as a catalyst for larger economic empowerment specifically among women. Recent empirical proof has shown that women compose a disproportionately massive share of unbanked adults worldwide despite their potential contribution to economic development through entrepreneurship activities. Understanding the basic problems surrounding women access to formal financial services is important for any purposeful get to be achieved. Similarly, financial institutions must adopt gender sensitive policies and practices within the areas of product style, monitoring, marketing, and delivery. Finally, there is must determine and address women's want for financial skill.

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Perception Of Faculty Members Towards NAAC Parameters In Private Universities: An FGD Approach

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Abstract

Education for the development of excellence, education for the development of expertise, education for the development of knowledge are some of the motives which necessitate a sound strategy for the overall development of higher education in almost all countries of the world. Establishing leadership in the world is possible only when there is a well-developed system for higher education in which efficiency remains the only important criterion to evaluate the performance. Education has always contributed immensely to the advancement of the nation and also has actively encouraged individual and social welfare. The higher education system in India has grown in a significant way over the period, predominantly in the post-independence period, to become one of the largest systems of its kind in the world. In every broad and tiny sense, education is one of the foremost crucial contributing factors for development of a nation. In this research the Focus Group discussion was done for 100 faculty members of universities to study their perception about the student's opinion regarding quality indicators which are being followed in Higher Education. It is concluded from the study that University should focus on accreditation from NAAC and NBA or any other professional bodies recommended for the course.

Keywords: Quality Parameters, Higher education, Accreditation

Introduction

The system of higher education is found very efficient in ensuring availability of dedicated, committed, devoted and professionally-sound team of human resources to the society, who eventually will contribute in the formation of the nation's future. In addition to the above, the need of the hour is to devise, develop and manage the system of higher education in such a pattern, that it sets the correct direction in order to develop the human resources from both national and international perspectives.

In Indian higher education system, various commissions and committees on education over the years have emphasized on the requirement for improvement and appreciation of the quality.

The reasons for the above may be attributed to

- Enhanced quality consciousness because of information access.
- Increased awareness of stakeholders.
- Increased competition in Education sector by new entrants.
- Expected justification of increased fee structure.

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In India, Quality in higher education is being assessed primarily by NAAC and NBA based on their own set of standards, parameters and scores thereof. The parameters devised by competent accreditation bodies are robust, fool proof and are based on norms and standards of regulatory bodies and other considerations. The National Assessment and Accreditation Council (NAAC) is an autonomous agency of the University Grants Commission (UGC). It has been entrusted with the responsibility of Assessment and Accreditation of Colleges and Universities all over India. The All India Council for Technical Education set up to oversee and monitor the growth and quality of technical education delivery.

Quality assurance is the responsibility of everybody working in the educational institution, whereas the top management sets policies and practices to be followed by all. Thus, assuring quality should be a continuous and ongoing process beyond any doubt.

Literature Review

It is cooperative for providing the brief idea about the research for justifying the research and research problems. In this study review of literature is done through book, Journals, Research Papers, thesis, Booklets etc.

Tricia Ryan (2016) stated that through quality assurance, an institution tries to offer better facilities like qualified teachers, better infrastructure and curriculum. However, quality contains important concerns for accrediting bodies; these structures are decentralized and difficult at both the regional and international level. The challenge that revolves in front of faculty members and other stakeholders is students and their QA process as they are the center of higher education and invest a lot of time. To meet this rising need, a common framework for quality assurance would help identify the learning design, content and pedagogy. There are some parameters to judge the quality of education at an institution like intellectual property, better faculty, students' performance etc. Interaction between faculty members and students is also a major factor determining the quality of education at the institution.

Aithal, P. S., (2016) explained that the many private universities follow the research oriented strategies for aggressively improving their research performance. They are starting research centers in new age and futuristic research areas, seeking funds for research from external agencies, orienting faculty members and students in research-related activities, encouraging faculty members and students in research, publications and research-based projects, collaborating with government and private research institutions both at national and international levels, creating awareness and networking by arranging conferences in different subject areas, instituting various research performance based awards for faculty members and students based on their individual research index etc.

The study led to an integrated framework of indices (model) for total quality management in education. On the basis of these indices, a definition of total quality management in education has been formulated. The requirements of the different customers of the education system have been identified, so are the design characteristics reflecting the quality components for education. The relationship between various quality components and different customer requirements has been established, and the minimum set of design characteristics to cover all customer requirements has been identified.

Jisha K. V. (2015) stated that quality in higher education is the prime agenda of nations around the world. It is the nature of higher education that decides the nature of human resources in a nation. Higher education encourages teaching, expansion and global participation and understanding. Quality education stimulates social transformation and

plays a vital role in individual development. Continuous changes should be there to guarantee enhancement of quality of higher education. This study is an overview report of NAAC accredited arts and science colleges associated to Kannur University. The main focus of the investigation is the role of NAAC in quality confirmation in higher education. As for quality, it is the popular expression in today's education.

Dr Fisseha Girmay and Dr Arvind. S. (2015) stated all the significant changes are taking place in the educational system in the society. The changes can be defined as the increase in enrollment of students at all stages of education, a decline in dropout rate, gender discrimination and an increase in number of faculties in all types of institutions.

Objective: To study the perception of faculty members regarding awareness of quality parameters among students of private universities in Rajasthan.

Research Design

Set of methods and procedures which were used to collect and analyze the variables specified in the research problem is the basis of Research Design. It is the format in which the research can be conducted. It includes the collection, measurement and analysis of data. A research design gives an outline starting from defining the problem with respect to the objectives to the final analysis of data. It must be intended in a way so that it can have nominal expenses of time and money. Present study is an analysis of perception of faculty members regarding awareness quality parameters .Thisparameters. This study is based on descriptive and exploratory research

Variables: Demographic variables gender, age, class, stream and residence so we can test impact of demographic on our research variable.

Quality Parameters:

S. No.	Variable Name
1	Curriculum aspects
2	Teaching Learning and Evaluation
3	Research, Innovations and Extension
4	Infrastructure and Learning Resources
5	Student Support and Progression
6	Governance Leadership and Management
7	Institutional Values and Best Practices.

Data Collection method: Focus Group Discussion

Focus group discussion is a structured discussion used to obtain in depth information form a group of people about a particular topic. The purpose of a focus group discussion is to collect information about people's opinions, beliefs, and attitudes, perceptions towards a product, service, idea or packaging.

In the present study primary data is also collected with the help of questionnaire. Questionnaire was filled by the students of different private universities in Rajasthan. In primary data the focus is on seven P's which includes Product, Price, Place, Promotion, People, Process and Physical Evidence with Quality Parameters are like awareness about various quality parameters like Curricular aspects, Teaching Learning and Evaluation, Research, Innovations and Extension, Infrastructure and Learning Resources, Student Support and Progression, Governance Leadership and Management, Institutional Values and Best Practices.

Research Strategy for Objective

Objective	Test Applied	Variables
To study the perception of faculty members regarding awareness of quality parameters among students of private universities in Rajasthan.	Qualitative analysis	All Items related to seven quality parameters

A group discussion was carried out with 100 faculty members of varied specializations in order to get their views. For the same, a questionnaire was prepared which included 7 Quality parameters that includes Curriculum aspects, Teaching Learning and Evaluation, Research, Innovations and Extension, Infrastructure and Learning Resources, Student Support and Progression, Governance Leadership and Management, Institutional Values and Best Practices.

Results and discussion

38 questions were used in focus group discussion, which were asked to 100 faculty members of various private universities which were considered in this research and the following conclusion could be drawn:

Curriculum Aspects: A mixed opinion was observed regarding academic programs. Few colleges organized workshops & seminars on current issues from time to time. These programs must be designed as per the needs as they helped in improving placement, provided good career facilities, personality development, communication skills and expanded knowledge.

Many were of the opinion that regular feedback improved teachers' skills, helped them know about their negative points, and helped them in improving their teaching plan & teaching methodology. It was a way to connect students and higher authority to express their views. But feedback must be true; the teacher collecting the feedback must be trustworthy, unbiased and authentic so that feedback taken can achieve its objective.

Teaching Learning and Evaluation: Majority of the students were of the view that practical teaching & innovation was lacking and there is no up gradation in the quality of education. As per the study conducted, teachers played a vital role in shaping the career of students. Teachers motivated them, boost their morale and told them future scope of their interest area. Teachers were aware about the mental & physical behavior of their students & could help them by imparting proper counseling. A student always wanted to be like his/her favorite teacher.

Research Innovation and Extension: All students were not given enough opportunities for studying abroad. Opportunity was given to a few deserving candidates and also some couldn't afford to go and in some cases parents didn't permit them. A large number of students preferred to select colleges which provided internship in foreign universities as it was a good opportunity for them, they wanted to explore, and get opportunity to work abroad and enhance their knowledge and profile but on the same hand they didn't wanted to spend extra cost and it depended on family whether they allowed students to go for student exchange program me.

Infrastructure and Learning Resources: Library is the core portion of the college and few colleges had a good range of journals. It also provided students the opportunity to publish their research work and increased their morale, ideas and knowledge. On the other hand

some colleges did not provide this facility, also in some cases students felt course books were more important than journals.

Student Support and Progression: College alumni did not support in placements but yes alumni were given preference for jobs in colleges. Every college promoted all kind of inter-college competitions. It improved the personality and confidence level of the students, increased their general knowledge. It provided a feel of competition and recognition if won. It also provided publicity to colleges. Colleges didn't promote all round development of the students; rather they focused on their academic results. In some colleges this was practiced and it helped students to avoid stage fear, increased confidence level and motivated the students. Extra activities were essential for overall development of students; it must be a part of education. It improved student's personality, created enthusiasm but they must not disturb or affect the academic environment.

Governance Leadership and Management: The Management of Private universities was aware of the NBA and NAAC accreditations. More awareness was still needed to attract students to the colleges and universities which were accredited.

Institutional Value and Best Practices: A mixed opinion was observed regarding activities related to moral values. Some students enjoyed these activities and felt that it developed their personality and felt relaxed and confident while some considers it to be time consuming and boring. A mixed opinion was observed regarding international placements. Colleges should provide exchange program as it was good for student's growth, improved quality education, and enhanced learning about other's culture. Private colleges provided this kind of exchange program and had collaboration with foreign countries but government colleges did not provide such facility. Students want practical exposure, regular classes and study with the help of teaching aids. They also demand better infrastructures facilities in the university campus. This discussion also showed that students get attracted towards the better infrastructure of the college. Many students were of the opinion that regular feedback can help teachers enhance their teaching skills. The research revealed that practical and innovative ways of teaching improve the quality of education. In the opinion of teachers many parents and students were not aware about NAAC/NBA accreditations.

Conclusion and Suggestion

It is concluded from the study that Faculty recruitment should be as per university norms and faculty should use latest teaching aids and techniques, well-furnished research equipment's. Universities should have lush green campus with all amenities including well-furnished hostel. A good hygienic canteen facility is the need of the hour. University should focus on more international collaboration and foreign exchange programs as they give global exposure to students. University should maintain library with latest books and journals. For overall development of Students University should organize inter college competition at regular intervals. University should focus on accreditation from NAAC and NBA or any other professional bodies recommended for the course.

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Common Coupled Fixed Point Results Under New Contractive Condition

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Abstract: In this paper, we establish common coupled fixed point theorems under new contractive conditions in the setup of metric spaces. Present work generalizes some existing results present in the literature.

2000 Mathematics Subject Classification: 47H10; 54H25; 34B15.

Keywords: Coupled fixed point; Common coupled fixed point; Contractive condition; Commuting mappings.

1. Introduction

In recent times, the study of common fixed points of mappings under contractive conditions has developed rapidly. The Banach contraction principle [3] stated below is an important tool in nonlinear analysis for solving problems concerning fixed points.

Theorem 1.1 ([3]). Let (X, d) be a metric space and $T : X \rightarrow X$ be a self mapping. If (X, d) is complete and T is a contraction; that is, there exists a constant $k \in [0, 1)$ such that

$$d(Tx, Ty) \leq k d(x, y), \text{ for all } x, y \in X, \quad (1.1)$$

then, T has a unique fixed point $u \in X$ and for any $x_0 \in X$, the Picard iteration $\{T^n(x_0)\}$ converges to u .

Different authors extended and generalized this result by introducing much weaker contractive conditions in different ways. References [1-2, 4-11] are some examples of these works in various metric spaces.

Let \mathbf{S} denote the class consisting of functions $\beta: [0, \infty) \rightarrow [0, 1)$ such that $\beta(t_n) \rightarrow 1$ implies $t_n \rightarrow 0$.

Utilizing the above defined class \mathbf{S} of functions, Geraghty [6] generalized the Banach's contraction principle [3] as follows:

Theorem 1.2 ([6]). Let (X, d) be a complete metric space and $f: X \rightarrow X$ be a mapping such that there exists $\beta \in \mathbf{S}$ such that, for all $x, y \in X$,

$$d(f(x), f(y)) \leq \beta(d(x, y)) \cdot d(x, y). \quad (1.2)$$

then f has a unique fixed point $z \in X$ and, for any choice of the initial point $x_0 \in X$, the sequence $\{x_n\}$ defined by $x_n = f(x_{n-1})$ for each $n \geq 1$ converges to the point z .

Remark 1.3. Note that, if $x_n \in [0, 1)$ for all $n \geq 1$, then $\lim_{n \rightarrow \infty} x_n \leq 1$.

In their worthy work, Bhaskar and Lakshmikantham [5] proved coupled fixed point results for mixed monotone mappings. Following the work of Bhaskar and Lakshmikantham [5], Lakshmikantham and Ćirić [10] introduced the concept of coupled coincidence points and studied the coupled coincidence and coupled common fixed point theorems under a φ -contractive condition.

Definition 1.4 ([5]). An element $(x, y) \in X \times X$, is called a coupled fixed point of the mapping $F : X \times X \rightarrow X$ if $F(x, y) = x$ and $F(y, x) = y$.

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Definition 1.5 ([10]). An element $(x, y) \in X \times X$, is called a coupled coincidence point of the mappings $F : X \times X \rightarrow X$ and $g : X \rightarrow X$ if $F(x, y) = gx$ and $F(y, x) = gy$.

Definition 1.6 ([10]). An element $(x, y) \in X \times X$, is called a coupled common fixed point of the mappings $F : X \times X \rightarrow X$ and $g : X \rightarrow X$ if $x = gx = F(x, y)$ and $y = gy = F(y, x)$.

We say an element $(x, x) \in X \times X$, to be the common coupled fixed point of the mappings $F : X \times X \rightarrow X$ and $g : X \rightarrow X$ if $x = gx = F(x, x)$.

Definition 1.7 ([10]). Let X be a non-empty set and $F : X \times X \rightarrow X$ and $g : X \rightarrow X$. We say F and g are commutative, if $gF(x, y) = F(gx, gy)$ for all $x, y \in X$.

2. Main Results

In this section, we give our main result using the following class of functions:

Let Ψ be the class of all functions, $\psi: [0, \infty) \rightarrow [0, \infty)$ satisfying

(ψ_i) ψ is continuous and non-decreasing;

(ψ_{ii}) $\psi(t) = 0 \Leftrightarrow t = 0$.

Property (ψ_{ii}) yields that $\psi(t) > 0$ for $t > 0$.

For example, functions $\psi_1(t) = kt$ where $k > 0$, $\psi_2(t) = \frac{t}{t+1}$, $\psi_3(t) = \ln(t + 1)$, and $\psi_4(t) = \min\{t, 1\}$ are in Ψ .

We are now ready to state and prove our results.

Theorem 2.1. Let (X, d) be a metric space. Let $F: X \times X \rightarrow X$ and $g: X \rightarrow X$ be two mappings and there exists $\psi \in \Psi$ and $\beta \in \mathbf{S}$ such that

$$\begin{aligned} \psi(d(F(x, y), F(u, v)) + d(F(y, x), F(v, u))) \\ \leq \beta(\psi(d(gx, gu) + d(gy, gv))) \cdot \psi(d(gx, gu) + d(gy, gv)) \end{aligned} \quad (2.1)$$

for all $x, y, u, v \in X$.

Assume that F and g satisfy the following:

- (1) $F(X \times X) \subseteq g(X)$,
- (2) $g(X)$ is complete, and
- (3) g is continuous and commutes with F .

Then, the mappings F and g have a unique common coupled fixed point in X .

Proof. Let $x_0, y_0 \in X$. Since $F(X \times X) \subseteq g(X)$, we can choose $x_1, y_1 \in X$ such that $gx_1 = F(x_0, y_0)$ and $gy_1 = F(y_0, x_0)$. Again since $F(X \times X) \subseteq g(X)$, we can choose $x_2, y_2 \in X$ such that $gx_2 = F(x_1, y_1)$ and $gy_2 = F(y_1, x_1)$. Continuing this process, we can construct two sequences $\{x_n\}$ and $\{y_n\}$ in X such that $gx_{n+1} = F(x_n, y_n)$ and $gy_{n+1} = F(y_n, x_n)$.

For $n \in \mathbf{N}$, by (2.1), we get

$$\begin{aligned} \psi(d(gx_{n+1}, gx_n) + d(gy_{n+1}, gy_n)) \\ = \psi(d(F(x_n, y_n), F(x_{n-1}, y_{n-1})) + d(F(y_n, x_n), F(y_{n-1}, x_{n-1}))) \\ \leq \beta(\psi((d(gx_n, gx_{n-1}) + d(gy_n, gy_{n-1}))) \cdot \psi((d(gx_n, gx_{n-1}) + d(gy_n, gy_{n-1}))). \end{aligned} \quad (2.2)$$

Let $\delta_n = d(gx_n, gx_{n-1}) + d(gy_n, gy_{n-1})$ for all $n \in \mathbf{N}$, then

$$\begin{aligned} \psi(\delta_{n+1}) &\leq \beta(\psi(\delta_n)) \cdot \psi(\delta_n) \\ &< \psi(\delta_n). \end{aligned} \quad (\text{since } \beta(t) < 1 \text{ for all } t \geq 0) \quad (2.3)$$

Thus, it follows that $\{\psi(\delta_n)\}$ is a non-increasing, bounded below sequence and so $\lim_{n \rightarrow \infty} \psi(\delta_n) = \delta (\geq 0)$ exists. Assume $\delta > 0$. Then, taking $n \rightarrow \infty$ in (2.3) and using continuity, we have

$$\lim_{n \rightarrow \infty} \psi(\delta_{n+1}) \leq \lim_{n \rightarrow \infty} \beta(\psi(\delta_n)) \cdot \psi(\delta_n) = \lim_{n \rightarrow \infty} \beta(\psi(\delta_n)) \cdot \lim_{n \rightarrow \infty} \psi(\delta_n),$$

which implies that, $\delta \leq \left(\lim_{n \rightarrow \infty} \beta(\psi(\delta_n)) \right) \cdot \delta$, and since $\delta > 0$, we have $1 \leq \left(\lim_{n \rightarrow \infty} \beta(\psi(\delta_n)) \right) \leq 1$, which yields that $\lim_{n \rightarrow \infty} \beta(\psi(\delta_n)) = 1$.

On the other hand, since $\beta \in \mathbf{S}$, we have $\lim_{n \rightarrow \infty} \psi(\delta_n) = 0$ and so $\delta = 0$, a contradiction. Hence, $\delta = 0$.

Since $\lim_{n \rightarrow \infty} \psi(\delta_n) = 0$, so by continuity of ψ and property (ψ_{ii}) , it follows that

$$\lim_{n \rightarrow \infty} \delta_n = \lim_{n \rightarrow \infty} \{d(gx_n, gx_{n-1}) + d(gy_n, gy_{n-1})\} = 0. \tag{2.4}$$

Let $r_k = d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)})$.

Next, we show that $\{gx_n\}$ and $\{gy_n\}$ are Cauchy sequences. Suppose atleast one of $\{gx_n\}$ and $\{gy_n\}$ is not a Cauchy sequence. Then there exist an $\varepsilon > 0$ and sequences of positive integers $\{m(k)\}$ and $\{n(k)\}$ such that for all positive integers k , $n(k) > m(k) > k$,

$$r_k = d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \geq \varepsilon, \tag{2.5}$$

and

$$d(gx_{n(k)-1}, gx_{m(k)}) + d(gy_{n(k)-1}, gy_{m(k)}) < \varepsilon. \tag{2.6}$$

By (2.5) and (2.6),

$$\begin{aligned} \varepsilon \leq r_k &= d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \\ &\leq \left\{ d(gx_{n(k)}, gx_{n(k)-1}) + d(gx_{n(k)-1}, gx_{m(k)}) \right\} \\ &\quad + \left\{ d(gy_{n(k)}, gy_{n(k)-1}) + d(gy_{n(k)-1}, gy_{m(k)}) \right\} \\ &< \left\{ d(gx_{n(k)}, gx_{n(k)-1}) + d(gy_{n(k)}, gy_{n(k)-1}) \right\} + \varepsilon. \end{aligned}$$

Letting $k \rightarrow \infty$, in the last inequality and using (2.4), we get

$$\lim_{k \rightarrow \infty} r_k = \lim_{k \rightarrow \infty} [d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)})] = \varepsilon. \tag{2.7}$$

Now, $\psi(d(gx_{n(k)+1}, gx_{m(k)+1}) + d(gy_{n(k)+1}, gy_{m(k)+1}))$

$$\begin{aligned} &= \psi \left(d \left(F(x_{n(k)}, y_{n(k)}), F(x_{m(k)}, y_{m(k)}) \right) + d \left(F(y_{n(k)}, x_{n(k)}), F(y_{m(k)}, x_{m(k)}) \right) \right) \\ &\leq \beta \left(\psi \left(d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \right) \right) \cdot \psi \left(d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \right) \\ &\quad \text{(by (2.1))} \end{aligned}$$

On letting $k \rightarrow \infty$, we get

$$\begin{aligned} &\lim_{k \rightarrow \infty} \psi \left(d(gx_{n(k)+1}, gx_{m(k)+1}) + d(gy_{n(k)+1}, gy_{m(k)+1}) \right) \\ &\leq \lim_{k \rightarrow \infty} \left\{ \beta \left(\psi \left(d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \right) \right) \cdot \psi \left(d(gx_{n(k)}, gx_{m(k)}) + d(gy_{n(k)}, gy_{m(k)}) \right) \right\} \\ &= \lim_{k \rightarrow \infty} \beta(\psi(r_k)) \cdot \lim_{k \rightarrow \infty} \psi(r_k). \end{aligned}$$

By continuity of ψ and (2.7), we have

$$\psi(\varepsilon) \leq \left(\lim_{k \rightarrow \infty} \beta(\psi(r_k)) \right) \cdot \psi(\varepsilon). \tag{2.8}$$

Since $\varepsilon > 0$, then using property (ψ_{ii}) we have $\psi(\varepsilon) > 0$, so (2.8) yields that

$$1 \leq \lim_{k \rightarrow \infty} \beta(\psi(r_k)) \leq 1, \text{ which implies that } \lim_{k \rightarrow \infty} \beta(\psi(r_k)) = 1.$$

But $\beta \in \mathbf{S}$, so that we have $\lim_{k \rightarrow \infty} \psi(r_k) = 0$. On the other hand, since ψ is continuous, it follows from (2.7) that $\psi(\varepsilon) = 0$ and hence, by property (ψ_{ii}) we obtain that $\varepsilon = 0$, which is a contradiction.

Therefore, $\{gx_n\}$ and $\{gy_n\}$ are both Cauchy sequences and since $g(X)$ is complete, there exist $x, y \in g(X) \subseteq X$ such that $gx_n \rightarrow x$ and $gy_n \rightarrow y$, so that

$$\lim_{n \rightarrow \infty} F(x_n, y_n) = \lim_{n \rightarrow \infty} gx_n = x \quad \text{and} \quad \lim_{n \rightarrow \infty} F(y_n, x_n) = \lim_{n \rightarrow \infty} gy_n = y.$$

Since g is continuous, we have $ggx_n \rightarrow gx$ and $ggy_n \rightarrow gy$, and hence

$$\lim_{n \rightarrow \infty} d(ggx_n, gx) = 0 \quad \text{and} \quad \lim_{n \rightarrow \infty} d(ggy_n, gy) = 0.$$

Also, since g and F commutes, we have

$$ggx_{n+1} = gF(x_n, y_n) = F(gx_n, gy_n) \quad \text{and} \quad ggy_{n+1} = gF(y_n, x_n) = F(gy_n, gx_n). \quad (2.9)$$

By triangle inequality, we have

$$d(gx, F(x, y)) \leq d(gx, ggx_{n+1}) + d(ggx_{n+1}, F(x, y)).$$

So, we get

$$d(gx, F(x, y)) - d(gx, ggx_{n+1}) \leq d(ggx_{n+1}, F(x, y)).$$

Similarly,

$$d(gy, F(y, x)) - d(gy, ggy_{n+1}) \leq d(ggy_{n+1}, F(y, x)).$$

And hence,

$$d(gx, F(x, y)) - d(gx, ggx_{n+1}) + d(gy, F(y, x)) - d(gy, ggy_{n+1}) \leq d(ggx_{n+1}, F(x, y)) + d(ggy_{n+1}, F(y, x)),$$

which imply, by the monotonicity of ψ ,

$$\begin{aligned} & \psi(d(gx, F(x, y)) - d(gx, ggx_{n+1}) + d(gy, F(y, x)) - d(gy, ggy_{n+1})) \\ & \leq \psi(d(ggx_{n+1}, F(x, y)) + d(ggy_{n+1}, F(y, x))) \\ & = \psi(d(F(gx_n, gy_n), F(x, y)) + d(F(gy_n, gx_n), F(y, x))) \quad (\text{by (2.9)}) \\ & \leq \beta \left(\psi(d(ggx_n, gx) + d(ggy_n, gy)) \right) \cdot \psi(d(ggx_n, gx) + d(ggy_n, gy)) \quad (\text{by (2.1)}) \\ & < \psi(d(ggx_n, gx) + d(ggy_n, gy)). \quad (\text{since } \beta(t) < 1 \text{ for all } t \geq 0) \end{aligned}$$

On letting $n \rightarrow \infty$ and using the continuity of ψ , we get

$$\psi(d(gx, F(x, y)) + d(gy, F(y, x))) \leq \psi(0) = 0,$$

then, by non-negativity of ψ , we have

$$\begin{aligned} & \psi(d(gx, F(x, y)) + d(gy, F(y, x))) = 0, \text{ which implies by } (\psi_{ii}) \text{ that} \\ & d(gx, F(x, y)) + d(gy, F(y, x)) = 0. \end{aligned}$$

Therefore, $gx = F(x, y)$ and $gy = F(y, x)$.

We now show that $x = gx$ and $y = gy$.

Let $x \neq gx$ or $y \neq gy$, so that $\lim_{n \rightarrow \infty} d(gx_n, gx) \neq 0$ or $\lim_{n \rightarrow \infty} d(gy_n, gy) \neq 0$.

Let $R_n = d(gx_n, gx) + d(gy_n, gy)$ for all $n \in \mathbf{N}$.

By (2.1), for $n \in \mathbf{N}$, we have

$$\begin{aligned} \psi(R_{n+1}) & = \psi(d(gx_{n+1}, gx) + d(gy_{n+1}, gy)) \\ & = \psi \left(d(F(x_n, y_n), F(x, y)) + d(F(y_n, x_n), F(y, x)) \right) \\ & \leq \beta \left(\psi(d(gx_n, gx) + d(gy_n, gy)) \right) \cdot \psi(d(gx_n, gx) + d(gy_n, gy)) \end{aligned}$$

$$= \beta(\psi(R_n)) \cdot \psi(R_n) < \psi(R_n), \tag{2.10}$$

which implies that $\{\psi(R_n)\}$ is a non-increasing, bounded below sequence and so $\lim_{n \rightarrow \infty} \psi(R_n) = R (\geq 0)$ exists. But, since $\lim_{n \rightarrow \infty} d(gx_n, gx) \neq 0$ or $\lim_{n \rightarrow \infty} d(gy_n, gy) \neq 0$, we have $\lim_{n \rightarrow \infty} R_n = \lim_{n \rightarrow \infty} \{d(gx_n, gx) + d(gy_n, gy)\} \neq 0$. Then, by continuity of ψ and property (ψ_{ii}) , it follows that $R > 0$. Taking $n \rightarrow \infty$ in (2.10) and using the continuity of ψ , we get $\psi(R) \leq \left(\lim_{n \rightarrow \infty} \beta(\psi(R_n))\right) \cdot \psi(R)$, and since $R > 0$, we can obtain that $1 \leq \left(\lim_{n \rightarrow \infty} \beta(\psi(R_n))\right) \leq 1$, which yields that $\lim_{n \rightarrow \infty} \beta(\psi(R_n)) = 1$. But $\beta \in \mathbf{S}$, so that we have $\lim_{n \rightarrow \infty} \psi(R_n) = 0$. Thus, we obtain that $R = 0$, a contradiction. Now, by continuity of ψ and property (ψ_{ii}) , we get $\lim_{n \rightarrow \infty} R_n = \lim_{n \rightarrow \infty} \{d(gx_n, gx) + d(gy_n, gy)\} = 0$. A contradiction, and hence $x = gx$ and $y = gy$.

Next we shall show that $gx = gy$.

Let $gx \neq gy$. Then by (2.1), we get

$$\begin{aligned} \psi(d(gx, gy) + d(gy, gx)) &= \psi(d(F(x, y), F(y, x)) + d(F(y, x), F(x, y))) \\ &\leq \beta(\psi(d(gx, gy) + d(gy, gx))) \cdot \psi(d(gx, gy) + d(gy, gx)) \\ &< \psi(d(gx, gy) + d(gy, gx)), \quad (\text{since } \beta(t) < 1 \text{ for all } t \geq 0) \end{aligned}$$

which is a contradiction.

Hence $gx = gy$. But $gx = x$ and $gy = y$, so we can get $x = y$. Therefore, we proved $x = gx = F(x, x)$.

Finally, we show the uniqueness of x .

Let $z (\neq x) \in X$ such that $z = gz = F(z, z)$. Clearly, $gz \neq gx$. Then by (2.1), we get

$$\begin{aligned} \psi(d(gx, gz) + d(gx, gz)) &= \psi(d(F(x, x), F(z, z)) + d(F(x, x), F(z, z))) \\ &\leq \beta(\psi(d(gx, gz) + d(gx, gz))) \cdot \psi(d(gx, gz) + d(gx, gz)) \\ &< \psi(d(gx, gz) + d(gx, gz)), \text{ a contradiction.} \end{aligned}$$

This proves the uniqueness of x and hence, completes our result.

Considering $\psi(t) = t$ for $t \in [0, \infty)$ in Theorem 2.1, we can obtain the following result:

Corollary 2.2. Let (X, d) be a metric space. Let $F: X \times X \rightarrow X$ and $g: X \rightarrow X$ be two mappings and there exists $\beta \in \mathbf{S}$ such that

$$\begin{aligned} d(F(x, y), F(u, v)) + d(F(y, x), F(v, u)) \\ \leq \beta(d(gx, gu) + d(gy, gv)) (d(gx, gu) + d(gy, gv)) \end{aligned} \tag{2.11}$$

for all $x, y, u, v \in X$.

Assume that F and g satisfy the following:

- (1) $F(X \times X) \subseteq g(X)$,
- (2) $g(X)$ is complete, and
- (3) g is continuous and commutes with F .

Then, the mappings F and g have a unique common coupled fixed point in X ; that is, there exists a unique x in X such that $gx = F(x, x) = x$.

Considering g to be identity mapping on X in Theorem 2.1, we get the following result:

Corollary 2.3. Let (X, d) be a complete metric space. Let $F: X \times X \rightarrow X$ be a mapping and there exists $\beta \in \mathbf{S}$ and $\psi \in \mathbf{\Psi}$ such that

$$\psi(d(F(x, y), F(u, v)) + d(F(y, x), F(v, u)))$$

$$\leq \beta(\psi(d(x, u) + d(y, v))) \psi(d(x, u) + d(y, v)) \quad (2.12)$$

for all $x, y, u, v \in X$.

Then there exists a unique x in X such that $F(x, x) = x$.

Remark 2.4. (i) Corollary 2.2 extends Theorem 1.2 [6] for common coupled fixed point problems.

(ii) Corollary 2.2 with $g: X \rightarrow X$ defined by $g(x) = x$, provides a generalization of Theorem 1.1 [3] for $\beta(t) = k$ for $t \in [0, \infty)$, where $k \in [0, 1)$ in coupled fixed point theory.

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“Marketing Strategies Of Organic Products: A Study In The State Of Karnataka With Special Reference To Organic Product Marketers Perceptions”

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Abstract:

The new phenomenon that you see in the market today is sustainable consumption. Most of the consumers are conscious on what they consume and how it is going to impact on their overall health. There is increasing demand for yoga, natural and organic products. If we are looking from the supply angle it is evident that many times consumers find that organic products are not available in the shop. Farmers perspective is that organic products do not give much yield hence it cannot be produced in the larger scale. Also certification takes lot of time to convert from conventional land to the organic land.

At the marketers level they feel that there is no awareness on the consumption of organic products and also there is less brands available for the consumers. Most of the time organic products in the marketing are costlier than the conventional products. Hence most of consumers prefer buying conventional products.

Hence this research is undertaken to understand marketing strategies adopted by the organic product marketers in the state of Karnataka covering Bangalore, Mysore and Belagavi city to attract maximum number of customers.

Key words: Organic products, Marketing strategies, Conventional products

1. Introduction

Buyers have moved towards becoming wellbeing cognizant and will pay for the perfect, solid and normal sustenance.

Expanded attention to the customers, wellbeing awareness and worry over natural debasement draw in the purchasers towards utilization of natural nourishment items. Keeping in mind the end goal to advance natural cultivating, advertisers need to look at customers purchasing conduct and their association with socioeconomics and psychographic factors. Such data is critical in arranging the promoting techniques. Generation of natural items and the promoting techniques ought to be focused to shoppers who have more inspirational states of mind towards natural sustenance items and show an expanded readiness to pay the higher cost for these items. The changing pattern in the view of the shoppers of natural nourishment items is comprehended by the expanding number of natural sustenance purchasers. The legislature is giving important help to the advancement of natural cultivating in the state. An administrative and confirmation framework with norms is recommended by the legislature for the advantage of the natural ranchers and the buyers of natural nourishments. The territory under natural cultivating is on increment and quantities of customary ranchers are turning towards natural cultivating. Consequently the logical

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assessment of the prospects and limited time systems of Organic Farming are under the expressed conditions

2. Review of Literature

1. National program for organic Farming (NPOF) third party certification is currently mandatory only for the exports. Among the sustainable farming system discussed in this chapter, organic is the only one that has a legal framework backing its standards, certification and labelling. India has a rich agricultural tradition that are suitable for designing organic production systems. (Garibay and Jyoti 2003).
2. As per the study conducted by Omar noor, A. nazri azrin Gender, age and level of education seem to be related to organic food purchase intention. Level of income (H1c) and presence of children within the household (H1e) do not seem to be related to intention in buying organic food
3. Chandrashekhara HM(2014) in a study conducted in Mysore district of Karnataka observes that the main problems of organic consumers are irregular availability of organic products. The organic products are too expensive than non-organic products. The varieties of organic products which are available in the market are limited. The organic products are not properly certified from any organic certified agency or authority.
4. Sergio silva, Junior braga (2014) in their paper "The Purchase of Green Products in Retail is Influenced by Environmental Concern" observed that there was no statistical based relationship to justify the link between the two constructs. The subjects' environmental concern did not interfere in their purchase decision with regard to retailed green products. The subjects' purchase behavior was preceded by the intention of purchasing, which was what really mattered in their decision.
5. Special about marketing organic products in US market is balancing act of retailers for delivery of higher value proposition for the higher costs of the organic products states Ram Bezawaada (2013) in the paper featured in journal of Marketing.
6. Contrary to studies showing consumer concerns and internal conflicts linked to both individual and altruistic values, this study mostly highlighted consumers trade-offs between different individual benefits, mainly health vs. economic benefits. The interviewees appeared to be much less driven by altruistic motivations such as environmental concerns that are only emerging. An important implication of this study is related to the marketing and communication campaigns aiming to promote local organic products. These campaigns should focus more on the emerging or absent altruistic motives such as environment or support of local producers than on health since organic products are already perceived as the best products for health
7. Gender, age and level of education seem to be related to organic food purchase intention. Level of income (H1c) and presence of children within the household (H1e) do not seem to be related to intention in buying organic food Omar noor, A. nazri azrin, M(et al).
8. A survey was carried out on a sample of 1502 young educated consumers. Structural equation modeling was used to assess the predictive power of considered variables towards green purchasing. Results indicate that the variables under study predicted green purchase behaviour of young educated consumers of Delhi in the following descending order: social influence, attitude towards green purchase, perceived environmental knowledge, recycling participation, ecolabelling, and exposure to environmental messages through the media.

3. Research Methodology

Objectives of the Study

1. To evaluate marketers understanding of organic product marketing strategies.
2. To understand marketers understanding of customer expectations with respect to organic products
3. To identify challenges of organic products marketing from marketers perspective.
4. To analyze gaps and identify efficient ways for marketing of organic products.

Type of research : Descriptive research

Population of the study: Data was collected from organic product marketers in the state of Karnataka majorly from Bangalore, Mysore and Belagavi cities.

Sampling method: Convenience Sampling

Sample size: 100

Data collection tools used: Structured questionnaire was used to capture perceptions of the Marketers.

4. Data Analysis and Discussions

8.1.Profile of Selected marketers

Socio economic aspects of the dealers such as age, experience in sales of organic foods and their educational status have been analyzed. From the analysis of age of the dealers, it was found that the highest of 47% of the respondents are in the age class of 40 -50 years, followed by the age class of 30-40 years with 19% of the respondents. Maximum of 38% of the dealers are with 4-6 years of experience. With reference to the educational status, a maximum of 48% of the sample dealers are graduates. Distribution of Dealers of Organic Food Products by their Age, Experience and Educational Status is presented in Table 4.27.

Table 4.1: Distributions of Dealers of Organic Food Products by their Age, Experience and Educational Status

Variable	Groups	Number of Dealers	Percent
Age	Up to 30 years	12	12.0
	30- 40 years	19	19.0
	40- 50 years	47	47.0
	50 - 60 years	17	17.0
	Above 60 years	5	5.0
	Total	100	100.0
experience in sales of organic foods	Up to 2 years	4	4.0
	2 - 4 years	28	28.0
	4- 6 years	38	38.0
	6 - 8 years	16	16.0
	8- 10 years	9	9.0
	Above 10 years	5	5.0
	Total	100	100.0
Educational Status	Up to SSLC /Matriculation	14	14.0
	Higher Secondary	32	32.0
	Graduate	48	48.0
	Post-Graduate and above	6	6.0
	Total	100	100.0

Source: Primary Data

4.2 Distribution of Sample Dealers by Organic Product

Table 4.2: Organic Food Products and the Proportion of Dealers

Sl No.	Organic Food Product traded	Number of Dealers	Percentage
1	Fresh vegetables	100	100.0
2	Fresh fruits	95	95.0
3	Milk and Milk Products	43	43.0
4	Cereals (Wheat, Rice, etc.)	61	61.0
5	Bread and Bakery Products	46	46.0
6	Pulses	62	62.0
7	Baby Products	41	41.0
8	Dried fruits and nuts	73	73.0
9	Beverages	58	58.0
10	Oil (Edible)	77	77.0
11	Sugar products (Honey, Jam, etc.)	49	49.0

Source: Primary Data



Figure 4.19: Percentage of Traders by the Organic Food Product Traded

4.3 Type of Organic Food Traded by the Dealers

Table 4.3: Distribution of dealers by their type of organic food traded

Type of Organic Food	Number of Dealers	Percent
Certified by approved Organization	30	30.0
Self-claimed/non-certified	12	12.0
Both Certified and Non Certified	58	58.0
Total	100	100.0

Source: Primary Data

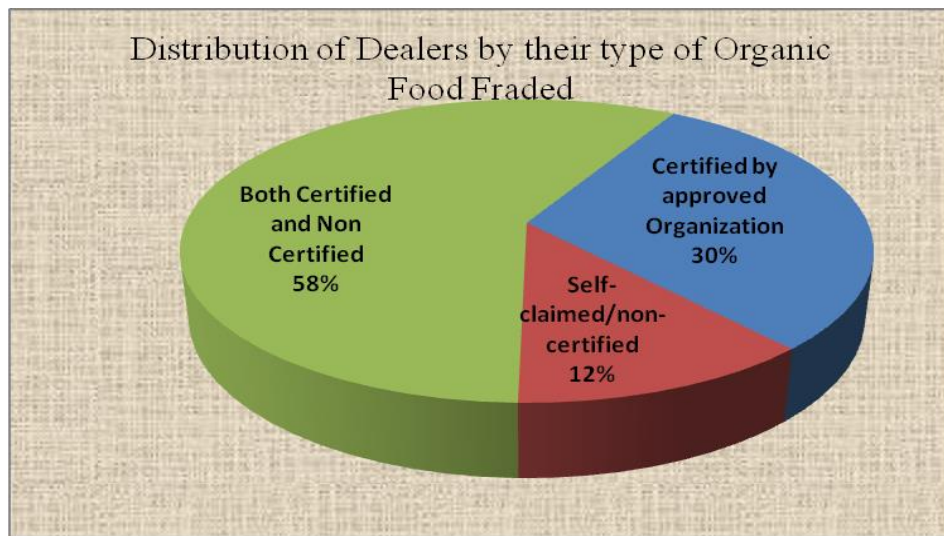


Figure 4.20: Distribution of Dealers by their Type of Organic Food Traded

4.4 Frequency of Demand for Organic Foods as Perceived by Dealers

Table 4.4: Descriptive Statistics for the Frequency of Demand for the Products

Product	Mean	Std. Deviation	Rank For the Mean
Fresh vegetables	4.84	.368	1
Fresh fruits	4.46	.501	2
Baby products	4.12	.498	3
Beverages	4.05	.520	4
Sugar products (Honey, Jam, etc.)	3.55	.687	5
Bread and bakery products	3.55	.687	6
Dried fruits and nuts	3.46	.744	7
Milk and milk products	3.32	.601	8
Oil	3.24	.740	9
Meat and meat products	3.10	.414	10
Pulses	2.91	.494	11
Cereals (Wheat, Rice, etc.)	2.87	.418	12

Source: Primary Data

Table 4.5: Frequency of Demanding Organic Food Products

Sl. No	Name of Product	Frequency of Demand					Total Number of Dealers
		Very Frequently Demanded	Frequently Demanded		Occasionally Demanded	Never Demanded	
1	Fresh vegetables	84	16	0	0	0	100
2	Fresh fruits	46	54	0	0	0	100
3	Meat and meat products		14	82	4	0	100
4	Milk and milk products	7	18	75		0	100
5	Cereals (Wheat, Rice, etc.)	0	3	81	16	0	100
6	Bread and bakery products	0	66	23	11	0	100
7	Pulses	0	8	75	17	0	100
8	Baby products	19	74	7		0	100
9	Dried fruits and Nuts	15	16	69		0	100
10	Beverages	16	73	11		0	100
11	Oil	9	15	67	9	0	100
12	Sugar products (Honey, Jam, etc.)	0	66	23	11	0	100

Source: Primary Data

4.6 Perception of Dealers on Marketing of Organic Food Products

Table 4.6: Distributions of Respondents Based on the Level of Perception of Dealers on Organic Foods Marketing

Level of Perception of Dealers	Number of Dealers	Percent
Moderate	9	9.0
High	83	83.0
Very High	8	8.0
Total	100	100.0

Source: Primary Data

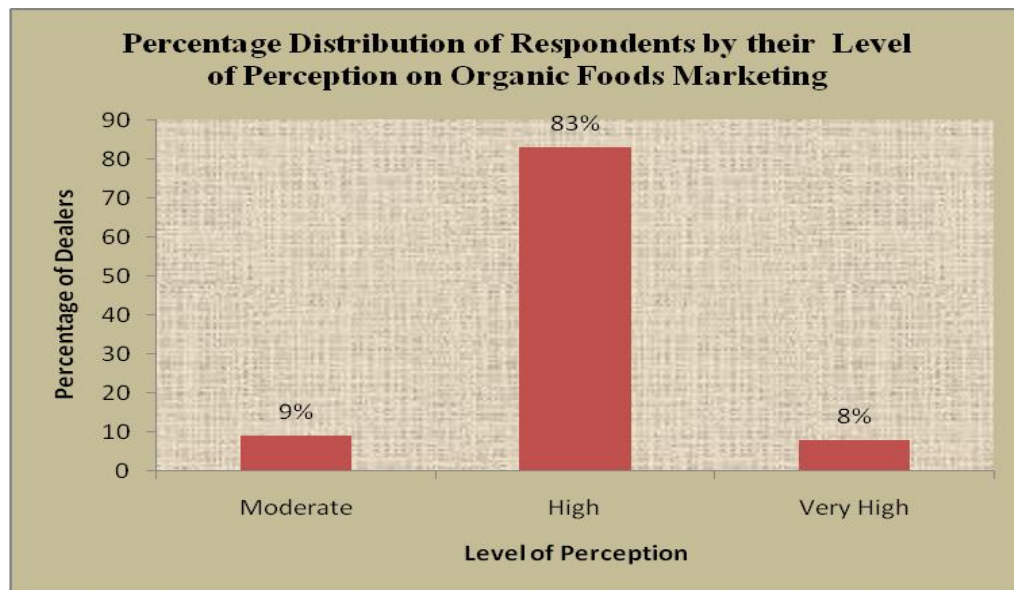


Figure 4.6: Percentage Distributions of Respondents by their Level of Perception on Organic Foods Marketing

Table 4.7: Relative Level of Perception of the Statements by the Dealers based on the Average Scores

Code	Statement	Mean	Std. Deviation
ST4	Health and product safety concerns are gaining importance	4.10	0.628
ST25	Government should arrange more exhibitions of organic products for communicating its benefits	4.10	0.772
ST11	Organic product supply is lesser than supply of conventional products	4.07	0.671
ST3	Consumer is willing to pay the price premium for the organic products	3.97	0.594
ST19	Product quality deserves a great deal of attention from producers and marketing organizations	3.97	0.658
ST8	Organic products are available only in limited outlets	3.96	0.602
ST16	Focus on establishment of quality assurance system throughout the supply-chain management of organic products	3.93	0.59
ST6	Consumer needs to be educated on benefits of organic products	3.91	0.57
ST20	For designing market strategy, knowledge of culture and basic habits of target customer is important	3.89	0.567
ST14	FDI in multi-brand retail will improve the supply of organic products	3.88	0.573
ST9	Lack of confidence in organic farming on the part of farmers	3.87	0.562

Code	Statement	Mean	Std. Deviation
ST17	Certification of the organic products has emerged as an important issue in marketing	3.84	0.631
ST18	Supply chain management is one of the key issue to the success of delivering domestic market	3.80	0.636
ST5	Domestic consumption of organic products is increasing	3.73	0.827
ST10	Little awareness of organic opportunities among farmers	3.71	0.456
ST13	Poor logistic arrangement	3.59	0.621
ST1	Consumers are unknown to organic products and their benefit to nature	3.58	0.794
ST12	Demand for organic products is growing faster than its supply	3.55	0.642
ST23	Words of mouth recommendation play significant role in promotion of organic products	3.52	0.772
ST32	Consumers are willing to pay the price premium for food that is healthier, safer or produced to higher ethical standards?	3.50	0.798
ST2	Consumer compares organic products on the basis of price only	3.46	0.731
ST7	Unreliability of certification is leading to consumer confusion	3.43	0.714
ST15	Government is providing appropriate support to encourage market of organic products	3.43	0.742
ST21	Present demand of organic product is limited to affluent class	3.37	0.661
ST30	Consumers trust in quality of products	3.36	0.674
ST27	Growing number of high income middle class families will create more demand of organic products	3.18	0.809
ST26	Consumers feel very much concern about major elements of pesticides and chemical fertilizers in conventional food	3.13	0.597
ST24	Media should highlight research finding of organic products among consumers	3.10	0.595
ST31	Consumers faith in the certification agencies	3.08	0.677
ST22	Standard for organic product and processing leads to customer confidence	3.04	0.634
ST28	Environmental concern among consumers are gaining importance	2.83	0.667
ST29	Young generation consumers are spending more on quality food and grocery items	2.69	0.615

Source: Primary Data

4.8 Factors for Creating More Demand of Organic Products in the Market

Table 4.8: Relative impact of the factors in increasing demand of organic food product in the market

Factors for increasing Demand	Mean	Std. Deviation
More cheap prices	4.68	.649
More information in the media	4.66	.639
More accessibility in the market	4.57	.714
More trust to origin / production	4.53	.771
More assortment (variety / range) availability	3.88	.409
More recognizable label and products	3.84	.368
Attractive packing material	3.76	.429
Longer shelf life	3.12	.327
More seasonal products	3.08	.273
Better appearance and taste	3.03	.300
More income	3.03	.171
Better/shorter cooking conditions	2.90	.302
More time to look for organic food	2.88	.327

Source: Primary Data

4.9 Hurdles Perceived in Marketing of Organic Food Products.

Table 4.9: Descriptive Statistics on the impact of hurdles in marketing of organic food products

Hurdles in Marketing of Organic Food Products	Mean	Std. Deviation
High Pricing	4.11	.510
Lack of trust on the production	3.96	.530
Lack of consumer awareness	3.89	.567
Meager number of Suppliers	3.09	.552
Limited accessibility in the market	2.94	.528
Poor Logistic management	2.66	.623
Others	2.51	.577

Source: Primary Data

4.10 Promotional Strategies Adopted in Sales of Organic Food Products

Table 4.10: Relative Levels of Adoption Various Promotional Strategies

Promotional Strategies Adopted in Sales of Organic Food Products	Mean	Std. Deviation
Printing and distribution of leaflets	4.15	.500
Direct marketing	4.07	.498
Direct communication to potential buyers	3.85	.626
Ads in Newspapers	3.69	.563
Ads in Television/Radio/Internet	3.59	.588
Use of specific brand Logo	3.43	.573
Declaring Price Discounts/ Freebees	3.27	.510
Contacts with associations, clubs	2.96	.530
Organizing Consumer Meetings	2.88	.409
Directly inviting individuals / organizations to special events	2.76	.429
Organizing Cooking demos	2.19	.545
Organizing Farm visits,	2.13	.525

Source: Primary Data

5. Major Findings, suggestions, conclusion

1. Dominant part of 47 percent of the respondents are in the age class of 40 - 50 years and 19 percent of the respondents are in the age class of 30-40 years.
2. Greatest of 38 percent of the merchants is with 4-6 years of experience. With reference to the instructive status, a greatest of 48 percent of the example merchants is graduates.
3. Among the natural sustenance items, Fresh vegetables are sold by 100 percent of the merchants took after by Fresh organic products by 95 percent Oil (Edible) by 77 percent and heartbeats by 62 percent and Cereals (Wheat, Rice, and so forth.) by 61 percent of the merchants.
4. Around 58 percent of the merchants exchange both confirmed and non-guaranteed natural items. Just 30 percent of them bargain solely with confirmed natural sustenance things. Another 12 percent of the merchants exchange Self-asserted/non-guaranteed organics.
5. Among the natural sustenance items, Fresh vegetables and Fresh organic products are the most every now and again requested things.
6. General view of the example merchants on exchanging of natural nourishment items was figured as 77.61 percent.
7. As to level of impression of exchanging natural sustenance items, 8 percent of the merchants had an abnormal state of discernment, 83 percent of the respondents had an abnormal state of recognition and 9 percent of them had a direct level of the showcasing of natural nourishment items.
8. Examination of the merchants' recognition has drawn out that more shoddy costs, more data in the media, greater availability in the market and more trust to starting point/creation are the main considerations for expanding interest for natural nourishment items in the market.
9. High Pricing, Lack of trust on the creation, Lack of buyer mindfulness, pitiful number of Suppliers is the real obstacles in advertising of natural nourishment items.
10. Printing and conveyance of flyers, guide showcasing and guide correspondence to potential purchasers are the major limited time systems received by the merchants of natural nourishment items.

Suggestions

Even though the marketers are interested the marketing of organic products, they face challenges in terms of availability and awareness about the products to the customers. Hence it is important that the policy makers address this challenge of organic product marketers. Marketers also needs to understand the requirements from the consumers end and design their marketing strategies as per the requirements of the customers.

Conclusion

This research concludes that this research study proves that most of the consumers are concerned about the sustainability aspects of the products and they truly care for that. It is an alarming signal for the marketers and the retailers that if they don't consider consumer understanding of the sustainability aspects then it would be difficult for them to market their products in the near future. Also as the education levels and affordability of the consumers is increasing, it is important to understand the customers concerns and products has to be delivered as per the choice and preference of the customers.

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A Structure Equation Model of Talent Retention as a Determinant of Perceived Organizational Performance

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Swati Punjani**

Abstract

In this era of diversity and inclusion, end of static jobs, war of talent, talent poaching, rapid technological advancements and heightened financial constraints, retaining the best talent has become crucial for any organization's performance. This study focuses on the impact of selected talent retention practices on perceived organizational performance. An empirical study was conducted through a structured survey to investigate the relationship between the structural determinants of Talent Retention and Perceived Organizational Performance applying Structure Equation Modelling (SEM) to a sample size of 194 respondents. Through the SEM model, it was seen that Training and Development, Work Life Balance and Career advancement opportunities have a significant impact on Perceived Organizational Performance whereas Competitive compensation does not have much impact on the same. The study shows a shift in employee preference for better work life balance, career advancement opportunities and higher growth prospective through training instead of being highly compensated. This study validates a Talent Retention- Perceived Organizational Performance model thus strengthening the existing knowledge in the area and contradicts a few researches that support compensation as a significant determinant of organizational performance. The findings of this study highlight Training and Development, Work Life Balance and Career advancement opportunities as priorities when it comes to enhancing organizational performance levels through talent retention.

Keywords: Talent Retention Practices, Perceived Organizational Performance, Structure Equation Modelling (SEM).

1. Introduction

In just no time all the limelight is on talent retention and management as the HR professionals have realised the worth of a talented workforce due to the prevailing state of "war of talent", to get into the depth of it we first need to understand what exactly does talent denote and mean. Talent has been widely used by the scholars in diverse ways such as "Talent is superior mastery of systematically developed abilities or skills" (Gagné, 2000) and "It is the sum of a person's abilities—his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgment, attitude, character and drive. It also includes his or her ability to learn and grow" (Michaels Handfield-Jones & Axelrod, 2001). Talent paradigm given by Sharma, Agarwal & Ganjiwale (2011) represents an overall view of "Talent" related activities such as acquisition, development, management and retention.

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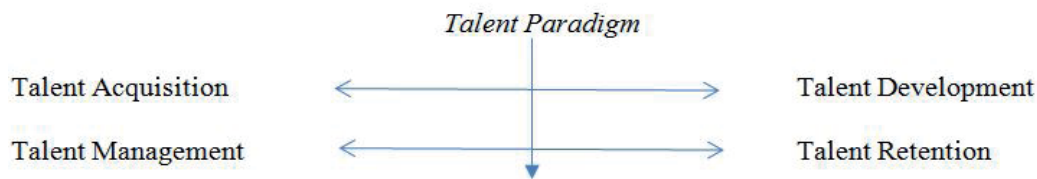


Figure 1 Talent Management and Paradigm (Source: Sharma, P. Agarwal, B. Ganjiwale, K. (2011) “Talent paradigm in organisation.” Journal of Human Resource Management. 22 (8). pp. 23-26.)

After having a glimpse of talent as a whole through talent paradigm in Figure 1, we devote our entire attention on the concept of “Talent Retention” which is nothing but retention of talent to which Cascio (2006) perceives that the management takes initiatives to make employees stay in the organization. The management of talent in an organisations has become an important factor in sustaining and improving organisational performance (Bowen & Ostroff, 2004; Ostroff & Bowen, 2000). Performance, for organizations, is a way of measuring the extent of its effectiveness. Hamon (2004) pointed out that “organizational performance is an indicator which measures how well an enterprise achieves their objectives”. Thus, the current scenario points out that if talent management practices are employed appropriately, it will enhance organizational performance immensely. The influence that talent retention strategies and the related methods can have on organizational performance is considered as a critical issue in several areas such as HRM, industrial relations and organizational psychology. Gould-Williams, (2003), Boselie, Dietz, & Boon (2005), Ahmad & Schroeder (2003), Katou (2009), Farouk, Abu Elanain, M. Obeidat, & Al-Nahyan (2016). Through this study, the researchers seek to identify the practices that are crucial for retaining the talent in Indian organizations and also the extent to which these talent retention practices influence the perception of the employees towards organizational performance.

2. Literature Review

2.1 Talent Retention (TR)

Talent war, digital transformations and advancements, much diversified workforce and other major changes in the environment have led to “talent retention” becoming an indispensable key to organizational success through boosting an employees’ “intention to stay”. Retaining talent has somehow become more crucial than acquiring new blood, a result of which is researchers framing and coming up with their own set of retention strategies for different studies like Samuel and Chipunza (2009) identified key intrinsic and extrinsic motivational variables influencing retention namely training and development; sense of belonging to the organisation; competitive salary package; job security; challenging/ interesting work; and freedom. Govaerts, Kyndt, Dochy & Baert(2011) also had a similar outlook including presence of challenging work, opportunities of advancement, increased compensation and opportunities to learn. Kossivi, Xu and Kalgora (2016) consider opportunities for development, compensation, work-life balance, work environment, management/leadership, social support, autonomy, training and development as retention factors. According to McNee, Morello, Zidar, & Smith(1998) and Dockel, Basson & Coetzee(2006), the important factors that are necessary in retaining high technology employees are compensation (base salary), job characteristics (skill variety and job autonomy), opportunities for training and development, supervisor support, career opportunities and work/life policies but as per Ghansah (2011) even reward and recognition has a great role to in motivating employees,

boosting performance and increasing retention levels. Ozolina-Ozola(2014) identified a list of factors that enhances retention which includes job design, recruitment and selection, induction, training and development, succession planning, compensation and reward, performance management, internal communication, involvement, equal opportunities, employment security and prestige. Tanwar and Prasad (2016) altogether had a different perspective and highlight practices like work–life balance, corporate social responsibility and work environment to retain talent which Cegarra-Leiva, Sánchez-Vidal & Gabriel Cegarra-Navarro(2012) also supports a similar approach. Altogether, it has been noticed and believed that the way in which people are managed and trained at work had been the primary factors in achieving better organisational performance Godfrey, Dale, Marchington & Wilkinson(1997).

2.2 Organizational Performance and Its Structural Determinants

Organizational performance is one of the most widely used dependent variables in organizational studies today, and yet, it remains one of the most imprecise and loosely-defined constructs (Rogers and Wright, 1998). A number of authors have applied different ways to assess organizational performance. One way of assessing the overall organizational performance, as identified by Delery and Doty (1996), was through seven strategic HR practices- the use of internal career ladders, formal training systems, results-oriented appraisal, performance-based compensation, employment security, employee voice and broadly defined jobs. Gould-Williams (2003) assessed organizational commitment, job satisfaction, employee effort, employee intention to quit and relative organizational performance as a measure of perceived organizational performance. Li-Yun, Aryee, & Law (2007) considered productivity and turnover as the two indicators of organizational performance. Singh(2004) used two variables to measure perceived organizational performance – One was categorised as ‘Organizational performance’ and second as ‘Market performance’. Both these variables together provide better assessment of perceptions of organizational performance and Amin, Ismail, Zaleha Abdul Rashid, & Andrew (2014) found that “perceived organizational performance can be attributed to HRM practices including recruitment, training, performance appraisal, career planning, employee participation, job definition and compensation”.

2.3 Talent Retention Practices and Organizational Performance

There have been a few studies before which depicted the impact of talent retention on organizational performance such as Lyria, Namusonge, & Karanja(2017) determined the intensity of relationship between talent retention elements (effective leadership style, competitive compensation, flexible working hours, internal recruitment policy, attractive non-monetary rewards) and organizational performance which turned out to be positive. Similarly, Maliku (2014) through his study concludes that recruitment and selection of staff, training and development, career advancement, compensation, effective communication, conducive working environment, supervisor support and organisation culture are indispensable in an organization due to its major positive impact on organizational performance hence establishing the perceived relationship between employee retention practices and organizational performance. Peggy and Bernard (2016) worked in the similar direction but in the hospital industry and also recommend the management to rigorously work on retention strategies via effective recruitment and supervision practices as it works positively for organizational performance. To conclude, “however talent management is contextualised, the main emphasis stays on retention, development and motivation of talent

to optimise organisational performance, especially with regard to senior management performance” (Vermeulen, 2007).

3. Objectives

- To identify the structural determinants of Talent retention practices prevailing in different organizations.
- To propose a model through SEM depicting the impact of selected talent retention practices on Perceived Organizational Performance.

4. Research Design

The questionnaire development and its measures, sampling design, data collection procedure and statistical analysis technique have been mentioned in this section. Primary as well as secondary sources have been used for collecting data. The primary source used in the study is a structured questionnaire and the secondary source includes extensive desk research through different published material, library and world-wide web.

5. Research Model

Based on the above discussion and considering the much needed emphasis of talent retention practices, Figure 2 shows the conceptual model of this study. The model presents the relationship between talent retention practices and organizational performance. Each path in the model represents the research hypotheses which is further discussed.

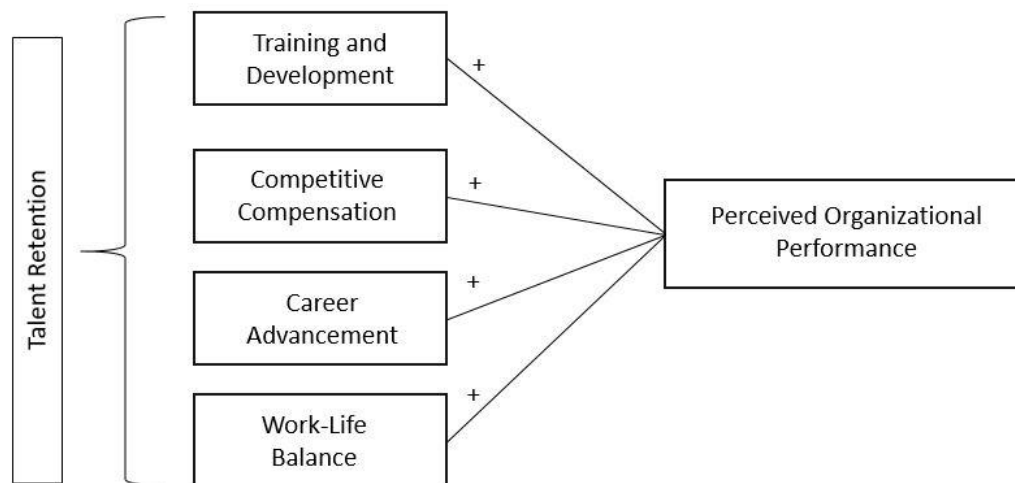


Figure 2 Conceptual Model

6. Hypotheses

“Hypothesis is a formal statement that presents the expected relationship between an independent and dependent variable” (Creswell, 1996). After a detailed review of the previously conducted researches, training and development (TD), work-life balance(WLB), Career advancement Opportunities (CA) and competitive compensation (CC) have been taken as independent variables which have an impact on the dependent variable i.e. Perceived Organizational Performance (POP). Considering these variables and the objectives of the study, the following hypotheses have been developed:

H1: Training and Development is positively associated with Perceived Organizational Performance.

H2: Competitive Compensation is positively associated with Perceived Organizational Performance.

H3: Career advancement is positively associated with Perceived Organizational Performance.

H4: Work Life Balance is positively associated with Perceived Organizational Performance.

7. Sampling

Sampling as a process wholly represents parts of a given population as a basis for drawing conclusions about the whole population (Zikmund, 2003). The Sampling frame for the study is employees who are a part of Private sector organizations particularly covering Delhi NCR region of India. The researchers have used convenience sampling for selecting the respondents for this survey and hence got 194 sample elements.

8. Survey Design and Measures

Yu & Egri (2005) believe that survey is comparatively an easier mode for data collection and hence a structured questionnaire was developed for this particular study with an aim of measuring Talent retention practices as well as perceived organizational performance. For the Talent retention practices in the questionnaire, the questionnaire items covered four dimensions: training and development, career advancement opportunities, work-life balance and competitive compensation system and all of these items were derived from the review of existing literature on HRM Practices and retention, specifically adopted from previous researchers ((Delery and Doty(1996); Dockel(2006); Guest(1998); Huselid(1995); Pfeffer(2005)) and a few items have been adopted from already developed and validated scales such as HRMPPS (Human Resource Management Practices and Policies Scale). The responses were measured on a five point Likert scale, varying from 1= strongly disagree to 5 = strongly agree which is useful in context to questionnaire survey and research (Likert, 1932). In order to avoid scale proliferation, wherever needed the measures adopted for this study were modified from scales identified from existing literature. At least three items were used to represent each construct to facilitate effective analysis and also for applying confirmatory factor analysis (Gerbing and Anderson, 1988). The dependent variable for this study which namely Perceived Organizational Performance covers various items like product quality, customer satisfaction, new product development, ability to attract employees, ability to retain employees, and relations between management and employees (Delaney and Huselid, 1996).

9. Questionnaire Verification

Before the complete data collection, a pilot study was conducted to assess the content validity of the questionnaire initially constructed. This draft version of the questionnaire was pretested involving 65 respondents as the sample from the industry. The validity of the questionnaire – on the basis of clarity, completeness, relevance of questions was examined, and the feedback was sought. Thereafter based on the comments received as a result of pilot study, the questionnaire went through some modification, some questions were edited, others removed, and new items were added. After modifying the questions, the questionnaire with 5 dimensions and 27 items in total was finalized for the next step.

10. Data Collection and Response rate

After the questionnaire was ready, the researcher distributed a total number of 500 questionnaires to the respondents via e-mails, LinkedIn, WhatsApp and most of them were personally administered, while the returned questionnaires were 210, thus representing approximately 42% response rate. Also there were a few questionnaires out of the ones

received which missed some important information and thus had to be excluded. As a result of which, at the end a total of 194 questionnaires were used for data analysis and further entered into for statistical analysis. According to Hair et al.(2011), the sample size for this study tends to be adequate. Distribution and collection of the questionnaires were administered from March (2018) to July (2018).

11. Results

Table1 summarizes and thereby presents the demographic data of the respondents. As a few respondents were reluctant to fill out the section seeking demographic information regarding them, demographic data for a small percentage of the sample was concealed. For the ordinal scales, the unknowns were changed to the median of the scale and for the continuous scale the unknowns were changed to the mean of the scales.

Table 1 Demographic Profile of the respondents

Title	Description	Number of Respondents	Percentage
Age	18-25	87	44.8
	26-39	106	54.6
	40-55	1	0.5
Gender	Male	117	60.3
	Female	77	39.7
Job Experience	0-5	138	71.1
	5-10	42	21.3
	10-15	13	6.7
	15-20	1	0.5
Jo Role	Individual Contributor	104	53.5
	Team Lead	40	20.6
	Manager	21	10.8
	Senior Manger	8	4.1
	Regional Manager	2	1.0
	VP	1	0.5
	Partner	3	1.5
	Owner	3	1.5
Academic Qualification	Intern	12	6.2
	PhD	1	0.5
	PG	90	46.4
	Graduate	100	51.6
	Senior Secondary	2	1.0
	High School	1	0.5

SPSS (Statistical Package for Social Sciences) version 20 was used in this particular study to tabulate and analyse the primary data previously collected from the questionnaire. Further, for the measurement model analysis(CFA) and building up the model through Structural Equation Modelling (SEM), AMOS 20.0 was used. The reliability of all defined constructs was estimated by using Cronbach's alpha which tends to assess the internal consistency of the scales. In this study, the α value obtained is 0.963 (where n=27), indicating sufficiently high reliability. Cronbach's α was further calculated independently for each dimension of the questionnaire used as provided in Table 2.

Table 2 Instrument Reliability and validity

Dimensions	Number of Items	α	l	AVE	CR
Talent Retention Dimensions					
Training and Development	5	0.920	0.69-0.88	0.67	0.92
Competitive Compensation	5	0.895	0.7-0.84	0.59	0.88
Career Advancement	5	0.877	0.64-0.74	0.70	0.92
Work-Life Balance	6	0.926	0.53-0.74	0.64	0.90
Perceived Organizational Performance	6	0.916	0.58-0.74	0.63	0.91

Note: α -Cronbach's Alpha, l- Standardized Loadings, AVE- Average variance extracted, CR Composite Reliability

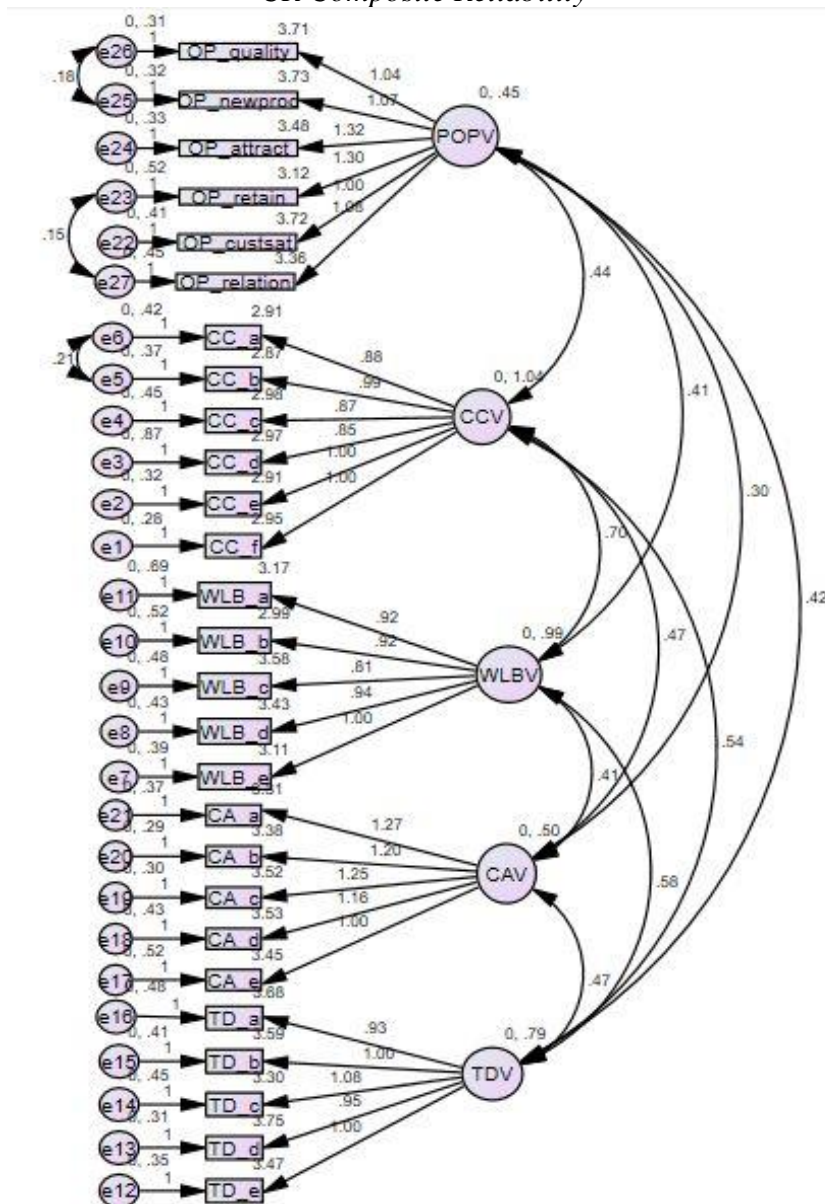


Figure 3 Measurement Model

The measurement model (figure 3) was also tested, where the CFA is performed on the Talent Retention practices to figure out the construct validity. The measurement model taken up in the study consists of 27 items that altogether explains five factors, namely training and development, work life balance, competitive compensation, career advancement opportunities and perceived organizational performance. Fornell and Larcker (1981) declare composite reliability to be one of the most suitable indicator because it also takes into account the actual factor loadings rather than just considering equal weights for each item in the composite load determination (Molina, Montes & Ruiz-Moreno,2007). The minimum acceptable value of composite reliability, as proposed by Molina et al., 2007 is 0.7. The Average Variance Extracted (AVE) is also determined to complete the analysis. Molina et al.(2007) suggest 0.5 as the minimum acceptable value. Table 2 indicates that the scales, in each case, are within the acceptable limits and the composite reliability of all latent constructs exceeds 0.7(standard value) indicating that the measurement model is good.

Table 3 Summary of model fit indices for Structural model of TR-POP

Measures	CFA Model	Structural Model	Threshold
χ^2		184.209	
CMIN/Df	1.883	1.645	< 3 good, <5 sometimes permissible (Hu and Bentler,1999)
RMSEA	0.068	0.058	RMSEA < .08 (Browne & Cudeck, 1993), ideally less than .05 (Steiger, 1990), <.05 good (Hu and Bentler (1999)
CFI	0.935	0.969	Comparative Fit Index > .93 (Byrne, 1994), >.95 great, >.90 traditional, >.80 sometimes permissible (Hu and Bentler (1999)
TLI	0.927	0.962	0.90 (Tucker & Lewis 1973) and .90 or over >.95 (Hu & Bentler, 1999).

χ^2 = Chi-Square; *p* - value for the model, Df= Degree of freedom; RMSEA= Root mean square error of approximation fit index; GFI= goodness of fit index; CFI= Comparative fit index; TLI= Tucker-Lewis index; NFI= Normed Fit Index.

Mulaik & James (1995) believe that some degree of model fit is a must before the general model is brought to testing which calls for CFA model fir test before doing the SEM analysis. Viewing the factor loadings, the items have factor loading higher than 0.6 and also on the basis of the modifications indices derived through the proposed model, the model fit has been achieved. According to Hooper et al(2008), “absolute fit indices determine how well the model fits the sample data” and which model represents the superior fit. On the basis of overall goodness-of-fit (GFI) statistics in our study, the five-factor model for talent retention yields perfect fit statistics after eliminating the items with the lowest coefficient values. Through AMOS 21, CFA was performed to examine the reliability and validity of the reflective measures with maximum likelihood estimation and also to test if the measures are cross nationally invariant (Craig and Douglas 2005). The full sample model that consists of 24 items measuring the five constructs resulted in an acceptable fit and yielded an acceptable GFI and CFI. Coming to the results of the model fit, we start with normed chi-square which is $\chi^2/df = 184.209$, CMIN/Df=2.106. Nejatian et al (2011) and Bagozzi & Yi (1988) consider

GFI, CFI, TFI and RMSEA as crucial values for assessing fitness of a measurement model. RMSEA for this model is 0.068 and also considered as acceptable as per the less than 0.08 benchmark given by Browne & Cudeck (1993). Similarly, CFI=0.935 indicate a good model because Fit and Byrne(1994) consider Comparative Fit Index > .93 as good Tucker and Lewis(1973) stated that TLI>0.90 is an acceptable model fit, hence in this study TLI being 0.927 is considered good. Hair et al. (2010) suggest that minimum three model fit indices must be fitted well to determine the goodness of model fit. Hence, with all these measures (CFI, RMSEA, NFI, TLI) and their respective values discussed above, we can clearly state that the model proposed in this particular study has a sufficiently good model fit.

Table 4 Standardized Regression Estimates of the TR-POP Model

TR-POP MODEL	Standardised Estimate	S.E	C.R	P	REMARKS
TD→POP	0.379	0.090	4.209	***	H1 Accepted
CC→POP	0.049	0.057	0.856	0.392	H2 Rejected
CA→POP	0.200	0.099	2.024	0.043	H3 Accepted
WLB→POP	0.252	0.073	3.455	***	H4 Accepted

Note: N = 194; at p<0.05 significance level

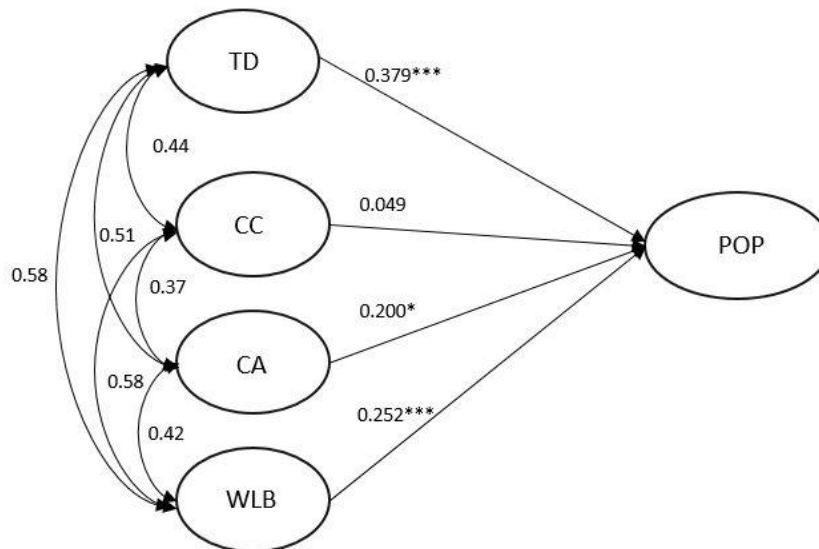


Figure 4 The estimated model using SEM

(*p <0.05, **p <0.01, ***p<0.001).

The paths of the hypothesized model, which identified talent retention practices as an exogenous construct, was validated using Structural equation modelling (figure 4). The statistical significance of all the constructs were examined which denotes the following structural parameter values such as training and development (path coefficient= 0.379; p<0.001), career advancement opportunities (path coefficient=0.200; p<0.05) and work-life balance (path coefficient=0.252; p< 0.001) were found significantly and positively related to organizational performance. Hence, the hypotheses H1, H3 and H4 were approved. On the other hand, competitive compensation (path coefficient=0.049; p<0.05) had no

significant association with organizational performance. Hence, H2 was not approved. Table 4 shows the hypotheses results.

12. Discussion and Findings

Due to constant disturbances and declining performance levels in the organization as a result of numerous considerable transitions in the environment, talent retention practices have somehow gained much importance with respect to fostering organizational performance through cost reduction, higher efficiency and low turnover levels. The research paper contributes towards creating a structural model to clarify the influence of talent retention practices on the perceived organizational performance in the organizations from Delhi NCR region of India. The CFA and Structural Equation Model (SEM) is used to examine the data covering 194 samples (employees) across the private companies in India. The theoretical model/framework hypothesized has been thoroughly validated by the findings of the study. The model statistically demonstrates that out of the four independent variables i.e. TD, CC, CA and WLB under study, three of them have a significant impact on POP whereas CC showed an insignificant impact on POP. The factor loadings of training and development, career advancement opportunities and work-life balance practices is higher than that of competitive compensation implying the fact that greater emphasis on TD, WLB and CA leads to better organizational performance whereas competitive compensation as per the study does not have much role to play when it comes to enhancing performance through retention.

The present study contributes differently to the whole retention practices and performance outlook. Compensation which has been in the previous studies (Singh (2004), Amin et al. (2014), Hameed et al(2014)) considered as the prime construct for retaining talent and boosting performance is no more having a significant effect on organizational performance. The reasons for this shift is that employees now a days focus more on personal development as well as career management along with being able to strike a balance between their work and personal life. Hence, the current findings suggest that HR professionals and employers must work towards promoting customised and personalised training and development; work life balance and career advancement opportunities for its current and potential employees in order to enhance overall performance levels.

13. Conclusion and Scope for future research

The present study offers a model that depicts retention-performance as a theoretical approach to understanding how employers who are working rigorously towards TD, WLB and CA of the employees as a part of their talent retention strategy positively impacts organizational performance. The researchers discover a negative relationship between the competitive compensation and perceived organizational performance which depicts that compensation, salary, package don't have a much role to play in the present scenario as the millennial have entered the workforce who definitely have a different set of priorities that might make them stay longer in any organization and also boost its performance. This study significantly provides insights to private companies in India to better understand how to boost organizational performance by addressing key factors like TD, WLB and CA as a part of talent retention practices and to ultimately overcome this phase of organizational disturbances. The presentation and findings of this study somehow strengthen the existing literature and also have significant implications for managers engaged in talent management related functions.

These results must be interpreted cautiously, considering the limitations inherent in this particular study. Common method variance has been seen as a limitation when it comes to self-reporting and use of cross-sectional data i.e. psychological or attitudinal data collected from respondents for analysis. Another constraint to the study is that the data has been analysed here as if the use of retention practices affects an organization's performance, but this interpretation is limited by the cross-sectional nature of the data. This particular study considers all employees as respondents irrespective of their age, future research could replicate a similar study taking in consideration Generation Y or Z specifically keeping in mind their unique attributes at the workplace. Another limitation that can be highlighted is the focus on perception of the employees on organizational performance as the sole measure of organizational performance.

Future research examining similar issues might utilize and include other retention practices carried out in an organization such as supervisor's role, recruitment and selection techniques, work environment etc. as well as additional measures defining organizational performance. The indirect effect of retention practices through mediators and moderators on organizational performance can also be assessed as these influential agents like age, gender, education and work experience cannot be overlooked and should be included in future when it comes to studies related to retention and organizational performance.

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Green Banking: A New Strategic Initiative for Growth and Sustainable Development

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Abstract

Sustainable development and preservation of atmosphere are currently recognized globally as dominant imperatives to safeguard our planet from the ravages inflicted on that by humans. World initiatives are taken to encounter the negative effects of development like warming and global climate change. A typical thread running across of these initiatives is that they are specializing in reducing the demand for fossil fuels by implementing the 3R's viz. Reduce, recycle and Recycle. Banks and money establishments will play a significant and decisive role in these world efforts to form our planet a more robust place to measure in. As suppliers of finance, banks will make sure that businesses adopt environment-friendly practices. Incentives by method of providing cheaper funds for adopting inexperienced technologies can have an extended term useful impact on the atmosphere. As major implementer of technology, banks themselves will adopt inexperienced practices and thereby lead the method during this world initiative. In experienced Banking is relatively a replacement development within the money world. It's a kind of banking taking under consideration the social and atmospherically impacts and its main motive is to safeguard and preserve environment. This paper attempts:

- To introduce the concepts & understanding of green banking
- To know the strategies & importance of green banking
- To know current scenario of green banking in India
- To know about the infrastructure of green banking
- To study the Strategic Initiative undertaken by Indian Banks (Public & Private) on Green Banking

Keywords: Green Banking, Green Banking Infrastructure, Green Banking Strategies

Introduction to Green Banking

Climate change is that the foremost knotty issue the world is facing. Across the planet there are unit continuous endeavors to measure and mitigate the prospect of natural process caused by act. Many countries the world over have created commitments necessary to mitigate natural process. India has committed to reduce the emission intensity of its gross domestic product (GDP) by 33 to 35 percent by 2030 against 2005 levels. As socially responsible company voters (SRCC), Indian banks have a big role and responsibility in supplementing government efforts towards substantial reduction in carbon emission. Although, banks area unit thought-about atmospherically friendly and do not impact on atmosphere greatly through their own internal operations, in terms of emission and pollution, the "external" impact on the atmosphere through their customers activities is substantial. Therefore, the banking sector can play degree communicator role between economic development and surrounding Sal protection, for promoting environmentally property and socially responsible

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investment, banking of this kind area unit usually termed as “**Green Banking**”. In experienced Banking could also be a term touching on practices and tips that make banks property in economic, environment, and social dimensions. It aims to create banking processes and so the utilization of IT and physical infrastructure as economical and effective as potential, with zero or stripped impact on the atmosphere.

Objectives of Study

- To understand significance of Green Banking
- To understand importance of Green Banking Infrastructure
- To analyze strategic initiative taken by Indian banks to become Green Banks
- To analyze the growth and sustainability of Green Banks

Literature review

The literature review is a summary of previous research on a topic. The literature review contemplates scholarly articles, books, journals, research papers and other sources relevant to a particular area of research or interest. Within the review the researcher provides a description, summary and critical evaluation of each source, i.e. the strengths and weaknesses. The literature review may also identify gaps in the literature which leads to further research. The literature review provides the historical background for any particular research; identify problem statement, queries, theories, concepts and related research in the field; and shows how your research will extend to address these gaps.

In this study, total 5 reviews were collected, out of which two are reviews of International authors and three are of Indian authors. These reviews are mentioned below.

Review of Literature

A report presented by **Alexander, Kern (2014)** has triggered a deeper reflection amongst financial policymakers and regulators concerning the relevance of systemic environmental risks to Banking sector stability. This report explored the evidence relating to the question of whether systemic environmental risks and Banking sector stability are linked. It examined how Basel III currently addresses systemic environmental risks. It also considered what other financial policy options are available outside of Basel III. This included an examination of the utility of certain other monetary policy measures and the use of innovative financial instruments – such as ‘Green’ asset-backed securities (ABS) – to enhance the flow of bank funds to environmentally sustainable economic activity. The report is based on research that involved interviews and written questionnaires for practitioners in the Banking industry, bank regulators from selected developed and emerging-market economies, officials from international organisations, and representatives from non-governmental organisations. On the basis of the analysis presented within the report, it can be stated that banking system and regulatory framework can undergo through lots of changes and improvements. Further bank supervisors faced lots of environmental risks.

Bai, Yunwen & Faure, Micheal & Liu, Jing (2014), in their research article “The role of China’s Banking Sector in providing Green Finance”, the authors have shed light on the policies of China’s Green Banking system and analysis has been done to understand the practices of Chinese banks to make alignment between environmental principles and their financing activities. The role of Chinese banking industry in building a sustainable framework for banking and green finance has also been analysed in the paper. To get knowledge about the green financing in China and environmental preferences of China the authors have made efforts to work on a theoretical framework. At last, the purpose of the

article also includes understanding the challenges and opportunities faced by Chinese banks in improving their financial performance.

The purpose of research study “**Green Banking: Nexus Bank’s performance**”, conducted by **Hossain, Sharif & Kalince, Tanvir Ahmed (2014)**, was to find the impact of Green Banking on banks’ performance using cross section data of 45 banks in the year 2012. For this study, six different variables namely; loans and advances (LOAN), deposits and other account (DEPO), paid-up capital (PAID), investments (INV), Green Banking (GB), and profit after tax (PAT) were considered. From analytical results, it was found that GB has a significant positive impact and INV has significant negative impact on banks’ performance. The Granger F test resulted in VAR model indicated the bidirectional causalities between PAT and INV, between PAT and DEPO. Unidirectional causalities were found from LOAN, and PAID to PAT, from LOAN and DEPO to INV, and from LOAN to PAID. Thus it was concluded that Bangladesh banks should conduct Green Banking activities more to increase their profitability, which in turn, will create sustainable growth for them in the long run.

The research study “**Conceptual framework for carbon foot printing in the South African Banking Sector**”, conducted by **Bimha, Alfred & Nhamo, Godwell (2013)**, embarked on conceptualising the efforts made by banks in South Africa to put phenomenal efforts to prevent climate change. The study revealed that how banks adopt such system that promotes Green banking and avoiding the carbon emissions. A conceptual carbon foot printing framework has been developed by using the activities like content analysis of the carbon footprint reports, sustainability reports and public literature on bank’s activities. Two indexes, carbon disclosure performance index and carbon disclosure leadership index, were featured in the global 500 carbon disclosure project. These indexes were used to construct the carbon footprint benchmark case. The conceptualised benchmark model was used as a checklist to analyse the carbon footprint process models of South African banks. The findings of the study revealed that an internal carbon foot printing system is being improved among South African banks. The amount of carbon emission in their external systems like products, services, lending and investment portfolios were negligible. On the basis of these findings, it can be stated that there is need of adopting the holistic approach by the national or international banks in order to measure the carbon emissions. Further the national, as well as international climate policies are also required to be taken into special consideration.

Annadurai, AR (2014), in their research study “Effectiveness of Green Banking Technology of the Commercial Banks in India”, highlighted the growth of Green Banking in Indian Banking sector. This paper also presented some options which banks can offer to their customers, as far as Green products and services are concerned and listed Green Banking initiatives by commercial banks in India. Lastly, the author concluded that Green Banking initiatives like Communication through Press, Bank environmental policy, Concession on energy savings, Solar ATMs, Green CDs are not familiar with Green initiatives by the bank as per the customers and the general public. The Government should formulate a Green Banking policy guidelines and financial incentives.

Ch, Sreeshha (2014), in her research paper, identified Green Banking activities undertaken by the Banking sector in India. The aim of this paper was to study various models or channels which make the bank branches Green. Author has highlighted the regulatory measures taken by the RBI for promoting Green Banking. This study also gives consideration to the initiatives taken by Indian banks, both private and public, to ensure the environmental

sustainability. For the purpose of gathering useful information, the banks like State Bank of India and Canara Bank has been selected. Meanwhile, from the private sector, ICICI and HDFC Bank were selected. The findings revealed that Indian banks are identified the importance of environmental protection and started taking various initiatives under its Green Banking activities. The findings also showed that public sector banks had taken more Green Banking initiatives as compared to private sector banks.

Reshmi, R & Johnson, B (2014), in their research paper, examined the buying behaviour of Green product among various income level groups. This study was attempted to understand consumers' Green purchasing intentions and compares the factors influencing the purchase decision of Green products and non-Green products. For this purpose, a sample survey was conducted on 90 respondents based in Calicut city. The respondents were divided into 3 categories, i.e., high income level group, middle-income level group and low-income level group. The primary data was collected with the help of an interview schedule. Results indicated that there is no significant difference between buying behaviours and income level and no significant difference between purchase decision and sector (government & private) employees. To the end, health was considered as the most important factor influencing Green products and cost as the most important factor influencing the purchase of non-Green products.

Challenges of Green Banking

Traditionally, banking sector's concern for environmentally degrading activities of shoppers is like busy bodied or meddling in their business affairs. However, currently it's being perceived that coping with atmosphere brings risks to their business. Because of strict environmental disciplines obligatory by the competent authorities across the countries, the industries would need to follow bound standards to run their business. Within the case of failure, it might cause closure of the industries, resulting in a chance of default to the bank. Through inexperienced Banking, banks will minimize the subsequent risks:

Credit Risk: Credit risk may also arise indirectly once banks lend to corporations whose businesses area unit adversely affected because of changes in environmental regulation.

Legal risk: Banks, like alternative business entities, face legal risk if they are doing not suits relevant environmental regulation. They'll additionally face risk of direct loaner liability for cleanup prices or claims for damages just in case they really take possession of pollution inflicting assets.

Reputation Risk: all told chance, because of growing awareness regarding atmosphere safety, banking establishments area unit a lot of vulnerable to lose their reputations if they're concerned in huge comes, that area unit viewed as socially and environmentally damaging. Name risks emerge from the finance of environmentally objectionable comes.

Sustainable development through green banking

Sustainable development through green banking is concerned with the social and environmental impacts of banks investments and loans. To encourage sustainable development, banks need to encourage environment friendly investments. Banks have to give priority in terms of lending to those industries which have already turned green or are trying to go green and thereby help to restore the natural environment. The green banking is rewarding! It is not only beneficial for the banks and the economy but for the stakeholders of the banks. The green banking initiative is mutually beneficial to the banks, industries and the economy.

By creating awareness and imparting education green banking can help a lot in attaining sustainable development. Awareness among the people has to be created through proper communication. Identifying the target groups and means of communication would be the initial step. The whole system is divided into two subsystems: internal and external subsystem. For internal sub systems, to create awareness for this purpose, periodic environmental news on internet, clearing programmes, high level meetings, bank's newsletter, publication etc. will be initiated. And the target groups are the internal stakeholders. Websites, capacity building, road shows, event meetings, benchmarking, media etc. can be followed as effective means as far as the external subsystems are concerned. The external stakeholders (clients, subsidiaries and general public) are target groups.

Education can be imparted by the following means

- E-learning Programs
- Internet Applications
- Participation in Conferences and Meetings
- Providing proper information Material
- Environmental Report
- Road shows

Green Banking Strategies

A. Environmental Risk can be managed through following means

- Engage with key stakeholders and build awareness of environmental problems and their impact on the economy, the atmosphere, and also the society.
- Conduct energy audits and review equipments purchases and disposal policies and practices.
- Set eco-friendly goals as the main aim is to reduce the carbon footprint along with timelines.
- Develop and implement a green policy that aims to realize higher utilization of systems whereas reducing fuel energy use and reducing their environmental impact.
- Periodically publish your environmental policy, action plans, and achievements.
- In case of environment-friendly projects such as projects employing solar power, hydro power, wind power equipment, manufacturers of fuel-efficient automobiles Banks may provide loans with concessions to corporates or individuals.
- Banks will involve themselves in carbon credit business, whereby they'll offer all the services within the space of fresh development mechanisms and carbon credit business.
- Banks can support projects ranging from community cleanups to national initiatives on climate change, water, air, biodiversity and more

B. Innovative Environmental friendly financial products such as

Green mortgages: Green mortgage also referred as an energy efficient mortgage (EEM) is a government sponsored mortgage that helps to control environmental footprint. Green mortgage allows borrowers to finance energy efficient improvement that reduces their monthly energy bill, and is available for all types of traditional homes, and commercial buildings which can be beneficial in many ways including, below market interest rate financing to upgrade traditional infrastructure by installing energy efficient features. Banks such as Citigroup Inc., Bank of America, JP Morgan Chase & Company of US and Thirty seven European banks such as ING, Barclays, BNP Paribas, Nordea Bank, Societe Generale

are just a few of examples. They are offering special discounts on mortgages which are used to build commercial complex, buildings and traditional homes to be more environmental.

Green loans: Green Loan is a kind of loan which support individual to reduce carbon emission. This kind of loan actually allows borrower to spread the cost of borrowing over a period of 12-25 years. For the purpose of home remodeling, purchase and installation of solar panel, or green roofing, green loan can be used.

Apart from Green Mortgage and Green loan there are **Green credit cards, Green savings accounts, Mobile Banking, Online banking, Remote deposit** (Remote deposit is the digital scanning and processing of checks. Customer doesn't have to physically deliver each check to their bank to make a deposit. Remote deposit also allows banks to easily clear checks digitally).

C. Other Green Banking Measures

- Paperless Banking ,Green Building
- Install energy star appliances, freeze and tank less water heater.
- Sealing HVAC duct work
- Programmable thermostat should be installed
- Upgrade from CFL to LED light
- Install solar panel, along with residential storage batteries
- The building architecture should be planned in such a manner that day to day operation can be done in day light only.
- Bank's responsibility towards society- such as tree plantation camps, maintenance of parks, pollution check-up camps, etc.

Greening Banking Infrastructure

Going green is more than just a social incentive; it's the need of the hour. Infrastructure of the Bank (including physical and IT) and the services provided by the same has to be more ecofriendly which will reduce the carbon emission significantly.

Paper less transaction; use of Laptops, Desktop Computers, and Servers have to increase in today's environment, all banks are computerized. In the century of IT-enabled environment, banks should make use of IT resources in a very efficient manner. Some guidelines which can be followed by the banks in order to sustainable development are summed up as follows:

- Use of LED monitors in place of conventional computer monitors
- Use of green chargers which can detect whether a charger is connected to a notebook computer or any other device, and reduce the power consumption by 20-30%
- Green building with sufficient natural lighting and air
- Generate electricity for their own use by installing solar panel
- Waste recycling plants for recycle, their own waste.
- Green infrastructure: Self-service passbook printing machine, Kiosks, cash deposit machines and customer care center
- Solar powered UPS, GSL bulbs, rain water harvesting
- Solar powered ATMs etc.

Green Banking process followed by different institution in the World:

The Intergovernmental Panel on Climate Change's (IPCC's) fall 2018 report finds that to meet the goal of limiting global warming to no more than 1.5 degrees Celsius, investments in low-carbon energy technology and energy efficiency will need to increase by roughly a factor of five by 2050 compared with 2015 levels (**Green Bank Network- Green bank**

Around The Globe: 2018 year in review, 6th Annual Green bank congress, Nov 29, 2018, Editor- Roger Baneman).

Initiative taken by different Banks all over the for sustainable development

Connecticut Green Bank:

- In June 2018, Connecticut Bank announced a pilot program that made Commercial Property Assessed Clean Energy (C-PACE) financing available for new construction projects.
- New funding source for owners of electrical vehicles charging infrastructure
- Recipient of 2018 State Leadership In clean Energy Award for “ Solar for All” initiative
- Use of solar energy and saving of fuel are their mission

Green Finance Organization (Japan):

- Invest in a small private sector hydroelectric power plant in Nishiawakua village
- It invests in a biogas project. This project will use pasture grass for fuel. It will avoid 1643 tonnes of carbon emission annually
- By the support of Ministry of the environment, Japan has been working on the promotion of the Green bonds

Green Investment Group (UK):

- Invested and arranged over 1.6 billion GBP into green projects
- They have launched new energy solutions and advisory activity
- GIG organized one of the world's longest and largest green power purchase agreement
- They have supported new ten green transaction
- GIG co-sponsored 650MW Markbygden ETT project- single site wind firm

NY Green Bank

NYGB increases availability of capital for projects, deploying proven and commercially-viable technologies including: solar, wind, and other renewable energy generation technologies, energy efficiency measures, electricity load reduction, on-site generation and similar projects that support New York's clean energy objectives. NYGB works to realize these deployments through:

- Grasping private sector capital to support and enlarge clean energy financing markets;
- Continuous growing capital markets, reducing the need for government support; and
- Implementing faster and more extensive deployment of clean energy assets which contributes towards economic development, greater energy choices, reduced environmental impacts and more green energy advantages for every public dollar spent.

NYGB is a cost-effective and complementary addition to New York State's evolving portfolio of clean energy programs.

Green Banking in India

In today's modern context majority of the Indian industry is concerned with the burning issue of controlling environmental impact of their business i.e. reducing pollution and carbon footprint. Though government has been trying to address the issue by framing environmental legislations and encouraging industry to follow environmental technologies and practices, public awareness and inability to derive competitive advantage by producing eco-friendly products is a major concern. India is the world's sixth largest and second fastest growing country in terms of producing green- house gases.

The major polluting industries in India are-

- a. Metal industries

- b. Paper & pulp Industry
- c. Refinery
- d. Fertilizers
- e. Sugar
- f. Textiles
- g. Chemicals/Pharmaceuticals etc.

The Banks and financial institutions should invest in a project which takes care of environment. Invest and regulate polluting industries by lending green fund for the overall environmental improvement, the quality and Conservation of life, level of efficiency in using materials and energy, quality of services and Products. In this context, the role of banking sector as the major financing sources to the Industries has to take high importance.

Initiative taken by Indian Banks for sustainable development

State Bank of India (SBI)

SBI is the first Indian bank to venture into green initiatives by installing windmills for captive use. Various initiatives are taken by SBI in order to cut down on the Bank's carbon emission such as migrating to electric vehicles, installing solar panels on buildings and ATMs, and banning plastic in SBI office. SBI has announced installation of solar panels on 250 buildings and 12000 ATMs within next two years. SBI also has plan on doing away with plastic such as bottles, folders and cutlery in the canteen and with the office premise to make SBI plastic free. The SBI group has taken the initiatives for the "SBI Green Marathon" in 15 cities across the country. Rainwater harvesting projects are also installed in number of bank building. In rural areas SBI installed solar lamps. As part of its green banking initiative SBI helped in installing 10 windmills with an aggregate capacity of 15 MW in Tamil Nadu, Maharashtra and Gujarat. SBI has planned to install an additional 20 MW capacity of windmills in Gujarat and touch 100 MW power generations through windmills within five years. Windmills are set up with a definite objective of reducing the dependence on thermal power. Near about 100 MW of power is used by SBI per year.

HSBC Group

HSBC aspires to be a leader in financing, managing and shaping the transition to a low-carbon world. HSBC Bank has pledged to provide USD100 billion of sustainable financing and investment by 2025. They are working to reduce the environmental impact of the supply chains and to foster the sustainable growth of micro, small and medium-sized businesses. Also HSBC extended the programme for another three years (from 2017 to 2019) and provided a further \$50 million of funding, bringing the total support over eight years to \$150 million.

Commitment 1: Providing USD100 billion of financing and investments by 2025 to develop clean energy, lower-carbon technologies, and projects that contribute to the delivery of the Paris Climate agreement and the UN SDGs.

Commitment 2: Sourcing 100 per cent of our electricity from renewable sources by 2030, with an interim target of 90 per cent by 2025. This means sourcing 100 per cent renewable energy via direct investment or direct purchase agreements that in turn help the financing of new renewable energy projects.

Commitment 3: Adopting the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) report 2018. This will help us identify and disclose climate-related risks and opportunities across our businesses.

Bank of Baroda (BOB)

1. Bank has undertaken energy efficiency measures like up-gradation of AC, real time monitoring of temperature and pressure, energy efficient IT equipment selection, energy efficient CFL and LED lighting and solar powered UPS etc.
2. Bank requested to shareholders those having shares in physical form to register their e-mail ids for further communication such as to serve any document, notice and annual report. Shareholder holding shares in Demat form are also requested to register their e-mail ids with respective depository for further communication purpose.
3. The Bank gives preferential treatment for eco-friendly green projects such as Wind Mills/Solar Power projects and earns carbon credits.
4. To create awareness with respect to environmental issues bank has undertaken debates, essay competitions, painting competitions etc. for bank staff, their children, and they promote various activities regarding environmental awareness to different school. Moreover bank also supports for clean environmental activities of few NGOs.
5. According to the guidelines of National Building Code 2005, Bank of Baroda lends money to real estate and promotes for harvesting of rain water, installing solar energy, using LED light in place of CFL lights.
6. The bank has implemented Lending Automation Processing System (LAPS) system for appraisal of Retail & SME loans, reducing the paper consumption.
7. As a part of green initiatives, Bank of Baroda has installed windows server virtualization, desktop virtualization (transformation to LED screen) and improves data centre operational efficiency, application up-gradation, Automatic Storage Management (ASM) & Real Application Clusters (RAC) Implementation, Bandwidth improvement, provision of backup link and use of new technology based on MPLS (Multi-Protocol Label Switching).
8. BOB is going to make its ATMs as Green ATMs.
9. BOB has installed kiosks, Passbook printing machine, Aadhaar updation centre, Money Deposit centre And customer feedback centre.

In India, all the public as well as private sectors Banks need to take extra care about the environmental aspects of their clients and products because-

- Future of product market is going to go through rigorous environmental scanning and due to that eco-friendly product will have better market.
- Production or manufacturing of pollution controls equipments will require more financial assistance from banks.
- Reserve Bank of India (RBI) may provide environmental guidelines for the banks.
- According to the announcement by the Government of India , use economic instruments for environmental control may include Banks and financial institutions in future.

Conclusion- As so much as green banking is concerned; Indian banks are unit so much behind their counterparts from developed countries. There has not been a lot of initiative in “green banking” by the banks and alternative money establishments in Asian country. It's time currently that Asian country ought to take some major steps to stick to environment-sensitive parameters, with the exception of incoming cash flow. Additionally to mitigating risks, Green banking release new markets and avenues for product differentiation. If Indian banks need to enter international markets, it's necessary that they acknowledge their environmental and social responsibilities. India's growth story and commitments to chop its carbon intensity by 20-25 p.c from 2005 levels by the year 2020 provides tremendous opportunities for Indian banks- from funding property, comes to providing innovative

merchandise and services within the areas of Green banking. The survival of the banking system is reciprocally proportional to the extent of worldwide warming. Therefore, for sustaining growth and development, Indian banks ought to adopt Green banking as a business model with none any delay.

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A Study On Customer's Perception Towards Ota Services In Hotel Industry: A Study With Special Reference To Chennai City

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Abstract

Online Travel Agencies (OTAs) are online companies whose websites allow consumers to book various travel related services directly via the Internet. Travel bookings via online agencies have become very popular nowadays. Today consumers are on-the-go, and the support of a booking engine and the reservation solutions presented by the OTAs is that it allows instant payment and booking confirmation. The online travel industry is a highly competitive industry. To Build Travel OTA software, one needs to have a clear idea regarding the cost involved in developing a travel portal. The present paper is focused on finding out the customers perception towards the OTA services in the hotel industry. The sample size of the study is 281. The study is used in both primary and secondary data. The study found that the customers have a positive perception of the OTA services in Hotel Industry in Chennai city. Furthermore, the study exposes that there is a significant difference between male and female respondents concerning the OTA services, i.e., price factor and comfort. The study also found that the male and female respondents are having a similar perception about the OTA factors, namely Adaptability, Facilities, and Service.

Keywords: OTA, Customer Perception, Services

Introduction

Online Travel Agencies (OTAs) are online companies whose websites allow consumers to book various travel related services directly via the Internet. Travel bookings via online agencies have become very popular nowadays. Today consumers are on-the-go, and the benefit of a booking engine and the reservation solutions provided by the services of OTAs is that it offers instant payment and booking confirmation. The online travel industry is an extremely competitive industry. To Build Travel OTA software, one needs to have a clear idea regarding the cost involved in developing a travel portal. In India, the reputed online travel agents such as MakeMyTrip Yatra, Cleartrip, Thomas Cook, Cox and Kings, Travelguru, Ezeego1 and Goibibo. There were many difficulties in those days like negligible consumer acceptance and access, lack of airline trust to the new method of ticketing, industry practice of paper tickets, and technology infrastructure limitations. According to the report, the gross hotel bookings, which stood at \$7.2 billion in 2016, are poised to increase to \$10.9 billion by 2020, while the percentage of bookings made online will develop to 28% from 19% currently. As much as 78% of the overall online hotel bookings through the OTAs, driving up a \$2.3 billion opportunity for such as businesses, it said MakeMyTrip, the largest OTA in the country, commands a market portion of 41% in the online travel space, according

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to the report of Deutsche Bank ; it has started focusing on tours and hotel bookings that have higher profit margins. Presently the customers have the ample opportunity to book the trip, hotel segments online. Consequently, the present study is undertaken to find out the consumers perception towards OTA in Hotel Industry.

Review of Literature

Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001) suggest that customers' opinions towards online purchasing are subject on transaction services, convenience, sensory experience, and merchandise. **Tse, A. C. B. (2003)** stated that the trend of massive disintermediation is threatening the livelihood of travel agents. This paper examines the disintermediation of travel agents in the segment of the hospitality industry when hotels take circulation back into their own hands by setting up websites that permit guests to make bookings online. We analyze the factors affecting an agent's potential responses to a hotel's harmful acts and put forward recommendations to agents to fight against the aim of disintermediation. The study also points out what hotels can do to increase the quality of their relationship with their agents should they choose to launch their online channel. **Smith, A. D. (2004)** Stated that the availability of free information does not ensure that customers will use it; this will depend on the reliability of and trust in the supplier. The purpose of online travel websites is to facilitate in increasing accessibility of information and enhancing communication. An effective information System would facilitate customer satisfaction and help in building customer satisfaction. Companies with a stronger focus on relationship-building are using the Internet for greater interactivity and enhancing customer support and relationships. The capacity to make comparisons between the different type of products and services is also desirable in an online environment, thus increasing the customers' variety-seeking behavior. **Swati Dabas (2007)** proposed to estimate current room inventory distribution strategies of mid-segment hotels in India, recognizing factors that influence the managerial decisions in selecting an electronic distribution channel for their property. Findings suggest that Mid-segment hotels in NCR rely on traditional distribution channels. Managers do not have adequate information about electronic distribution. There is a large gap between the average room rate of mid-segment hotels and higher-level hotels. Demand during the duration of the study was higher, and the trend for higher demand is likely to continue business in mid-segment hotels is nearly 70%. **Khare, A., & Khare, A. (2010)** concludes that the Indian customer is influenced by the service accessibility attributes of online travel firms. However, the consumers place less emphasis on the trust and security features in financial transactions, than on other service characteristics of online travel websites. The services offered by these websites are developed coupled with a display of relevant information about destinations, the Indian customer would be inspired to visit these websites and use them for vacation planning. **Verma, R., Stock, D., & McCarthy, L. (2012)** conducted a study and summarized the internet search preferences and mobile equipment use of 2,830 recent travelers. Concerning gathering information for a hotel stay, business travelers most frequently follow their company's support for a hotel, although many of them use research engines or online travel agents to learn more about possible hotels. In distinction, recommendations of friends and colleagues are most important to leisure travelers, followed by travel-related websites, search engines, and OTAs. Once the information is collected, however, travelers of all kinds turn more to such sources as the brand website, OTAs, and Trip Advisor. Late in the decision process, the respondents

managed to land on the brand websites or go to Online Travel Agents, where they can book their room.

Objective of the study

To examine the customer's perception towards the OTA in the Hotel Industry in the study area

Statement of Hypothesis

1. The customers do not have a positive perception of the OTA services in Hotel Industry;
2. There is no significant difference between male and female customers concerning towards the OTA services in Hotel Industry in Chennai city.

Research Methodology

The present paper's ultimate objectives are to find out the Customer's Perception towards OTA services in Hotel Industry in Chennai city. A sample of 300 questionnaires distributed, out of which 289 filled responses are collected from the customers who availed the OTA services. Out of 289 samples, eight samples rejected due to incomplete information provided the respondents. Finally, 281 samples used for the final study. The study used a simple convenience sampling method. In order to determine the customer perception of OTA services, the respondents were asked to give their responses by way of filling up a questionnaire on different items related to the attributes of preferring a OTA services which was constructed on a 5-point Likert scale (5 = strongly agree and 1 = strongly disagree) for all the traits. The data were obtained during the period from January 2019 to April 2019. The sampling size includes both male and female users from a different occupation, age, and income groups. The questionnaire was administered to the customers who availed the OTA services in Chennai city. The data collected were classified, tabulated, processed, and analyzed systematically mainly to identify the group of determinants. The collected data was run using SPSS version 21.0 software.

Data Analysis and Interpretation

Table 1: Demographic Profile of Respondents

Gender	Frequency	Percent
Male	179	63.7
Female	102	36.3
Total	281	100.0
Age		
Up to 30 Years	39	13.9
31-35 Years	43	15.3
36-40 Years	66	23.5
41-45 Years	59	21.0
Above 45 Years	74	26.3
Total	281	100.0
Educational qualification		
UG	52	18.5
PG	125	44.5
Professionals	104	37.0
Total	281	100.0
Annual Income		
Up to Rs.10 Lakhs	54	19.2

Rs.11-15 Lakhs	66	23.5
Rs.16.00 - 20.00 Lakhs	98	34.9
Above Rs.20.00 Lakhs	63	22.4
Total	281	100.0
Occupational Status		
Government	47	16.7
Private	70	24.9
Professionals	85	30.2
Self-Employed	79	28.1
Total	281	100.0

Table 1 reveals the demographic profile of respondents. Out of 281 respondents, majority 63.7% of the respondents are a male category, and 36.3% of the respondents are a female type. As for as the age category of respondents concern, majority 26.3% of the respondents are in the age group of above 45 years, followed by 23.5% of the respondents are in the age group of 36-40 years, 21.0% of the respondents are in the age group of 41-45 years, 15.3% of the respondents are in the age group of up to 31-35 years, and 13.9% of the respondents are in the age group up to 30 years. Regarding the educational qualification of respondents, majority 44.5% of the respondents are post-graduates, followed by 37% of the respondents are professionally qualified, and 18.5% of the respondents are undergraduates. In connection with the annual income of respondents concern, majority 34.9% of the respondent's yearly income between Rs.16-20 lakhs, followed by 23.5% of the respondent's annual income is between Rs.11-15 lakhs, 22.4% of the respondents yearly income is above Rs.22.4% and 19.2% of the respondents annual income is up to Rs.10 Lakhs. Occupational status concern, majority 30.2% of the respondent's occupational status is professionals such as engineers, doctors, lawyers, and chartered accountants.

Table 2: Type of Travellers

Type of Travellers	Frequency	Percent
Indian	233	82.9
Foreigner	48	17.1
Total	281	100.0

Table 2 shows the frequency distribution results of the type of travelers in the study area. It is noted from the above-mentioned table, the majority 82.9% of the respondents are Indian, and 17.1% of the respondents are foreigners.

Table 3: Frequency of usage of OTA

Frequency of usage of OTA	Frequency	Percent
<5 Times	112	39.9
6-10 Times	81	28.8
11-15 Times	67	23.8
>15Times	21	7.5
Total	281	100.0

The frequencies of using OTA by the respondent's results are shown in Table 3. It is observed from the above table, majority 39.9% of the respondents are using the OTA <5 times in a year, followed by 28.8% of the respondents are using the OTA services between

6-10 times, 23.8% of the respondents are using the OTA services between 11-15 times in a year, and 7.5% of the respondents are using the OTA services >15 times in a year.

Null Hypothesis 1

The customers do not have a positive perception of the OTA services in Hotel Industry in Chennai city

Table 4: One-sample t-test for OTA services in Hotel Industry in Chennai city

Factors of OTA	N	Mean	SD	t-value	p-value
Price	281	3.74	1.063	11.615	<0.001**
Adaptability	281	3.68	1.030	11.060	<0.001**
Comfort	281	3.35	1.236	4.683	<0.001**
Facilities	281	3.64	1.109	9.736	<0.001**
Service	281	3.86	1.024	14.098	<0.001**

Table 4 highlights the One-sample t-test results for OTA services in Hotel Industry in Chennai city. The t-value and p-value of OTA factors such as price (t-value=11.615 & p-value=<0.001), Adaptability (t-value=11.060 & p-value=<0.001), Comfort (t-value=4.683 & p-value=<0.001), Facilities (t-value=9.736 & p-value=<0.001), and Services (t-value=14.098 & p-value=<0.001). The p-value of entire OTA factors are <0.001 and it is statistically important at 1% level. Therefore the proposed null hypothesis rejected and concluded that the customers have the positive perception about the OTA services in Hotel Industry in Chennai city

Null Hypothesis 2

There is no significant difference between male and female customers concerning the OTA services in Hotel Industry in Chennai city

Table 5: Independent t-test for male and female customers and OTA services in Hotel Industry in Chennai city

Factors of OTA	Gender	N	Mean	Std. Deviation	t-value	p-value
Price	Male	179	3.89	.858	3.342	0.001**
	Female	102	3.46	1.310		
Adaptability	Male	179	3.72	1.044	.882	0.378
	Female	102	3.61	1.006		
Comfort	Male	179	3.55	1.218	3.826	0.000**
	Female	102	2.98	1.186		
Facilities	Male	179	3.65	1.134	.078	0.938
	Female	102	3.64	1.070		
Service	Male	179	3.90	.943	.829	0.408
	Female	102	3.79	1.155		

Table 5 highlights the results of Independent t-test for male and female customers and OTA services in Hotel Industry in Chennai city. The OTA factors namely Price (t-value 3.342 & p-value <0.001), and Comfort (t-value =3.826 & p-value <0.001). These two factors p-values are <0.01. Therefore the framed null hypothesis is rejected and concluded that there is a significant difference between male and female respondents concerning the OTA services, i.e., price factor and comfort. The other factors of OTA's p-values are >0.05 and statistically unimportant at 5% level. Therefore the study concluded that the male and female

respondents are having a similar perception about the OTA factors, namely Adaptability, Facilities, and Service.

Conclusion

It is observed from the study; the customers are viewed that the factors, namely price factor, adaptability, comfort, facilities, and services, are essential factors at the time of booking hotels online. The study also found that the customers have a positive perception of the OTA services in Hotel Industry in Chennai city. Furthermore, the study reveals that there is a significant difference between male and female respondents concerning the OTA services, i.e., price factor and comfort. The study also found that the male and female respondents are having a similar perception about the OTA factors, namely Adaptability, Facilities, and Service.

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Consumer Awareness Level On Consumer Rights: A Study With Special Reference To Chennai City

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Prof.G.P.Raman**

Abstract

Consumer rights are the rights specified to a consumer to defend him from being cheated by dishonest traders and service providers. The consumer rights are designed to ensure fair trade competition, free flow of accurate information in the market place and may make available additional protections for the weak and those unable to take care of themselves. The Consumer Protection Act well defines these rights, and there are agencies like the government, consumer courts, and intended consumer organizations that work towards safeguarding consumer rights. Still, the Consumer Protection Act has been in operation since 1986, yet the consumers are not fully aware of the various provisions of the Act, particularly the rights as consumers. In this study, an effort is made to assess consumer awareness on consumer rights in Chennai city. The study found that the consumers adequately have sources of awareness on consumer's rights. The study identified that consumers are aware of the consumer's rights. The study also inferred that the consumers have an adequate level of awareness about the safety measures among the consumers in the study region. The study also found that the consumers adequately have the sources of awareness towards the right to choose in Chennai city and the consumers adequately have the sources of awareness towards the redressal machineries in Chennai city.

Keywords: Consumer, Consumer Rights, Consumer Awareness, Redressal Machinery

Introduction

The Consumer Protection Act was enacted in the year 1986 to protect consumers. However, even after 30 years of its enactment, the Consumer Protection Act still faces specific problems, and consumer protection remains doubtful in India. Though numerous steps have been initiated at the central and state government level, still much remains to be attained. One of the lacunae is the need for awareness about their rights. Akram, in his study entitled as Consumer Protection in India under the Shadow of Legislations, disputes that consumerism in the country has not yet reached the take-off stage. It is because a significant number of Indian consumers are deficient, illiterate ignorant, ill-informed, and unorganized. In order to ensure the state of affairs, it is essential to educate the consumers about their rights and the remedies obtainable to them. With technological progress, malpractices, and unscrupulous practices against the consumers have augmented manifold. Even educated people are not wholly aware of their rights as a consumer and how to protect themselves from the exploitations. Whenever there is some imperfection in goods, the traders and manufacturers blame each other, but none of them offers any aid to the consumers. Such a situation necessitates that education and awareness regarding the rights of the consumers

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must be inculcated among the general public. The consumers must know about their rights and how to make them meaningful. Unless awareness reaches the whole population, consumerism is a myth, and it will not be helpful.

Evolution of the Concept of Consumer Rights

Consumers had modest protection in the world market place previous to the 1950s. On 15th March 1962, John F. Kennedy, the then President of America put forth the Consumer Bill of Rights to help consumers in understanding their rights & responsibilities. The rights are Right to Safety and Right to be Informed, Right to wish and Right to be heard. Additional worldwide consumer movement led by Consumer International, a worldwide federation added four more rights that are Right to Basic Needs, Right to Redress, Right to Consumer Education and Right to Healthy Environment. In 1985, eight fundamental consumer rights were adopted by the United Nations Assembly, which resulted in consumers having stronger consumer protection policies worldwide. In the year 1985, the General Assembly of the United Nations passed a declaration adopting a place of guidelines for consumer protection and authorized Secretary-General, United Nations to persuade the member countries, in particular, the developing ones to agree to policies and laws for better protection of the interests of the consumers. Moreover Right to Boycott is the newest addition to the rights of consumers. These rights declared and make out internationally added a different dimension to consumer protection. At present, the consumers have all these rights for enhanced protection. Nevertheless, in India, the Consumer Protection Act 1986 distinguish only six of these nine rights. They are Safety, Informations, Choice, Representation, Redressal, and Consumer Education. A brief account of the six consumers above rights is presented hereunder.

- Right to Safety
- Right to Information
- Right to Choice
- Right to be Heard
- Right to Seek Redressal
- Right to Consumer Education

Review Of Literature

Sewanand (2012), have depicted in their study Consumer Awareness and Consumer Protection Act-A study. This study discloses that all the respondents are having universal awareness about consumer protection. The consumers well-versed with the term JAGO GRAHAK JAGO almost in all esteem. Quality parameters and standards Like ISO, ISI Agmark, etc., are also not new to them. **Deepika, D.Ratan Kumari (2014)**, have revealed under A Study on Awareness on Legal act of Consumer Protection among Students. The study was conducted to discover the awareness level among the students towards various consumer protection legislation. Majority respondents are conscious of the Indian Penal Code, 1860. Majority respondents are aware of various acts. The Low level of awareness was reported towards the Hire Purchase Act and the Railway Claims and Tribunal Act. In the study, it was found that the majority of the student getting awareness through newspapers, journals, and from course syllabi. The awareness towards the Consumer Protection Act is 53.3%. **Jamuna (2014)**, searched under the title, Consumer awareness level, and attitudes towards Consumer Protection Act 1986. The study was conducted to discover consumer awareness level. In the study, respondents were taken from the respondents related to consumer responsibilities. Majority respondents had given the first

rank to get guarantee and warranty card “. It was also found that 67.14% of respondents have awareness about the consumer forums, and 53.21% of respondents felt that formalities are simple. Majority of the respondents disagreed with the argument that Consumer awareness increased with the Consumer Protection Act. 25% of respondents felt that trade has increased due to the Consumer Protection Act. Only 20% of respondents had given the opinion that Consumer Protection Act created quality consciousness among the consumers. **Dr.S.Mohan and V.Suganthi (2013)** conducted a study to know the awareness level of rural consumers about consumers rights. Moreover, there is no momentous relationship between gender, type of family of respondents, the occupation status of the respondents, and monthly income of rural consumers and their level of consumer rights awareness. **Natarajan.R et al. (2018)** found that the level of awareness about consumer rights and the prevalence of various redressal machinery will be an indication of the successful performance in the consumer protection movement.

Objectives Of The Study

1. To study the consumers level of sources of awareness on consumer rights in the study area.
2. To find out the source of awareness about the safety measures of their purchases
3. To assess the awareness level towards the right to be informed among the consumers in the study area
4. To measure the awareness level towards the right to choose among the consumers in Chennai city
5. To examine the awareness level towards Redressal machinery among the consumers in Chennai city

Statement Of Hypothesis

1. The consumers do not have an adequate level of sources of awareness on consumer rights in the study area.
2. The consumers do not have the source of awareness about the safety measures of their purchases
3. The consumers do not have the awareness towards the right to be informed among the consumers in the study area
4. The consumers do not have the awareness towards the right to choose among the consumers in Chennai city
5. The consumers do not have the awareness towards Redressal among the consumers in Chennai city

Research Methodology

The central part objective of the study is to assess the Consumer Awareness on Consumer Rights: A Study with Special Reference to Chennai City. The research designs for the present study is descriptive to assess the consumer's awareness of consumer rights. The study is used in both primary and secondary data. The secondary data collected from the published information in the form of journals, articles, magazines, and daily newspapers related to consumer awareness on consumer rights — the primary data collected from the consumers through structured questionnaires. The questionnaire constructed for the study included several questions which were continuous and categorical. A scale was constructed with five-point Likert type statements in which respondents were asked to indicate their level of agreement (5 = strongly agree to 1 = strongly disagree). The final study involved a survey conducted in Chennai city. The study was conducted during the period from January 2019

to March 2019. The simple, convenient sampling technique was used for the study. The overall 300 responses were obtained from respondents, out of which 21 samples rejected due to inadequate information provided by the respondents. Finally, 279 samples used for analysis. All the collected data properly coded in SPSS version 21 for the purpose to get the output of results.

Data Analysis And Interpretation

Null Hypothesis 1

The consumers do not have the sources of awareness on consumer rights in the study area

Table 1: One-sample t-test for Sources of Awareness on Consumer Rights

	N	Mean	Std. Deviation	t-value	p-value
Print Media	279	3.71	1.153	10.282	<0.001**
Broadcast Media	279	3.53	1.330	6.709	<0.001**
Outdoor or Out of Home Media	279	3.66	1.216	9.011	<0.001**
Easy Return Policy	279	3.38	1.346	4.758	<0.001**
Internet	279	3.33	1.439	3.868	<0.001**
Friends & Relatives	279	3.46	1.327	5.732	<0.001**

Table 1 shows the one-sample t-test for Sources of Awareness on Consumer Rights in the study area. Since the p-value of entire factors of the source of awareness on consumers rights are <0.01. The proposed null hypothesis is rejected at 1% level and concluded that the consumers have sources of awareness on consumer rights in the study area.

Null Hypothesis -2

The consumers do not have the source of awareness about safety measures

Table2: Sources of awareness about safety measures

Safety measures	N	Mean	SD	t-value	p-value
Enquire with the sellers	279	3.31	1.324	3.888	<0.001**
Refer with Internet	279	2.68	1.174	-4.591	<0.001**
Discussions with the users	279	3.18	1.230	2.386	0.018*
Read user manual	279	3.17	1.177	2.391	0.017*
See the Product Lables	279	3.22	1.314	2.780	0.006*

Table2 highlights the results of one-sample t-test for Sources of awareness about safety measures among the consumers in the study area. The safety measures factors such as Enquire with the sellers and Refer to Internet p-values are <0.01, and it is statistically significant at 1% level. The remaining safety measures factors, namely Discussions with the users, Read the user manual, and See the Product Labels p-values are <0.05, and it is statistically significant at 5% level. The framed null hypothesis rejected and concluded that there is an adequate level of awareness about the safety measures among the consumers in the study region.

Null Hypothesis-3

The consumers do not have the awareness towards the right to be informed among the consumers in the study area

Table 3: One-sample t-test for Awareness towards the right to be informed

Right to be informed	N	Mean	SD	t-value	p-value
Product name	279	3.13	1.075	2.005	0.046*
Quantity	279	3.21	1.352	2.569	0.011*
MRP	279	3.25	1.253	3.345	0.001**
Direction for use	279	3.29	1.329	3.604	0.000**
Warning on label	279	2.77	1.166	-3.338	0.001**
Manufactured date and expiry	279	3.26	1.205	3.578	0.000**

Table 3 reveals the results of One-sample t-test for Awareness towards the right to be informed among the consumers in the study area. The factors of right to be informed p-values are statistically significant. The null hypothesis rejected and concluded that the consumers adequately have the Awareness towards the right to be informed.

Null Hypothesis-4

The consumers do not have the awareness towards the right to choose among the consumers in Chennai city

Table 4: Awareness towards Right to Choose

Awareness towards Right to Choose	N	Mean	SD	t-value	p-value
Refer the prices of different brands	279	3.36	1.360	4.347	<0.001**
Refer the quality of different brands	279	3.38	1.405	4.383	<0.001**
Refer the quantity of different brands	279	3.74	1.278	9.493	<0.001**
Refer the discount rate of different brands	279	3.73	1.280	9.335	<0.001**
Refer the attractiveness of different brands	279	4.13	.954	19.373	<0.001**

Table 4 shows the one-sample t-test for awareness towards the right to choose among the consumers in the study area. Since the p-value of entire factors of the source of awareness towards the right to choose are <0.01. The null hypothesis is declined at 1% level and concluded that the consumers adequately have the sources of awareness towards the right to choose in Chennai city.

Null Hypothesis-5

The consumers do not have the awareness towards Redressal machinery among the consumers in Chennai city

Table 5: Awareness towards Redressal machinery

Redressal machinery	N	Mean	SD	t-value	p-value
Consumer protection council	279	3.74	1.276	9.462	<0.001**
Consumer disputes redressal forums	279	4.17	.969	19.764	<0.001**
Voluntary consumer organization	279	3.72	1.111	10.596	<0.001**
Legal experts	279	3.73	1.280	9.335	<0.001**
Consumer protection department officials	279	4.17	.873	22.006	<0.001**

Table 5 highlights the one-sample t-test for awareness towards redressal machinery among the consumers in the study area. Since the p-value of entire factors of redressal machinery towards the right to choose are <0.01. The null hypothesis is rejected at 1% level and concluded that the consumers adequately have the sources of awareness towards the redressal machinery in Chennai city.

Conclusion

It is observed from the study; the consumers are well aware of consumer rights through the print media (3.71). Further, the study reveals that the consumers adequately have sources of awareness on consumer’s rights. The study identified that consumers are aware of the consumer’s rights. Also, the study highlights that the consumer’s sources of awareness about the safety measures are ‘Enquire with the sellers (3.31. The study inferred that the consumers have an adequate level of awareness about the safety measures among the consumers in the study region. Furthermore, the study inferred that the consumers have adequately had the Awareness towards the right to be informed. The study also found that the consumers adequately have the sources of awareness towards the right to choose in Chennai city and the consumers adequately have the sources of awareness towards the redressal machinery in Chennai city.

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Study Of Motivation Among The Employees Of Mantralaya (Mumbai)

Prakash Dhawale*

Abstract

The term “motivation” is derived from the word “motive” which means a reason for action. A vast array of literature exists examining the concept of motivation within organizations. The paper focuses on the motivational strategies used in Mantralaya and its effect on employees.

Keywords: Motivation, Monetary incentives, non-monetary incentives.

Introduction

Human resources constitute the most critical inputs relying on the use of science and technology for development. Human resource management (HRM) is an approach to the management of people, based on basic principles. First, human resources are the most important assets an organization has and their effective management is the key to its success. Second, this success is most likely to be achieved if the personnel policies and procedures of the organization are closely associated with, organization objectives and strategic plans. And finally, HRM practices are concerned with assimilation – getting all the members of the organization involved and working together for achieving common goal i.e. profit maximization with efficient & skillful manpower.

Human Resource Management is considered to be an inherent part of organisation, which highlights the human assets of an enterprise. Its objectives are the maintenance of better human relations in an enterprise by improvement, application and assessment of policies, procedures and programmes relating to human resources to optimize their contribution towards the realization of organizational objectives.

Human resources are the most vital assets of the firm. They are the most impetuous and diverse creatures also and to manage them is a challenging job. The success or failure of an organization depends upon the kind of resources the organization hires and how well they manage them. Human resource practices are crucial part of the organization and without proper HR practices, whole organization cannot run smoothly and efficiently.

Most organizations strive to improve quality and performance of their products, services, internal or external operations. The reasons for this can be various, depending on the goals the business or the organization have set. Important goals could concern an effort to assure a firm and stable ground in the market or to improve cost effectiveness. The competition between organizations and business can be a difficult task, and make it difficult to reach higher goals and development.

One strategy for reaching higher goals and development is motivation. Employees who are motivated produce a higher quality of work and effectiveness which means that motivation is a key factor for progress within an organization or business. A profound knowledge of motivation and its meaning is therefore essential for success and development.

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Motivating employees is a key factor for a company to success. In order to manage and run companies well, it is necessary to know and understand how to motivate employees, how to reward and recognize them. It is very good to dig deeper in reward and recognition, which might be valid and valuable as a manager of a organisation.

HRM at Mantralaya

The HRM terminology has had a large impact also in Mumbai, but mainly in the practical field. Mantralaya has its own HR system like any other government department. All issues regarding Human Resource Management is carried out by General Administration Department. Most of the recruitments are done through competitive examinations held by Maharashtra Public Service Commission. Mantralaya has tremendous scope for developing its output only if necessary HR practices are being implemented through which organizational effectiveness can be achieved. In the present market scenario HR function is clearly shifting from being a "service provider" to a "business partner" but the requirements and needs of this new role can also be met by supervisors. Hence the change of roles is both an immense opportunity and a threat for human resource managers. Competitive advantage can be generated from human resources and performance is influenced by a set of effective HR practices. HR practices are concerned with getting better results with the collaboration of people. It is an integral but distinctive part of management, concerned with people at work and their relationships within the enterprise. HRM helps in attaining maximum individual development, desirable working relationship between employees and employers, employees effective modeling of human resources.

The interest for HRM as a research field of its own seems to be growing, though. In Mantralaya number of tasks and responsibility emerged with the time and other political & administrative pressure; due to this researcher feels the necessity of this research topic.

Literature Review

In the modern economy 'work' is considered as 'worship'. In this process the workers are considered as the vital forces. The organizational efficiency to a large extend dependent on the efficiency of workforce. The major determinants of employee efficiency in the personal skills and capabilities of the worker, the work facilities and work environment, and the motivational inputs provided to them. All these determinants are affected in one way or the other by the organizational process. Therefore, employee efficiency itself is dependent on organizational efficiency.

Employees lacking motivation can present a problem for all types of organizations, and there can be far-reaching impacts when employee performance is down. The ability to foster a motivating work environment is essential, and strategies must focus on how employee satisfaction and performance levels are tied to motivation. There are several ways that organizations can engage their workforce, and this study allows for an examination of the impacts of financial and non-financial rewards with respect to overall levels of employee motivation.

There is ongoing discussion in business literature regarding the development of managerial skills and the characteristics of effective and capable managers. In a period of economic downturn, fostering a motivating work environment and understanding the elements of an effective motivation program are critical pieces of human resources management. Employees lacking motivation present a problem for all types of organizations and there can be far-reaching impacts when employee performance levels are down.

Many contemporary authors have tried to define the concept of motivation. Kreitner has defined motivation to be a psychological process that gives direction and purpose to behaviour; According to Buford, Bedeian, & Linder motivation is a predisposition to achieve specific, unmet needs by behaving in a purposive manner. Higgins defined motivation as the internal drive which is required to satisfy an unsatisfied need; Bedeian on the other hand, defined motivation as the will which helps to achieve.

Monetary and Non-Monetary Motivation

An overview Motivation is used to explain the theoretical construct of behaviour. Motives can be defined as hypothetical constructs, which are used to explain why people act in a specific manner. As per the words of Maehr and Meyer, "Motivation is a word that is part of the popular culture as few other psychological concepts are".

Most organizations use different types of rewards. Examples of recognitions and rewards include money, plaques, trophies, certificates/citations, public recognition, official prerequisites, special assignments, parties or celebrations or other meaningful celebrations. The most common are wages or salary, incentive systems, benefits and prerequisites, and awards. For majority of people, the most important rewards for work is the pay they receive. For one thing an effectively planned and administered pay system can improve motivation and performance.

Most organizations use different types of rewards. Examples of recognitions and rewards include money, plaques, trophies, certificates/citations, public recognition, official prerequisites, special assignments, parties or celebrations or other meaningful celebrations. The most common are wages or salary, incentive systems, benefits and prerequisites, and awards. For majority of people, the most important rewards for work is the pay they receive. For one thing an effectively planned and administered pay system can improve motivation and performance.

Money may not actually motivate people. Surprisingly, there is no clear evidence that increased earning will necessarily lead to higher performance. A great deal of research has been done on what determines whether an individual will be satisfied with the rewards he or she receives from a situation. The following five conclusions can be reached about what determines satisfactions with rewards.

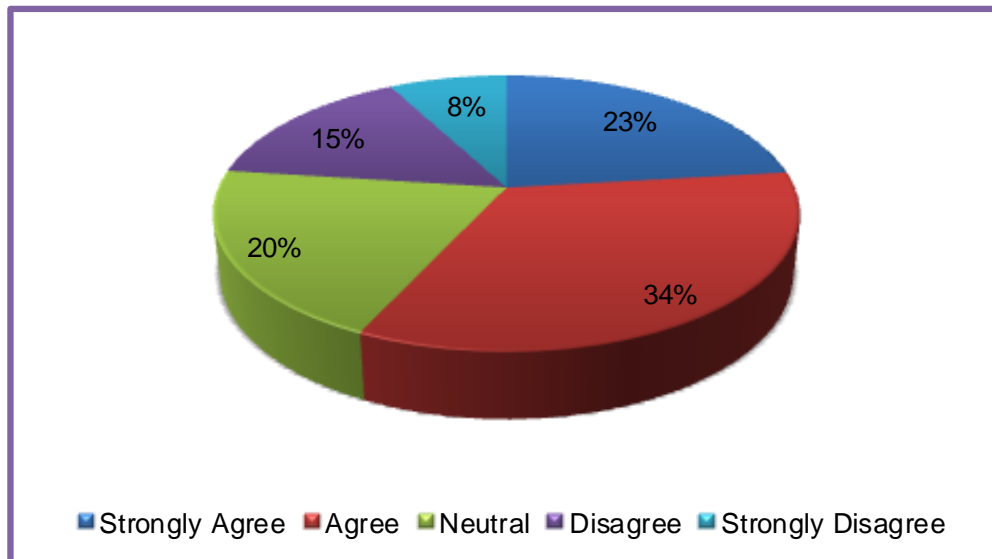
Analysis

Table 1: Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya

Total no. of participants are 500

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
113	165	98	74	38

Graph 1 : Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya



Out of 500 employees; 23% employees strong agree with the statement ‘Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya’; 34% employees agree with the statement; 20% employees has neutral with the statement; 15% are disagree and 8% are strongly disagree the statement.

That means, majority of the respondents feels that Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya.

Hypothesis

H₀₁ : Implementation of HR practices does not affects motivation and job satisfaction of employees of Mantralaya.

H₁₁ : Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya..

This hypothesis regarding implementation of HR practices and its relation with motivation and job satisfaction of employees is tested through the One Sample t-test using statistical software SPSS.

N	Mean	Std. Deviation	Std. Error Mean
500	2.5660	1.26366	.05651

Test Value = 5					
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
-43.070	499	.000	-2.43400	-2.5450	-2.3230

To test this hypothesis; a Likert scale is used. Response of 500 employee respondents are recorded and inputted in the SPSS software. The mean value generated is 2.56 and Standard Deviation is 1.26. The test value is set as 5 as Likert scale is five level scale to record the responses. From the above One Sample t-test hypothesis is significant i.e. 0.000. So the NULL hypothesis is rejected and the alternate hypothesis ‘Implementation of HR practices

significantly affects motivation and job satisfaction of employees of Mantralaya' is accepted.

Conclusion

Implementation of HR practices significantly affects motivation and job satisfaction of employees of Mantralaya. Majority of respondent feels that employees' incentive preferences are directly related to the job satisfaction. Majority of employees of Mantralaya feels that employees are recognized and appreciated for their positive behaviors in the organization in greater extent. Majority of respondent feels that there are some mechanisms in their organization that can be used to recognize the successful employees and present them to the rest of the organization.

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Certain Transformations Of Poly Basic Hypergeometric Series

Dr. Esther C. Das*

1. Introduction

Various methods of establishing expansions of hypergeometric functions in terms of another hypergeometric function exist in the literature. Here we employ Bailey's transform to establish expansions of an arbitrary basic hypergeometric function in terms of similar functions.

2. Main Results

Bailey's transform is given by

$$\text{If } \beta_n = \sum_{r=0}^n \alpha_r u_{n-r} \mathcal{G}_{n+r} \tag{2.1}$$

$$\text{and } \gamma_n = \sum_{r=n}^{\infty} \delta_r u_{r-n} \mathcal{G}_{n+r} = \sum_{r=0}^{\infty} \delta_{n+r} u_r \mathcal{G}_{r+2n} \tag{2.2}$$

where δ_r, α_r, u_r and \mathcal{G}_r the function of r only, then

$$\sum_{n=0}^{\infty} \beta_n \delta_n = \sum_{n=0}^{\infty} \alpha_n \gamma_n \tag{2.3}$$

Now taking $u_r = 1 = \mathcal{G}_r$, (2.2) takes the form

$$\sum_{n=0}^{\infty} \delta_n \sum_{r=0}^n \alpha_r = \sum_{n=0}^{\infty} \alpha_n \sum_{r=0}^{\infty} \delta_{r+n} \tag{2.4}$$

We shall use the following summation of truncated series

$${}_2\Phi_1 \left[\begin{matrix} a, b; p; p \\ abp \end{matrix} \right]_n = \frac{(ap, bp; p)_n}{(p, abp; p)_n} \tag{2.5}$$

(Agarwal [1] AppII(8))

$${}_4\Phi_3 \left[\begin{matrix} a, p\sqrt{a}, -p\sqrt{a}, b; p; \frac{1}{b} \\ \sqrt{a}, -\sqrt{a}, \frac{ap}{b} \end{matrix} \right]_n = \frac{(ap, bp; p)_n \left(\frac{1}{b}\right)^n}{\left(p, \frac{ap}{b}; p\right)_n} \tag{2.6}$$

(Agarwal [1] AppII(23))

$${}_4\Phi_3 \left[\begin{matrix} a, p\sqrt{a}, -p\sqrt{a}, b, c, d; p; p \\ \sqrt{a}, -\sqrt{a}, \frac{ap}{b}, \frac{ac}{c}, \frac{ap}{d} \end{matrix} \right]_n = \frac{(ap, bp, cp, dp; p)_n}{\left(p, \frac{ap}{b}, \frac{ap}{c}, \frac{ap}{d}; p\right)_n} \tag{2.7}$$

(Agarwal [1] ; AppII(25))

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$${}_3\Phi_2 \left[\begin{matrix} a, b, p; p; p \\ c, d \end{matrix} ; p \right]_n = \frac{(p-c)(c-apb)}{(ap-c)(c-bp)} \left[1 - \frac{(a, b; p)_{n+1}}{\left(\frac{c}{p}, \frac{abp}{c}; p \right)_{n+1}} \right] \tag{2.8}$$

(Srivastava [1] (4.2))

$$\sum_{r=0}^n \frac{(1-ap_1^r p_2^r)_r (a; p_1)_r (b; p_2)_r b^{-r}}{(1-a)(p_2; p_2)_r \left(\frac{ap_1}{b}; p_1 \right)_r} = \frac{(ap_1; p_1)_n (bp_2; p_2)_n}{(p_2; p_2)_n \left(\frac{ap_1}{b}; p_1 \right)_n} \tag{2.9}$$

(Gasper-Rehman [1];App II(25))

$$\sum_{r=0}^n \frac{(1-ap_1^r p_2^r)(1-bp_1^r p_2^{-r})(a, b; p_1)_r \left(c, \frac{a}{bc}; p_2 \right)_r p_2^r}{(1-\alpha)(1-\beta) \left(p_2, \frac{ap_2}{b}; p_2 \right)_r \left(\frac{ap_1}{c}, bcp_1; p_1 \right)_r} = \frac{(ap_1, bp_1; p_1)_n \left(cp_2, \frac{ap_2}{bc}; p_2 \right)_n}{\left(p_2, \frac{ap_2}{b}; p_2 \right)_n \left(\frac{ap_1}{c}, bcp_1; p_1 \right)_n} \tag{2.10}$$

(Gasper-Rehman [1];App II(35))

$$\sum_{r=0}^n \frac{(1-adp_1^r p_2^r) \left(1 - \frac{b}{d} p_1^r p_2^{-r} \right) (a, b; p_1)_r \left(c, \frac{ad^2}{bc}; p_2 \right)_r p_2^r}{(1-ad) \left(1 - \frac{b}{d} \right) \left(dp_2, \frac{adp_2}{b}; p_2 \right)_r \left(\frac{adp_1}{c}, \frac{bcp_1}{d}; p_1 \right)_r} = \frac{(1-a)(1-b)(1-c) \left(1 - \frac{ad^2}{bc} \right) (ap_1, bp_1; p_1)_n \left(cp_2, \frac{ad^2 p_2}{bc}; p_2 \right)_n}{d(1-ad) \left(1 - \frac{b}{d} \right) \left(1 - \frac{c}{d} \right) \left(1 - \frac{ad}{bc} \right) \left(dp_2, \frac{adp_2}{b}; p_2 \right)_n \left(\frac{adp_1}{c}, \frac{bcp_1}{d}; p_1 \right)_n} + \frac{a^2 d(1-d) \left(1 - \frac{c}{ad} \right) \left(1 - \frac{d}{bc} \right) \left(1 - \frac{b}{cd} \right)}{(1-ad) \left(1 - \frac{b}{d} \right) \left(1 - \frac{c}{d} \right) \left(1 - \frac{ad}{bc} \right)} \tag{2.11}$$

(Gasper-Rehman[1];App II(36))

$$\begin{aligned}
 & \sum_{r=0}^n \frac{\left(1 - adp_1^r p_2^r P_1^r P_2^r\right) \left(c - \frac{d p_1^r P_2^r}{P_1^r p_2^r}\right) \left(1 - \frac{b p_1^r P_1^r}{dp_2^r P_2^r}\right) (a, b; p_1)_r \left(c, \frac{ad^2}{bc}; p_2\right)_r p_2^{2r}}{(1-ad)(c-d)\left(1 - \frac{b}{d}\right)} \\
 & \times \frac{\left(1 - \frac{adp_1^r P_2^r}{bc p_2^r P_1^r}\right) p_2^{2r} (a; p_1^2)_r (c, p_2^2)_r (b; P_1^2)}{\left(1 - \frac{ad}{bc}\right) \left(\frac{dp_2 P_1 P_2}{p_1}, \frac{p_2 P_1 P_2}{p_1}\right)_r \left(\frac{ad p_1 P_1 P_2}{c p_2}, \frac{p_1 P_1 P_2}{p_2}\right)_r} \\
 & \times \frac{\left(\frac{ad^2}{bc}; P_2^2\right)_r}{\left(\frac{ad p_1 p_2 P_2}{b P_1}, \frac{p_1 p_2 P_2}{P_1}\right)_r \left(\frac{bc p_1 p_2 P_1}{d P_2}, \frac{p_1 p_2 P_1}{P_2}\right)_r} \\
 & = \frac{(1-a)(1-b)(1-c)\left(1 - \frac{ad^2}{bc}\right)}{(1-ad)(c-d)\left(1 - \frac{b}{d}\right)\left(1 - \frac{ad}{bc}\right)} \\
 & \times \frac{\left(ap_1^2; p_1^2\right)_n \left(cp_2^2; p_2^2\right)_n \left(bP_1^2; P_1^2\right)_n}{\left(\frac{dp_2 P_1 P_2}{p_1}, \frac{p_2 P_1 P_2}{p_1}\right)_n \left(\frac{ad p_1 P_1 P_2}{c p_2}, \frac{p_1 P_1 P_2}{p_2}\right)_n} \\
 & + \frac{\left(\frac{ad^2 P_2^2}{bc}; P_2^2\right)_n}{\left(\frac{ad p_1 p_2 P_2}{b P_1}, \frac{p_1 p_2 P_2}{P_1}\right)_n \left(\frac{bc p_1 p_2 P_1}{d P_2}, \frac{p_1 p_2 P_1}{P_2}\right)_n} \\
 & \times \frac{a^2(1-d)\left(1 - \frac{c}{ad}\right)\left(1 - \frac{b}{ad}\right)\left(1 - \frac{d}{bc}\right)}{(1-ad)(c-d)\left(1 - \frac{b}{d}\right)\left(1 - \frac{ad}{bc}\right)} \tag{2.12}
 \end{aligned}$$

(Verma, [1])

Now, if in (3.2.4) we take $\delta_n = \frac{[(\gamma_t); q]_n}{[(\mu_s); q]_n} z^n$

we get after some simplification the following lemma;

LEMMA

$$\sum_{n=0}^{\infty} \frac{[(\gamma_t); q]_n}{[(\mu_s); q]_n} z^n \sum_{r=0}^n \alpha_r = \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \sum_{n=0}^{\infty} \alpha_n \frac{[(\gamma_t)q^r; q]_n}{[(\mu_s)q^r; q]_n} z^n \tag{2.14}$$

Now if the inner series is summable in the second closed form this will lead to a bi-basic expansion for a generalized bi-basic hypergeometric series.

(i) If we take $\alpha_r = \frac{[a, b; p]_r}{[p, abp; p]_r} p^r$

In (2.14) and use (2.5), we get the following transformation

$$\Phi \left[\begin{matrix} (ap, bp; p), ((\gamma_t); q); z \\ (p, abp; p), ((\mu_s); q) \end{matrix} \right] = \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} (a, b; p), ((\gamma_t)q^r, q); zp \\ (p, abp; p), ((\mu_s)q^r; q) \end{matrix} \right] \tag{2.15}$$

(ii) Again if we take

$$\alpha_r = \frac{(a, p\sqrt{a}, -p\sqrt{a}, b; p)_r}{\left(p, \sqrt{a}, -\sqrt{a}, \frac{ap}{b}; p\right)_r} \left(\frac{1}{b}\right)^r$$

in (2.14) and use (2.6), we get the following transformation

$$\begin{aligned} & \Phi \left[\begin{matrix} (ap, bp; p), ((\gamma_t); q); \frac{z}{b} \\ \left(p, \frac{ap}{p}; p\right), ((\mu_s); q) \end{matrix} \right] \\ &= \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} (a, p\sqrt{a}, -p\sqrt{a}, b; p), ((\gamma_t)q^r; q); \frac{z}{b} \\ \left(p, \sqrt{a}, -\sqrt{a}, \frac{ap}{b}, p; p\right), ((\mu_s)q^r; q) \end{matrix} \right] \end{aligned} \tag{2.16}$$

(iii) Further if we take $\alpha_r = \frac{(a, p\sqrt{a}, -p\sqrt{a}, b, c, d; p)_r}{\left(p, \sqrt{a}, -\sqrt{a}, \frac{ap}{b}, \frac{ap}{c}, \frac{ap}{d}; p\right)_r} p^r$

in (2.14) and use (2.7) we get

$$\begin{aligned} & \Phi \left[\begin{matrix} (ap, bp, cp, dp; p), ((\gamma_t); q); z \\ \left(p, \frac{ap}{b}, \frac{ap}{c}, \frac{ap}{d}; p\right), ((\mu_s); q) \end{matrix} \right] \\ &= \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} (a, p\sqrt{a}, -p\sqrt{a}, b, c, d; p), ((\gamma_t)q^r; q); zp \\ \left(p, \sqrt{a}, -\sqrt{a}, \frac{ap}{b}, \frac{ap}{c}, \frac{ap}{d}; p\right), ((\mu_s)q^r; q) \end{matrix} \right] \end{aligned} \tag{2.17}$$

(iv) Now taking

$$\alpha_r = \frac{(a, b, p; p)_r}{(p, c, d; p)_r} p^r$$

in (2.14) and making use of (2.8) we get the following transformation

$$\begin{aligned} & \frac{(p-c)(c-apb)}{(ap-c)(c-bp)} \sum_{n=0}^{\infty} \frac{[(\gamma_t); q]_n}{[(\mu_s); q]_n} z^n - pc(1-a)(1-b) \Phi \left[\begin{matrix} (ap, bp, p; p), ((\gamma_t); q); z \\ \left(p, c, \frac{abp^2}{c}; p \right), ((\mu_s); q) \end{matrix} \right] \\ &= \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} (a, b, p; p), ((\gamma_t)q^r, q); zp \\ \left(p, c, d; p \right), ((\mu_s)q^r; q) \end{matrix} \right] \end{aligned} \tag{2.18}$$

(v) If we take

$$\alpha_r = \frac{(1-ap_1^r p_2^r)(a; p_1)_r (b; p_2)_r}{(1-a)(p_2; p_2)_r} b^{-r} \left(\frac{ap_1}{b}; p_1 \right)_r$$

in (2.14) and use (2.9) we have the following interesting transformation

$$\begin{aligned} & \Phi \left[\begin{matrix} (bp_2; p_2), (ap_1; p_1), ((\gamma_t); q); z \\ \left(p_2; p_2 \right), \left(\frac{ap_1}{b}; p_1 \right), ((\mu_s); q) \end{matrix} \right] \\ &= \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} (b; p_2), (a; p_1), (ap_1 p_2; p_1 p_2), ((\gamma_t)q^r; q); \frac{z}{b} \\ \left(p_2; p_2 \right), \left(\frac{ap_1}{b}; p_1 \right), (a; p_1 p_2), ((\mu_s)q^r; q) \end{matrix} \right] \end{aligned} \tag{2.19}$$

$$(vi) \text{ Taking } \alpha_r = \frac{(1-ap_1^r p_2^r)(1-bp_1^r p_2^{-r})(a, b; p_1)_r \left(c, \frac{a}{bc}; p_2 \right)_r p^r}{(1-a)(1-b) \left(p_2, \frac{ap_2}{b}; p_2 \right)_r \left(\frac{ap_1}{c}, bcp_1; p_1 \right)_r} b^{-r}$$

in (2.14) and using (2.10) we have the following transformation

$$\begin{aligned} & \Phi \left[\begin{matrix} \left(cp_2, \frac{ap_2}{bc}; p_2 \right), (ap_1, bp_1; p_1), ((\gamma_t); q); z \\ \left(p_2, \frac{ap_2}{b}; p_2 \right), \left(\frac{ap_1}{c}, bcp_1; p_1 \right), ((\mu_s); q) \end{matrix} \right] = \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \\ & \times \Phi \left[\begin{matrix} \left(c, \frac{a}{bc}; p_2 \right), (a, b; p_1), (ap_1 p_2; p_1 p_2), (bp_1 p_2^{-1}; p_1 p_2^{-1}), ((\gamma_t)q^r; q); zp_2 \\ \left(p_2, \frac{ap_2}{b}; p_1 \right), \left(\frac{ap_1}{c}, bcp_1; p_1 \right), (a; p_1 p_2), (b; p_1 p_2^{-1}), ((\mu_s)q^r; q) \end{matrix} \right] \end{aligned} \tag{2.20}$$

(vii) Taking

$$\alpha_r = \frac{\left(1 - adp_1^r p_2^r\right) \left(1 - \frac{bp_1^r p_2^{-r}}{d}\right) (a, b; p_1)_r \left(c, \frac{ad^2}{bc}; p_2\right)_r p^r}{(1 - ad) \left(1 - \frac{b}{d}\right) \left(dp_2, \frac{adp_2}{b}; p_2\right)_r \left(\frac{adp_1}{c}, \frac{bcp_1}{d}; p_1\right)_r} b^{-r}$$

in (2.14) and using (2.11), we get

$$\frac{(1-a)(1-b)(1-c) \left(1 - \frac{ad^2}{bc}\right)}{d(1-ad) \left(1 - \frac{b}{d}\right) \left(1 - \frac{c}{d}\right) \left(1 - \frac{ad}{bc}\right)} + \frac{a^2 d(1-d) \left(1 - \frac{c}{ad}\right) \left(1 - \frac{d}{bc}\right) \left(1 - \frac{b}{cd}\right)}{(1-ad) \left(1 - \frac{b}{d}\right) \left(1 - \frac{c}{d}\right) \left(1 - \frac{ad}{bc}\right)} \sum_{n=0}^{\infty} \frac{[(\gamma_t); q]_n}{[(\mu_s); q]_n} z^n = \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r$$

$$\times \Phi \left[\begin{matrix} (a, b, p_1; p_1), \left(c, \frac{ad^2}{bc}; p_2\right), (adp_1 p_2; p_1 p_2), \left(\frac{b}{d} p_1 p_2^{-1}; p_1 p_2^{-1}\right), (\gamma_t q^r; q), zp_2 \\ \left(\frac{adp_1}{c}, bcp_1, p_1; p_1\right), \left(dp_2, \frac{adp_2}{b}; p_2\right), (ad; p_1 p_2), \left(\frac{b}{d}; p_1 p_2^{-1}\right), (\mu_s q^r; q) \end{matrix} \right] \quad (2.21)$$

(viii) Again if we take $\alpha_r = \frac{\left(1 - adp_1^r p_2^r P_1^r P_2^r\right) \left(c - \frac{dP_1^r P_2^r}{p_1^r p_2^r}\right) \left(1 - \frac{b}{d} \frac{p_1^r P_1^r}{p_2^r P_2^r}\right)}{(1 - ad)(c - d) \left(1 - \frac{b}{d}\right) \left(1 - \frac{ad}{bc}\right)}$

$$\times \frac{\left(1 - \frac{adp_1^r P_2^r}{bcp_2^r P_1^r}\right) p_2^{2r} (a; p_1^{2r})_r (c; p_2^{2r})_r (b; P_2^{2r})_r}{\left(dp_2 \frac{P_1 P_2}{p_1}, \frac{p_2 P_1 P_2}{p_1}\right)_r \left(\frac{ad}{c} \frac{p_1 P_1 P_2}{p_2}, \frac{p_1 P_1 P_2}{p_2}\right)_r \left(\frac{ad}{b} \frac{p_1 p_2 P_2}{P_1}, \frac{p_1 p_2 P_2}{P_1}\right)_r}$$

$$\times \frac{\left(\frac{ad^2}{bc}; P_2^2\right)_r}{\left(\frac{bc}{d} \frac{p_1 p_2 P_1}{P_2}, \frac{p_1 p_2 P_1}{P_2}\right)_r}$$

in (2.14) and use (2.12), we get the following transformation

$$\frac{(1-a)(1-b)(1-c) \left(1 - \frac{ad^2}{bc}\right)}{(1-ad)(c-d) \left(1 - \frac{b}{d}\right) \left(1 - \frac{ad}{bc}\right)}$$

$$\begin{aligned}
 & \times \Phi \left[\begin{matrix} ((\gamma_t); q), (Qp_1^2; p_1^2), (cp_2^2; p_2^2), (bP_1^2; P_1^2), \left(\frac{ad^2 P_2^2}{bc}; P_2^2\right), \\ ((\mu_s); q), \text{---}, \text{---}, \text{---}, \text{---}, \\ \text{---}, \text{---}, \\ \left(\frac{dp_2 P_1 P_2}{p_1}, \frac{p_2 P_1 P_2}{p_1}\right), \left(\frac{ad}{c} \frac{p_1 P_1 P_2}{p_2}, \frac{p_1 P_1 P_2}{p_2}\right), \\ \text{---}, \text{---}; z \\ \left(\frac{ad}{b} \frac{p_1 p_2 P_2}{P_1}, \frac{p_1 p_2 P_2}{P_1}\right), \left(\frac{bc}{d} \frac{p_1 p_2 P_1}{P_2}, \frac{p_1 p_2 P_1}{P_2}\right) \end{matrix} \right] \\
 & + \frac{a^2(1-d)\left(1-\frac{c}{ad}\right)\left(1-\frac{b}{ad}\right)\left(1-\frac{d}{bc}\right)}{(1-ad)(c-d)\left(1-\frac{b}{d}\right)\left(1-\frac{ad}{bc}\right)} \sum_{n=0}^{\infty} \frac{[(\gamma_t); q]_n}{[(\mu_s); q]_n} z^n \\
 & = \sum_{r=0}^{\infty} \frac{[(\gamma_t); q]_r}{[(\mu_s); q]_r} z^r \Phi \left[\begin{matrix} ((\gamma_t)q^r; q), (adp_1 p_2 P_1 P_2; p_1 p_2 P_1 P_2), \\ ((\mu_s)q^r; q), (ad; p_1 p_2 P_1 P_2) \\ \left(\frac{d}{c} \frac{P_1 P_2}{p_1 p_2}, \frac{P_1 P_2}{p_1 p_2}\right), \left(\frac{b}{d} \frac{p_1 P_1}{p_2 P_2}, \frac{p_1 P_1}{p_2 P_2}\right), \left(\frac{ad}{bc} \frac{p_1 P_2}{P_1 p_2}, \frac{p_1 P_2}{P_1 p_2}\right), \\ \left(\frac{d}{c}; \frac{p_1 P_1}{p_2 P_2}\right), \left(\frac{b}{d}; \frac{p_1 P_2}{P_1 p_2}\right), \left(\frac{ad}{bc}; \frac{p_1 P_2}{p_2 P_1}\right), \\ (a; p_1^2), (c; p_2^2), (b; P_1^2), \left(\frac{ad^2}{bc}; P_2^2\right), \text{---}, \\ \text{---}, \text{---}, \text{---}, \left(\frac{dp_2 P_1 P_2}{p_1}, \frac{p_2 P_1 P_2}{p_1}\right), \\ \text{---}, \text{---}; zp_2^2 \end{matrix} \right] \tag{2.22} \\
 & \left[\begin{matrix} \left(\frac{ad}{c} \frac{p_1 P_1 P_2}{p_2}, \frac{p_1 P_1 P_2}{p_2}\right), \left(\frac{bc}{d} \frac{p_1 p_2 P_1}{P_2}, \frac{p_1 p_2 P_1}{P_2}\right) \end{matrix} \right]
 \end{aligned}$$

(x) Now we take

$$\alpha_r = \frac{(b; p_1)_r (c; p_2)_r (y; P_1)_r \left(\frac{byc}{d^2}; \frac{p_1 P_1}{p_2}\right)_r p_2^r}{(dp_2; p_2)_r \left(\frac{bcp_1}{d}; p_1\right)_r \left(\frac{by}{d} \frac{p_1 P_1}{P_2}; \frac{p_1 P_1}{P_2}\right)_r \left(\frac{cy P_1}{d}; P_1\right)_r} \\ \times \left(1 - \frac{bcy}{d} p_1^r P_1^r\right) \left(1 - \frac{y}{d} P_1^r p_2^{-r}\right) \left(1 - \frac{b}{d} p_1^r p_2^{-r}\right)$$

By making similar substitution we can have many more interesting results.

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A Study of Revenue Administrative System of Assam during the Ahom Period (13th – 19th Century)

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***Abstract:** The article at bringing together the knowledge of revenue administration system of Assam during the Ahom period as derived from various sources such as local, Persian and travellers account. An attempt has been made to identify the new administrative plocy introduced by the Ahom monarchy and its impact on economic life of the people of Assam.*

***Keywords –** Ahom, Revenue administration, Economic life, Sources, Travellers account.*

The revenue administration system was one of the important features of the Ahom monarchy. The unique system of revenue administrative system brought from the south East Asia. Contemporary local, Persian, numismatic sources and foreign travellers describe in details about it. But it appears that the hypothesis has never been examined in depth rather touched upon only a few aspects. It is, therefore, my humble devotion to the theme in present paper which deals entirely the aspects of Assam's revenue administrative system during the Ahom monarchy, in the light of travellers' accounts, Persian sources, local sources and Numismatic evidences.

The revenue of the Ahom kingdom was derived from three sources viz. personal service, produce of the land and cash. Of these the first two constituted the major portion of the state's income. For realising the services of the people all the able-bodies male persons of the kingdom, excepting the slaves who attained the age of fifteen were registered. Such persons were called paiks. Each paik was bound to render personal services, direct or indirect, civil or military, or both or to supply a fixed quota of articles to the state. The system of realising the state's revenue in the form of labour is known to have existed among the Tais of South-East Asia. A similar system was followed by the Thais (the Thai of Thailand) and also by the tais of the Nan-Chai kingdom of old. This system was based on the concept that not only land but also the people were the property of the state.

PAIKS

Paiks were grouped into three board categories viz- Kadis, Hajuas and Chamuas. The first two constituted the common rung of the population the last formed the upper order of the society. The Kadis were chiefly employed for military services; but at the time of peace they had to perform civil duties as well. The Hajuas were engaged in various works such as constructing roads, bridges, ramparts, embankments, building, boats, houses, manufacturing guns, cannons, collecting salt, saltpetre, washing sands for gold, extracting iron, cultivating land apportioned to the members of the royal family and officers of the state, and supply various articles to the royal store. The Chamuas were obligible for appointment as officers, ambassadors, messengers, clerks, accountants etc., these categories of paiks.

It was so arranged that each member of the primary unit i.e. the got had to serve the state for the whole year by rotationone man at a time. In this way the state enjoyed the services of one man from each got all the time. In time of emergency two or even three paiks of the got were pressed into the state service. The contribution of service by one man in the got was

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called mul, two men dowl and three men tewal. When a paik was away from his home on state service the other members of his got looked after the needs of his family, his cultivation and other domestic concern. So far as possible paiks belonging to the same family were placed in the same got or gots. This system had resulted in a feeling of Comradeship, social cohesion and economic cooperation among the people.

According to their professions or allotted functions the paiks were further organized into professional or functional departments called Khels. The paiks employed in one profession or performing one kind of service were grouped into one khel. For instance the paiks engaged as king's sword-bearers were constituted into the Da-dhara khel; the cooks of the royal household formed into the Chang-mai khel; the honey-suppliers into the Mau-jogania khel, and so on. There were thus a large number of khels each deriving its name from function or profession it performed.

According to the nature of services, khels may be broadly divided into two classes- (i) Khels for rendering direct personal services, (ii) Khels for supplying articles. Paiks assigned to the first category rendered their direct personal services to the state. The paiks of the Changmai khel for instance were engaged as cooks in the royal household. The paiks of the second category supplied specific articles to the royal store which they produced or procured from various sources. The paiks of the Gur-jogania khel (gur=molasses, jogania=supplier) supplied molasses for which purpose they were given sufficient quantity of suitable land for the cultivation of sugarcane. Of the articles supplied by the paiks mention may be made of elephant, ivory, honey, mat, dye, cotton, gold, iron, salt, wood, cloth, duck, lime, gum, etc. There was however a third category of khels. The paiks attached to the Buragohain, Bargohain and Baroatragohain, the great ministers of state were organised into three separate khels viz- the Buragohain khel, the Bargohain khel and the Baroatragohain khel respectively. Ordinarily the members belonging to a particular khel were settled in one locality or village, assigned land in the same area and were closely bound together by the age-old custom and rules.

A khel was headed by an officer. Important and large khels were placed under Phukans but less important ones were under Baruas and Rajkhowas. The Nowsalia klel (nao= boat, salia= builder i.e. the boat builders department), for instance consisting of more than six thousand paiks was commanded by the Nowsalia Phukan, but the Mau-jogania khel (mau=honey, jogania – supplier i.e. the department of honey supplier) was placed under the Mau Barua. Two or more minor khels were however placed under one officer. For instance four kadi khels i.e. Chanbassa, Tamchabassa, Barbassa and lahanbassa were placed under the Bassa Rajkhowa. The officers in charge of khels may be designated as khel-officers who were different from paik-officers. As administrative heads, the khel-officers looked after the law and order; as executive heads they supervised the proper utilisation of the labour force; and in time of war, they commanded their respective quotas of soldiers. They were appointed by the monarch and were accountable to him.

According to the number of paiks each khel was organised into the numerical units of twenty (kuri), hundred (sa) and thousand (hazar) commanded by Boras, Saikias and Hazarikas respectively. For instance a khel having 2000 gots of paiks contained 2 units of hazar, 20 units of sa and 100 units of kuri commanded by 2 Hazarikas, 20 Saikias and 100 Boras respectively. The strength of a khel ranged from a few hundred to several thousand paiks. S.K. Bhuyan in *Anglo-Assamese Relations* opines that the Ahom khel system was similar to the Mansabdari system of the Mughals and that "it is likely for the Ahoms to have obtained

the cue from the Moguls whom they had known from their frequent political contracts” But this contention does not stand scrutiny. The Mansabdari system was concerned with gradation of ranks in the army based on the number of soldiers commanded by officers. The khel system was much more than the mere gradation of officers according to the number of paiks commanded by them; and it may be noted that all paiks were not employed as soldiers. The khels served as the economic foundation of the Ahom state. Without the khel pattern of the economic organisation of the Ahoms would have been very different from what it was. It is unlikely for the Ahoms to have adopted the idea of the khel system from the Mughals since it was brought by the Ahoms from their original homeland. The same system also found among the Thais (formerly Siamese), the kinsmen of the Ahoms.

Revenue In Cash

The paik system of the Ahoms had obviated the state's necessity of cash. As long as this system was in full force, there was no need for collection of cash in lieu of services or produce or on account of the land held by the paiks. The expansion of the Ahom kingdom towards west in the seventeenth century covering the major part of Lower Assam wherein the

Mughal revenue system was prevailing, and the increasing contracts, political and commercial with the rest of India particularly with Bengal and Koch Behar where money economy prevailed had made the Ahom rulers to introduce the system of realising revenue in cash as well. Thus the practice of realising revenue in cash from the paiks in lieu of their services or produce, or for land they had cultivated or on their profession was a later addition to the Ahom revenue system. Consequently several types of cash collection such as poll-tax, land-tax, house-tax, profession tax and customs and tolls came into existence in the Ahom kingdom.

Revenue Of Land

Under the original administrative system of the Ahoms the collection of revenue on land was not known. All lands allotted to the paiks as ga-mati and to the officers as man-mati were free of rent. Moreover all lands assigned to the members of the royal family near relations of the monarch, priests and preachers, deities and religious institutions and to individuals for their commendable deeds were also rent free. Hence there was little scope for collection of revenue on land. The tax on land in the Ahom kingdom was a reminiscent of the Mughal land revenue system that prevailed in Lower Assam, particularly in Des Kamrup at the time of its final annexation to the Ahom kingdom by Gadadharasimha in 1682 A.D. Since the Ahoms retained the Mughal Paragana system of revenue in Lower Assam, (instead of physical service and produce as realised from the people in Upper Assam) land revenue continued to be collected in Lower Assam from all kinds of land excepting those made rent-free by the state. The khel system was introduced there only partially. The major portion of land revenue in cash of the Ahom kingdom was thus derived from Lower Assam.

Beyond stray reference details of revenue assessment of Lower Assam are wanting. A copper-plate grant of Sivasimha issued in 1738 A.D. records the assessment on faringati land at anas /2/ per pura. In the same grant assessment on fishing lake (bil) and small hill (parbat) is shown at Rs.1/- and Rs.5/- respectively. In another copper-plate of 1777 A.D. the rate of tax on jama-mati or land reserved for allotting to the paiks in future, is shown at anas /2/ per pura; but in a copper-plate issued in 1784 A.D. the rate is put at anas /2/1/2 per pura. Writing in 1829, Haliram Dhekial Phukan records “ formerly (by which he refers to the Ahom rule) tax on per pura of jama-mati was one ana fifteen gandas one ana five gandas and one ana

sixteen gandas at different places in Kamrup". The prevalence of varying rates of tax on the same type of land indicates the absence of uniformity of land tax. In a petition submitted in 1853 by a group of eighteen Choudhuries of Kamrup to A.J. Moffatt Mills they claimed that the rate of assessment on land since the reign of Sivasimha (1714-44 A.D.) was anas $\frac{3}{4}$, anas $\frac{2}{4}$ and anas $\frac{1}{4}$ per pura on rupit mati, baotali and faringati respectively there was no tax on bari mati and bari mati.

The amount of money collected as revenue in Des Kamrup and sent to the royal treasury annually was known as Jaigiri-dhan or simply Jaigiri. In a treaty executed between the Ahom government and the East India Company in February 1794 the total revenue to be collected in Des Kamrup by the Barphukan is recorded as rupees eighty thousand in Rajmohari coin. Since this amount included besides land revenue, revenue on professions, ferries, customs and tolls the land revenue was thus less than the said amount. In 1809 Francis Hamilton estimated the total amount of land revenue of Kamrup deposited to the royal treasury at rupees thirty-two thousand a year. In a memorial submitted to A.J. Moffatt Mills in 1853, Maniram Dewan mentions the amount of revenue collected in Kamrup in the prime ministership of Purnananda Buragohain as rupees forty-four hundred.

Des Darrang was constituted of five revenue and administrative divisions viz. Darrang, Chatghari, Chutia, Naduar and Chariduar. The Raja of Darrang collected the revenue of Darrang which was based on the khel system. According to an establishment custom, the Raja had to supply six thousand paiks to the Barphukan at Gauhati for state service in Des Kamrup. This supply of paiks from Darrang for the state service in Des Kamrup lands confirmation to the fact that people in general of Des Kamrup were engaged in state service under the Ahoms, rather they paid revenue on land. The revenue of other divisions was collected by royal officials in charge of those divisions. Information is lacking about revenue collected from Chatghari, Chutia, Naduar and Chari-duar divisions. In the treaty of 1794 A.D. as referred to above the amount of revenue to be collected from these divisions is shown as- Chatghari Rs. 2,000, Chutia Rs. 2,000, Na-duar Rs. 16,000 and Chari-duar Rs. 6,000. These amounts included collections made from all sources; hence the land revenue in these divisions was less than the above amounts. Towards the end of the Ahom rule when money-based economy became gradually more popular to replace the earlier service-based economy, revenue in cash on certain category of land was introduced in Upper Assam too. In that part tax is said to have been collected from lands called opar-mati or land that remained surplus after allotment to the paiks and officers and grants for various other purposes. Whoever cultivated such land had to pay rupee one per pura. But Francis Jenkins says that opar-mati was classed into two types- rupit and non-rupit. Tax on rupit was Rs. $\frac{1}{4}$ and on non-rupit anas $\frac{8}{4}$ per pura. Besides these the Ahom kings also collected revenues from various sources such as custom duties, professions tax, emergency tax, tolls tax and tributes collected from the frontier tribal chiefs.

Conclusion

It is evident from the above discussion that the revenue of the state was derived from direct personal services of the paiks another system which the Ahoms had brought from their original homeland in Mao-lung. Service given by the paiks being the chief form of revenue the greatest importance was attached to organising them into khels (functional units) and to keep regular record of their number. The paiks thus constituting the great labour force of the Ahom kingdom had obviated the necessity of a separate labouring class. The slaves chiefly drawn from among the war captives and a few supplied by the hill tribes formed only a small

proportion of the population and served the members of the royal family and the high officers of the state. But the contact of the Ahoms with the Mughals, political and otherwise had brought about a major change into this system. Ahom rulers beginning with Pratapasimha adopted the practise of realising tolls on ferries markets, and custom duties in cash hitherto unknown in their system. In course of time several addition had been introduced in the forms of profession-tax kharikatana (house-tax) etc. with the growth of population (and also of the paiks) in the Ahom kingdom a stage had been reached when the services of all the paiks were not required by the state; some paiks were therefore allowed to pay in cash in lieu of service and thus augmenting the state's income in cash. In addition extra collections were made in times of emergency as was done in the reign of Pratapasimha, Chakradhvajasimha and Kamalesvarasimha. The retention of the Mughal land revenue system in Lower Assam after the permanent incorporation of that part into the Ahom dominion had added yet a new feature into the Ahom revenue system in the form of collection of revenue from land and that too in cash. The tributes paid in kinds as well as in cash by the frontier governors and the tributary and dependent chiefs formed a substantial share of the State's income. Revenue in cash however always remained throughout the Ahom rule a small portion of State's income.

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Survey In Enhancing Performance Of Big Data Processing In Hadoop Map/Reduce

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Abstract

The MapReduce framework has gained wide popularity as a scalable distributed system environment for efficient processing of large scale data of the order of Terabytes or more. Hadoop, open source implementation of MapReduce coupled with Hadoop Distributed File System, is widely applied to support cluster computing jobs requiring low response time. The current Hadoop implementation assumes that nodes in the cluster are homogenous in nature. Data locality and placement has not been taken into account for launching speculative processing tasks. Furthermore, every node in the cluster is assumed to have same I/O speeds despite some of the nodes being configured using vastly varying generation of storage hardware. Also, network delays being incurred due to data movement during running time have been ignored in the recent Hadoop implementations. Unfortunately, both the homogeneity and data locality assumptions in Hadoop are optimistic at best and unachievable at worst, potentially introducing performance problems in data centers. This dissertation explores the Hadoop data placement policy in detail and proposes a modified block placement policy that increases the efficiency of the overall system. Also, the idea of placing data across the cluster in a way that a node possessing higher I/O capabilities is allocated more data is addressed, thereby reducing inter-node traffic and increasing overall performance.

Keywords: Hadoop, MapReduce, I/O Subsystems, Hadoop Distributed File System, Balancer

Introduction

We live in a world that is driven by Data. Data intensive applications are on the rise. Since the communication paradigm of the Internet is sufficiently open and powerful, the World Wide Web, in the past decade or so, has been adopted as the ideal platform for developing data intensive applications. Data intensive applications like data mining and web indexing need to access ever expanding data sets ranging from a few gigabytes to several terabytes or even petabytes. Google, for example leverages the MapReduce model to process approximately twenty petabytes of data per day in a parallel scenario [14]. The MapReduce programming framework can simplify the complexity by running parallel data processing functions across multiple computing nodes in a cluster as scalable MapReduce helps programmers to distribute programs across nodes as they are executed in parallel. MapReduce automatically gathers results from the multiple nodes and returns a single result or set. More importantly, MapReduce platforms offer fault tolerance that is entirely transparent to programmers. This makes MapReduce a practical and attractive programming model for parallel data processing in high performance cluster computing environments.

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Hadoop, a popular open source implementation of the Google's MapReduce model, is primarily developed by Yahoo [13]. In addition to Yahoo and Facebook, a wide variety of websites like Amazon employ Hadoop to manage massive amount of data on a daily basis. Apart from Web data-intensive applications, scientific data-intensive applications (e.g., seismic simulations and natural language processing) take maximum benefits from the Hadoop system.

A Hadoop system consists of two major components. The first component is the Hadoop MapReduce engine – MapReduce [14]. The second component is HDFS – Hadoop Distributed File System [1], which is inspired by Google's GFS (Google File System). HDFS divides files into blocks that are replicated among several different computing nodes with no attention to whether the blocks are divided evenly. When a job is initiated, the processor of each node works with the data on their local hard disks. When the large file is accessed, high aggregated I/O bandwidth can be achieved by accessing the multiple nodes in parallel. The performance of cluster can be improved by Hadoop, because multiple nodes work concurrently to provide high throughput.

Although Hadoop has become popular as a high-performance computing platform for data-intensive applications, increasing evidence has shown that performance of data-intensive applications can be severely limited by a combination of a persistent lack of high disk and network I/O bandwidth and a significant increase in I/O activities. In other words, performance bottlenecks for data-intensive applications running in cluster environments are caused by disk- and network-I/O rather than CPU or memory performance. There are multiple reasons for this I/O performance problem. First, the performance gap between processors and I/O subsystems in clusters is rapidly widening. As an example, processor performance has seen an annual increase of approximately 60% for the last two decades, while the overall performance improvement of disks has been around an annual growth rate of 7% during the same period of time. Second, the heterogeneity of various resources in clusters makes the I/O bottleneck problem even more pronounced.

There exist efficient ways of improving the performance of Hadoop clusters. This dissertation work investigates, in detail, the bottlenecks caused by data locality and placement and presents a mechanism to minimize the bottleneck.

Map Reduce

The data sets for Hadoop MapReduce are stored in the Hadoop Distributed File System in data blocks which can be processed immediately by Map tasks in parallel. The entire Map/Reduce framework operates on (*key, value*) pairs and individual maps tasks never communicate with each other [14].

Each map task process input records in isolation [14]. It is often the case that a record is simply a single newline delimited piece of data, although this aspect is highly customizable [14]. The map task then puts zero to many intermediate output records [14]. Optionally, the output records, from the map tasks may be sent through a combiner which consolidates the records local to a map task into a smaller set of equivalent records before being sent to the reducer [14]. This combiner can be implemented using the same function as the reduce task [14]. The records are sorted by key, and all values with the same key are processed together by the same reducer in no particular order [14]. The reducer phase cannot start until the map phase has completed, and each reducer produces zero to many output records for the Map/Reduce job. The data types used as the

inputs to any given phase do not need to be the same as the outputs. Furthermore, the application is not required to use the input keys or values for anything. It is also the case that a MapReduce job may not need both a Map and Reduce phase. Many jobs use an identity map task and simply process data in the reduce tasks, or vice versa.

MapReduce framework can be summarized using the following two functions:

$$\text{map}(k1, v1) \rightarrow k2, v2$$

$$\text{reduce}(k2, \text{list}(v2)) \rightarrow v3$$

As shown in the figure, MapReduce Framework uses the split data blocks stored in the HDFS as input to map tasks which run local to the data. A JobTracker coordinates the distribution of map and reduce tasks to the TaskTrackers running on each of the machines. All data are passed in the form of key value pairs. The outputs of the map tasks are shuffled and sorted based on the keys and the values with the same key are guaranteed to be passed to the same reducer. The output of the reduce task is written back to the HDFS.

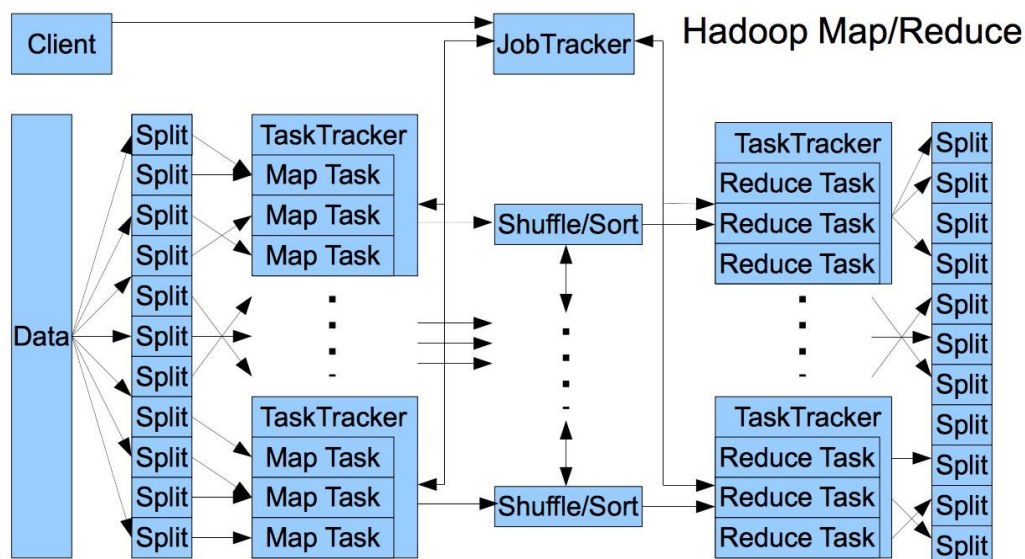


Figure: The MapReduce Framework

Apache Hadoop

The Apache Hadoop MapReduce project is a distributed computing framework that enables developers to write applications which run reliably on a large number of unreliable machines with the goal of processing Terabyte and larger data sets in paralleling clusters consisting of thousands of nodes [13]. Hadoop is an open source implementation of the MapReduce framework inspired by Google MapReduce, and the Google File System (GFS)[12], although the two systems are very different.

In Hadoop, a MapReduce job is a unit of work that the client wants to be performed, consisting of the input data, the MapReduce program and the configuration details. Hadoop performs the job by dividing the job into tasks, which can be classified as map tasks or reduce tasks. There are two types of nodes that control the job execution process: a job tracker and a number of task tracker. Task trackers run tasks and send progress reports to the JobTracker, which maintains the overall progress of each job.

Hadoop divides the input to a MapReduce job into fixed-size pieces called *splits* or *chunks*. Hadoop creates one map task for each split, on which the user defined map function is run for each *record* in the split.

Having many splits means the time taken to process each split is small compared to the time to process the whole input. So if the splits are processed in parallel, the processing is better load-balanced if the splits are small, since a faster machine will be able to process proportionally more splits over the course of the job than a slower machine. Even if the machines are identical, failed processes or other jobs running concurrently make load balancing desirable, and the quality of the load balancing increases as the splits become more fine-grained. On the other hand, if splits are too small, then the overhead of managing the splits and of map task creation begins to dominate the total job execution time. For most jobs, a good split size tends to be the size of an HDFS block, 64 MB by default, although this can be changed for the cluster (for all newly created files), or specified when each file is created.

Sometimes, all three (default number of replicas of a split) nodes hosting the HDFS block replicas for a map task's input split are running other map tasks so the job scheduler has to look for a free map slot on a node in the same rack as one of the blocks. Very occasionally even this is not possible, so an off-rack node is used, which results in an inter-rack network transfer.

Map tasks write their output to the local disk, not to HDFS. This is because map output is intermediate output: it is processed by reduce tasks to produce the final output, and once the job is complete the map output can be discarded. So storing it in HDFS, with replication, would be overkill. If the node running the map task fails before the map output has been consumed by the reduce task, then Hadoop automatically reruns the map task on another node to generate the map output.

Reduce tasks don't have the advantage of data locality—the input to a single reduce task is normally the output from all mappers. The output of the reduce is normally stored in HDFS for reliability. For each HDFS block of the reduce output, the first replica is stored on the local node, with other replicas being stored on off-rack nodes. Thus, writing the reduce output does consume network bandwidth, but only as much as a normal HDFS write pipeline consumes.

The number of reduce tasks is not governed by the size of the input, but is specified independently. When there are multiple reducers, the map tasks *partition* their outputs, each creating one partition for each reduce task. There can be many keys (and their associated values) in each partition, but the records for any given key are all in a single partition. The partitioning can be controlled by a user-defined partitioning function, but normally the default partitioner—which buckets keys using a hash function—works very well.

As mentioned earlier, Hadoop cluster is composed of two types of nodes: *NameNodes* and *DataNodes*. Usually there is one *NameNode* and several *DataNodes* spanning across multiple racks. The following section gives an overview of their role.

2.2.1 NameNode

The role of NameNode in the cluster is keeping the file system namespace. It contains the file and directory hierarchy and file locations, stored as a tree. Since in HDFS files are divided into blocks and these are replicated multiple times, NameNode contains also the list of DataNodes containing each single block. Like on classic file systems, in HDFS files are represented by inodes that store permissions and any other metadata like access times and namespace quota.

NameNode is the first node a client contacts an input/output operation is to be executed. The NameNode replies to client's requests with the list of DataNodes it has to interact with, sorted using a replica selection policy for reads and a replica placement policy for writes.

Another relevant task of the NameNode is keeping track of the state of HDFS cluster, receiving the heartbeats of the DataNodes and verifying if the file system is consistent, checking which blocks need to be replicated and, in case, initiating replication when needed. By design, there is only one NameNode and data never flow through it. This is a single point of failure. Hence, NameNode should be never overloaded and should be the most reliable node of the cluster as without NameNode, HDFS is totally unserviceable. In recent Hadoop releases, there is also a backupnode, always up to date with latest namespace status. It receives all the operations done by NameNode and stores them in local memory. This permits to have the latest, up to date, namespace status when NameNode fails. This node can be considered as read only NameNode, since it performs all the operations of the NameNode that don't require knowledge of the block locations (that are known only by NameNode due to block report messages by DataNodes) [5].

2.2.2 DataNode

A DataNode is a cluster member with the role of containing file blocks on its local disk, and serving them to clients. It manages its locally connected storage and is responsible for serving read and write requests and managing creation, deletion and replication with the supervision of the NameNode. NameNode instructs the nodes on what to do for keeping the file system coherent to the desired constraints. DataNode stores two files for each block on its native local file system, that has been configured for HDFS: one contains the data itself and the second contains block metadata, checksum and block's generation stamp. In a cluster there are many such DataNodes, usually one for each member node. This permits to use all the local space available in all the nodes of the Hadoop cluster. Each DataNode joins the cluster registering to the NameNode the first time. After the registration, it is allocated a unique permanent id. A block report is sent to the NameNode once the stored metadata is analyzed. When online, DataNode periodically sends a heartbeat signal to NameNode. If NameNode gets no updates from a DataNode within a stipulated time, considers it failed and start actions for preserving the service level of each block that were contained in the failed DataNodes.

DataNodes are also contacted directly by clients for reading and writing blocks, so their behavior is critical for the overall performances of the system.

2.3 Hadoop Distributed File System (HDFS)

The Hadoop Distributed File System, inspired by GFS from Google [12], is a distributed filesystem which runs on low cost commodity hardware in a fault tolerant manner to redundantly store Terabyte and larger data sets. The architecture of this filesystem is quite similar to other distributed file systems. Main objectives of HDFS include high availability, fault tolerance, and high speed I/O access to data. Another key goal of HDFS is high reliability of the system. Since hardware failure in a cluster composed of high number of nodes is the norm and not the exception. HDFS differs from GFS in many fundamental ways but has many similar goals, the most important of which is to provide reliable distributed access to large amounts of data. Typically, this file system runs on the same nodes as the MapReduce framework to allow tasks to execute locally to the data [1]. The data is stored in 64MB or larger blocks in a set of DataNodes which serve the data to

the applications and there is typically one DataNode per node on the cluster [1]. A master NameNode maintains all of the metadata associated with the data stored on the DataNodes. The NameNode is responsible for coordinating access to the

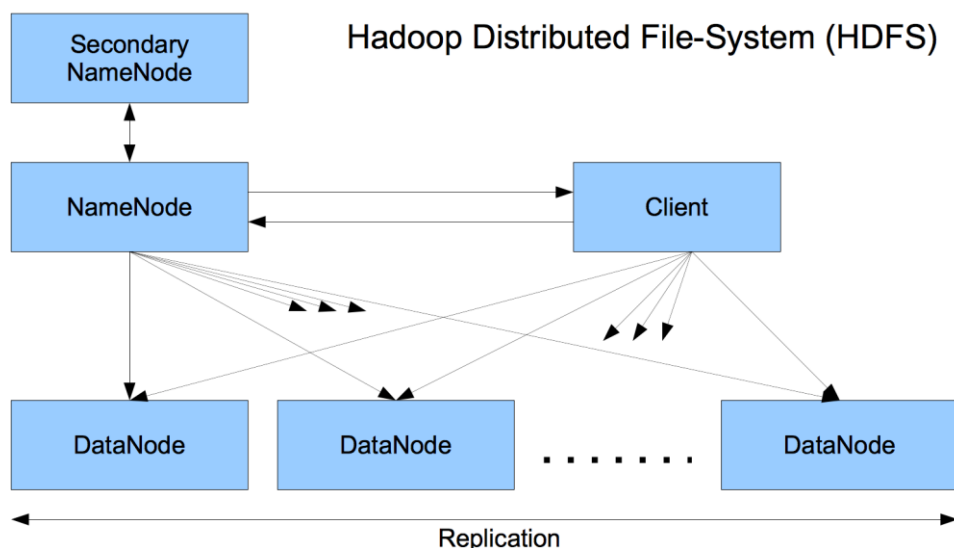


Figure: The HDFS architecture which consists of a primary NameNode that coordinates access to the data, DataNodes which store the data splits in the form of blocks, and a SecondaryNameNode which duplicates the state of the primary NameNode in case of failure. The DataNodes typically run on the same machine as the Map and Reduce tasks for data locality.

data and coordinating replication of the data [1]. The NameNode stores all of this information in RAM for fast access, but keeps an image on disk in case of failure. If the NameNode fails this image may be used to restart the NameNode [1]. The DataNodes themselves store no information about the data they contain. The DataNodes simply store each block of data as a separate file on the local file system [1]. When the NameNode splits and distributes data, it does not respect record boundaries in the data. It is often the case that the first and the last record in a split are truncated [1]. In the case of truncated records, DataNodes will transfer the remaining portion of the truncated records to the appropriate machine during runtime [1].

The HDFS architecture is designed to be write once and read many system [1]. Once a file is closed, it is replicated across the cluster, and cannot be written to again. The system is optimized for high sustained throughput streaming reads. This means it is faster to read an entire 64MB block, filtering out information that isn't needed, than it is to perform a low latency seek to specific locations in that block to read the same information [3].

The Apache team identifies three types of failures: NameNode failures, DataNode failures and network partitions [1]. The NameNode is a single point of failure, and if the NameNode fails, it must be manually restarted using the most recent image. The image may be replicated on multiple machines in case of disk failure on the NameNode. In the case of a network partition or a DataNode failure, data on the affected DataNodes are available and are re-replicated on the surviving DataNodes [1]. A heartbeat message is repeated across the network during execution to track the availability of the DataNodes for this reason. [1]

Data in the HDFS can be accessed using the command line, a Java API or a C Language wrapper for that same API. From the users perspective, the data access is similar to that of a normal file system. The details of the data storage in the HDFS discussed in this section are hidden from the user. The Java API for accessing HDFS data is very similar to the APIs used for normal file access, allowing for all of the familiar operators including implementations of input and output streams which allow for buffered reads and writes using the standard Java API [1].

2.3.1 File Read & Write [1]

Any application can add data to the Hadoop Distributed File System by creating a new file and writing data to it. After the file is closed, the bytes written to the file cannot be altered or removed except that new data can be added to the file by reopening the file for append. As mentioned earlier, HDFS works on the principle of single writer, multiple reader.

The HDFS client that opens the file for writing is granted a fixed time lease for the file. During this duration, no other client can write to the file. The client to which the lease has been granted periodically renews the lease by sending a *heartbeat* signal to the NameNode. Once the file is closed, the lease is revoked.

The duration of the lease is bound by a soft limit and a hard limit. The client writing data to file is certain of exclusive access to the file until the soft lease expires. If the soft lease expires and the client is unable to close the file or renew the lease, another client can preempt the lease to write data to the file. If after the hard limit has expired and the writing client failed to renew the lease, HDFS assumes that the client has quit and will automatically close the file on behalf of the writer and revoke the lease.

The DataNodes in the cluster form a pipeline, the order of which minimizes the total network distance from the client to the last DataNode. Bytes are pushed into the pipeline as a sequence of packets. The bytes that the client writes are first buffered. After the application buffer is filled, the data are pushed to the pipeline. The next packet can be pushed to the pipeline before receiving the acknowledgment for the previous packets.

Before the the file being written is closed, HDFS does not guarantee that data are visible to the reader. *hflush* command can be used if the user application needs the visibility guarantee.

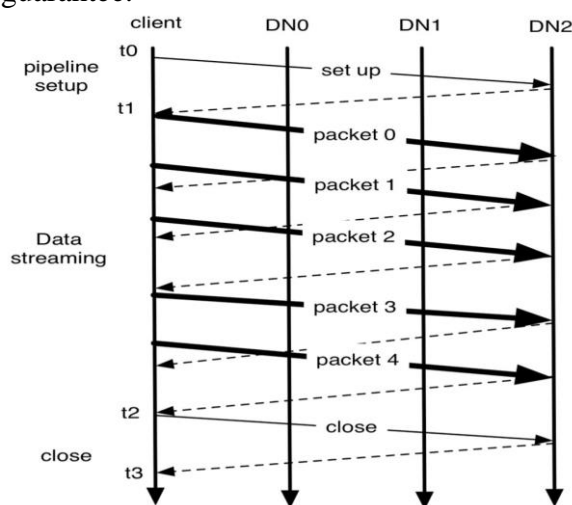


Figure [1]: Data pipeline during block replication

As shown in the figure above, block construction goes through three stages if no error occurs. In the figure, there are three DataNodes (DN0, DN1, DN2) and a block of five packets, acknowledgment messages are represented using dashed lines and the thin lines represent messages to setup and close the pipeline.

When a file is opened by a client to be read, it fetches the list of blocks and the locations of each block replica from the NameNode. The locations of each block are ordered by their distance from the reader. When reading a block, the client tries the closest replica first. A read may fail if the target node is unavailable, the node no longer hosts a replica of the block or the replica is found to be corrupt.

The design of the HDFS I/O is optimized for batch processing systems like MapReduce, which require high throughput for sequential reads and writes. However, many efforts have been put to improve the read/write response time in order to support real time data streaming to HDFS.

Block Placement in HDFS

It may not be possible to connect all the nodes in a flat topology in a large cluster. A common practice is to spread the nodes across multiple racks. Communication between two nodes on different racks has to intermediate through multiple switches.

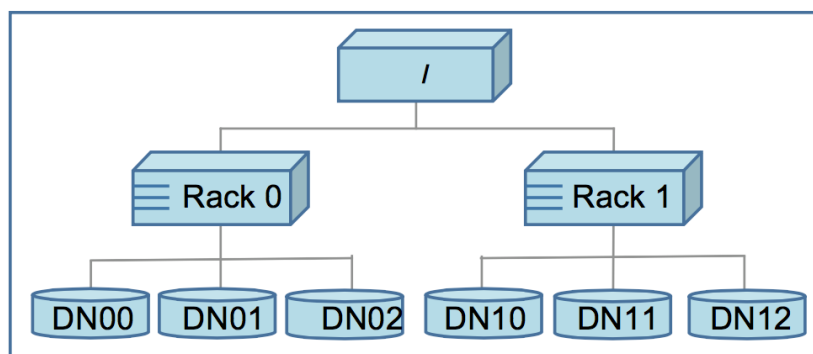


Figure [1]: Cluster topology example

HDFS estimates the network bandwidth between two nodes by their distance. The distance from a node to its parent node is assumed to be one. A shorter distance between two nodes means that the greater bandwidth they can utilize to transfer data.

The placement of replica is critical to HDFS data reliability and read/write performance. A good replica placement policy should improve data reliability, availability and network bandwidth utilization. Currently HDFS provides a configurable block placement policy interface so that the users and researchers can experiment and test any policy that's optimal for applications.

The default HDFS block placement policy tries to maintain a tradeoff between minimizing the write cost and maximizing data reliability, availability and aggregate read bandwidth. Upon the creation of a new block, the first replica is placed on the node where the writer is located, the second and the third replicas on two different nodes in a rack different from first's replica's rack. The rest of the replicas are placed with the restriction that no more than one replica is placed at one node and no more than two replicas are placed in the same rack when the number of replicas is less than twice the number of racks.

After the selection of all target nodes (DataNodes), the nodes are organized as a pipeline in order their proximity to the first replica. Data are pushed to nodes in this order of

proximity. While reading a file, the NameNode first checks if the client's host is located in the cluster itself. If yes, block locations are returned to the client in the order of its closeness to the reader. The block is read from DataNodes in this preference order.

This policy explained above, reduces the inter-rack and inter-node write traffic and generally improves write performance. As the chances of a rack failure is far less than that of a node failure, this policy does not impact data reliability and availability guarantees.

The default HDFS replica placement policy can be summarized as follows:

1. No DataNode contains more than one replica of any block
2. No rack contains more than two replicas of the same block, provided there are sufficient racks in the cluster.

Balancer

In order to avoid placing new, more likely to be referenced, data, HDFS Block placement policy does not take into account DataNode disk space utilization. Hence, data placement might cause non-uniform data placement across the cluster. Also, imbalance might occur when new nodes are added to the cluster.

The Hadoop balancer is a tool that balances disk space usage on the cluster. It takes a threshold value as an input parameter, which is a fuzzy value in the range (0, 1). A cluster is balanced if for each DataNode, the utilization of the node differs from the utilizations of the whole cluster by no more than the threshold value.

The tool can be used as an application program that can be run by the cluster administrator. It iteratively moves replicas from DataNodes with higher utilization to DataNodes with lower utilization. One key requirement for the balancer is to maintain data availability. When choosing a replica to move, and deciding its destination, the balancer guarantees that the decision does not reduce either the number of replicas or the number of racks.

The balancing tool optimizes the balancing process by minimizing the inter-rack data copying. As an example, if the balancer decides that a replica X needs to be shifted to a different rack and the destination rack happens to have a replica Y of the same block, then data will be copied from replica Y instead of replica X.

Literature Survey

There has been research that hints on colocating related data in similar nodes [2, 6]. HadoopDB [2] stores the data in a local DBMS and hence disrupts the dynamic scheduling and fault tolerance of Hadoop.

Hadoop++ [6] co-groups the two input files by creating a special "Trojan" file. Although this approach does not require a modification of Hadoop, it is a static solution that requires users to reorganize their input data. In fact, Hadoop++ can only colocate two files that are created by the same job, and requires reorganization of the data as new files are ingested into the system.

Recent benchmarks have identified a performance gap between Hadoop and parallel databases [14, 10]. There has been considerable interest [2, 6, 10] in enriching Hadoop with techniques from parallel databases, while retaining Hadoop's flexibility. Jiang et al. [10] conducted an intensive benchmark of various parts of Hadoop's processing pipeline. It was found that (among others) indexing and map-side "partition joins" can greatly improve Hadoop's performance. In contrast to this extension work, they do not co-place partitioned data fragments. [2] and [6] change the physical layout: HadoopDB replaces HDFS by full-fledged relational databases, whereas Hadoop++ injects indexes and co-partitions

data directly into raw data files. HadoopDB benefits from the power of DBMSs in query optimization and use of indexes at the cost of breaking the programming model and simplicity of MapReduce; it can be viewed as “another parallel database” [6]. Hadoop++ is less intrusive: co-placed data (such as indexes and co-partitions for joins) are stored as “Trojans” within HDFS files and splits; no changes to Hadoop itself are required. In contrast to the proposed approach, however, co-placement in Hadoop++ is static and done at load time: any change of desired indexes, co-partitioning, or even arrival of new data forces Hadoop++ to re-organize the entire dataset. Moreover, their colocation is geared toward joins and hence they can only colocate two files, whereas this approach is pretty flexible in terms of the queries it can support, and number of files it can co-place.

Cheetah and Hive are two data warehousing solutions on Hadoop, and borrow many ideas from parallel databases. But, neither supports co-placement and its exploitation. GridBatch [11] is another extension to Hadoop with several new operators, as well as a new file type, which is partitioned by a user-defined partitioning function. GridBatch allows applications to specify files that need to be co-placed as well. Their solution intermixes partitioning and colocation at the file system level, whereas this method decouples them so that different applications can use different methods to define related files.

In more advanced partitioning features of parallel database systems [20], such as IBM DB2, TeraData, Aster Data, tables are co-partitioned, and the query optimizer exploits this fact to generate efficient query plans. This approach adapts these ideas to the MapReduce infrastructure, while retaining Hadoop's dynamicity and flexibility. To achieve this, proposed approach differs from parallel databases in that proposed system performs co-placement at the file-system level and in a best-effort manner: When space constraints or failures prevent co-placement, high availability and fault tolerance are given higher priority.

Motivation

Although Hadoop has become a state of the art framework for high performance computing to process data of the order of Terabytes or even more, it certainly does have some shortcomings. Increasing evidence has shown that applications can face severe bottlenecks due to persistent lack of high disk and network I/O bandwidth. In the present day, the effect of bottlenecks caused by disk environments is more pronounced than that caused by CPU or memory performance for data intensive applications. There are multiple reasons for this I/O performance problem bottlenecks. First, the performance gap between processors and I/O systems in a clusters is rapidly widening. As an example, processor performance has seen an annual increase of approximately 60% for the last two decades, while the overall performance improvement of disks has been hovering around an annual growth rate of 7% during the same period of time. Second, the heterogeneity of various resources in clusters makes the I/O bottleneck problem even more pronounced.

As stated previous chapter, HDFS always places the first block replica onto the writer node if the node is in the cluster, and on a node with highest proximity otherwise. This scheme makes the cluster very unbalanced in terms of data placement in case the write node does not leverage MapReduce. All the first block replicas would be placed on the writer node. Over a long course of run, this makes the writer node a *hotspot*.

Also, analyzing the MapReduce layer it can be seen that, it tries to execute application copies on cluster nodes that have required data locally available. As it is generally the case that disk I/O is faster than network I/O, moving computation is cheaper than moving data. Since Hadoop has been into its use and prominence for quite a long time, hardware

components have evolved since the early stages of Hadoop. The general implementation of HDFS does not take the gap in generation of hardware components into account. Considering disk I/O, an application copy running on a recent disk generation, like Solid State Disks or faster SATA, with twice as much I/O speeds shall be able to transfer, approximately, twice as much as data blocks on an older generation. If the gaps in hardware technologies are given significant weightage, it would surely play an important role in the overall performance of the cluster.

Goal

The proposed technique tries to diminish the shortcomings mentioned above by suggesting an improvement in the default Hadoop Data Placement Policy. The proposed data placement policy has two major objectives which are incorporated into a single algorithm. First, the new placement policy evenly distributes blocks of data across all the DataNodes in the cluster. Second, nodes with higher I/O bandwidth are made to handle more blocks of data in order to improve the overall performance of the cluster.

Implementing the proposed technique for data placement instead of the default data placement policy of Hadoop is expected to increase the overall performance of the cluster.

Proposed Algorithm

To ensure DataNodes with higher I/O speeds cater to relatively more data blocks and read/write requests than those with relatively slow I/O speeds, concept of *weight* and *share* is introduced. *Weight* is factor that denotes the relative processing power of a generation of hardware. *Share* is the maximum number of data blocks that can be placed on a node pertaining to a single replica of a file. Let r be the replication factor of file in the cluster. Assuming that the file has been split into n blocks, the *share* of each node can be calculated as follows:

$$\text{share node} = \text{ceil} (n * \text{weight node} / \text{weight node})$$

The following algorithm is different from the default HDFS data placement strategy in a sense that it works on file level instead of the global block list.

Algorithm

1. Let *listnode* be list of all the nodes in the cluster.
2. Let *listblock* be list of all the blocks in a file F .
3. Let *sharenode* maintain the share value, as calculated above, pertaining to each node in the cluster.
4. Sort *shareblock* in order of decreasing share value (higher share nodes given priority).
5. Sort nodes with equal *share* by disk utilization (lower disk utilization given higher priority).
6. For each replica of F , do the following:

Initialize the *block_listunplaced* with all the blocks of file F .

a. Set *node_listavail* with all the nodes in the cluster (after the sorting is done)

b. For each block in *block_listunplaced* perform the following:

- i. Let *sel_node* be the first node in *node_list avail* that has not reached its share and does not already contain a replica of this block.
- ii. Place the block on *sel_node* and remove it from *block_listunplaced*. Also remove *sel_node* from *node_listavail*

iii. If the *node_listavail* becomes empty at this point, reinitialize it with all the nodes (again, in sorted order as above)

The implementation of the algorithm is further explained with the help of an example.

Consider a file consisting of 10 blocks ($n = 10$). Also consider that there are two types of nodes in the cluster. The nodes with *weight* = 1 are 3 in number and those with *weight* = 2 are also 3.

Therefore, the value of

$$share_{new} = \text{ceil} (10 * 2 / (1 * 3 + 2 * 3)) = 3$$

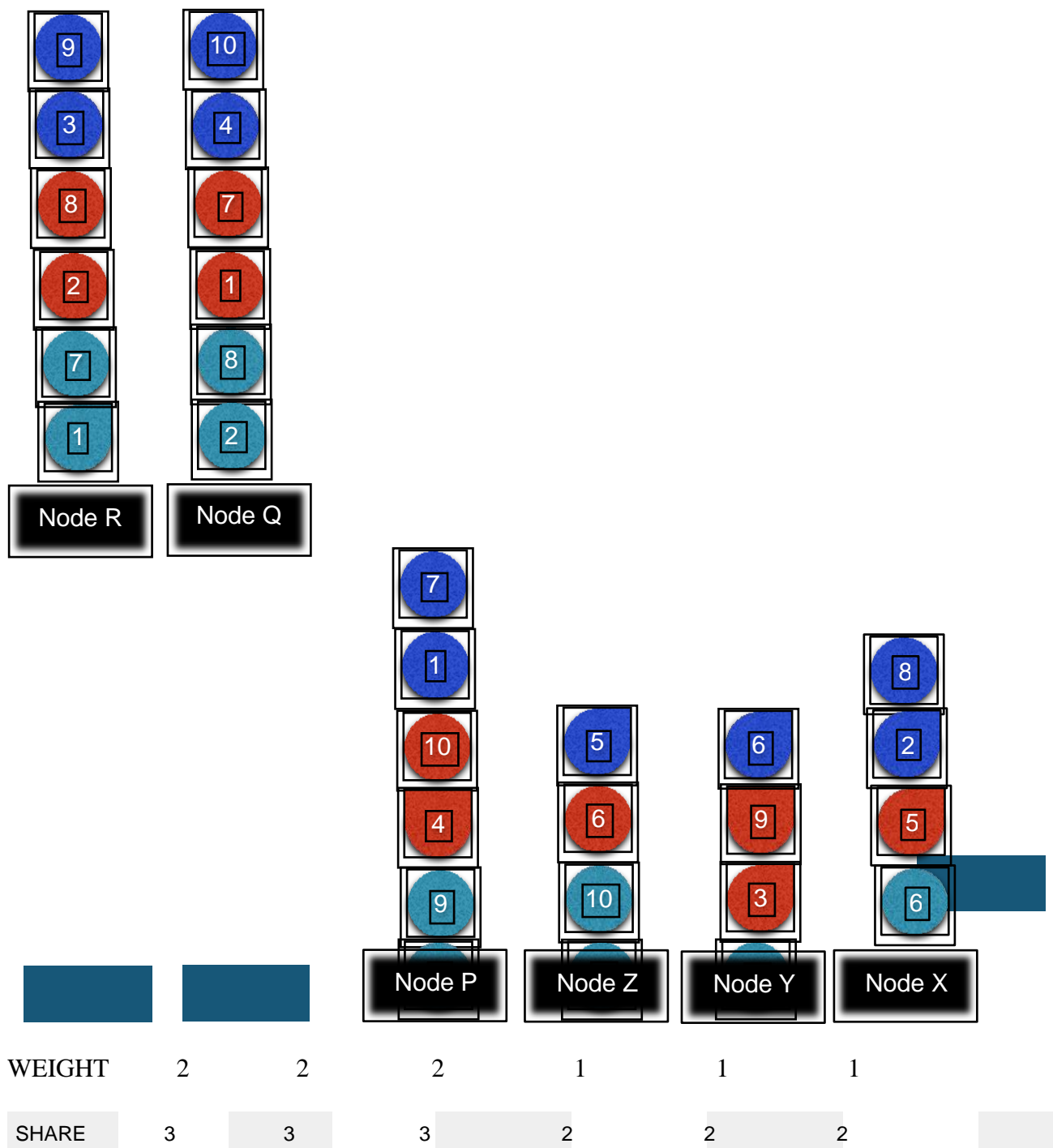
$$share_{old} = \text{ceil} (10 * 1 / (1 * 3 + 2 * 3)) = 2$$

Hence on the nodes with *weight* of 2, a maximum of 3 blocks per file per replica can be placed whereas a maximum of 2 blocks per file per replica can be placed on the nodes with *weight* of 1.

In the beginning, the cluster is assumed to be empty. So let the sorted listed of nodes be {R, Q, P, Z, Y, X} in order of decreasing *share*, where {R, Q, P} are nodes with *weight* 2 and {Z, Y, X} are nodes with *weight* 1. Let the block list of the file be {1, 2, 3, 4, ..., 10}. For the first replica (denoted by green color), the blocks can be evenly distributed across the cluster, as shown in the figure.

Starting from the first block of the second replica, the algorithm shows an improvement. The sorted list of nodes is {R, Q, P, Z, Y, X}. At this point, nodes {Y, X} have lower utilization than node {R}. Block 1 cannot be placed on node {R} as node {R} already has a replica of block 1. Hence block 1 is placed on node {Q}. For block 2, node {R} is a suitable node.

Continuing in this manner, the final placement of the blocks looks as shown in the figure below:



As it is evident from the above figure that after every iteration, the nodes with higher weights have a tendency to store more blocks in comparison to those with lower weights. This effect can be more prominently seen if the example of larger number of nodes and file blocks is considered.

Conclusion

A scheme may be proposed which allocates *weight* to each node in the cluster depending the recent past performance efficiency. Furthermore, *weight* to a node may be assigned

taking into consideration the processing power of the node i.e. by not just considering HDFS but also the MapReduce model implemented in Hadoop.

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“A Study on Network Marketing (Asclepius Wellness Private Limited) in Bihar: A Case Study of Samastipur District of Bihar, India.”

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Abstract: Network Marketing or Multi-Level Marketing started in 1945 by the California Vitamin Company Network which became Nutrilite which is now owned by AMWAY. *Mr. Carl Rehnborg* is treated as the father of MLM Company. Asclepius Wellness Private Limited is a company of Ayurvedic Medicine having headquarterd in New Delhi and manufacturing unit is in Jaipur, Rajasthan, India. It is a private unlisted company started in 2014 with 5 lakhs paid-up capital. The objectives of the study are- i) Study of the marketing mix of Asclepius Wellness Private Limited (AWPL) ii) Portfolio Analysis of AWPL iii) Challenges for MLM companies in India and iv) The measures to overcome these challenges. I used both primary and secondary data for this study. Both primary and secondary data have been collected from the study area i.e. Samastipur and from books, websites and newspapers respectively. I have used stratified sampling method and the sample size is 50 and the duration of study is of two months. There are 38 products available in the Indian market in different sizes and having different prices. AWPL has 118 franchisees in different location of India. The study shows that there are many challenges in front of AWPL like- a) Market Saturation b) Pyramid Structure c) Lack of knowledge about Pyramid Structure d) Lack of proper legal regulation e) Relationship Issues f) Morality and Ethics etc. Apart from these challenges Asclepius Wellness Private has get positive response in the Indian market especially in study area.

Key Words: Multi-Level Marketing, Marketing-Mix, Portfolio Analysis, Distributors, Franchisees.

1. Introduction: - Asclepius Wellness Private Limited is a non-government company, established on 7th October 2014. It is a private unlisted company and is categories as “Company Limited by shares”. Company started with Rs 5 lakhs and has 100% paid up capital. It’s headquarter is in Dwarka, New Delhi, India. The company was named on a Greek hero and god of medicine, healing, rejuvenation and physician “*Asclepius*”. Asclepius represents the healing aspect of medicine arts. In Greek mythology, Asclepius was a demigod hero and the son of *Apollo and Koronis*. **Network Marketing-** Before explaining network marketing I would like to explain the marketing first. According to *Philip Kotler* “Marketing is the human activity directed at satisfying needs and wants through an exchange process.” According to *Peter F. Drucker* “Marketing is a process which converts a resource, distinct knowledge into a contribution of economic value in the market place.” *Mr. Carl Rehnborg* (USA) was in China during 1917 to 1927, introduced to the benefits of using supplements in your diet and the additional health benefit that it gives people. He came back to America and set up a company called *The California Vitamin Company*. The big

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turning point came when two new consultants *Jay Van Andel* and *Rich DeVos* became distributor of the Nutrilite products and noticed that the real power of this business modal. They set up a competing company called Amway. Network Marketing is basically just a different way of selling products to the end user. In traditional business, products are made by the manufacturer, and manufacturer sold to retailer or to final user through different marketing channels. But Network Marketing is different, in this manufacturer direct sold to final user. Network Marketing is also known as Multi-Level Marketing. In the context of Bihar, here is different opinion for network marketing. Network Marketing is actually not new in Bihar, India. Multi-level Marketing started in India by European major Oriflame in 1995. Direct selling was legal as per the Indian law, Multi-Level Marketing often confused with money chain, which is banned by prize chit and money circulation schemes Act 1978.

2. Objective of the study

The objectives of the study of this article "Asclepius wellness private limited and Network Marketing in India" are as follows-

- i) To study the Marketing-mix of Asclepius wellness private limited.
- ii) Business portfolio Analysis of Asclepius by using Ansoff's product market growth matrix.
- iii) To highlight the challenges associated with Multi Level Marketing.
- iv) To highlight the measures to overcome these challenges of MLM in the study area.
- v) Finally offer some suggestions to improve the MLM in the study area.

3. Literature Review

FITZPATRICK (2004) did an analysis of the MLM process and unearthed some lies surrounding multi level marketing. He reached at the conclusion that MLM business is primarily a scheme to continuously enroll distributors and little product is ever retailed to consumers. He described the 10 biggest lies found to be present in almost every MLM business.

VYAS (2005) studied the complexities of MLM. He compared network marketing with other conventional business organizations and concluded that network marketing is a fairest system because it compensates people based on their contributions and efforts.

GOPAL (2005) discussed the various alternative distribution channels and suggested the integration of these channels to overcome the limitations of traditional formats.

CECILIA AND ERNEST (2007) identified the reasons why Malaysians join and continue to remain in the industry. They found some of the significant factors that contribute to the attraction of the MLM industry.

SOOD, PRIYADARSHINI AND ANITA SHARMA (2004) found the factors that Tupperware consumers associate with the Tupperware products. He collected data from 272 Tupperware users from the Chandigarh region.

DUTTA, SANJIB AND KINGI (2005) examined the growth of the direct selling company, Tupperware in the Indian market. They found that Tupperware followed a marketing strategy comprised of three P's Product, Party plan and People. It was found that Tupperware customized its products according to the Indian needs and fixed its prices 25% below the regular Tupperware portfolio.

4. Research Methodology

4.1. Construction of the interview

The study of this article is based on descriptive analysis for both primary and secondary data. Primary data have been collected with the help of questionnaire and in-depth interview taken

from the different area of Samastipur, Bihar state of India. Primary data based on feedback of the consumers and stakeholders of Asclepius Wellness Private Limited. I have personally visited the head office of Asclepius Wellness Private Limited, Dwarka, New Delhi, India also. Secondary data have been collected from Books, websites, annual report of Asclepius Wellness Private Limited and Newspapers.

4.2. Manner of selecting sample unit

The samples have been selected deliberately keeping in mind the targeted groups which will consist of successful direct sellers and management personnel of Asclepius Wellness Private Limited.

4.3. Sample Size

Ten direct sellers selected on a stratified sample basis. Total number of size of respondents has been 50. Data has been collected in such a way so that it shows the real status and problems of direct sellers in the study area.

4.4. Data collection

Data has been collected by putting direct question to the targeted respondents. Personal interview has been conducted wherever possible. Questionnaire with both close ended and open ended question has been framed. Respondents belong from different strata of the business including age-groups, income levels, preference and taste to understand their customer's attitude towards MLM products.

4.5. Period of study

This study is undertaken within the Samastipur District mainly to understand the situation of Multi Level Marketing for a period of March and April 2019.

4.6. Area of the study: The study is limited in Samastipur District of Bihar, India.

5. Marketing-Mix of Asclepius Wellness Private Limited

Marketing mix is the set of actions or tactics that a company uses to promote its brand or product in the market. It is the process of designing and integrating various elements of marketing in such a way to ensure the achievement of enterprise goals. The elements of marketing mix are categories under four heads i.e. Product, Place, Price, Promotion. As far as the marketing mix of Asclepius Wellness Private Limited is concern, the elements of marketing mix of Asclepius Private Limited are explained as follows-

i) Product Mix of Asclepius Wellness Private Limited

It is the most important part of the marketing mix. Product is something which has some functional value and can be used by the customer to achieve something. A marketer needs to define his product very carefully thinking about its value, it's USP, feature, competition, etc. The products of Asclepius Wellness Private Limited are-

PRODUCT NAME	SIZE	BENEFITS
DIABADOC	1000 ML	Control the sugar level and extra weight
STONDOC	1000 ML	Help in any type of stone problem in the human body.
ORTHODOC	1000 ML	Useful in Joint Pain, in all type of Arthritis
IMMUNODOC	1000 ML	Immunity Booster
OBEODOC	1000 ML	Maintain Cholesterol, antioxidant, Remove Body Fat; Reduce your risk of cardiovascular disease.
CARDIODOC	1000 ML	Helpful for all type of Heart Problems.
FEVODOC	1000 ML	Helpful in any type Fever
PILODOC	1000 ML	Helpful in Piles, fistula, etc.
THYRODOC	1000 ML	Helpful for Thyroids

CHLORODOC	1000 ML	Useful for Gout, and other disease also.
ALEOVERA JUICE	1000 ML	Useful for Constipation, Stomach Ulcers, Vitamin C and also for sugar problem
GYNEDOC	500 ML	Menstrual Disorder, Help in Leucorrhoea, Help in all Gynecological Problems, Act as a general Tonic for Females.
THUNDER BLAST	500 ML	Curse impotence & erectile Dysfunction, Increase stamina, vigor, virility and sperm count.
ALRGYDOC	500 ML	For any type of allergy
LIVODOC	500 ML	Control the all types of liver disease
BRAINDOC	500 ML	Helpful for Brain Problems
NONI JUICE	500 ML	Prevent Cancer, Reduce Stress, Boost Immunity, For fever.
TRIPHALA	500 ML	Anti Oxidant, Anti Bacterial & Viral, For Immune System, Fatigue, Gastric, Pneumonia, Cancer, AIDS.
KIDGDOC	250 GM	Helpful for Child
PRODOC	200 GM	Make Body and enhance Weight
COUGHDOC	200 ML	Useful in cough
HERBAL GREEN TEA	100 GM	Tea
B TONE GEL	100 GM	Gel
ALEOVERA SAFFRON GEL	50 GM	Gel
ADDICTDOC	25 ML	Helpful in any type of addiction
VEINDOC OIL	25 ML	Tonic for Vein
ALEO CUCUMBER CREAM	50 GM	Cream
HERBAL FACE WASH	100 ML	Face Wash
EXE HAIR SHAMPOO	100 ML	Prevent Hair Loss, Dandruff, Make Hair silky & Shiny
HERBAL FACE PACK	50 ML	Face Pack
HAIRDOC	100 ML	Prevent Hair Loss, Make Hair Silky and Shiny
HERBAL FACE SCRUB	50 ML	Face Scrub
DENTODOC	100 ML	For Pyorrhoea, Cavity, Tooth pain, Anti fungal & Anti Bacterial
HERBAL CARE CREAM	50 GM	Cream
EXE HAIR CONDITIONER	100 ML	Hair Conditioner
J C GEL	50 GM	Gel
PUNCH TULSI	25 ML	Useful in Asthma, Cold, Cough, High BP, Headache, Earache, Eye disorder,sugar,malaria etc
JOINT CURATOR OIL	50 ML	For Joint Pain

ii) **Price Mix of Asclepius Wellness Private Limited-** Price mix is the second most important element of marketing mix. This is value we will get in exchange for our product and customer pay it for the utility of the product.

PRODUCT NAME	SIZE	PRICE	
		DISTRIBUTOR PRICE	MRP
DIABADOC	1000 ML	1163	1395
STONDOC	1000 ML	1876	2251
ORTHODOC	1000 ML	1725	2070
IMMUNODOC	1000 ML	1585	1902
OBEODOC	1000 ML	1969	2363
CARDIODOC	1000 ML	1742	2090

FEVODOC	1000 ML	1708	2050
PILODOC	1000 ML	1932	2318
THYRODOC	1000 ML	1932	2352
CHLORODOC	1000 ML	1960	2352
ALEOVERA JUICE	1000 ML	784	941
GYNEODOC	500 ML	1148	1378
THUNDER BLAST	500 ML	1779	2134
ALRGYDOC	500 ML	998	1198
LIVODOC	500 ML	1176	1411
BRAINDOC	500 ML	1064	1277
NONI JUICE	500 ML	921	1105
TRIPHALA	500 ML	364	437
KIDGDOC	250 GM	616	739
PRODOC	200 GM	504	605
COUGHDOC	200 ML	392	470
HERBAL GREEN TEA	100 GM	347	417
B TONE GEL	100 GM	563	675
ALEOVERA SAFFRON GEL	50 GM	196	235
ADDICTDOC	25 ML	354	425
VEINDOC OIL	25 ML	209	251
ALEO CUCUMBER CREAM	50 GM	168	202
HERBAL FACE WASH	100 ML	175	210
EXE HAIR SHAMPOO	100 ML	178	214
HERBAL FACE PACK	50 ML	179	215
HAIRDOC	100 ML	187	224
HERBAL FACE SCRUB	50 ML	191	229
DENTODOC	100 ML	199	239
HERBAL CARE CREAM	50 GM	208	250
EXE HAIR CONDITIONER	100 ML	225	270
J C GEL	50 GM	336	403
PUNCH TULSI	25 ML	308	370
JOINT CURATOR OIL	50 ML	308	370

- iii) **Place Mix of Asclepius Wellness Private Limited-** Place mix is the third most important element of marketing mix. It is also called distribution mix. If we are making a product as the right price, that is not enough, we need to make it available

at the right place too. Asclepius Wellness Private Limited distributes their product in two ways. First, through network of people and second through direct purchase from distribution point. To make effective distribution, company gives the franchisees to the people who are from different places of India. The number of current franchisees of AWPL across India is 118.

- iv) **Promotion Mix of Asclepius Wellness Private Limited-** This is the fourth most important element of marketing mix which means the communication done about the product to the customer. Advertising on TV, print media and digital media would come under promotion. But Asclepius Wellness Private Limited never use these channel for advertisement of the product. Asclepius Wellness Private Limited believes that if the products have quality and result oriented then there is no need of any promotional activity. Instead of this, product itself or the feedback of customer can do everything for promotion. Asclepius Wellness Private Limited focuses on first use, get result and then share it other, that's all about the promotion mix of Asclepius Wellness Private Limited products.

6. Business Portfolio Analysis of Asclepius Wellness Private Limited by using Ansoff's Product market growth matrix-

As far as the business portfolio analysis of Asclepius Wellness Private Limited with the help of Ansoff's product market growth matrix is concern, Ansoff's matrix provides four different growth strategies.

- a) **Market Penetration-** The firm seeks to achieve growth with existing products in their current market segments, aiming to increase its market share. Asclepius Wellness Private Limited has successfully done the market penetration growth strategy.
- b) **Market Development-** The firm seeks growth by targeting its existing products to new market segments. Asclepius Wellness Private Limited is on the way of market development growth strategy with existing 38 products through network marketing.
- c) **Product Development-** The firm develops new product targeted to its existing market segments. Asclepius Wellness Private Limited has good enough products to cover the existing needs of customers. Company will think on product development growth strategy later.
- d) **Diversification-** The firm grows by diversifying into new business by developing new product for new market. This study shows that the Asclepius Wellness Private Limited has need to focus on existing products and existing business only and here are no need of diversification growth strategy.

Ansoff's Matrix

		Ansoff's Matrix	
Product	New	Product Development	Diversification
	Current	Market Penetration	Market Development
		Current	New
		Market	

7. Challenges: Multi-level Marketing in India

As far as the challenges for Multi-Level Marketing in India is concern, here are many problems which is faced by Multi-Level Marketing

- a) **Marketing saturation:** A business can achieve the comparative advantages on the basis of demand and supply conditions of its product. Multi-Level Marketing is done on the principle of adding more and more distributors to sell its products which means increasing the competitors for yourself. All distributors sell the same products which means increased supply but not match with demand. This mismanagement tends to market saturation.
- b) **Pyramid Structure:** Multi Level marketing works on the basis of pyramid structure means the income of the distributors at the top will be high and at the bottom will be low. Multi-Level Marketing get the chance to earn more and the people who join this chain of business at later stage earn little because of the increased competition. So it can be said that pyramid schemes are fraudulent and exploitative in nature.
- c) **Lack of Knowledge about Pyramid Structure:** Some people think that Multi Level Marketing Company makes it an illegal pyramid scheme but this is false. People joining MLM business should be made aware of this pyramid structure.
- d) **Lack of Proper Legal Regulation:** Companies such as Modicare, Amway, Oriflame, Tupperware and Herbalife have been successful in India in last few decades. But due to the lack of proper legal regulation, companies faced some difficulties.
- e) **Relationship Issue:** In Multi-Level Marketing distributors offers its products to their friends and family. They exploit them by offering products and convince them to buy the products even they don't need. In MLM friends and the neighborhood turns into a market. It adversely affects relationship.
- f) **Morality and Ethics:** MLM companies earn through its distributors not through the sale of its products. These companies sell the dream of earning big by hiding the ground realities of the business. So it is morally wrong and unethical.

8. Measures to Overcome the Problems of Multi-Level Marketing

- a) **Provide Training to MLM Distributors:** Good Company like Asclepius Wellness Private Limited gives the proper training to distributors. Professional training about the art of presenting the selling the product should be basic requirement of MLM.
- b) **Build Relationship based on Trust:** Relationship based on trust goes on for a long period of time. Majority of the customers of this business comes from family and friends so they should be offer only those products which they actually require.
- c) **Consideration of Morality and Ethics:** It is necessary to MLM companies to give full consideration of morality and ethics. Mainly because of the stakeholders of MLM companies are relatives and friends.

9. Data Analyzed and Interpretations

Table 1: Gender of the Respondent

Sl.NO	Factors	No. of Respondents	Percentage
1	Male	30	60
2	Female	20	40
	Total	50	100

Source: Field Study

60% respondents are belongs from the male categories while 40% of them are female categories in the study area. Therefore, it is analyzed that majority of the respondents are male categories in the study area.

Table 2: Age Group of the Respondents

SI.NO	Factors	No of Respondents	Percentage
1	30-40 years	14	28
2	41-50 years	21	42
3	50 year above	15	30
	Total	50	100

Source: Field Study

Table 2 shows that 28% respondent have the age groups from 30-40 years while 42% of them have the age groups from 42-50 years and 30% of them have the age groups from 50 years above. It is therefore analyzed that the majority of respondents have their age groups from 41- 50 years in the study area.

Table 3: Monthly Income of the Respondents

SI. NO	Factors	No. of Respondents	Percentage
1	Rs 10000 – 20000	12	24
2	Rs 20001 – 30000	14	28
3	Rs 30001 – 40000	16	32
4	Rs 40001 – 50000	5	10
5	Rs 50000 above	3	6
	Total	50	100

Source: Field Study

Table 3 shows that 24% respondents have their monthly income from Rs 10000 – 20000 groups, 28% respondent have their monthly income from Rs 20001 – 30000 groups, 32% respondents have their monthly income from Rs 30001 – 40000 groups, 10% respondents have their monthly income from Rs 40001 – 50000 groups and 6% respondents have their monthly income from Rs 50000 and above group. It is therefore analyzed that majority of the respondents have their monthly income from Rs 30001 – 40000 in the study area.

Table 4: Educational Qualification of the Respondent

SI.NO	Factors	No of Respondents	Percentage
1	Secondary	7	14
2	Higher Secondary	6	12
3	Graduate	22	44
4	Post Graduate	12	24
5	M.Phil, PhD	2	4
6	Others	1	2
	Total	50	100

Source: Field Study

Table 4 shows that the 44% respondents is Graduate, 24% Post Graduate, 14% Secondary, 12% Higher Secondary, 4% M.Phil and PhD and 2% others. It is therefore analyzed that majority of the respondents have their education is graduate level.

Table 5: Consumer Attitude towards Product.

Sl.NO	Factors	No. of Respondents	Percentage
1	Satisfied	40	80
2	Dissatisfied	6	12
3	Neutral	4	8
	Total	50	100

Source: Field Study

Table 5 shows that 80% respondents expressed their satisfaction with products, 12% respondents expressed their dissatisfaction with products and 8% respondents are neutral. It is therefore analyzed that the majority of respondents have their satisfaction with products.

10. Findings and Suggestion

Findings: The complete study of this article” A Study on Network Marketing (Asclepius Wellness Private Limited) in Bihar: A case Study of Samastipur district of Bihar, India.” Shows that the company AWPL is new in indian market as compare to other MLM companies like- Amway, Oriflame, Tupperware, Vestige, Modicare, etc. Awpl has more challenges like all other MLM companies in India. Marketing Mix of Awpl depict that it has only 38 products and having high price which is not according to the target customers and channel of distribution is only through distributors and company still not use the effective promotion strategy. AWPL has done the market penetration and focuses on market development strategy. AWPL is getting good response from the customer approx 80% population of study area is satisfied with the company.

Suggestion: After this study, I am able to suggest something which may be helpful for the company as well as customers.

- i) Price of the products is not following the penetration pricing policy. So it should be necessary to re-fix the price according to the target customers.
- ii) With the price modification, it is also important to make sure the easy availability of products.
- iii) Here is need of qualified and skilled trainers to train the distributors that how they overcome from the different type of challenges.
- iv) Company should focus on the market development, product development and diversification.
- v) Here is need to focus on dissatisfied and neutral population with satisfied population.
- vi) Last but not least company should arrange the public awareness program as far as possible.

11. Conclusion: AWPL is the company of Ayurvedic Medicine having manufacturing unit in Jaipur, Rajasthan, India with headquarters in Dwarka, New Delhi, India. Its main products are – Obeodoc, Immunodoc, Orthodoc, Stondoc, Cardiodoc, Thunder Blast, Pilodoc, Thyrodod, Livodoc, Diabadoc, Gynadoc, Braindoc and Chlorodoc. Company is moving in good direction but need to special focus on price, product availability and public awareness.

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Examining factors motivating wine consumers intentions to select Indian wine

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Abstract

The objective of this research paper is to find out the selection criteria by wine consumers in India for selecting wines. A well structured questions have designed and filled by 325 consumers in India, covering major wine consuming cities like Mumbai, Delhi, Bangalore etc .This research paper has indentified the most and least important factors influencing the consumers for selecting of wine in India .One of the predominant factor for selecting wine in India is Adaptability i.e. price of menu and pair with Indian food .There are others factors like image , Uniqueness and consumer awareness are also influenced to the consumers for purchasing Indian wine.

Keywords: *Indian wine, Selecting factors, consumer perceptions, consumer decision approach*

Introduction

India has around 1.33 billion populations, only few million people consume wine thus resulting in a very low wine per capita consumption at country level .The global per capita consumption is 4 liter per annum where as Indian consumption touches only 4.6 ml as per government report .The overall Indian market size for wine is very small and can be estimated at 9.75 lakes cases only .The overall market can be accounted by 70% and 30% of domestic and imported wines respectively. The overall sales of Indian wine have divided into retails and institutional sales which count for 60% and 40% respectively

Grape varieties such as chardonnay, Cabernet sauvignon, Sauvignon Blanc are most dominant grapes in Indian wine industry .Indian wine farmers are also expending their gape framing into vineyards and adopting wine specific grape varieties.

In consumer research, perceptions are the opinions, interpretations, and views, held by consumers that ultimately drive their motivation to purchase a product. Understanding consumers and their needs, and what motivates them, is therefore of the utmost importance and will often determined the success or failure of a product.

Consumer research provides novice and non-expert opinions on products, and gives the most direct indication of preferences and purchasing patterns. Product development (specifically true for wine) was in the past driven by assumptions made by researchers/product developers and what they believed was right for the consumer.

It was proposed by Thomson et al. (2010) that there are two processes which occur in the mind during consumption of a product. The first is the identification of the product through the senses, (Taste, smell, appearance), and the second is the associations that a consumer makes when thinking of the product. One's overall response to a product is not only

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dependant on the intrinsic qualities of the product, but also largely on the conceptualizations which one has about the product. These conceptualizations can be functional, emotional, or abstract (P. Silva et al., 2014; D. M. H. Thomson et al., 2010).



(Adaption of Thomson & Crocker's (2015) model linking sensory stimulation to consequent behavior)

Review of literature

Lockshin and Hall (2003) has identified as wine is complex product than many other products .A lots of different cues are responsible for influencing the purchase decision .Thus consumers behaviors needs a special examination while purchasing wine.

Bruwer, Li and Reid (2002) said that when purchasing wine consumers are motivated by the factor that contains intrinsic and extrinsic attributes along with the situations by causes of the wine is purchased. Conducted study by Hall et al. (2001) aimed to find out consumers' perceptions of the attributes of wine and the perceived value of the attributes with regard to the wine purchase and the importance of the context on the decision process. Their findings show that price, taste and type (red or white) are the major factors when it comes to wine choice and that significance of these attributes differ for different consumption situations.

MS, (2008) has described wine packaging plays one in every of the numerous reason for deciding to get of wine .This result showed that client is privy to the bottle form, colour, size, and notably the kind of closure used. Bottle label provides data like country origin, vintage year, grape name, share of alcohol, brand etc to the shoppers. It approves that consumer's look the label of bottle that gives necessary information's that are used for getting of wine.

In line with **Barber, 2008**, wine purchase selections by consumers are concerned on the wine attributes or things supported the extent of risk. Social, economic, functional, and psychological aspects of product are samples of risk related to a wine purchase. any results shows that wine labels provides an important information's to shoppers in getting of wine with males and people with low sureness wishing on vintage and grape varietal to help in purchase call.

Barber (2008) has examined that the importance of market segmentation and client Characteristics, like product data, purchase confidence and people variations throughout the acquisition call. By segmenting consumers during this manner, it's potential to higher perceive their considerations and motivations aiding wine producers and retailers in guiding their promoting and advertising effort .This study additionally indicated consumers with high subjective data are additional fascinated by seeking external data sources from revealed material like magazine articles or advertising messages than they're with retail Clerks, friends and family.

Botonaki, 2006 has indentified customer response on certified quality wine with destination of origin indication (PDO), the angle towards quality attributes of wine into 3 main classes termed ways of production, extrinsic cues and origin of wine. The angle towards the PDO

label are often equally classified into 2 variables, that is, confidence in PDO legislation and confidence in PDO production. The study additionally unconcealed the characteristics of the patron UN agency looks to be additional drawn to the standard wine created by the union of cooperatives of Peza. The certification, within the type of a PDO product, targets older, extremely educated, and single shopper.

Method

The researcher has distributed 400 questionnaires to wine consumers in India and total 325 filled questionnaires have received. Questions were based on 5 point in Likert- type scale anchored on one end by not at all important on and extremely important on the other hand. 15 statements have asked from wine consumers to examine the intentions of wine consumers to select Indian wine. Factor analysis has also used to examine the important factor for selecting Indian wine. Expert recommendation, past experience with wine, appearance and design of wine bottle, quality of wine and price of wine are some of the important dominant items have highly loaded during factor analysis. Overall five factors have determined in factor analysis. Bartlett's Test of spercity and Kaiser –Meyer –Olkin (KMO) have used to check the variables and adequacy of sampling respectively.

Results

Data Analysis: The data were analyzed using ANOVAs test (F Test) to examine the most significant factor for selecting Indian wine .Factor analysis was performed on the questions. Four factors with an Eigenvalue of more than one explained (See tables).

Most of the respondents to questionnaires were male (65.85%) and under the age group of 20 to 40 years (67.69%). 24.92% of wine consumers had monthly income level Rs 30,000 to 50,000 Rs and 21.23% of wine consumers has the income level of Rs 50,000 to 70,000/- .This should not be surprising as wine is expensive alcoholic beverage as compare with beer and other spirits. Most of the respondents had Bachelor degree (38.19%) and Post graduate degree (39.69%).Most (73.23 %) respondents were Indian and 26.77 % were foreigner. 31.08 % of respondents have purchased wines once in a month and usually consumed only 2-3 glasses in bar .

Most of the respondents were preferred red wine (45.23%) and dry wine (26.15%).Preferred price range of Indian wine (750ml bottle) was Rs 1000- 1300/- and preferred closing type of wine bottle was cork .

Total Variance Explained

Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.160	37.733	37.733	2.873	26.058	26.058
2	1.526	15.173	52.905	1.985	19.741	45.799
3	1.237	8.244	61.149	1.716	11.437	57.235
4	1.000	6.667	67.816	1.349		67.816

Factor and factor loading

Factors	Statement	Factor Loading
F1 (Uniqueness)	Expert Recommendations	0.850
	Appearance and design of wine Bottle	0.811
	Availability of Variety	0.589
	Innovation in wine	0.534
F2 (Consumer Awareness)	Quality of Wine	0.806
	Origin of Wine	0.645
	Availability of Wine	0.551
	Discount & offers	0.575
F3 (Brand Image)	Past Experience with Wine	0.841
	Brand Promotion - Advertising	0.550
	Grape varieties reputation	0.548
	Word of mouth	0.5824
	Brand reputation	0.596
F4 (Wine Adaptability)	Price of Wine	0.749
	Pair with Indian Food	0.704

Factors Compared

Factors	N	Mean	SD	F	df	Result
Uniqueness	325	3.62	0.75	29.69	3, 1296	***
Awareness	325	4.03	0.57			
Brand Image	325	3.80	0.64			
Adaptability	325	4.04	0.69			

Examining Factors for Selecting Indian Wine

Factor	Mean	Rank
Uniqueness	3.62	4
Awareness	4.03	2
Brand Image	3.80	3
Adaptability	4.04	1

This result indicates that uniqueness is one of the least dominate factors with 3.62 mean value among all four factors. This factor has four items such as expert recommendations, appearance and design of wine bottle, availability of variety, and innovation in wine. Brand image is third choice by wine consumers out of four factors while selecting of Indian wine. This factor has five items such as brand reputation, word of mouth, past experience with wine, grape varieties reputations and brand promotion. Awareness is the second important factor while selecting Indian wine. This factor comprises of 04 items such as quality of wine, origin of wine, availability of wine and discount & offers.

Adaptability is the most dominate factor with highest mean value 4.04 for motivating to wine consumers. Both Price of wine and pair with Indian food were significant factors for selecting Indian wine.

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The Role of Advertising in Hotel Industry

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Chapter 1:

Introduction

The hospitality industry is one of the major and fastest growing industries of the world which is the part of enormous industry Tourism Industry. The Tourism industry consists of various sub-sectors which include mainly the hospitality sector, Food & Beverage, Retail, Travel Agencies, and Transportation etc. The Tourism industry has been one of the major employers throughout the world. The hospitality industry being a essential part of the wider tourism industry occupies an important place in the economy of most countries.

The hotel industry, being the most visible sector within the tourism industry, is experiencing a major obstacle that threatens the attractiveness of the sector to prospective investors. Even though different statistics shows that the industry has been growing at an excessive rate, analysing these statistics, it can be discovered that the major expansion in the industry may only be seen in the chain hotels and industry cooperate segments.

Furthermore, the level of competitions within the hotel industry has increased so much in the current decades, to the point that it pretences a threat not only to new entrants into the industry but also to those companies that have been in the business for many years. It is no longer a secret that many hotels are facing challenges to keep up with the level of competitions both within and outside the industry. Only a small number of hotels are able to sustain the pressure and make a profit in the long run.

In any Industry, marketing strategy plays a vital role in building a brand, attracting new customers and maintaining loyalty. The Marketing strategies are also crucial for hospitality Industry now days. Top Hotels of the world recognize the significance of marketing in the hospitality industry. The hospitality industry is part of tourism so a reliable brand identity is also very essential. Marketers want to make sure that brand awareness exists so that customers will use their services repeatedly. Repeat customers bring in a grand part of revenue, so marketing strategy must be divided between maintaining relationships with previous customers in order to get new ones.

1.1) Research Aim

The aim of this research project is to analyse the role of advertising in the hotel industry supported by comparison between Taj Group of Hotels and Hilton Hotels.

1.2) Research Objectives

The main objectives of the research are given below:

- ✓ To critically evaluate the concepts of marketing and advertising strategies, STP, brand value etc. especially for the hotel industry.
- ✓ To analyse the advertising strategies of hotel giants Taj Group of Hotels and Hilton Hotels.

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- ✓ To examine the influence of advertising in buying behaviour of consumers.
- ✓ To evaluate the role of advertising in increasing the brand value of the major hoteliers.
- ✓ To identify the preferences of customer in terms of price, value for money, quality of services, brand loyalty while choosing amongst Taj Group of Hotels and Hilton Hotels.

1.3) History

Taj Group of Hotels

Taj Hotels Resorts and Palaces was established in 1903 and is one of the Asia's finest and largest luxury group of hotels. It operates in luxury, premium, mid-market and value segments of the market. In 1982, Taj Hotels Resorts and Palaces entered the international hotel market with was embarked with acquisition of St. James Court Hotel renamed as 51 Buckingham Gate. The group owns and operates 93 hotels in more than 55 destinations that are spread across 16 countries. It has 7 palaces, 6 private islands and 12 resorts and spas and service apartments across the globe (Meyerson, 2005). Taj Group of Hotels is known for modern luxury, warm Indian hospitality, world class quality of service and employs over 13000 people in its hotels. The group operates worldwide under various brands namely Taj Mahal Hotel, Taj Palace Hotel, Taj Suites and Residences, Vivanta etc.

Hilton Hotels & Resorts

Hilton Hotels is a global brand of full-service hotels and resorts and the flagship brand of American multinational hospitality company Hilton. Conrad Hilton founded the hotel chain in 1919, when he bought his first property, the Mobley Hotel, in Cisco, Texas. The first hotel to bear the Hilton name was the Dallas Hilton, a high-rise that opened in Dallas, Texas in 1925. In 1947, The Roosevelt Hilton in New York city becomes the first hotels in the world to install televisions in guest rooms.

As of 2017, there were more than 570 Hilton Hotels & Resorts properties in 85 countries and territories across six continents. Properties are owned by, managed by, or franchised to independent operators by Hilton. Hilton now has 540 hotels and resorts operating in 78 countries and 6 continents. Hilton hotel introduced Guest loyalty Program, Hilton Honors. There are 14 sub brands of hotels under Hilton Hotels & Resorts.

Brands by the numbers (hotels and countries):

- Hilton Hotels & Resorts: 88 and 578
- Waldorf Astoria Hotels & Resorts: 12 and 27
- Conrad Hotels & Resorts: 24 and 34
- Canopy by Hilton: 2 and 2
- Curio A Collection by Hilton: 15 and 48
- DoubleTree by Hilton: 41 and 520
- Tapestry Collection by Hilton: 1 and 4
- Embassy Suites by Hilton: 6 and 245
- Hilton Garden Inn: 37 and 771
- Homewood Suites by Hilton: 3 and 451
- Home2 Suites by Hilton: 2 and 204
- Hilton Grand Vacations: 3 and 48

Chapter 2: Literature Review

2.1 Introduction

Advertisement is everywhere in this competitive world. And in this competitive environment advertisement is like oxygen to businesses, as any business success depends upon customer's buying decision and their loyalty to that brand. From selling a grocery product to sale a hotel

service and also for its repeat sale, advertisement as a marketing tool plays a very vital role. That is why various hotel companies (ordinary to luxuries) in India are using advertisements as their marketing tool to gain competitive advantage over the opponent in the market by aiming on their marketing strategy by advertising such ads which can connect with consumers/customers both emotionally and practically. Hotel Companies create emotional association through ads by showing that hoteliers know what customer needs, desire, preferences are, and improving the consumer's satisfaction by delivering high quality service results in brand loyalty and value, which results in increase in occupancy rate and revenues/profits of hotel business.

Advertising industry in India has evolved from being a small-scaled business to a fully developed industry over time. According to many surveys, advertising industry is second fastest developing market in Asia after China. It is estimated that in 2018 the allowance of ad expended in India's GDP (Gross Domestic Product) is around 0.45 percent. The Government of India has also supported the advertising and marketing industry by allowing to carry out various marketing/ advertising planning all these developing years. According to RBI (Reserve Bank of India) policies, advertising expenditure is likely to increase in financial sector which can result in more commending business environment.

2.2 Advertising and Branding Relationship

Advertisement is asset for any business to create a brand image. Ads helps in branding the product or service by the way it is presented and communicated in market. Marketing communication is essential element for communicating the quintessence of the brand and provides the progression for progressive association which is seen imperative for developing brand image through time. Advertisement is a vital part of the foundation model for business which is the 4 Ps of marketing mix (product, price, place and promotion) (published by Philip Kotler), as it is a segment of promotional strategy. Ads works as a tool in building product or service awareness or recognition and influences the buying decision of customers. Promoting a brand through branding it with the help of advertising it, results in increase in sales, brand value and brand awareness. And such outcomes as the results of advertising have become the focus point of many hotel companies in India.

2.3 Advertising planning

Advertising planning is the most crucial part of marketing planning/ marketing strategy for any business. Target audience, message, media, timing and budget are the various key elements which are taken under consideration by advertiser while planning advertising strategy. Each element is discussed below in detail.

Target Audience: There are many ways in which a market is segmented like according to gender, according to age groups, according to region and also according to climatic conditions to some extent. The market or audience segmentation given by Stewart in 1994 is taken ideal by advertisers/researchers in which market is segmented in four parts and each segment requires a different approach while designing advertising strategies.

The first segment is of those who are non-user, who are not the potential customers but those who have the knowledge of product or service. The second segment is of insipient, people who are new to market and are identified to become prominent as the advertising aims at them to create product or service awareness which might influence their buying decision. The other two segment is of switchers and loyal. Switchers are those who switches product or service by getting captivated by price promotions and discounts/offers. The last segment

is of loyal for which advertisers' aims to make an ad to assure them that they are making a right buying decision.

Message: Message in advertising term is what a company wants to convey to their potential customers. Usually in this competitive world, companies make their USP (Unique selling point), the theme of their marketing campaign for services or product offered. Many time the USP becomes the slogan for a company. In the same way advertising message for hotel should reflect the benefits for buying the services of hotel which can be assisted by highlighting the features of the offered service.

Media: Hotel industries make in use various types of medias like outdoor media which include hoarding, banners and posters at roadside, parking areas and even outside hotels, indoor media like show cards and backdrop at reception area, print media like newspaper ad, magazine ad, pamphlet, brochure etc., electronic media like television, radio, phones, laptops etc. for advertising their ads.

Hotel industries covers all types of communication, from Audio Visual communication like television ad, social media ad, to Audio communication like radio ad, to Visual communication like newspaper ad, magazine ad and various outdoor medias. But out of all Medias used for marketing, tele-marketing and internet marketing is gaining importance in hotel industry these days. For selecting and evaluating the advertising media there are two barometers used by Indian hotel companies; CPM (Cost Per Mile) used for internet marketing, which is the amount advertiser pays a website per one thousand visitors who see its advertisement and other one is GRP (Gross Rating Points) it measures the size of an advertising campaign by a specific medium used for various advertising media's.

Budget: Budget is the most important element of advertising planning as rest four elements directly or indirectly depends upon it. In more general language budget decides the entire advertising planning. As most important ingredient in planning to accomplish the objectives of advertising is the amount of money a company/industry is ready to spend on advertisements. In hotel industries the funds assigned for advertisement is approved by managerial authorities and after which the use of advertising budget depends upon the marketing/advertising strategy.

Timing: Before investing the budget on various advertising media, it is very essential to plan the timing in which the advertising campaign is going to take place. Right timing is very important for the success of advertising campaign. For example, a startup companies tries to advertise when they think they can reach mass spectators, where some companies choose to advertise at times when the target audience prefers to buy the product or service. Identifying when the customer is willing to spend is worth for an advertising planning and also for other business.

Availability of information on right time, right way, with right context aimed to most potential customer plays a vital role in advertising planning and even while decision making for buying a product or services. Potential customers get captivated with the hotels that are providing them the significant information at right time. Hence for planning the launch of advertising campaign for a Hotel industry factors like target audience, budget, message, media and Duration of campaign must be kept in mind.

2.4 Current Advertising Trends in Hotel Industry

Utilizing most effectual or productive marketing strategy for hotel business is key to attract potential customers and build trust for the brand among existing ones. As discussed above digital and internet marketing have impacted almost every sector, chiefly the hotel industry.

This is mainly due to extensive change in how customers take reference from internet, research, plan and book their hotel stays and travel plans online. Indian hospitality marketing is centered on planning about business in terms of customers needs and their satisfaction it also takes a continues check on how different sectors of hospitality industries mainly like accommodations, food and drink, tourism and travel expand/advance marketing strategies to promote their services. And by following this latest trend of advertising, hotel industries can plan their hospitality marketing plan to optimize revenue in a successful and prudent way.

Hotel industries largely focus on generating and maintaining positive customer experiences and relationship and advertising as marketing tool becomes a major part of ensuring the industry's success, because by advertising through digital channels, hospitality industries can attract more customers to their hotels and travel business at the same time.

2.5 Importance of marketing for Hotel Industries

In this competitive digital world, it is very critical to stay ahead and know the latest hotel marketing strategies to sustain in this competitive age, to build a brand, to attract new customers and even maintaining existing customers. Any business in this age can suffer a lot if it doesn't keep up with the new and exciting marketing trends because. From popular hotel chains to newly opened hotel companies need to be aware of contemporaneous marketing trend and how the business can be benefited tremendously after adopting such trends. The hotel business is no different; it does not matter which industry a business belongs to every industry needs direct or indirect promotion, which is possible by an impactful or effect full marketing strategy. Every business has competition in market, so it becomes very important to have a proper market research and marketing strategy to keep up and stay a step ahead from the competitive rivals. Proper and effective Marketing strategy or planning helps in sustaining customer loyalty and influence the buying decisions of potential customers. In hospitality industry customer satisfaction and customer loyalty is key to success of the business, and the marketing team devotes their attention, time and resources to build brand image and brand awareness for achieving this loyalty. Marketing campaigns focus on both the targeted former guests and also attracting new customer. To stand ahead or stand out in the competitive market, marketing is very important for hotel industries.

There are two types of products offered in market i.e. tangible (which can be touched) and intangible products (which cannot be touched). So selling hospitality service which is intangible is different from selling consumers goods which are tangible in nature. So for selling a hospitality service it is important to create right feeling in clientele, like a hotel fertilizing or preparing a fun relaxing atmosphere, would be acknowledged and create same feelings in clients. As hotel industries are mostly made up of tourism and other experiential service, it is very important for it to be marketed in right way so that a well known brand identity could be created in minds of clientele.

Strategies used for success of marketing plan: Hotel companies use different procedure to develop and sustain productive/efficacious marketing plan by following some strategies which marketers use or are below

Marketing Research: The first and foremost step marketer take is to conduct marketing research, in which he/she tries to find out the various reasons of why customers choose hotels and other hospitality services. There is seen various different factors like location, availability of parking area, internet, spa and other hospitality services influencing customer's buying decisions. Hotel industries and marketers make sure that they are

providing current and formal guest what they are looking for. Marketer's job is keep continues record of customer's review by interacting with them or by monitoring customer's reviews on websites and relevant travel sites and also by the rating given by guests.

Awareness: Brand awareness is very important to attract customers in all business including hospitality business. In this competitive world there are so many companies providing hospitality services, customers should know about various companies because if they don't know how they will buy the service. While planning the marketing plan, marketers make sure that information about hotels and other hospitality service is easy to find by customers. They can provide information by buying ad spaces on travel site and social media, creating own website and even collaborating with others.

Promotion: It has become immensely important for hotel industry to create brand awareness with the help of advertising and other mediums to get their business run in this competitive age. Promotion is very important to attract customer's attention using by various media and at different time. Some time providing some offers are like icing on cake for customers, like free spa service, free breakfast, free Wi-Fi etc. which results in revenue generation as it helps in influencing customers buying decisions.

Relationships: For repeat business for any hotel company, good customer relationship is very necessary/essential. Good customer relationship develops when hotel service satisfies guests and they further suggest particular hotel to others, in this way customer loyalty develops which results in revenue increase. Many international and national universities run professional degrees of hospitality in which they teach students how to create good relationship with customers.

2.6 Advertising Strategies of Hilton Hotels

Hilton hotel was founded by Conrad Hilton on May 31, 1919, now owned by Hilton Worldwide, As of 2017, there are more than 570 Hilton Hotels & Resorts properties in 85 different countries and territories across six continents. These Properties are either franchise owned or are operated by independent operators by Hilton.

Hilton Hotels & Resorts is Hilton's flagship brand and is one of the largest hotel brands in the world. The brand targets both corporate employees and travellers with a property in major cities, in the locality to airports, convention centres, and popular vacation destinations around the world.

Segmentation, targeting, positioning in the Marketing strategy of Hilton –

Brand segments its services on basis of its unique ambience and experience, the bundle of offerings and other complementary services like Spa, Gym, Hygiene factors, pricing, and staffs.

The brand focuses on premium pricing strategy, thus catering the high profile business class and upper class of the society. It uses a differentiating strategy to make it promising for its customers.

With its various brand offering Hilton positions itself in diverse portfolios:

Brand positioning	Brand(s)
Luxury	Waldorf Astoria Conrad
Lifestyle	Canopy
Full service	Hilton Hotels and Resorts CURIO Double Tree
Focused service	Hilton Garden Inn Hompton Tru
All suites	HOME2 Homeswood Suites Embassy Suites
Vacation ownership	Hilton Grand Vacations

SWOT analysis – Here is the SWOT analysis of Hilton Hotels.

Mission – “To be the most hospitable company in the world – by creating heartfelt experiences for Guests, meaningful opportunities for Team Members, high value for Owners and a positive impact in our Communities.”

Vision – “To fill the earth with the light and warmth of hospitality –by delivering exceptional experiences – every hotel, every guest, every time.”

Tagline – “Travel should take you places”

Strength

Competitive advantage in the Marketing strategy of Hilton –

- 1) Strong Financial Company
- 2) Renowned Brands :

Competitive analysis in the Marketing strategy of Hilton

There is high level of competition from various sides varying from local market to international competitors, Hotel chains, private property holders or short rent home providers such as HomeAway/Airbnb etc.

Top Hilton Competitors across the world

Top 14 Hilton Competitors.

1. Marriott.
2. Hyatt.
3. Peninsula
4. Four Seasons
5. Taj Hotels
6. Oberoi
7. Mandarin Oriental.
8. Aman
9. Ritz Carlton.
10. Intercontinental.
11. Rosewood Hotels & Resorts
12. Fairmont Hotels & Resorts
13. Shangri-La Hotel and Resort
14. Regis Hotels & Resorts

The Hilton competes on the various factors such as brand value, hotel services, pricing, room quality, cordial staff behaviour, safety and security and strategic locations of the hotels.

Market analysis in the Marketing strategy of Hilton

The Hotel business is extremely crucial in the previous years because of tourism business opportunities growing across globe. The industry not only contribute in the life of individuals however and the economic building of the nation. Industry over the years has also seen wonderful development and up gradation of technology, thus it is important for every organizer in the industry to be promptly respondent.

Hilton Hotels has been growing inn different section of the business, such as developing and identifying leadership, implementing employee welfare, working on building of teamwork and coordination and achieving goals and objectives.

Hilton Hotel is rapidly developing and creating maximum rooms among entire competition and in adding 310.000 rooms are in process to be launched. This brand has earned the image of fastest growing organization in the hospitality Industry. The brand has been recognized and generated outstanding image on opening almost one lodging for every day and leading in providing an memorable experience its guests.

2.7.1 SWOT of Taj Group of Hotels

Strength:

Taj is the first hotel in India which provided hospitality service to its guest (Taj, 2008). Strong brand identity for the past 108 years in the field of hospitality (TATA, 2009). As per the location all the Taj hotels are located in main heart of the cities. Taj provides hospitality service in four different segments as per the guest requirement they are such as luxury, premium (business), leisure, Ginger (budget brand) and air catering (TATA , 2009). Taj is the largest chain of hotels in Southeast Asia. The company operates more than 80 hotels in 45 different location within India and 12 hotels internationally. Taj is only brand to operate palaces in Indian subcontinents which are located at top tourist destination (Taj, 2008). The company brand equity is well supported by the ownership and backing of TATA groups which are operated worldwide and enjoying the credibility (TATA, 2009).

Weakness:

So many competitors exist in local saturated market. Hotel buildings are very old which needs to be renovated as per the current trend which needs huge investment. Due the current economic crisis the spending power of customer is going down. Difficulties in retaining trained staff due to enormous hospitality opportunity. Low paid wages when compared to the competitors (Meyerson & Scarborough, 2007).

Opportunity:

Upcoming of Taj budget brand is known as Ginger in metropolitan cities (TATA, 2009). More number of hospitality courses tends to provide more quality staff for the management. Taj has a wide opportunity to grow internationally. The Olympics in UK in 2012, upcoming world cup cricket tournament in 2019. International tourism have grown in 2007/2008 with more number of tourist from worldwide reaching nearly 1,000 million (UNWTO estimates) and international tourism receipts scaling US\$ 900 billion in the year therefore the growth rate of inbound tourism in India is expected to grow more in 2009/10 (TATA, 2009). The launch of Incredible India campaign by the government results to attract more numbers of tourism in domestic as well as international markets (Taj hotels, 2009) Due to enormous growth of information technology sector has also contribute to rise in demand in hotel rooms (Asia money, 2007, Cline and Roger, 2001). This could be an opportunity for increasing Average Room Revenue (ARR).

Threats:

The terror attack in Mumbai created a major threat for the Taj hotels (Taj hotels, 2008). A big threat is upcoming new brand hotels such as Marriot, Hilton in the niche market. 12-15% for 2007-2017 the out bound tourism is expected to grow which is one of threats for hospitality industries (Intel, 2008). Due to the political instability future plans of the company can be affected by the government policies (Taj, 2009). Interest fluctuation could have adverse effect the company performance. The growing presence of international hospitality chains is competing in the field of luxury and business segments to meet excess demand situation. The significant proportion of the total revenue of the company is generated by luxury segments which can be affected by the international events, travel behaviour and suffers from high operating leverage. Adverse development affecting these hotels or cities in which they operate could have a materially unfavourable effect on the Taj group which could lead as one of the threat for the company. Intercontinental hotel group (IHG) has future plans to open 20 hotels in India with over 5000 rooms under its brand Holiday Inn which could be major threat for the organization (Hotel review, 2008)

2.8 Critical Evaluation on Marketing and Advertising Strategies

2.8.1 Critical Evaluation of TAJ Hotel Group

TAJ hotel group has adopted different traditional way of marketing their brands by offering the priority reward club membership card to its customers through which the customer can earn points and the get the discounts and offer on the hotel reservation. Marketing of the TAJ hotel group has been excellent for marketing their brand across the globe the company has appointed several firms like Ogilvy & Mather, Strong Mail, etc which are reputed firms in the marketing business. Both these agencies have separate function but has common goal that is to market the TAJ hotel group. To increase their sales and promote their brands TAJ hotel group give different types of discounts to senior citizens, military personnel, auto club cardholders and to government officials also. (Dibb & Simkin, 2008)

TAJ hotel group is involved in the different CSR (Corporate Social Responsibilities) activities which are not only limited to society and culture but also to the environment as most of the hotels of the group are following on the green concept which are helping them to reduce the carbon consumption and energy consumption, company are regularly making attempts to make their hotels as eco-friendly as possible. The main priorities of the CSR strategy are: climate change, community service, lack of the skilled staff, energy efficiency, recycling and carbon consumption. (Plunkett Research Ltd, Jack W. Plunkett, 2006)

TAJ hotel group has also signed the five year contract in 2011 with PGA (Professionals Golfer's Association) and has become partner of the all PGA tournament across the globe for the next 5 years. TAJ hotel group is also promoting their brands in several other ways like through online promotions through different travel portals and other websites. (Enz, 2009) Company has also appointed the several travel agents and had also done tie-ups with the travelling agencies for generating the sales. The TAJ hotel group has started promoting its hotels to non-members only to increase their business as earlier company was promoting its hotel to mostly to member and as they are getting only 40 percent of the total sales from the members therefore company has started promoting to section from which it is getting the maximum sales.

2.8.2 Critical Evaluation of Hilton Group of Hotels

To market their brand Hilton group of hotels have adopted the different marketing techniques like the company is partnering with different organizations which are closely related to the

hotel industry. The company has tie ups with different airlines and the customer having the club membership card will get the point in every stay which can be transferred to their card into airline miles which can be used by the customer while travelling in any of the partnered airline company. Also the customers having the loyalty card receives the regular notification about the any new offers or discount schemes hotels are launching. (Jones, 2002)

Recently Hilton group of hotels have also actively started taken participation in the CSR activities and have created the foundation which is helping the society in different ways so that people who are having difficult time can sort out their lives and move forward for the brighter tomorrow.

It has large varied portfolio of hotels from the economy hotels to high end luxury. Hilton group of hotel have 5 star hotels across the globe, which are either by managed by the company itself or managed by the franchises. As Hilton is large hotel group to promote its brand company adopts different marketing techniques. Company do tie-ups with other companies, give discounts to its customer, provide sponsorships to different types of events, maintains the customer loyalty program, take reviews from the customer about their stays and carry out various other programs to promote their brands an increase their sales. (Holloway & Taylor, 2006)

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Role of Artificial Intelligence in Dealing with Emotional and Behavioural Disorders

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Abstract

Artificial Intelligence (AI) is a science and engineering of making intelligent machine. AI technologies have also been found as one of the most valuable applications in the various fields, including mental health. Due to the implicit characteristics of emotional and behavioural disorders, diagnosis and intervention have been a major issue. This paper presents reviews of applications of Artificial Intelligence which are effectively assisting in diagnosis and intervention of selected emotional and behavioural (autism spectrum disorder, learning disability, and attention deficit Hyperactivity Disorder, depression etc.) to date.

Keywords: Artificial Intelligence, emotional disorder, behavioural disorder, mental health, diagnosis, intervention.

1. Introduction

Artificial intelligence (AI) is a scientific discipline focused on research and design of intelligent machines. The term Artificial intelligence (AI) was coined by John McCarthy in 1955, and together with colleagues, he established the field in 1956 at a Dartmouth College conference on artificial intelligence. Presently, AI technologies have influenced the work all around us, even though frequently behind the scenes. Many applications of AI technologies have become so prevalent that we rarely acknowledge its involvement. AI technology is being used in automobiles, aircraft guidance systems, smart mobile devices (e.g., voice recognition software such as Google assistance), internet web browsers, and plenty of other practical everyday functions. The prime focus of AI is to build machines that are able to perform tasks which require intelligence, such as reasoning, learning, planning, problem-solving, and perception as well as the ability to detect, classify and respond to the user's emotions and other stimuli.

One cannot ignore the important contribution of contemporary cybernetics to the development of AI, which is defined as a trans-disciplinary approach. The credit to the origin of cybernetics is given to Norbert Wiener, who formalized the notion of feedback [1]. The cybernetics has influenced many disciplines like sociology, psychology (especially neuropsychology and cognitive psychology). The behavioural and mental healthcare fields are also benefiting to the advancements in AI. The application of artificial intelligence in mental health is to provide a set of tools to augment and extend the effectiveness of the mental health professions. It is required for several reasons. First, an increasing number of cases with emotional and behavioural disorders require greater treatment efficiency from physicians and health care professionals. Another reason is that, patients desire to have quick and more personalized care. The solution is machine learning, which can improve every

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stage of patient's care i.e. from diagnosis to the selection of effective therapy as well research. As a result, clinical practice will be more efficient, convenient, personalized, and more productive. Therefore, the present research paper is intended to review different applications of AI dealing with emotional and behavioural disorders, and how far mental health professional will incorporate AI in the future.

Review of Literature

Artificial intelligence and its Psychodiagnostic value

The Global Mobile Health Market Report (2013-17) has estimated that 500 million Smartphone users worldwide (including healthcare professionals, consumers, and patients) are using healthcare-related apps. It is also expected that by 2020, more than 50% Smartphone and tablet users will have mHealth apps [2].

Mobile devices are providing multiuse platforms in the field of mental health in collecting patients' data, monitoring their symptoms, accessing information, and providing treatments. There are a lot of medical apps equipped with AI that offered many useful functions such as electronic prescribing, assessment, clinical decision support, treatment practice management, coding and billing, self-care, and e-learning. There are also specialized mobile apps for specific mental health purposes. For example, different apps are available to help in the management of health-related behaviours such as diet, exercise, sleep, smoking cessation, relaxation, and medication adherence. Apps are also available to assist with the treatment of different emotional and behavioural problems, such as anxiety disorders, depression, eating disorders, psychosis, and suicide prevention.

There are many AI included systems that are being used in behavioral and mental health field.

Mental Health Diagnostic Expert System (MeHDES) is one of them. Mental Health Diagnostic Expert System (MeHDES) is being used to assist and train new clinicians in making a more accurate diagnosis [3]. At present, when a person with mental illness comes to a psychological centre, the first step of a mental health professional is to perform the Mental Status Examination (MSE). On the basis of MSE ("structured assessment of the patient's behavioural and cognitive functioning") clinicians are able to determine whether a person is suffering from a mental illness or not. If the person is suffering from a mental illness, then further appropriate intervention is to provide the mentally ill person. Similar procedures are being performed by the MeHDES (MSE, diagnoses of mental illness and severity level, and interventions). The "AI" in automated mental state detection comes from the overall goal of developing machines with the capability of sensing complex mental phenomena, which was previously a uniquely human ability, and from the different subfields of AI involved in the development of such machines (e.g., computer vision, machine learning).

Artificial intelligence and Intervention in emotional and behavioural disorders

Virtual human, as a psychotherapeutic character, are being extensively used in the area of mental health. It has also been applied to interact directly with the patient to provide a wide range of interventions, including patient psycho-education during hospital discharge, medication adherence to person with psychiatric and psychological disorder, screening of illness in the outpatient setting, genetic risk factor counseling, exercise promotion for individuals with Parkinson's disease, and more. Virtual humans have also been applied in the management of a variety of cases with the all ages of different groups such as; depression, anxiety, suicidal tendency, autism, and ADHD etc.

Autism spectrum disorder

Autism is pervasive developmental disorder characterized by the presence of abnormal and/or impaired development type of abnormal functioning in all three areas of social interaction i.e. communication, restricted, and repetitive behaviour which are manifest before the age of 3 years. AI techniques can facilitate early diagnosis and intervention of children's autism spectrum disorder level [4]. Sebe et al. (2006) introduced a human-computer interaction application that was able to recognize various emotions and able to show magnitudes of some predefined motion of various facial characteristics. This system is useful for all children, but it can be very effective in children with ASD. The system was tested on 38 graduate and undergraduate students and emotion recognition accuracy improved when both visual and audio information have applied in classification [5].

Riedl et al. (2007) designed a platform which can aid adolescents with High Functioning Autistic Spectrum Disorders (HFASD) to rehearse and learn social skills with reduced help from parents, teachers, and therapists. A social scenario game is presented— for example, going to a movie theater which challenges learners with HFASD to role-play and complete tasks involving social situations. Artificial Intelligence is being used to assist the above groups with the authoring of tailored social scenarios. This Artificial Intelligence tool is embedded in this particular platform which decreases the manual authoring burden and the application of intervention strategies can be handled by the specialists [6]. Arthi and Tamilarasi (2008) introduced a model based on Artificial intelligence, which helps in the diagnosis of the autistic child. It is assisting clinicians, psychologist, and special educator to assess autistic children. Experimental studies have reported a high accuracy i.e. 85–90% of this method. [7]. Wall et al. (2012) found that Alternating Decision Tree (ADTree) is an artificial intelligence technology that is highly sensitive and accurate in the diagnosis of children with autism. The system can be administered with equally high accuracy on children fewer than 4 and as young as 13 months [8].

Porayska et al. (2018) evaluated an AI technology called ECHOES, which aimed to facilitate autistic children's ability to engage in social interaction. This system primarily focuses on working with autistic children across the 4-14 age range. It was found that ASC children have shown significant improvement of social responses to human practitioners [9]. A number of studies have reported that with the help of AI, children with autism spectrum disorder can improve their communication and social skills. AI can be helpful in early detection of brain changes and can predict the development of autism in later age in the children.

Learning disability

Children with learning disabilities are having difficulty in reading, writing, and mathematics etc. They find a unique obstacle to traditional teaching methods. AI can be helpful to teachers in administering more effective teaching to such children. AI application provides proper feedback and simplified the instructions and educational material.

In India, there is a lack of specialized personnel dealing with individual suffering from learning difficulties. Therefore it is essential that teachers should have access to some diagnostic and intervention tools in order to better care of having students' such problems. Srihari et al., (2008) introduced AI based method of automatic scoring of short handwritten essays in reading comprehension tests. The system was trained to evaluate handwritten difficulties as well as writing skills of children and able to assign a score which is comparable to that of the human score. Even though this system is not free from errors in word

recognition during the evaluation, but still, it remains a promising tool [10]. Jain et al. (2009) proposed a model called Perception based Learning Disability Detector (PLEDDOR). This is an artificial intelligence model which is conducted by special educators for identifying learning difficulties (e.g. reading, writing and mathematics). The system was tested on 240 children across the various schools and hospitals of India [11]. Baschera and Gross (2010) introduced an adaptive spelling training system which can be used from all students who exhibit spelling difficulties [12].

Attention deficit hyperactivity disorder (ADHD)

ADHD is characterized by a set of behavior problems of inattention, hyperactivity and impulsivity or its combination. ADHD children usually show up symptoms in early childhood [4]. The applications of AI have offered some improved diagnostic and intervention tools for these behavior difficulties. Rebolledo-Mendez and Freitas (2004) developed NeuroSky MindSet (MS). The system is able to assess attention levels of the children. It is quite helpful for children with ADHD [13]. Aguilar et al. (2006) designed a fuzzy instructional planner, which models the tutor module in an intelligent tutorial system (ITS). It is especially useful for students who have ADHD or attention difficulties as well as in distance learning situations. The aim of this system is to mimic the behavior of the teacher able to manage the learning process satisfactorily. The ITS is a useful, flexible system which adapts the teacher's rules to the student's performance [14]. Anuradha et al. (2010) developed an AI-based diagnostic tool for a more accurate and time efficient diagnosis for Attention Deficit Hyperactivity Disorder (ADHD). It is based on Artificial Intelligence technique, the SVM algorithm. The most important advantage of applying this tool is that it can control the complexity of the diagnostic process. This method was tested on children between the ages of six to eleven years old, and the results indicated success in diagnosing [15].

Delavarian et al., (2010) introduced a decision support system to distinguish children with ADHD from other similar children behavioral disorders such as depression, anxiety, comorbid depression and anxiety and conduct disorder based on the signs and symptoms. Differential diagnosis of the above mentioned behavioral disorders is of major importance and practically difficult due to their similarities and comorbidity of their symptoms. The tool was initially developed to assist psychiatrists, but it can also be used in schools for a more specific examination of high-risk students. The system was trained and validated to assist the diagnosis of the disorders. The system was tested on 294 children of 12 elementary schools. The classification by MLP networks achieved 95.50% while the RBF classifier reached 96.62%. The limited number of diagnostic errors compared to the errors done by specialists indicated a system that can work as a reliable and valid tool for ADHD assessment [16].

Robots can also be useful in the evaluation of changes in human performance in such situations as rehabilitation. Among individuals with illness who incur the highest costs are those with mental illness who have multiple layers of physical and/or mental health problems that interfere with their capacity to socialize, plan, organize, and function in their life. The health delivery systems for mental health and medical care are extremely complex. It operate independently, communicate with one another inefficiently, and often have different financing arrangements and policies for mental health care. The challenges associated with addressing the needs of the most vulnerable populations are related to complex networks of interconnected social, economic, and political systems.

Ethical issues with AI in mental health

Despite the fact that AI technologies are very helpful in dealing with different issues of emotional and behavioural problems. It is equally important to consider ethical issues (patient privacy, safety, autonomy, and trust) by clinicians and healthcare organizations. Several mental healthcare organizations have included ethical provisions related to the use of current technology. Topics include electronic data security, use of the Internet for providing care services, and the use of electronic communication (e.g., email, social media) with patients. Many organization have published ethics guidelines. The International Society for Mental Health Online has suggested principles for the Online Provision of Mental Health Services (<https://www.ismho.org/suggestions.asp>) and the eHealth Code of Ethics (<http://www.ihealthcoalition.org/ehealth-code/>) [17,18].

Conclusion

It is the time of technologies that are offering assistance in every health domains of human life. It is, therefore, important to consider how technologies (AI) will also serve the development of our health care systems. The World Economic 2016 Forum named open AI ecosystem as one of the 10 most important emerging technologies. AI technologies are very useful for diagnosis and interventions of emotional and behavioural disorders. It is benefiting to all including clinicians, patients and healthy people in term of time-efficient quality treatment and rehabilitation. Even though it is essential for clinicians to exercise such technologies under the ethical guidelines.

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A Study On Graph Labelling Problems And Decomposition Of Graphs

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Abstract

A graph labeling is an assignment of integers to the vertices or edges, or both, subject to certain conditions. Graph labelings were first introduced in the mid 1960s. We show that if a graph G on n edges allows certain special type of rosy labeling (a.k.a. ρ -labeling), called α_2 -labeling, and then for any positive integer k the complete graph K_{2nk+1} can be decomposed into copies of G .

Keywords: graph labelling, integers, vertices

1. Introduction

A graph G is a limited nonempty set of items assembled vertices with a lot of unordered sets of particular vertices of G called edges. The vertex set and the edge set of G are meant by $V(G)$ and $E(G)$ separately. The edge $e = \{u, v\}$ is said to join the vertices u and v . We compose $e = uv$ and state that u and v are contiguous vertices or u is a neighbor of v in G ; u and e are episode, as are v and e . In the event that e_1 and e_2 are particular edges of G episode with a typical vertex, at that point e_1 and e_2 are neighboring edges.

The arrangement of all neighbors of v is the open neighborhood of v and is indicated by $N(v)$; the set $N[v] = N(v) \cup \{v\}$ is the shut neighborhood of v in G . In the event that $S \subseteq V$, at that point $N(S) = \bigcup_{v \in S} N(v)$ and $N[S] = N(S) \cup S$. We see that $N[v] \neq N(v)$ yet we can have $N[S] = N(S)$, for example, for the situation where S is the arrangement of two vertices from K_3 .

The quantity of vertices in G is known as the request of G and the quantity of edges in G is known as the extent of G . A chart of request p and size q is known as a (p, q) -graph. A chart is unimportant if its vertex set is a singleton.

The supplement G of a chart G is the graph with vertex set $V(G)$ to such an extent that two vertices are nearby in G if and just on the off chance that they are not contiguous in G

The level of a vertex v in a chart G is characterized to be the quantity of edges occurrence with v and is signified by $\deg(v)$. A vertex of degree zero in G is a separated vertex and a vertex of degree one is a swinging vertex or a leaf. An edge e in a chart G is known as a swinging edge on the off chance that it is occurrence with a swinging vertex. Any vertex which is nearby a swinging vertex is known as a help vertex.

The base of $\{\deg(v) : v \in V(G)\}$ is meant by $\delta(G)$ or just δ and the limit of $\{\deg(v) : v \in V(G)\}$ is meant by $\Delta(G)$ or essentially Δ .

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A graph G is called r -standard if each vertex of G has degree r . A chart is said to be ordinary in the event that it is r -normal for some nonnegative whole number r . Specifically, a 3-ordinary chart is known as a cubic graph.

Give G a chance to be a graph with at most n vertices. We state that the total graph K_n has a G -decay if there are subgraphs $G_0, G_1, G_2, \dots, G_s$ of K_n , all isomorphic to G , with the end goal that each edge of K_n has a place with precisely one G_i . Such a decay is called cyclic if there exists a chart isomorphism ϕ to such an extent that $\phi(G_i) = G_{i+1}$ for $i = 0, 1, \dots, s - 1$ and $\phi(G_s) = G_0$.

A. Rosa [5] presented in 1967 particular sorts of vertex labelings as significant apparatuses for disintegrations of complete graphs K_{2n+1} into charts with n edges. A marking of a graph G with n edges is an infusion from $V(G)$, the vertex set of G , into a subset S of the set $\{0, 1, 2, \dots, 2n\}$ of components of the added substance bunch Z_{2n+1} . Let ρ be the infusion. The length of an edge xy is characterized as $l(x, y) = \min\{\rho(x) - \rho(y), \rho(y) - \rho(x)\}$.

The subtraction is performed in Z_{2n+1} and consequently $0 < l(x, y) \leq n$. In the event that the arrangement of all lengths of the n edges is equivalent to $\{1, 2, \dots, n\}$ and $S \subseteq \{0, 1, \dots, 2n\}$, at that point ρ is a ruddy naming (called initially ρ -valuation by A. Rosa); if $S \subseteq \{0, 1, \dots, n\}$ rather, at that point ρ is an elegant marking (called β -valuation by A. Rosa). A smooth naming ρ is said to be a α -marking if there exists a number ρ_0 with the property that for each edge $xy \in E(G)$ with $\rho(x) < \rho(y)$ it holds that $\rho(x) \leq \rho_0 < \rho(y)$. Clearly, G must be bipartite to permit a α -naming. For a thorough review of graph labelings, see [2] by J. Gallian. Each smooth marking is obviously additionally a ruddy naming. The accompanying hypothesis was demonstrated by A. Rosa in [5].

Hypothesis 1. A cyclic G -deterioration of K_{2n+1} for a graph G with n edges exists if and just if G has a ruddy marking.

The principle thought of the confirmation is the accompanying. K_{2n+1} has precisely $2n + 1$ edges of length i for each $i = 1, 2, \dots, n$ and each duplicate of G contains precisely one edge of every length. The cyclic disintegration is built by taking a named duplicate of G , state G_0 , and afterward including a component $i \in Z_{2n+1}$ to the name of every vertex of G_0 to get a duplicate G_i for $i = 1, 2, \dots, 2n$. For graphs with a α -marking, significantly more grounded outcome was demonstrated by A. Rosa

Hypothesis 2. On the off chance that a chart G with n edges has a α -naming, at that point there exists a G -decay of K_{2nk+1} for any positive number k .

It is anything but difficult to see that there are charts that permit blushing or agile labelings however not α -labelings. The littlest model is the 3-comet comprising of three ways P_3 with their endvertices stuck together in one vertex of degree 3. Decent speculation of Theorem B was demonstrated by S. El-Zanati, C. VandenEynden, and N. Punnim [1]. They loosened up the properties of the α -naming to get a ρ +-naming as pursues. A marking of a bipartite chart G with bipartition X, Y is known as a ρ +-naming in the event that it is a ruddy naming with the extra property that for each edge $xy \in E(G)$ with $x \in X, y \in Y$ it holds that $\rho(x) < \rho(y)$. The contrast between these labelings is that while in a α -naming we require all vertices in X to have the names littler than each vertex in Y , in a ρ +-naming we just necessitate that all neighbors of each given vertex $y \in Y$ have their names littler than $\rho(y)$. Besides, we can utilize names from the set $\{0, 1, \dots, 2n\}$ while in α -marking just from the set $\{0, 1, \dots, n\}$.

2. Literature review

One of the most active fields of flow investigate in the subject of Discrete Mathematics is the hypothesis of charts. Chart naming is one of the quickest developing examination regions inside graph hypothesis.

New outcomes are being found and distributed at a quickly expanding rate. Further we have a tremendous number of guesses and open issues in chart labelings. For a brilliant and exceptional unique study on chart naming we allude to Gallian [1]. Except if referenced something else, all charts considered here will be limited and straightforward.

In all respects generally experienced cases of a graph in the above sense are a street arrange (in certain confined sense) where we overlook different street associations between any two intersections, oneways, circle ways, and so on [2], the power or water supply organize in a city; ([3]), the railroad or correspondence arrange in a nation, substance bond structure of an atom [4], PC arrange in an association [5], even an informal organization that speaks to a gathering of people and relational relationship existing among them.

The structure or the topology of such systems might be spoken to by charts for systematic purposes when an issue identified with their structures is experienced practically speaking [6].

For such connected parts of graph hypothesis, one may counsel particular references, for example, [7-10]; it would be fairly clumsy to give such references comprehensively as they are very various.

Frequently, one experiences a need to mark the components (i.e., vertices or edges or both) of a given graph $G = (V, E)$. For example, in the street system of a city the intersections (spoken to by vertices) and the streets (spoken to by edges) are by and large named (marked) for one to find them for different down to earth purposes.

A sociogram, as another example, is a graph whose edges are named as being certain or contrary as indicated by whether the two cooperating people framing a given edge have a subjectively constructive or pessimistic sort of relational relationship; such a system has been known as a marked chart or essentially, a sigraph in the writing [11].

Truth be told, sigraphs were first found by Harary as proper model models to speak to structures of subjective relational connections in a social gathering. From that point onward, sigraphs have gotten much consideration in social brain science in light of their broad use in displaying an assortment of cognizance based social procedures [12-15].

Further concentrated investigation of the subject has been expected to their in this way found solid associations with numerous traditional numerical frameworks utilized in taking care of an assortment of issues of hypothetical and commonsense premium [16-17].

3. Graph labelling problems and decomposition of graphs

Give G a chance to be a graph on n edges that permits a α_2 -naming. At that point for any positive whole number k there exists a G -disintegration of the total chart K_{2nk+1} . Confirmation. We need to demonstrate that for any k there is a graph G_0 comprising of k edge-disjoint duplicates of G with a blushing naming ρ . These duplicates may share vertices. Mean the duplicates by G_0, G_1, \dots, G_{k-1} . For a vertex z with $\alpha_2(z) \in L_j$, characterize the mark of its duplicate z_i having a place with G_i as $\rho(z_i) = i(j + \alpha_2(z))$. Let $x_i y_i$ be the picture of an edge xy of G having a place with G_i . It pursues from the meaning of α_2 that then $\alpha_2(x) \in L_j, \alpha_2(y) \in L_{j+1}$ and along these lines $\rho(x_i) = i(j + \alpha_2(x))$ and $\rho(y_i) = i(j + 1) + \alpha_2(y)$. First we have to demonstrate that ρ is injective. Since G_0 comprises of k edge disjoint duplicates of G , particular duplicates G_i, G_j can share vertices. We then possibly need to demonstrate

that if x_i and y_i are pictures of various vertices x and y of G , individually, at that point $\rho(x_i) \neq \rho(y_i)$. For logical inconsistency we guess that $x_i \neq y_i$ and $\rho(x_i) = \rho(y_i)$. First guess that both $\alpha_2(x), \alpha_2(y) \in L_j$ for some $j \in \{0, 1, 2\}$.

At that point $\rho(x_i) = i_j n + \alpha_2(x)$ while $\rho(y_i) = i_j n + \alpha_2(y)$. But since $\rho(x_i) = \rho(y_i)$, we get $\rho(x_i) = i_j n + \alpha_2(x) = i_j n + \alpha_2(y) = \rho(y_i)$ which promptly yields $\alpha_2(x) = \alpha_2(y)$. In any case, this negates our suspicion that α_2 is a blushing naming since a ruddy marking must be injective. Presently let $\alpha_2(x) \in L_j$ and $\alpha_2(y) \in L_{j+1}$ for $j \in \{0, 1\}$. At that point $\rho(x_i) = i_j n + \alpha_2(x)$ while $\rho(y_i) = i_{j+1} n + \alpha_2(y)$ and we get $\rho(x_i) = i_j n + \alpha_2(x) = i_{j+1} n + \alpha_2(y) = \rho(y_i)$ which yields $\alpha_2(x) = i_n + \alpha_2(y)$. In any case, $\alpha_2(y) \leq 2n$ and $I \leq k - 1$. In this way, $\alpha_2(x) = i_n + \alpha_2(y) \leq (k - 1)n + 2n = kn + n \leq 2kn$ at whatever point $k > 0$. Since this is performed in Z_{2kn+1} , it pursues that $\alpha_2(x) \geq \alpha_2(y)$.

Since α_2 is a ruddy naming, it must be injective and $\alpha_2(x) \neq \alpha_2(y)$. In this manner $\alpha_2(x) > \alpha_2(y)$, which negates our supposition that $\alpha_2(x) \in L_j$ and $\alpha_2(y) \in L_{j+1}$ for $j \in \{0, 1\}$. Also, in the event that $\alpha_2(x) \in L_0$ and $\alpha_2(y) \in L_2$, at that point $\rho(x_i) = \alpha_2(x)$ while $\rho(y_i) = 2i_n + \alpha_2(y)$ and we get $\alpha_2(x) = 2i_n + \alpha_2(y)$. Presently $\alpha_2(y) \leq 2n$ and $I \leq k - 1$. In this way, $\alpha_2(x) = 2i_n + \alpha_2(y) \leq 2(k - 1)n + 2n = 2kn$ and again in Z_{2kn+1} it pursues that $\alpha_2(x) \geq \alpha_2(y)$. Since α_2 is injective, $\alpha_2(x) \neq \alpha_2(y)$ and thus $\alpha_2(x) > \alpha_2(y)$.

This repudiates our supposition that $\alpha_2(x) \in L_0$ and $\alpha_2(y) \in L_2$. In this manner, ρ is an infusion. Presently we need to demonstrate that each duplicate G_i contains n edges of length $i_n + 1, i_n + 2, \dots, i_n + n$. By our equation, the length of an edge $x_i y_i$ (with the first vertices x, y fulfilling $x \in L_j, y \in L_{j+1}$) is equivalent to $\rho(x_i y_i) = \rho(y_i) - \rho(x_i) = i_{j+1} n + \alpha_2(y) - (i_j n + \alpha_2(x)) = i_n + \alpha_2(y) - \alpha_2(x) = i_n + \rho(xy)$. Since G contains edges of lengths going from 1 to n , G_i contains edges of lengths $i_n + 1, i_n + 2, \dots, i_n + n$. Along these lines, G_0 contains edges of lengths from 1 to kn , which finishes the evidence. As an outline of the deterioration strategy dependent on the α_2 -naming we presently demonstrate the accompanying basic outcome about lobsters. We review here that a lobster is a tree that can be changed over into a caterpillar by erasing all vertices of degree one, and a caterpillar is a tree that can be changed over into a way or a solitary vertex by erasing all vertices of degree one. It is realized that not all lobsters permit α -labelings.

k-HYPERGRACEFUL LABELINGS OF COMPLETE GRAPHS

The existence of k -hypergraceful labelings of the complete graph K_p where $k = (p - 4)$ if and only if $p \geq 8, k = (p - 3)$ for $p \geq 4, k = (p - 2)$ for $p \geq 3$ and $k = (p - 1)$ for $p \geq 2$. We present our results through a series of lemmas. We use the following notations in the proof of the lemmas.

Let $\pi = (a_1, a_2, \dots, a_t)$ be a sequence of positive integers with $a_1 \leq a_2 \leq \dots \leq a_t$. If a_i occurs r_i times in the sequence, then we write the sequence as $\pi = (a_1^{r_1}, a_2^{r_2}, \dots, a_s^{r_s})$ where $1 \leq s \leq t$ and $\sum_{i=1}^s r_i = t$.

Lemma. The complete graph K_p is $(p - 4)$ -hypergraceful if $p \geq 8$ and p is even.

Proof. It is sufficient to provide a hypergraceful labeling for one possible decomposition of K_p , when p is even and $p \geq 8$.

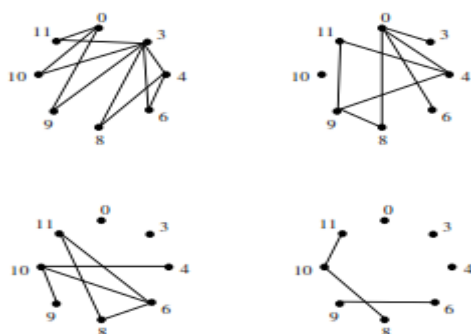
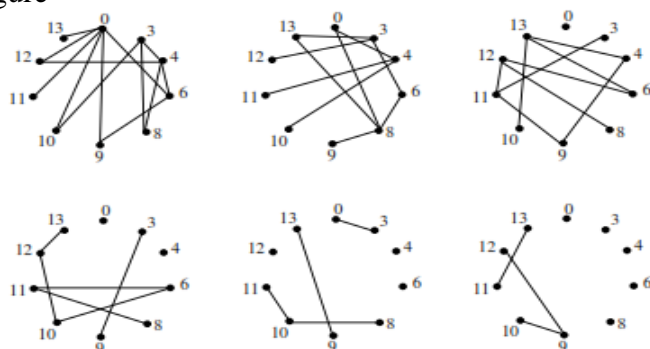


Figure -hypergraceful decomposition of K_8

The sequence π_{10} determines the following 6-hypergraceful decomposition of K_{10} given in Figure



6-hypergraceful decomposition of K_{10}

We label the vertices of K_p as $\{0, 3, 4, 6, 8, 9, \dots, p + 3\}$ and the edge labels of K_p are obtained as the absolute difference of its end vertex labels from $\{1, 2, 3, \dots, p + 3\}$. Let π_p denote the sequence of the corresponding edge labels. One can easily verify that $\pi_8 = (14, 24, 34, 43, 53, 63, 72, 82, 91, 101, 111)$ and $\pi_{10} = (16, 26, 36, 45, 54, 64, 73, 83, 93, 102, 111, 121, 131)$. The sequence π_8 determines the following 4-hypergraceful decomposition of K_8 given in Figure.

Conclusion

In this way usage of marked graph models require forcing of extra limitations which describe the issue being researched. The essential requirements emerge normally in considering the wide assortment of apparently disconnected commonsense applications for which marked charts give basic scientific models. A few epitomes of this hypothesis are as per the following:

- The structure of certain significant classes of good non intermittent codes for heartbeat radar and rocket direction is proportional to naming the vertices of a total chart with the end goal that all the edge marks are particular. The vertex names at that point decide the time positions at which beats are transmitted. Relating radar heartbeat and rocket direction code issues have been the subject of examination for quite a long while.
- Determination of gem structures from X-beam diffraction information has for quite some time been a worry of crystallographers. The ambiguities innate in this method are currently starting to be comprehended. Now and again, a similar diffraction data may compare to more than one structure. This issue is scientifically proportional to deciding all labelings of the proper chart which produce a pre-indicated set of edge numbers.

• Methods of encoding the whole numbers from 0 to $b^n - 1$ utilizing n digit vectors from the b -image letter set have been conceived to limit the earnestness of mistakes happening in a solitary digit. These encodings have been broadly researched. The relating chart issue includes naming the vertices of the square cross section network, b on a side in n measurements with whole numbers from 0 to $b^n - 1$, in a way that upgrades some factual capacity (regularly the mean or the change) of the edge numbers.

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SCENARIO OF INDUSTRIAL DEVELOPMENT IN RAJASTHAN

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Rajasthan being the largest state of India covers an area of 10.4% of total geographical area of India with a wide range of natural resources which is attracting the investors and increasing the scope of industrialization. Industrialization is an important component for economic development of the agricultural based economy state like Rajasthan which is agricultural oriented. There is a scope of abundant employment, income generation and better living standard with the development of industrialization in Rajasthan. The main occupation of the people of Rajasthan is agriculture but due to increasing population agriculture alone cannot generate the employment fully, so observing the importance of the role of industrialization in the state, government is trying its best to attract the investment, sustainable utilization of the natural resources is being done for the development of this sector. Government has formulated various policies and programmes for the development of this sector, and efforts are showing positive growth of 5.02% in the industrialization which is a good sign towards this sector. This article will discuss the various industrial policies, role and working of RICCO for industrial development and other measures taken by the government for the progress of this sector.

An Overview about Industrial Sector of Rajasthan

Rajasthan is emerging as one of the best destination of investment, growth and industrial development. The state has developed a strong industrial base with the great potential for Agro-based, textile, tourism, ceramics, chemical, drug formulation, engineering, electronics and IT sector. The vast mineral and natural resources, livestock, tourism, rich culture and heritage, manpower potential coupled with a commitment of the government to offer a tremendous potential to the upcoming industries. Rajasthan offers the most favored destination for investment and establishment of industries. Rajasthan is the leading producer of rapeseed, bajra, guar seed and spices such as fenugreek, coriander, cumin, fennel and mustard; it has become largest cement producing state of India contributing 15% of the India's production and world's largest producer of zinc, lead and silver. Rajasthan is the 2nd largest producer of Polyester fiber and contributes about 21.96% of India's production, it has 2nd highest number of mines (557) in the country, it is the 2nd largest producer of oilseeds and spices, it is 3rd largest producer of salt which accounts one-tenth of the country's salt production, 3rd largest producer of soyabean and coarse cereals in India, 4th largest producer of spun yarn. Bhilwara has emerged as India's largest manufacturer of suitings, fabric and yarn, Jaipur is well known centre for manufacturing exportable garments, largest IT park of North India is situated in Jaipur which is named as Mahindra World City. Today Rajasthan is not left with any field whether it is art, education, public welfare, business, sports, politics, science, medicine, literature, textile or engineering where it has not achieved remarkable and

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unprecedented success. At present almost all prominent business leaders like **Shri Kumar Mangalam Birla, Shri Rahul Bajaj, Shri L N Mittal, Bangurs, Modis, Poddars, Thapars, Goenkas and Rankas** have chosen Rajasthan to establish their industrial units. About 212 industrial regions have developed embracing about 42,000 acres of land. Shahajahanpur, Khushkhera, Behror, Neemrana, Jurhera in Bharatpur are the major industrial estates of Rajasthan. Bhilwara Industrial Development Authority (BIDA) Township is recently set up by RICCO. Jodhpur and Bhilwara regions are very well known for their textile industries and known as by the name of Textile Hub. Other mineral based industrial sites are Udaipur, Abu road, Banswara. Jaipur and Kota has 19 and 14 industrial estates respectively.

Objective Of The Study

1. To evaluate the current status of industrial development in Rajasthan.
2. To study the need of Industrial development in Rajasthan.
3. To determine the performance of various government agencies working for the industrial development in Rajasthan.

Review Of Literature

Dr.Neel Kamal Purohit , Assistant Professor, department of Commerce, SS Jain Subodh PG College reviewed in his article entitled, 'Development of infrastructure in Rajasthan' stated that," Rajasthan is showing a fast infrastructural development, as there is 80% of increase in road lengths, 12 projects have been sanctioned in energy sector, there has been a significant growth in the length in railways in Rajasthan from 5683 kms to 5911 kms.

According to www.ibef.org, " There is a significant growth of industrial sector in Rajasthan due to its natural resources, policy incentives, strategic location and infrastructure in the state are favorably suited for investments in sectors such as cement, tourism, agriculture and allied industries. Between 2011-12 and 2017-18 GSDP expanded at a compound annual growth rate of 11.60% (in rupees terms) where as NSDP expanded at compound annual growth rate of 11.45%.

According to [www.business standard.com](http://www.businessstandard.com),"Rajasthan is emerging as India's premier industrial hub. Rajasthan is the only state in India to have an act on Single Window Clearance, it is the only state in India to have 3 international investment zones, Japanese Manufacturing Zone at Neemrana, an exclusive Korean Industrial Zone and one more to come up in the region of Alwar district in Rajasthan.

Shodhganga. Inlibnet.ac.in revealed in their research a positive growth rate of industrial development in Rajasthan which was based on the survey which was conducted on 30 experts from different field like industry, government academic and non-profit organizations. Data collected about different districts and identical suggestions were made in the study revealed that no district exhibited negative growth, only positive rate of growth was witnessed.

Key Industries Of Rajasthan

1. Agro-based industries.
2. Textile industries.
3. Tourism industries.
4. Cement industries.
5. IT and ITeS
6. Ceramic industries.
7. Mining.

8. Gems and Jewellery.
9. Marble Industry.
10. Steel.
11. Handicrafts.
12. Chemical.
13. Salt production

Limitations And Challenges In Industrial Sector In Rajasthan

1. Lack of infrastructure.
2. Overpopulation.
3. Improper use of natural resources.
4. Insufficient water availability and poor rainfalls.
5. Lack of training facilities for efficient manpower working.
6. Gender inequality.
7. Sick industries due to huge financial liabilities and fiscal deficits.
8. Dry and arid climate
9. To develop proper infrastructure facilities.
10. Revival of sick industrial units.
11. Development of Rural sector.
12. Water conservation.
13. Fiscal management.
14. Drought and agriculture.

STRENGTHS-

1. Largest state with the largest land area.
2. Abundance of natural resources.
3. Rich heritage and culture.
4. Abundance of skilled manpower.
5. Internationally known for gems and jewellery.
6. Inherent art and craft.
7. Huge livestock.
8. Widespread mineral, gas and oil refinery. (Barmer Oil Refinery).
9. Thar desert.
10. Natural beauty.
11. Population.

SCOPE

1. TOURISM SECTOR.
2. ESTABLISHMENT OF SOLAR UNITS.
3. TEXTILE SECTOR.
4. EDUCATION SECTOR.
5. MINING AND MINERALS SECTOR.

Need For The Industrial Development In Rajasthan

Rajasthan is one of the least developed states of India known for its underdeveloped economy. Its location, climatic conditions, physical charms and demographic distribution make it distinct from other states of the country. However, like other states it is basically dependent on agriculture which is an allied field for the livelihood of its people and exhibits all characteristics features of an underdeveloped economy. This state has been suffering from deficiency of food grains, which is made by imports from other states of India and rationed

out to the people at the subsidized rate primarily because of their economic backwardness. There is an urgent need to diversify the economic structure by developing other sector, particularly industrial sector because agriculture alone cannot generate the employment fully for the rapidly increasing population of the state. So observing the importance of the role of industrialization in the state government is trying its best develop this sector by attracting the investment for the developing this sector in the state. Government has formulated various policies and programmes for the development of this sector, industrial development will generate lot of employment and income of people which will improve the living of standard of people.

Various Agencies Working For The Development Of Industrialization In Rajasthan

1) RICCO (Rajasthan State Industrial Development and Investment Corporation) – RICCO is main organization of Rajasthan which is working for the industrial development in Rajasthan with the objective of providing all the infrastructural facilities and financial aid to the working industries. It works for the establishment of new industrial units and provides all the basic facilities to already established units for their development. In the year 2017-18, till December 2017, 1,671.09 acres of land was developed by RICCO and 196 plots were allotted for industrial development, Rs.503.05 crore were getting as a revenue against Rs.208.62 crores were spent at that time. It works on the development of micro, small scale and medium scale by providing tax rebates and other duties, by providing all the technical and managerial related training facilities and information.

Special parks developed by RICCO

Agro-food parks-4 Agro-food parks have been established by the RICCO in Boranada(Jodhpur), Kota, Alwar, and Shri Ganganagar with costing 4,965.17 lakh rupees with the aim of developing agricultural products and to ensure maximum jobs and employment in this sector.

Japanese Industrial Zone- RICCO and JETRO (Japan External Trade Organization) on an international level have signed a memorandum of understanding in 2013 to facilitate the JETRO to set up their Japanese industrial units in the Neemrana city of Alwar district. Rajasthan is the only state in the country to have a special Japanese Investment Zone spread in 1,167 acres. Currently more than 50 companies are operating in this zone. Already land is allotted to Japanese multinational companies like-Nissin, Mitsui, Daikin, Dainichi color, etc. to establish their industrial units. This project has been proving successful and observing its success another South Korean Industrial zone has been established in Ghilot city of Alwar district which is spread in 500 Acres land.

RIICO has established 2 special economical zones in Sitapura and Jaipur based on gems and jewellery to promote coloured gemstone industry of Jaipur, and it will enable the industry to flourish in an organized way. The gems bourse will come up on a 40,000- square meter plot of the RICCO. The bourse will be the trade hub and it will facilitate exports from Jaipur, which will boost the foreign trade and generate additional employment in the state. With the establishment of Sitapura Special Economic Zone exports from India is increasing day by day. In 2017-18, till December 2017, export of rupees 922.54 crore has been done which created the employment for 11,091 people.

RICCO with the collaboration with Mahindra Group has created Special Economical Zone (SEZ) in the Mahindra World City (Jaipur) with the investment of rupees 3,305.40 crore. In this zone sub zones will be established for the industrial units of different sectors. 3 special economic zones have been established in the field of I.T, Engineering and Handicrafts. In

2017-18, till December 2017, exports of rupees 737.70 crore have been done in Mahindra World City (Jaipur) which created around 30,959 jobs for the people.

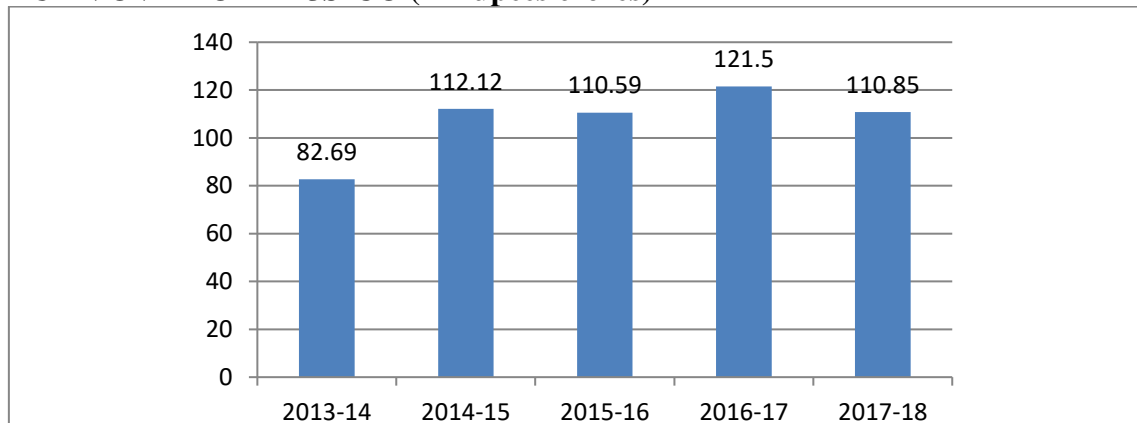
The fair has been organized by RICCO in collaboration with FICCI in Jaipur from 21-24 December 2017. To develop and promote textile business and industries RICCO has established an exhibition venue in Sitapura Industrial Area, Jaipur, which is committed to promote this sector which is highly employment oriented sector and inherent strength of Rajasthan. The fair will provide the platform to the participants and exhibitors for forming new business relations, to boost their exports, international relations, partnerships, which will result in projecting India as a prominent sourcing hub and investment destination.

2) RAJSICO (Rajasthan small Industries Corporation Ltd.)

Rajasthan stands among the richest state of the country in terms of art and craft. State is famous for its handicrafts work like paintings, vibrant colors, stone carvings, wood and sandalwood work, carpet, metal work, gems and jewellery, leather craft, lac work, weaving etc. The creativity and art is not only famous within India but it is flourishing internationally also and known as the treasure trove of India. RAJSICO was formulated on June 1961, to develop and promote micro, small scale and handicrafts industries and their products.

Being a business oriented its aim is to maximize its profit, for that timely steps are being taken for profit maximization like, changes in products with improved quality, new innovative and creative ideas in product designing, use of updated technology, supply of the products according to the demand in the market, to launch programmes for the development of handicraft industries so that those industries can get direct profit to them. To promote handicrafts sector government has organized around 35 exhibitions in last 10 years in different cities of the nation. The following table reveals about the turnover of RAJSICO and HANDICRAFTS ITEMS.

TURN OVER OF RAJSICO (In rupees crores)

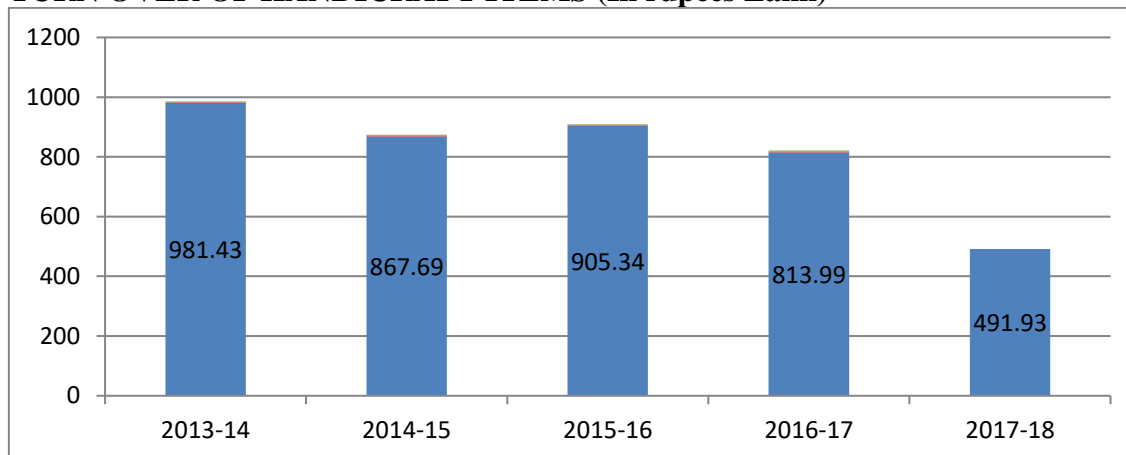


Source- Economic Survey 2017-18

Analysis of graph- Bars are briefing the annual turnover of RAJSICO, in 2013-14 there is a turnover of 82.69 crore rupees which has raised in 2014-15 up to 112.12 crore, in 2015-16 a

slight downfall can be observed which is 110.59 crore, in 2016-17 it is 121.50 crore and for 2017-18 till December 2017 it is 110.85 crore.

TURN OVER OF HANDICRAFT ITEMS (In rupees Lakh)



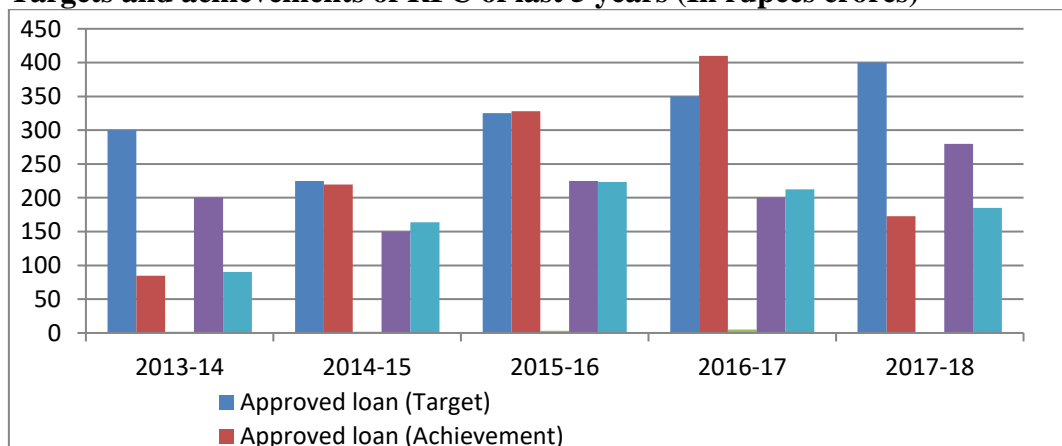
Source- Economic Survey 2017-18

Analysis of graph- We can observe a severe downfall of turnover in the field of handicrafts in last 5 years. As it were 981.43 lakh rupees in 2013-14 which went down to 867.69 in 2014-15, due to government efforts it raised up to 905.34 lakh rupees in 2015-16, but bar of 2016-17 is again showing the decrease of turnover upto 813.99, bar of 2017-18 is also showing the decreased turnover which is 110.85 till December 2017.

3) RFC (Rajasthan Financial Corporation)

Rajasthan Financial Corporation was constituted under the SFCs Act, 1951, on 17 January 1955 with the aim of establishing new industrial units, for providing long term financial support to tiny, small and medium scale industries, to promote and develop already established industrial units and to provide financial aid of rupees 20 crore to these units. The Corporation has 37 branches and 5 sub offices in 33 districts of the state with headquarter at Jaipur. Many projects are working under this campaign like CRI (Commercial real estate) project, single window project for SSIs and tiny industries having worth capital of rupees 200.00 lakh, , project for marble processing unit, to provide credit for working capital to non-assisted units, gold card and platinum credit project, etc. To promote Industrialization and to motivate youth entrepreneurs, RFC has extended its credit limit upto rupees 150 lakh from rupees 90 lakh under Youth Entrepreneurship Encouragement Project.

Targets and achievements of RFC of last 5 years (In rupees crores)



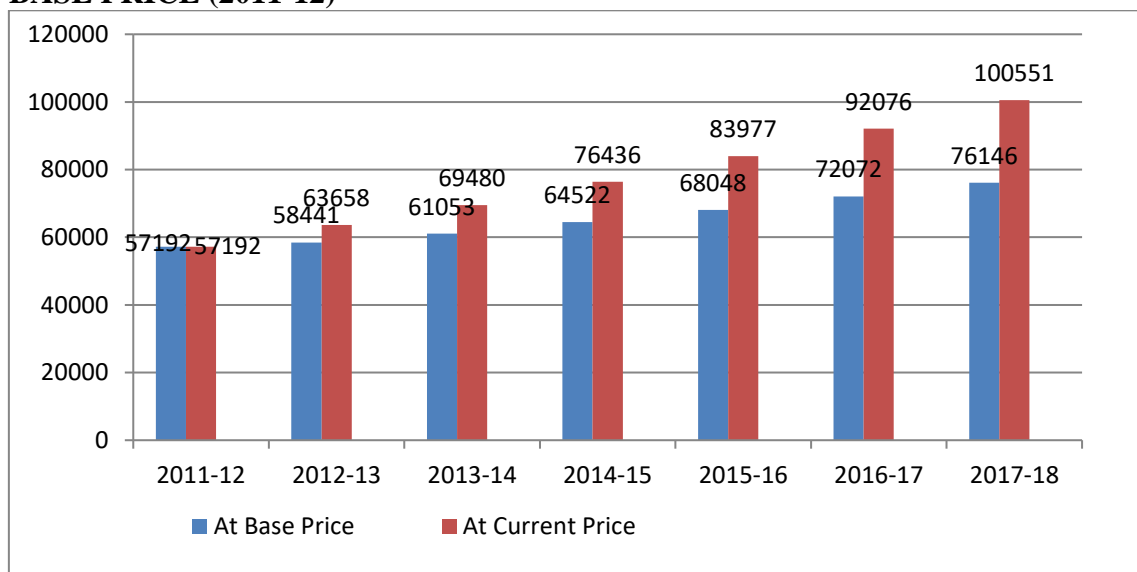
Source-Economic Survey 2017-18

The table is revealing about the significant increase of approved and issued loan by the RICCO to the investors for industrial development.

4) BIP (Bureau of Investment Promotion) –

The bureau of investment promotion is the nodal agency working for the investment promotion and single window clearances in the state of Rajasthan by developing investment policies to facilitate the investors to explore their investment in Rajasthan. It provides a complete backup to the investors from the initial level of project conceptualization to the final implementation as well as for post investment services also. A single window Act has been introduced with the objective to provide approvals and permissions to the investors by granting them license. At present this system covers 15 departments with 87 forms. Under the single window act Investors Grievance Cell (IGC) has been formulated in order to resolve the complaints of investors within 45 days. Around 5,489 investment proposals were received from 1st June, 2016 to 31st December 2017, out of which 3,791 proposals are accepted. To promote industrial investment Resurgent Rajasthan Partnership Summit 2015 was organized on 19-20 November 2015 to promote investment, to generate employment on a large scale, to standardize the living standard of people, and for social and economic development of the state.

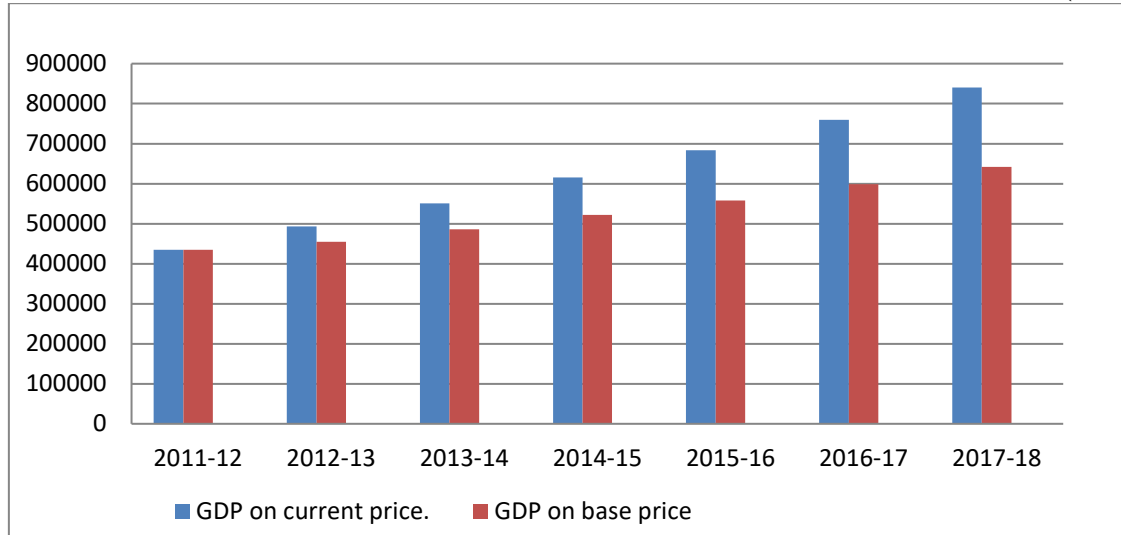
COMPARATIVE STUDY OF PER CAPITA INCOME AND GDP OF RAJASTHAN PER CAPITA INCOME OF RAJASTHAN BASED ON CURRENT PRICE AND BASE PRICE (2011-12)



Source-Economic Survey 2017-18

Per capita income is the index of welfare and living standard of people. Table is showing about the increased rate of per capita income in Rajasthan as compared from last 8 years . With the development of industrialization per capita income is also doubled in last 8 years which is showing the positive growth of Rajasthan's economy.

GDP OF RAJASTHAN BASED ON CURRENT PRICE AND BASE PRICE (2011-12

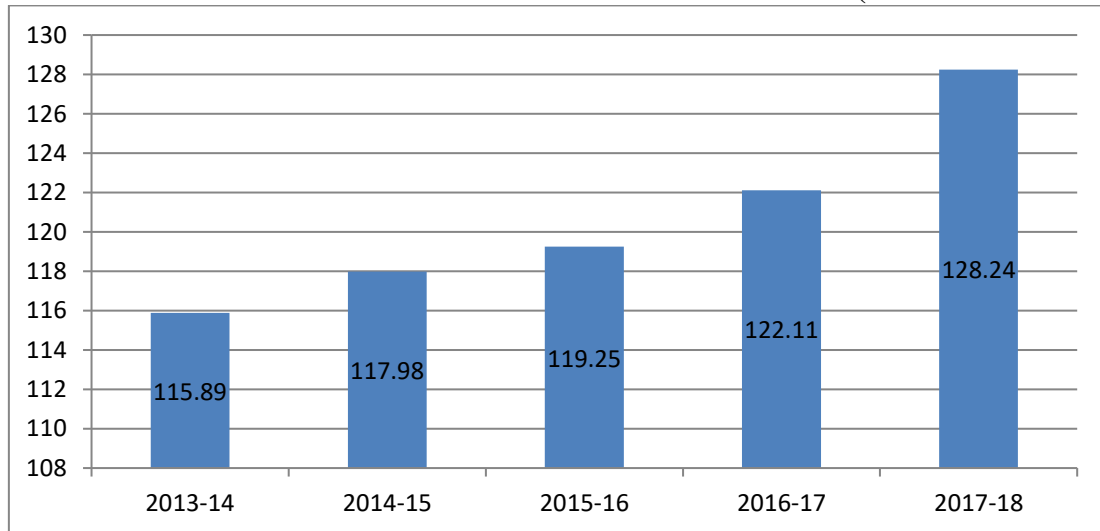


Source- Economic Survey 2017-18

GDP (at current price)- Remarkable growth can be observed in the GDP of Rajasthan from the given graph. On both current price and base price it is showing a notable growth. It is estimated about the production of rupees 8.40 lakh crore in the year 2017-18 which was rupees 7.59lakh crore in 2016-17. In 2011-12 the GDP was of rupees 4.34 lakh crore that reached up to rupees 4.93 lakh crore in 2012-13. In 2013-14 GDP was rupees 5.51 lakh crore which rose to rupees 6.15 lakh crore in 2014-15 and rupees 6.83 lakh crore in 2015-16. We can observe constant increase in the GDP (current price) in Rajasthan.

GDP (at base price) - If GDP is calculated on base price then also growth can be seen in the GDP of Rajasthan. Production price of the year 2011-12 is taken as the base year. It is showing the production of rupees 6.41 lakh crore in 2017-18 which was rupees 5.99 lakh crore in 2016-17. In 2011-12 it was 4.34 lakh crore, in 2012-13 it was 4.54 lakh crore, in 2013-14 the GDP was rupees 4.86 lakh crore, 5.21 lakh crore in 2014-15, and 5.58 lakh crore in 2015-16.

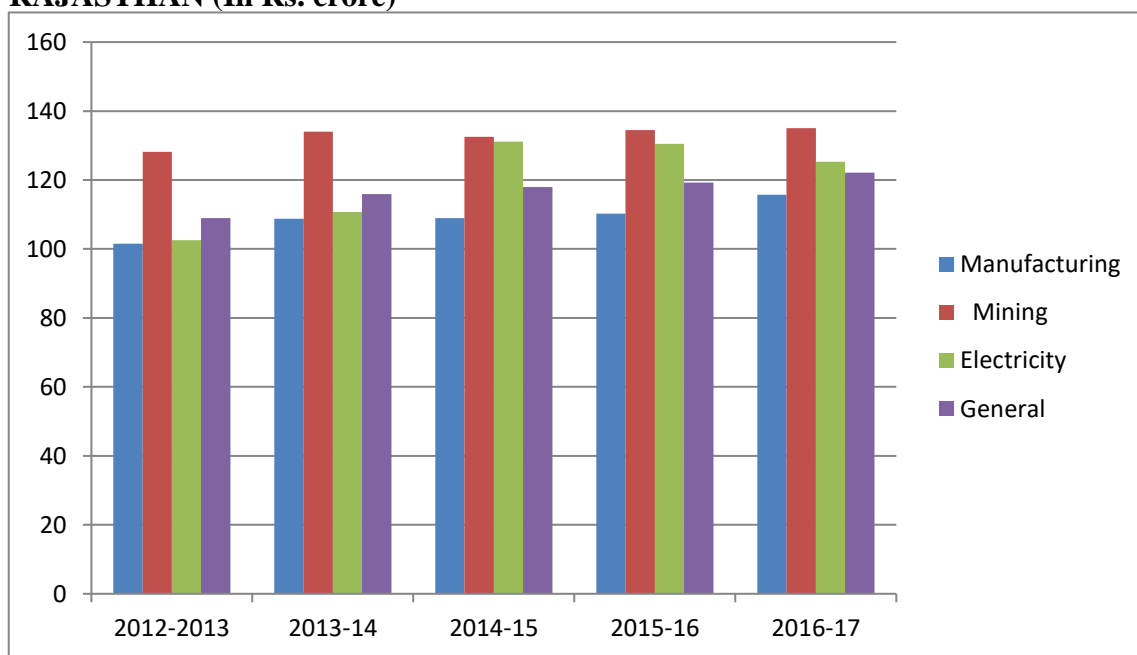
INDEX OF INDUSTRIAL PRODUCTION IN RAJASTHAN (In Lakh Metric Ton)



Source-Economic Survey 2017-18

The table is revealing about the increased Industrial production which is showing growth of 5.02% towards industrialization. We have taken 2011-12=100 as the base year to calculate the growth of industrial production for the given years. From 2013-14 to 2017-18(till December 2017) we can observe a significant growth of Industrial production. In 2013-14 it is showing the production of 115.89 Lakh Ton, which went up to 117.98 lakh ton in 2014-15, constantly it is raising and in 2015-16 the production was 119.25lakh ton, in 2016-17 bar is showing the production of 122.11 lakh ton, and the significant rise in the production can be seen in 2017-18 (till December 2017) which is 128.24 lakh ton.

INDEX OF INDUSTRIAL PRODUCTION IN DIFFERENT SECTOR OF RAJASTHAN (In Rs. crore)



Source - Economic Survey 2017-18

From the given table it can be analyzed that the graph of industrial production has been increased in recent years which is proving the development in the industrialization sector in Rajasthan. We can observe a consistent growth in the manufacturing sector, as there was the production of rupees 101.48 crore in 2012-13 which reached up to the index of rupees 115.71 crore in 2016-17 showing the growth in manufacturing sector in last 5 years.

Mining sector is also showing growth, as it was rupees 128.17 crore in 2013-14 and went up to rupees 135.04 crore, remarkable growth can be seen the electrical field also, from 102.51 crore in 2012-13 it reached to 125.32 crore, general sector of industrialization is also showing a notable growth; from 108.92 in 2012-13 it reached to 122.11 in 2016-17.

Conclusion - From the above article and the given graphs it can be concluded that Rajasthan is one of the fastest growing economies; it has been witnessing a significant growth of 5.02% in the industrial production. GDP of 2017-18 in Rajasthan has risen to 7.16% in last 5 years as it was 4.54% in 2012-13. Per capita income is also showing a notable growth up to 5.65% in 2017-18 as it was 2.19% in 2012-13. Growth can be observed in every stream whether it is per capita income, GDP, industrial production. Turnover of various agencies working for industrial development has increased as compared to 2013-14 but annual fluctuations are

being observed which is showing decreased turnover. At last it can be concluded that there has been a remarkable growth in the industrial sector of Rajasthan.

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Economic survey 2017-18

Impact Of Information Technology In Cashless Economy In India

Dr. Smitha Pillai*

Zenabul Ghazali**

Abstract

Cashless economy describes economic states whereby financial transactions are not conducted with money in form of physical banknote or coins but rather throughout the transfers of digital information (usually an electric representation of money) between transacting parties. Information technology refers to study or use of computer to store retrieve, transmit and manipulate data or information. Cashless transactions cannot be conducted without electronic gadgets and internet. Information technology plays a significant role in cashless economy. Before November 2016 cashless transaction was present in economy but it was not much popular among public but after demonetisation when people were out of cash they opted for cashless transaction and government promoted cashless economy. All the methods of cashless transaction like debit card, credit card, e-wallet, e-banking etc can only be done through using technology of sending digital information. Information technology has a great impact on cashless economy and it has both negative and positive impact on economy and general public. IT has made transactions efficient but due to loopholes in technology security is at risk. A survey was conducted to know that without IT cashless economy was possible or not and what are its impacts according to general public.

Keyword

Cashless Economy, Information Technology, Digital, Transaction, Money

Introduction

Information Technology

Information technology (IT) is the use of computers to store, retrieve, transmit, and manipulate/edit data or information. Information Technology is considered to be a subset of information and communications technology (ICT). Through information technology money can be transferred in form of digital information from one place to another without physical cash i.e. Digital Money. Digital money is exchanged using technologies such as smartphones, credit and debit cards. Digital money has been conceived of since very early in the age of the internet. Several digital cash companies were founded in the early 1990s, the earliest and best-known of these being DigiCash.

Cashless Economy

Cashless economy is an economy where transaction can be done without necessarily carrying physical cash as a means of exchange of transaction but rather with the use of credit or debits card, e-wallet like Paytm, Google pay etc for payment for goods and services. The use of information technology facilitates fund transfer, thereby reducing time wasted in

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Bank(s).Cashless economy is not the complete absence of cash, it is an economic setting in .which goods and services are bought and paid for through electronic media. In cashless economy every monetary transaction are done through electronic channels like Electronic Fund Transfer, mobile fund transfers, ATMs, E-banking etc so the financial system will be totally dependent on information technology because payments are done electronically.

Difficulties Faced In Cashless Economy

There is high level of cash based transactions in India. Cash in circulation amounts to around 13% of India's GDP.

Nearly 95% of transactions take place in cash. Large number of people in India belongs to informal sector and workers prefer cash based transactions as they get cash easily and fewer chances are there for fraud while using physical cash.

66.4% of Indian population belongs to rural region. Almost a quarter of the rural population doesn't have mobile phones and a large number of them are computer and fin-tech illiterate. They are not familiar with computers or mobile phones and they are dependent on other people for transactions. This sometimes leads to misuse of the accounts, piracy of personal information and frauds related to fund transfer, so majority of rural population prefer cash over digital money.

About 90% of the Indian labour market is informal. Daily wage workers work for whole day and then earn cash so there is no utilization of online transaction for them.

India is a country where 90% of transactions are paid in cash because cash facilitates making transactions anonymously, which helps agents to avoid laws, regulations and taxes from government. People do cash transaction so they can do tax evasion.

Security is another big concern regarding cashless transactions. The Indian Computer Emergency Response Team (CERT-In) reported increase in the number of incidents in October 2016 with approximately 39,730 security incidents. Indians are not satisfied by digital modes due to cyber security incidents such as phishing, scanning, website intrusions, defacements and virus code.

Digital India has faced major constrain from the thefts and hacking of digital money instruments. The ATM cards, Debit/Credit cards, Net Banking solutions and the transaction websites of the financial institutions and banks like SBI are hacked by the mischievous people who withdraw money by making clones and changing the passwords of many accounts.

Review Of Literature

Garg Preeti and Panchal Manvi in the paper "Study on Introduction of Cashless Economy in India 2016: Benefits & Challenge's" discussed the views of people on introduction of cashless economy in India .The study was conducted in Delhi region. After analysis it was concluded that many people agree with the government on the usefulness of cashless economy as it helps to fight against terrorism, corruption, money laundering but one biggest problem in the working of cashless economy in India is cybercrime and illegal access to primary data.

Salihu Shakirat.A, Mustapha Kassim, Ajayi Ireti. H and Binitie Amaka (2013) in the paper "The Impacts of Information Technology in a Cashless Economy in Nigeria" analyzed and clarified that how Nigerian bank have used information technology. They used three variables and also included nature and degree of adoption of innovative technologies and the impact of the adoption of Information Technology devices on the cashless economy in the banking sector.

Annamalai S., and Muthu R. Iakkuvan (2008) in their paper “Retail transaction: Future bright for plastic money” forecasted the growth of debit and credit cards for transactions in retail business. They also mentioned the factor of growth and increasing popularity of plastic money in public, they discussed some major difficulties faced by banks regarding debit and credit card i.e. Plastic money and it concluded that scope of plastic money is very bright in future.

Das Ashish and Agarwal Rakhi, (2010) in their article “Cashless Payment System in India- A Roadmap” Cash as a mode of payment is an expensive proposition for the Government. The survey included representative sample of different categories of retail businesses but it was limited to Mumbai region. The country needs to move away from cash-based towards a cashless (electronic) payment system. This will help reduce currency management cost, track transactions, check tax avoidance or fraud etc., it enhances financial inclusion and integrates the parallel economy with main stream.

Jain, P.M (2006) in the article “E-payments and e-banking” discussed that e-payments will be able to check black money in economy. He also did an analysis of Growth Pattern of Cashless Transaction System. He also pointed out the need for e-payments and various modes of e-payments and communication networks. He concluded that by taking full advantage of information technology, quick payments and remittances will ensure optimal use of available funds for banks, financial institutions, business houses and common citizen of India.

Jain Bindu and Bansal Rashmi in the article “E- payment: necessity of cashless economy” discussed different method of e-payment system its advantages, disadvantages and its importance for making cashless economy. She concluded that cashless system is need of today's society as it is base of online market, fast, secure and safe. Nevertheless, e payment system will lead Indian economy to cashless economy.

Problems Of Information Technology In Cashless Economy

- Digital illiteracy
- Connectivity
- Technological loopholes
- Usage of electronic gadgets

Objective Of Study

- To know the impact of Information Technology in the Cashless Economy
- To know the opinion of selected people regarding impact of Information Technology in Cashless Economy
- To identify major difficulties from government and public point of view
- To suggest measures to improve or overcome difficulties that is identified through this research

Hypothesis Of Study

The following alternative hypothesis has been set for the study

H₁: There found a significant difference in the opinion of people regarding the impact of IT in cashless economy

Research Design

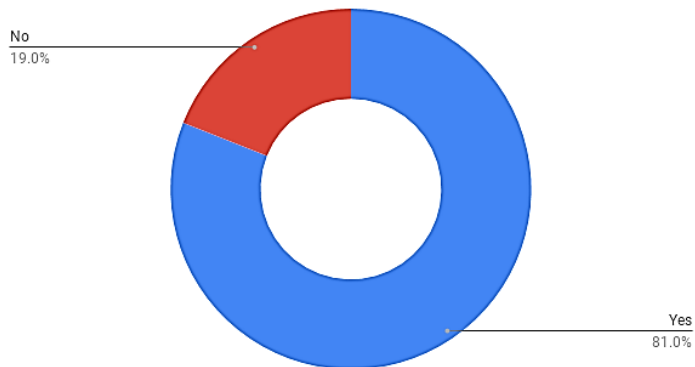
Methodology

Both primary and secondary data are used for the research. Survey based on list based sampling frame has been used to collect the information. This random sampling method has

helped the researchers to know opinion of public regarding impact of information technology on cashless economy and secondary data was collected from internet and e-journals.

DATA REPRESENTATION AND INTERPRETATION

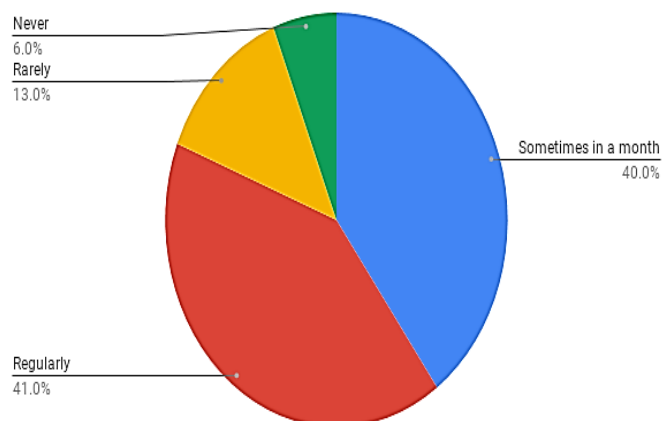
Count of people using online banking services?



81% of people use online banking services as they responded with yes and rest 19% responded with no.

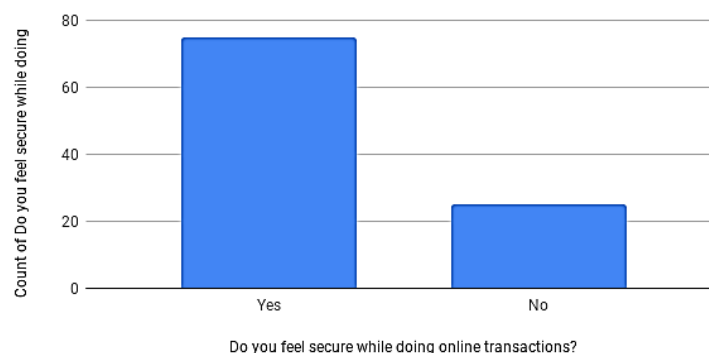
People are doing cashless transaction more often as 41% opted for regularly and 40% said sometimes in a month so majority people are doing cashless transaction. 13% opted for rarely and 6% people responded with never who are basically doing transaction in physical cash.

Count of people doing cashless transaction in a year



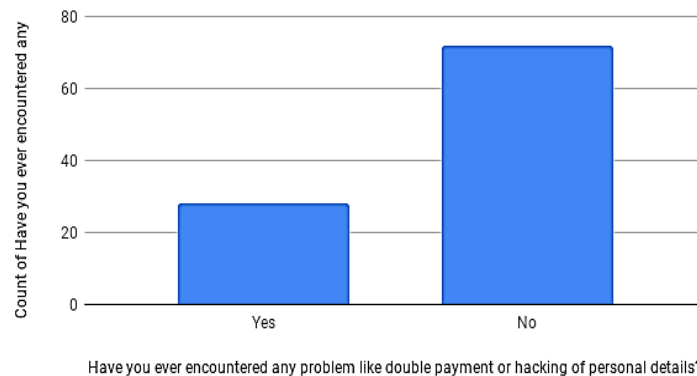
Out of 100 people more than 75 people feel safe while doing online transactions

Count of people who feel secure while doing online transactions?



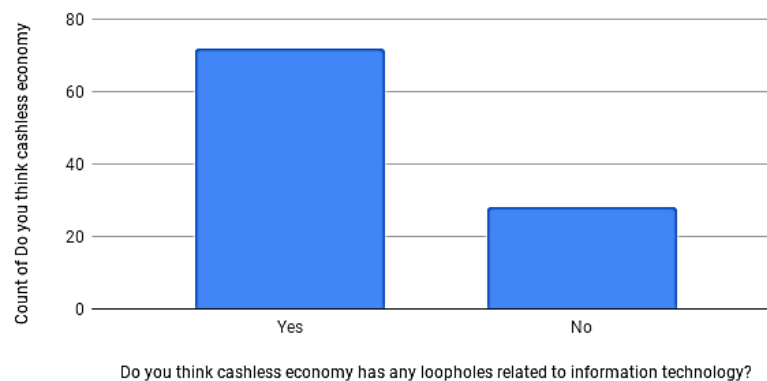
More than 20 people have faced issue like hacking, double payment etc while doing cashless transaction which shows a major loophole of information technology.

Count of people who have encountered any issue like double payment or hacking of personal details?



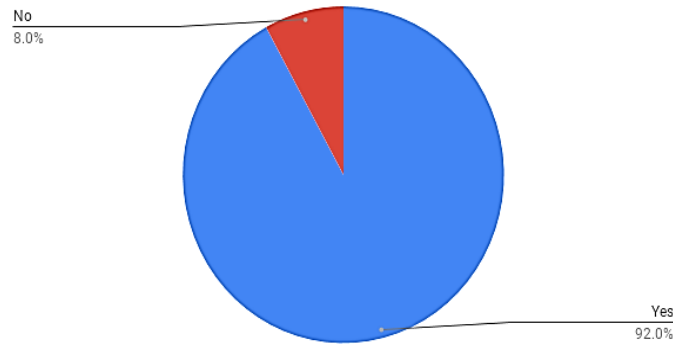
70% of people think that there are loopholes and there is need for working on those loopholes.

Count of people who thinks cashless economy has loopholes related to information technology?



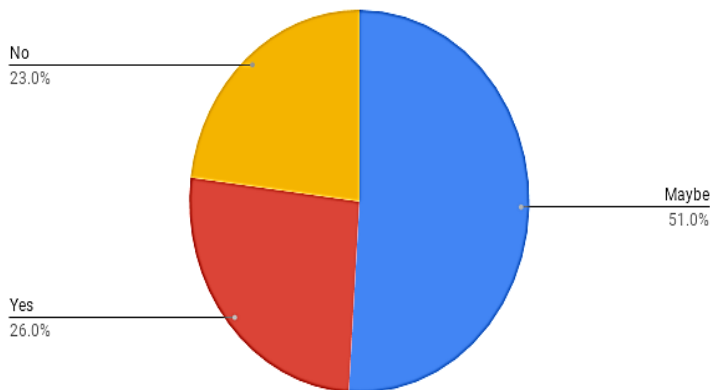
92% among all respondents want that there is need for upgradation of technology for better security and connectivity to do cashless transaction at more ease and at any time.

Count of people who think there is need for technological upgradation for cashless transactions

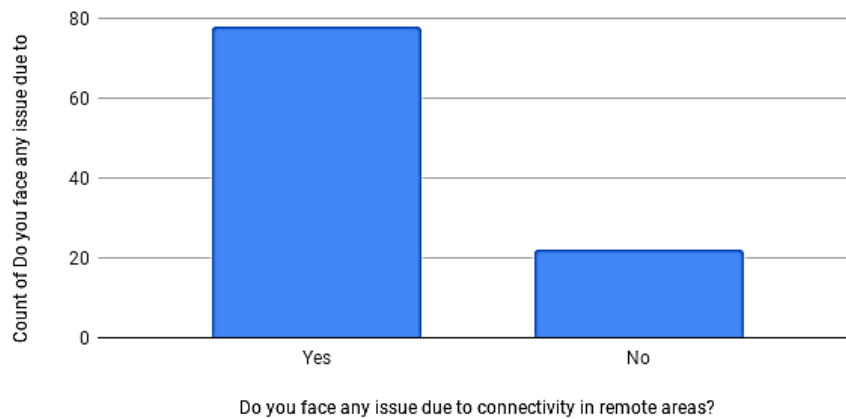


When people were questioned about terms and condition of various methods of cashless transaction 51% responded maybe and

Count of people who are aware of all terms and conditions related to various methods of cashless transactions

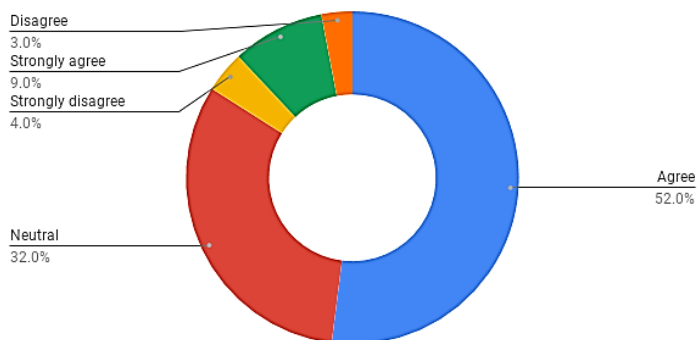


Count of people who face any issue due to connectivity in remote areas?



79% people opted for yes for facing connectivity problem in remote areas which is a problem for cashless transaction because without internet digital money cannot be transferred.

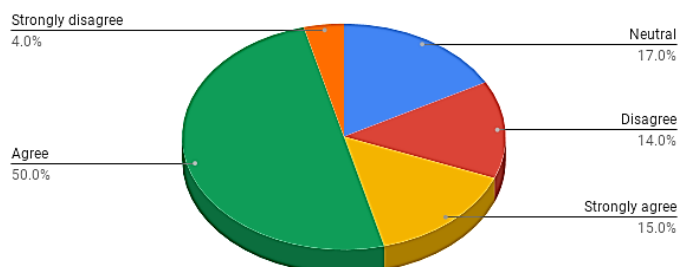
Count of people who think public sector is unable to compete private sector due to advancement in technology



9 % strongly agreed and 52% agreed that public sector is unable to compete with private sector due to limited resources available .32% people were neutral about it and 4% strongly disagreed, 3% disagree with the statement

Out of 100 respondent 65 among them agreed that information technology is becoming barrier for some small business as they are unable to use facilities of POS and e-wallet. 18 among them disagreed and rest responded in neutral for the statement

Information technology has great impact on our cashless economy but it is also becoming a barrier for some sectors in



Hypothesis Testing

The age wise scores obtained for the statement “Information technology has great impact on our cashless economy” are as follows;

Report

total

age	Mean	Std. Deviation	Variance	Range
15-25	22.84	2.390	5.714	12
25-40	23.43	2.070	4.286	6
40 above	22.71	2.984	8.905	9
Total	22.87	2.394	5.730	12

From the above table its very clear that the age group 25-40 has the maximum mean(23.43) with less deviation (standard deviation 2.07).

ANOVA Table

	Sum of Squares	df	Mean Square	F	Sig
total * age Between (Combined) Groups	2.446	2	1.223	.210	0.811
Within Groups	564.864	97	5.823		
Total	567.310	99			

The ANOVA results explain that there is no significant difference exists within comparisons of scores among the three different age groups. Thus, the alternative hypothesis that there found a significant difference in the opinion of respondents regarding the impact of IT in cashless economy is rejected.

Measures of Association

	Eta	Eta Squared
total * age	.066	.004

The eta squared shows that only 0.4% of the variance in the total scores is due to age.

Findings

It is found that there is no significant difference in the opinion of selected group on the impact of IT in cashless economy.

Automatic Teller Machine is mainly used cash withdrawals: There are large numbers of ATM cards but it is only used for withdrawal purpose it is not utilized for online transaction. 92% of ATM cards are used for cash withdrawals. Very less no. of people use ATM card for activities like shopping etc. Cardholders in urban and semi-urban areas are users whereas there are very less users in rural region.

Limited availability of Point of Sale terminals: According to RBI, there are 1.44 million POS terminals installed by various banks across locations at the end of July 2016. But most of them are installed in urban/ semi-urban region. Rural region is suffering because of less POS terminals available.

Mobile internet penetration remains weak in rural India: For settling transactions digitally, internet connection is needed. But in India, there is poor connectivity in remote and rural areas.

Lower literacy level in poor people and rural parts of the country; make it problematic to do online transaction or to motivate people to use plastic money on a wider scale.

Connectivity problem: Due to poor network in remote areas cashless transaction is not possible everywhere.

Security: While doing cashless transactions money is transferred through sending information in digital form so the information is at risk due to technological loopholes and it can be hacked by any anonymous hacker and can be misused later.

Technological loopholes: Electronic gadgets are many times are out of service or it is unable to retrieve data which becomes a barrier for cashless transaction.

Mobile phones: Smartphones are still not affordable to all citizens especially to those who are below poverty line. Though several companies have introduced inexpensive smartphones but they are not affordable for many people in the country as poverty is prevailing in many region. Indian government can take necessary steps like providing subsidy or affordable alternatives for cashless transaction.

Conclusion

Information technology is having a great impact on cashless economy. After conducting survey through questionnaire it was observed that people are using digital modes and many among them are frequent user of digital money, satisfaction level and sense of security is also there when they do cashless transactions as 75% responded that they feel secure. 92% among all the respondents think that there is need for technological advancement in cashless economy and 75% among them agreed that there are loopholes whereas 25% of them have already experienced it in form of hacking of data, double payment etc. Major difficulties faced by government is limited monetary resources and dynamic technological environment as government is not having sufficient budget to promote cashless transaction as it requires many instruments like internet, smartphones etc.

Even now rural regions are facing connectivity problem and rural population is not comfortable with use of digital money .Digital illiteracy is prevailing in many parts of India. Unorganised sector in both rural and urban region are unable to use facilities like POS, e-wallet etc which is an obstacle for public.

Suggestion

More point of sales is to be installed in semi-urban and rural area

Campaigns for teaching people about usage of digital money

Improving connectivity and providing smartphones at affordable price to low income group.

Upgrading the technology to increase security of cashless transactions.

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A Study On Employee's Self-Realization At Retail Outlets Of Bangalore

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Dr. B. Rose Kavitha**

Abstract

Employees are engaged when organizations have healthy work culture and communication practices, where they can get platforms to express their concerns and opportunities to grow and develop their potential. Today competitors can emulate the performance of the service provided but they cannot replicate the vigor, dedication and absorption of their employees at the place of work. This paper outlines how employee engagement can be increased through organizational culture in service sectors. This study provides a methodology for measuring impact of these antecedents on facilitating employee Engagement.

This study will seek to investigate the self realization levels of the employees. It presents the research problems and the research questions, which were formulated around the problem and aims of the research. In order to fittingly position the research and to delineate its scope, the paradigms and meta-theoretical perspectives of the study are also outlined.

Introduction

Organizational culture, together with the values that it epitomizes, is a significant element in the success of any organization, and is acquiring support as a predictive and explanatory construct in organizational studies (Liu, Shuibo, &Meiyung, 2006). Organizational culture has been linked to job satisfaction and commitment (Silverthorne, 2004), and is perceived to be a central determinant of overall organizational efficacy (Haggard &Lapoint, 2005). The ubiquitous and permeating nature of an organization's culture demands that organizations identify the fundamental dimensions of their organizational culture and its effect on employee related variables such as work engagement — a concept that has emerged as the most noticeable positive organizational characteristic in recent times, particularly among organizational consultants (Salanova&Schaufeli, 2008).

Job engagement is powerfully linked to a variety of successful outcomes of business, including work commitment, job satisfaction, productivity, product innovation, and employee retention, and to general positive work outcomes (Halbesleben, 2010). Wildermuth and Pauken (2008) examined the organizational roots of engagement, and found three important environmental factors connected to engagement: (1) relationships, (2) work-life balance and, (3) values. Of particular significance to the present study is the values factor that is connected to engagement and, specifically, the congruence between organizational and individual values. Values are measured to be principles of desirability — unrecorded rules according to which others are expected to behave (Maslowski, 2006). Organizational values, along with beliefs, assumptions, expectations, attitudes, philosophies, and norms, form the basis of organizational culture, and are integral to the distinct identity of every

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organization (Schein, 1990). Values relate to work engagement on a least two levels: security and connectedness (Wildermuth&Pauken, 2008). Kahn (1990) found that secured jobs were conventional and predictable, clear, and unwrapped to employees' values and beliefs.

Results and discussions

The table 1.1 shows the distribution of demographic variables of the respondents observed over the factors of "Organization, Gender, Age, Marital status, Educational Qualification, Experience, Departments, Nature of Job, Monthly Income".

Table 1.1: Frequency and % regarding the demographic variables of respondents

		Frequency	Percentage
Organization	BigBazaar	70	19.44
	MegaMart	35	9.72
	Shopper stop	35	9.72
	Metro cash and Carry	35	9.72
	Pantaloons	35	9.72
	Reliance Trends	45	12.50
	Max	35	9.72
	Dominos	35	9.72
	Lifestyle International	35	9.72
Gender	Male	245	68.06
	Female	115	31.94
Age	20 – 25	104	28.89
	26 – 30	106	29.44
	31 – 35	88	24.44
	Above 35	62	17.22
Marital status	Married	186	51.67
	Unmarried	174	48.33
Educational Qualification	School	95	26.39
	Diploma	91	25.28
	UG	74	20.56
	PG	42	11.67
	Others	58	16.11
Experience	Up to 5 years	96	26.67
	6-10 years	65	18.06
	11-15 years	79	21.94
	16-20 years	77	21.39
	Above 20 years	43	11.94
Departments	Boundary spanners	57	15.83
	Maintenance	59	16.39
	Purchase	58	16.11
	Store	62	17.22
	Accounts	50	13.89
	Human Resources	33	9.17
Nature of Job	Marketing	41	11.39
	Operational Level	117	32.50
	Supervisor Level	156	43.33
Monthly Income	Managerial Level	87	24.17
	Less than Rs.10,000	83	23.06
	Rs.10,001-Rs.20,000	63	17.50
	Rs.20,001 - Rs.30,000	79	21.94
	Rs.30,001-Rs.40,000	77	21.39
	More than Rs.40,000	58	16.11
Total		360	100.00

Regarding the *organization* the distribution shows that 19.44% of respondents from BigBazaar, 9.72% of respondents from MegaMart,9.72% of respondents from Shopper

stop,9.72% of respondents from Metro cash and Carry,9.72% of respondents from Pantaloons,12.50% of respondents from Reliance Trends,9.72% of respondents from Max,9.72% of respondents from Dominos,9.72% of respondents from Lifestyle International. Thus it can be interpreted that highest percentage of the respondents is from BigBazaar.

Regarding the **Gender** the distribution shows that 68.06% of the respondents are Male and 31.94% of the respondents are female. Thus it can be interpreted that highest percentage of gender is male.

Regarding the **Age** the distribution shows that 28.89% of respondents were in the age group of 20-25 years, 29.44% of the respondents age group of 26-30 years,24.44% of the respondents the age group of 31-35 years, 17.22% of the respondents the age group of Above 35 years. Thus it can be interpreted that highest percentage of age group is 26-30 years.

Regarding the **Marital status** the distribution shows that 51.67% of respondents are married and 48.33% of the respondents are Unmarried. Thus it can be interpreted that highest percentage of the respondents are married.

Regarding the **Educational Qualification** the distribution shows that26.39% of the respondents are School Level, 25.28% of the respondents are Diploma holders, 20.56% of the respondents are Graduates,11.67% of the respondents are Post graduates and16.11% of the respondents are Others. Thus it can be interpreted that highest percentage are School Level.

Regarding the **Experience** the distribution shows that 26.67% of the respondents experience is up to 5 years, 18.06 % of the respondents experience is 6 to 10 years,21.94% of the respondents experience is 11 to 15 years,21.39% of the respondents experience is 16 to 20 years and11.94% of the respondents experience is above 20 years. Thus it can be interpreted that highest percentage of the respondents experience is up to 5 years.

Regarding the **Departments** the distribution shows that 15.83% of the respondents are from Boundary spannersdepartment,16.39% of the respondents are from Maintenancedepartment,16.11% of the respondents are from Purchase department,17.22% of the respondents are from Store department,13.89% of the respondents are from Accounts department,9.17% of the respondents are from Human Resources department,11.39% of the respondents are from Marketing department. Thus it can be interpreted that highest percentage of the respondents are from Store department.

Regarding the **Nature of Job** the distribution shows that 32.50% of the respondents are at Operational Level, 43.33% of the respondents are at Supervisor Level and 24.17% of the respondents area at Managerial Level. Thus it can be interpreted that highest percentage of the respondents are at Supervisor Level.

Regarding the **Monthly income** the distribution shows that 23.06% of the respondent's Monthly income is Up to Rs.10,000, 17.50% of the respondent's monthly income is Rs.10,001-Rs.20,000, 21.94% of the respondent's monthly income is Rs.20,001 - Rs.30,000, 21.39% of the respondent's monthly income is Rs.30,001-Rs.40,000and 16.11% of the respondent's monthly Income is Above 400000. Thus it can be interpreted that highest percentage of group of monthly income is Up to Rs.10,000.

Our study consisted of 360 respondents who were asked to indicate on a five point scale, their agreement or disagreement with the set of 25 statements relating to Employee's Self-Realization which are '*Aware of level of responsibility in the organization, Have a clear*

understanding of career or promotion path, Have the opportunity to do best in the organization, On-boarding experience effective in the organization, Have the opportunity to improve skills, Have someone at work that consider as a friend to share feelings, Co-worker collaborate well together, Have got an opportunity to communicate frankly with co-worker, Feel like co-workers respect each other here, Supervisor or someone at work seem to care about, Feel, have a good relationship with superior, Get timely and useful feedback about work, Feel stressed and overwhelmed, Feel that maintain a healthy balance between work and personal life, Believe 'll be able to reach full potential here?, Feel like 're progressing professionally at the organization, Know what is expected from at work, Feel, got an ability to generate new things, Have had opportunities at work to learn new things, Have trust towards management for future development, Proud to work for the organization, At any time, felt previous employer is better than present employer, Have fun working here, Foresee yourself working here one year from now?, Have the opportunity to grow within organization'.

Factor analysis is used to identify a smaller number of factors underlying larger number of observed variables. Factor analysis is often used in data reduction to identify a small number of factors that explain most of the variance observed in a much larger number of manifest variables..

1.2 Opinion towards Professional development

Table No.1.2 Level of agreement towards Professional development

	SDA		DA		N		A		SA		Total
	N	%	N	%	N	%	N	%	N	%	
Inspired by the purpose and mission of the organization	17	5	14	4	83	23	125	35	121	34	360
Think the organization supports you in the professional development	16	4	17	5	91	25	124	34	112	31	360
Feel like you have all the support that you need to do the job properly	17	5	16	4	107	30	117	33	103	29	360
Think team work is the biggest strength that we should be focusing on	14	4	18	5	93	26	109	30	126	35	360
Believe the organization have a higher purpose than money	19	5	22	6	95	26	115	32	109	30	360
Been allowed to participate in decision making by the superior	13	4	20	6	89	25	113	31	125	35	360

It is clear from the table 1.2 majority among agreed with the factor of “*Inspired by the purpose and mission of the organization, Think the organization supports you in the professional development, Feel like you have all the support that you need to do the job properly, Believe the organization have a higher purpose than money*” and Strongly agreed with the factor of “*Think team work is the biggest strength that we should be focusing on, Been allowed to participate in decision making by the superior*”.

1.3 Opinion towards Recognition

Table No.1.3 Level of agreement towards Recognition

	SDA		DA		N		A		SA		Total
	N	%	N	%	N	%	N	%	N	%	
Think the organization should improve communication	17	5	19	5	110	31	119	33	95	26	360
Think the team-building activities are effective	19	5	28	8	107	30	119	33	87	24	360
Management team set clear goals	11	3	21	6	113	31	113	31	102	28	360
Feel respected by the direct supervisor	16	4	24	7	90	25	127	35	103	29	360
Supervisor support the developmental goals	8	2	23	6	88	24	125	35	116	32	360
Feel comfortable providing upward feedback to the supervisor	14	4	22	6	95	26	136	38	93	26	360
Feel the management team is transparent with you and the team	16	4	24	7	82	23	115	32	123	34	360
Believe the company gives authentic recognition in the workplace	13	4	22	6	88	24	121	34	116	32	360
Feel like you can share the honest thoughts with the manager	19	5	18	5	95	26	113	31	115	32	360
Feel like the manager is someone you can trust	17	5	20	6	109	30	105	29	109	30	360
Feel like the organization engages you to give the opinion	12	3	17	5	124	34	113	31	94	26	360
Feel like the work contributes to the goals of the organization	14	4	27	8	135	38	98	27	86	24	360

It is clear from the table 1.3 that majority among Neutral with the factor of “*Feel like the manager is someone you can trust, Feel like the organization you to give the opinion, Feel like the work contributes to the goals of the organization*”, agreed with the factor of “*Think the organization should improve communication, Think the team-building activities are effective, Management team set clear goals, Feel respected by the direct supervisor, Supervisor support the developmental goals, Feel comfortable providing upward feedback to the supervisor, Believe the company gives authentic recognition in the workplace*” and Strongly agreed with the factor of “*Feel like you can share the honest thoughts with the manager, Feel the management team is transparent with you and the team*”.

Opinion towards Work environment

Table No.1.4 Level of agreement towards Work environment

	SDA		DA		N		A		SA		Total
	N	%	N	%	N	%	N	%	N	%	
Feel like have enough freedom to decide how you do the work	14	4	21	6	112	31	107	30	106	29	360
Feel like the work environment reflects the organizational culture	10	3	25	7	114	32	105	29	106	29	360
Feel like the organization celebrates its accomplishments and learning's	14	4	21	6	115	32	104	29	106	30	360

It is clear from the table 1.4 that majority among Neutral with the factor of “*Feel like have enough freedom to decide how you do the work, Feel like the work environment reflects the organizational culture, Feel like the organization celebrates its accomplishments and learning's*”.

4 Opinion towards Positive work culture

Table No.1.5 Level of agreement towards Positive work culture

	SDA		DA		N		A		SA		Total
	N	%	N	%	N	%	N	%	N	%	
Feel like the organization protects its employees from discrimination	14	4	20	6	117	32	102	28	107	30	360
Think some potential hazards are there which will put us out of business	11	3	20	6	118	33	101	28	110	31	360
Feel like training for the employees will motivate them to accomplish the organization goals	12	3	22	6	120	33	99	28	107	30	360
Executive team contribute to a positive work culture?	14	4	20	6	121	34	98	27	108	30	360
Feel like the manager cares about the feedback	10	3	20	5	122	34	100	28	108	30	360
Seen any positive change since we started collecting employee feedback	14	4	20	5	124	34	94	26	108	30	360

It is clear from the table 1.5 that majority among Neutral with the factor of “*Feel like the organization protects its employees from discrimination, Think some potential hazards are there which will put us out of business, Feel like training for the employees will motivate*”.

them to accomplish the organization goals, Executive team contribute to a positive work culture, Feel like the manager cares about the feedback, Seen any positive change since we started collecting employee feedback”.

Suggestions for Managers

First strategy to enhance employee engagement: Openness, confrontation and autonomy dimension of OCTAPACE organization culture contributing more towards employee engagement and managers need to work more on developing and implementing policies, practices and activities related to these dimensions to enhance engagement

Second strategy: Industry type has significant effect on motivation and pride, dedication and positivity, trust and integrity, relationship with coworkers and managers, and performance and commitment, career growth and employee development opportunity dimension of employee engagement. Managers need to work more on developing and implementing sector wise policies, practices and activities related to these dimensions to enhance engagement

Conclusion

Organized retail is changing very rapidly. The segment in the retail sector which was not organized earlier is now organizing like food & groceries. So many players are entering into organized retail. Customers also feel that they are getting benefits from this organized retail. Also they are accepting that these retail formats are improving day by day. Organized retail is growing at the rate of 20-30% p.a. Now these retail stores are equipped with IT tools and rural retail concept is also emerging.

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The Role of Digitalization, Training and Learning in Indian SME's for Creating Sustainability

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Abstract

Globally there is a growing recognition that small and medium enterprises (SME's) have a catalytic role in the economic development of nations. Infact, they are considered to be the driving force behind the growth and vibrancy of any economy. SME's contribute to employment generation, business growth, novelty in products/services, balanced regional development and elevation of poverty. Many researchers and policy makers consider SME's as the major source of vitality in an economy but it is also found that SME's are extremely vulnerable to the fluctuations in the external environment. Therefore, it is recommended that SME's need special help for their sustainability and development through digitalization, training and learning. Strengthening the internal capabilities of SME's has become a top priority for which training and learning through digitalization is recognized as an important tool for developing the internal competencies.

In this current research paper an attempt has been made to critically understand the significance of digitalization, training and learning in Indian SME's for creating sustainability through key drivers like managerial decisions, financial planning and learning & training programs etc. In recent times many SME's are facing certain challenges such as inadequate infrastructure, zero innovation, lack of training & skill upgradaton, inadequate fund to name a few. In order to overcome these challenges SME's have to invest in innovation, start online operations, enter into e-commerce, embrace and update existing technology and become globally relevant. Therefore, it is imperative for the SME's to become digitally empowered through customized training and learning strategies.

Keywords: SME's, Digitalization, Sustainability, Training and Learning

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1.1 Introduction

Sustainability has gained a pivotal role in driving businesses for a competitive advantage in the current scenario. Sustainability means how an enterprise adapts and maintains its competence levels both in the internal and external environment and emerges as a frontrunner. "Sustainable development means adopting business strategies and activities that meet the current needs of the enterprise and its stakeholders while protecting, sustaining and enhancing the human and natural resources needed in the future". It is not only important to measure the company's transition to sustainability but more important to establish and discover ways which enable companies to move towards business success. Managerial experience, strategic planning, creativity, skill enhancement and competency building are essential for achieving sustainability.

Small and medium size enterprises are non-subsidiary independent firms which employ around 200-250 employees. Small businesses may be defined in various ways in terms of investment, number of people employed, volume of output and sales and technique of production.

In India, small business is defined by the government as consisting of the following 4 types of businesses:

- i. Small Scale Industries: - The investment in plant and machinery is up to 1 Crores.
- ii. Ancillary Industrial Undertakings: - The investment in plant and machinery not to exceed 1 crore and the undertaking must sell not less than 50% of its output to other industrial undertakings.
- iii. Export- Oriented Units: - The investment in plant and machinery is up to 5 Crores, and the unit must export 30% of its output by the end of 3 years from the commencement of production.
- iv. Tiny Units: - The investment in plant and machinery is up to 25 lakhs.

Some of the salient characteristics of SME's are limited investment, owner management, and labor –intensive, unskilled labor, local area of operations, greater flexibility, more focus on domestic demands and more entrepreneurial than large firms.

India is stated to be among the fastest growing economies with a growth rate of 7.2 % GDP in 2018. As per the Confederation of Indian Industry (CII), the business confidence index soared to 59.7 in the 4th quarter of 2017, up from 58.3 in the previous quarter. However, in this growth trajectory, the Small and Medium Enterprises (SME) sector which is the backbone of Indian economy is on a slow recovery pace. More so in the digital arena, India is at 66th place, out of 130 nations as per the Global Innovation Index rankings. This definitely implies that Indian SMEs have to focus on enhancement and improvisation in business operations, financial planning, innovation and collaboration through digitalization. Through this research article, an attempt has been made to critically understand the significance of digitalization and training interventions in Indian SME's for creating sustainability. There is a need for Indian SME's to take a step towards sustainable infrastructure through key drivers like managerial decisions, financial planning, risk management, training programmes etc. This paper focuses on the aspect of digitalization and training interventions which facilitate sustainability. Hence, it examines the different trends of digitalization and also various training and learning intervention programs.

1.2 SMEs in the present Indian scenario

SMEs contribution to India's GDP is 45 per cent (as per the Confederation of All India Traders report). Approximately 46 Crores of people are provided employment in India with an annual growth of 11.5 per cent. In spite of this major contribution the nations jewel i.e. Small and Medium enterprises, SMEs encounter the following challenges, such as:

- Inadequate infrastructure facilities
- Scarce productive capacity
- Inadequacy of funds
- Zero innovation
- Wide gap between knowledge and technology
- Inadequate training
- Low level of competency

SMEs operate on low margins and funds therefore their sustainability is always a big challenge. In order to overcome this challenge, SME's have to invest in innovation, start online operations, enter into e-commerce, embrace and update existing technology and become globally relevant. Therefore, it is imperative for the SME's to become digitally empowered.

1.3 Digital Trends in SME's

Digital trends in the context of SME's mean converting existing business to online mode, chatbots, adjusting to millennial, social media and moving to cloud. Taking into consideration the overwhelming task of sales, marketing, customer management SME's are overloaded with varied responsibilities. In this context it is critical for SME's to prioritize tasks which have a positive impact.

1.3.1 Moving towards online business

Google-KPMG report reveals that "digitally engaged SME's grow twice in comparison to the offline counterparts. The digital space has enabled small businesses to unlock new markets and explore. However, 68% of SME's are still offline."

1.3.2.Chatbots

One of the smartest and quickest way to get work done is through automation such as building own chatbots with integrated code editor to accelerate business growth. Many SME's have started leveraging chatbots for getting business leads, book meeting, and supercharge sales & marketing and attending customer queries instantly. As per recent trends more SME's are going to incorporate chatbots to their existing business models by the end of 2019.

1.3.3 Millennials

The millennial, so called Generation Y or Net Generation is super tech savvy and is expected to have the highest spending power as compared to any generation. This is because they are active digital customers and therefore this phenomenon is causing a shift in the tactics that SME's are adopting. Gradually most SME's are moving towards social media, video content, influencer marketing & mobile marketing engaged with the growing strata.

1.3.4 Social Media

According to recent market reports 96% of SME's are using social media in their marketing strategy. As more people connect online across the world, businesses have an opportunity to explore new customers, cities, regions and countries. The current trend is cross border business & solutions, global reach and worldwide network.

1.3.5 Cloud

Cloud computing is the delivery of different services through the internet. Most SME's are adopting the cloud technology after seeing its clear benefits such as affordability, advancement and user friendliness. This step of SME's will surely improve their operations and productivity metrics and inspire those SME's which are yet to go digital.

1.4 Training in the context of SMEs

Bradford, Rutherford and Friend (2017) argue that "training is a systematic method used to build individual, team and organizational effectiveness". "Training is one of the basic need for human resources development, aiming to motivate employees, develop and enhance their skills and help them perform better" – Andree Roy & Louis Raymond. The advent of globalization, diffusion of new information and communication technologies have compelled businesses to change and adapt to the requirements of the new knowledge and skill based economy. Stiff competitiveness in the business environment has made many SME's to implement training strategies to achieve sustainability.

Generally the SME's are supposed to "formulate, implement and monitor their training policy and HRD strategy to guide their training activities". However, the OECD Report (2013) contradicts these findings, indicating that SMEs do not strategically consider training, nor do they have formal policies and strategies in place. This is an alarming fact which indicates why many SME's are unable to realize their business potential.

Several professional studies indicate that in most of the SME's there is no training department to plan and execute the training programs/activities. The owners/directors assess the training needs of the SME's based on their perceptions and experiences instead of taking the help of the specialists and experts. Though the majority of the owners/decision makers realize the need and importance of training interventions they are unable to plan such activities due to lack of time and practical know-how. Hence, it is essential that SME's explore the different current training programs and adopt the one which is more suitable to them. This will help the SME's to maximize their internal competencies to maintain sustainability.

Some studies reveal that training is low priority activity for SME's in comparison to large organizations. It has also been found that SME's are generally not interested in training as their prime focus is on production and profit marginalization. SME's are mostly engaged in activities such as cash management, taxation, production etc. and are unable to spare time for training activities. SME's neglect the importance of competency training, latest technology upgradation and other behavioral trainings therefore their growth and sustainability will not be as enterprising as expected.

Many SME's are starved for adequate funds and are faced with many challenges to raise capital. A big gap exists between the capital requirements and the actual availability. The most critical challenge which SME's face is to surmount lack of access to requisite capital and resources. A large number of SME's are still suffering from inadequate access to capital and are self financed. Engaging the employees in training sessions other than production activities will actually hamper the business.

Nevertheless, training is very important and relevant in the current scenario because of the rapid changes in the market. SME's should arrange for imparting training skills needed in the current business environment. Training and formulating business plans, identifying the markets, hiring skilled workers and complying with government regulation is the need of the hour. Moreover, skills in marketing and exporting, product development and process

improvement, identification of new technology including information and communication technologies (ICT), enhancing networking with suppliers are some areas where SME's can come up with robust training strategies. Many studies suggest that training providers should focus more on the specific situation of the enterprise while designing the training programs. The philosophy 'one-size-fits-all' will not be suitable for SME's. Infact, this is the field which calls for lot of creativity, innovativeness and customization on the part of the designers of training programs of SME's.

1.5 Learning models of SMEs

In order to support sustainable development, SME's need a targeted approach to training and learning that can be done on the job and provide an immediate return to them while at the same time building skills for future SME's requirement. Some forms for learning that can be used by SMEs are:

1.5.1 Problem Based Learning

A constructivist approach to learning is Problem based learning (PBL) which is broadly used in higher education where the teacher plays the role of a mentor. It is known to bring in a positive learning outcome and enhance the skills such as problem solving, rational and creative thinking. According to Bell, 2010 certain benefits of adopting PBL are:

- Immediate ROI (Return on Investment)
- Cost effective
- Customized on- the- job- training
- Experiential learning
- Fosters logical thinking and innovation

Problem based learning is one of the best methods of learning as it allows the company to tackle business issues and at the same time enhance skills to deal with any future problems that may arise.

1.5.2 Web Based Learning

Web-based learning is a pure online based learning that uses the internet as an instructional mechanism to carry out various learning activities. The biggest advantage is that the learner need not be physically present and can access the required information as per convenience. As per O'Driscoll, 2010; Horton, 2000, web based learning can be facilitated through interactive simulation exercises, webinars, video conferencing, video streaming and virtual learning.

With the advent of Massive Open Online Courses i.e. MOOCs, web based learning is easily accessible to learners which allows them to access free content. Thus, Indian SME's should explore this technology of e-learning and reap its benefits.

1.5.3 Social Learning

As per Bandura (1977), social learning is achieved by observing, conversing, formal and informal interactions. SME's which incorporate learning-by-doing approach and formal learning method have seen significant positive changes in their business.

1.5.4 Mentoring

Another very effective tool of learning is mentoring, wherein an experienced employee with knowledge and expertise guides and mentors the employees in developing their competencies and professional skills. Some of the benefits of mentoring in SME's are improvised mentee's performance, cost effective, smooth orientation of new employees.

1.5.5 Blended Learning

Individuals have a range of learning styles and millennials in particular enjoy a level of 'self-directed learning'. As millennials are going to be the biggest workforce in the near future, it is important to consider building training and learning initiatives that use the blended approach to develop skills. For example a blended learning module would include one-on-one coaching, peer-to-peer feedback, experiential learning, self-reflection and networking.

Conclusion

India is one of the fastest growing economies of the world. SME's sector which has been recognized as the backbone of the Indian economy contribute to 45% of India's GDP and provide employment to around 46 Crores of people and is registering an annual growth of 11.5 % . As per studies Indian economy is likely to become a \$ 5 trillion economy by 2025 and hence it is imperative to strengthen the SME's sector by undertaking several steps such as fostering entrepreneurship and innovations, technology knowledge transfer, talent management, digital India and skill India, upgrading existing technological know-how and bridge the digital skill gap.

As discussed in this research paper it is critical for the Indian SME's to prioritize their tasks and address various challenges in order to realize its full potential and become sustainable for the socio economic development of India. The government has already undertaken initiatives to help SME's develop and sharpen the digital skills through training and learning.

Recommendations

SME's are recommended to conduct a talent audit to identify the skill gaps and design appropriate digital training and learning workshops to up skill the employees. SME's can also leverage online digital courses and free tools to develop the digital skills through Digital Vidya, NIIT, UpGrade and SimpliLearn.com etc. Infact, it is very important for all SME's to have a robust digital workforce.

Another critical contributor to SME's growth is technology. The rapid proliferation and pace of technology has transformed businesses overnight but, the SME's sector in India is largely bereft of its advantages. Many SME's are still unaware or ill-equipped when it comes to leveraging technology to reduce cost and boost productivity. Therefore, it is important for Indian SME's to upgrade the technology in terms of machinery, tools and other equipments. The need to educate the business leaders is also of utmost importance because only then one can expect the change to percolate down the ranks. So programs like executive education programs, management development programs, skill and talent development programs and leadership programs etc. should be taken up by the business owners of the SME's to up skill themselves to handle the challenges of the new millennium.

Training programs are not only required for owners/managers but also employees at all levels in order to compete with the ever changing market fluctuations, technology and other dynamic forces. It is necessary to be constantly upgraded with the skills and knowledge which are trending. Customized periodic training and learning interventions should be facilitated for all employees so as to bridge the gap of skills and competencies.

Globalization and competitiveness are the two aspects that will change the future of SME's. SME's need to become global by not only tapping the domestic market but start forming strategic alliances through mergers, partnerships for broader global impact. Competitiveness is the key to success for any SME and is achieved through collective efforts of learning and negotiation, market preferences, developing business initiatives and models.

To sum up, there are definitely major stumbling blocks (challenges) in path of sustainability that SMEs have to contend with right from setting the stage for digitization through training and learning embedded in its core to develop a collaborative training/learning model followed by its evaluation and feedback mechanisms for improvement. But the right direction and impetus will drive the SMEs and embark it firmly and steadily on the path of sustainability.

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Impact of Foreign Direct Investment on Financial and Operational Performance (A Comparative study on selected FMCG Companies in India) (A review of literature)

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Abstract

Foreign direct investments which use for basically increase the revenue of a country. It is an effective way for increasing money in Indian market. In India FMCG goods are frequent consumption goods. After foreign direct investment in FMCG it gives high return that way it is a target sector in India. In India foreign direct investment is fully comes in retail sector. It is about hundred percent but it also give high return in the country.

After foreign direct investment the economic fluctuation is very high the costumer as well as the marketer earns a good amount in business. In this research paper we are going to study about is there benefit for the India after foreign direct investment as well as the see before and after effect of foreign direct investment in Indian market.

Keyword: pre and post analysis, FMCG sector foreign direct investment.

Introduction

FMCG product is regularly consumed by all society in their daily life. And All society in their daily life and spent appropriate portion of the income on these goods this sector are growing continually it we are doing comparison Before foreign direct investment this sector was growing but in today's era after foreign direct investment this sector grow like a boom comes in India.

That's way it is fourth largest sector in India after foreign direct investment many multinational companies comes in India and open the big stores and provides the new range of product and also provides employment to the employee In this research paper we are going search the effect of foreign direct investment on FMCG sector so we can analysis it will help in the country or not. Foreign direct investment welcomed not only foreign giants but also domestic player as well.

Effects of foreign direct investment

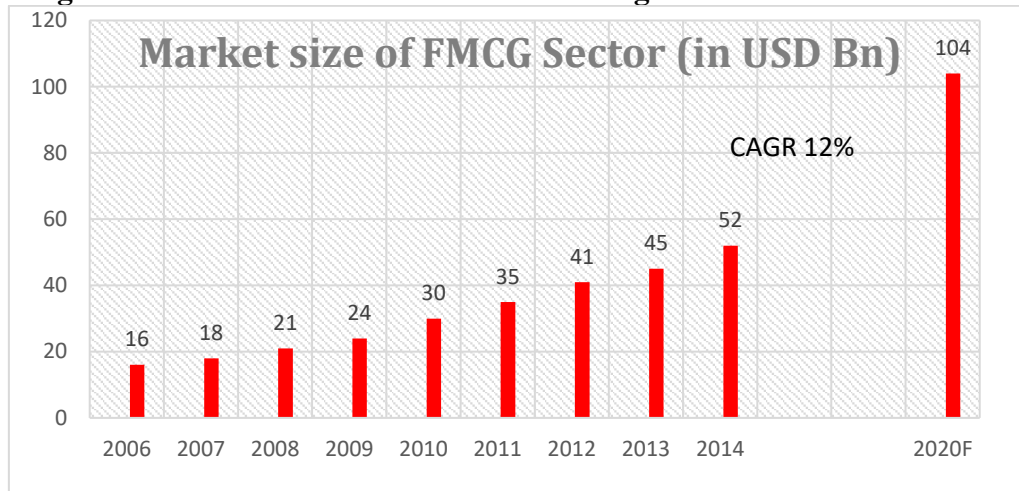
1. Economics of scale- for measuring the effect of foreign direct investment on FMCG sector economic of scale is needed to see so that we can measure scale of economic after foreign direct investment.
2. Technology-technology is very important aspect for organization. In today's era if we want to survive in the market we have to take new innovations in new technology so that we can grab the market easily
3. Attract skilled employee- after foreign direct investment we can easily attract the skill employee because the new technology comes so they are interested to learn with new things.

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4. Better infrastructure- when the foreign players come in the Indian market so they come with the concept of multinational companies so they provide better infrastructure.

Diagram of Growth driver in India after foreign direct investment.



PEST analysis

Political

1. Political stability- it is one of the important factor because without potival stability we cannot survive in the market.
2. Tax policy- tax policy also affect to fmcg product because it affect the input and output of the product.
3. Subsidies- subsidies are the government benefit provided to organization so that we can directly reduce the interest amount paid in favour of fund raise from outside.

Economical

1. Economic growth- economic growth affects the FMCG product because if economy grows at higher speed it directly affects the organization.
2. Inflation income- inflation means rise in the value of the product. if the inflation rate is high the cost of the product will automatically high.

Social

Demographics- it helps to organization to segment the market to target to large costumer.
Change in lifestyle- change in life style also affects the social factor because it increase and decrease the demand of different commodities.
Education- education is the important factor for which influence the buying power of consumer.

Technology

Innovations- advancement of technologies apply in FMCG sector will attract the customer to purchases more and more product.
Competitive force- competitive force will increase the competition in the market so that consumer get good product in the market.

SWOT analysis

Strength

Law operational cost- in FMCG product the cost of operation is law because products are perishable in nature so that we cannot spend as much money on it.
Presences of established distribution network- in FMCG sector the distribution sector is already established and require less marketing efforts.

Weakness

Extensive training required- for selling FMCG product we have to give extensive training to our employee so that they can easily sale the product in market.

Limitation of creative process- for creating brand image we have to do a creative process but the creative process is limited.

Opportunities

Minimize wastage of recourses- in all FMCG organization all the products are made in limited because these are perishable in nature so that we can minimize the wastage recourses.

Faster product release in the market- the FMCG product b are those product which is easily release in the market theses product cannot want high publicity.

Threat

Fragmentation not easy- for target the costumer we have to do fragmentation for targeting the people for targeting is not easy.

Delay in product design- in FMCG product the product design is very much important for attracting the costumer and it will take time so without design we cannot make the product.

Objectives

1. The effect on FMCG after foreign direct investment.
2. Check the growth of FMCG sector.
3. Pre and post effect of foreign direct investment.
4. To understand the major area like mission, goal achievement.
5. Critical analysis of FMCG sector.

Review of literature

Bhunia, (2010) identify the companies long term borrowing are based by external fund that's Way it provides lower degree of protection.

Chari & Raghavan (2011) analyzed that foreign direct comes in India means foreign players comes in India it effect the local retailers so it is very difficult to compete the foreign player but is helps to farmers to provide good final sales prices and create a good demand and supply and enhanced the export also.

Marimuthu (2012) analyzed that if a company concentrate on liquidity position, receivable all payable on working capital so that company go through with the good performance in quick ratio, interest converge ratio.

Sharma and Sahu (2012) investigated that in January 2012; reforms for single-brand stores Imposed the requirement that they should source 30% of their goods from India. However the

Reforms allowed global retailers to innovate in Indian retail market with 100% ownership.

According to the Financial Times (2012), because of the 30% requirement, IKEA announced in January that it will not open stores in India sooner. Fitch believes that this requirement will significantly delay but might not prevent brand majors from Europe, USA and Japan to open up stores in India.

Fulzele & Zodage (2013) have seen only positive impact in Indian retail sector, foreign direct investment is needed for growth of every aspect take regarding generating employment opportunities, capital inflow etc. India has a number of opportunities to attract foreign players.

Grover & Gupta (2014) they have developed two models first one is foreign direct investment model and second one is economics growth model. They use economic techniques like standard error coefficient of determination etc.

Kumar & Bansal (2015) discussed the advantages, negative impact, strengths, weakness, opportunities and threats of allowing FDI into Indian retail business. FDI will International Journal of BRIC Business Research (IJBBR) Volume 5, Number 2, May 2016 be advantageous for various stakeholders like farmers (by providing better compensation for their production and strengthened supply chain infrastructure), customers(reduced prices of the products, qualitative products, better food safety standards, more choices, benefit to poor section of the society by lowered prices), small retailers(technology up gradation, more efficient and upgraded retail outlets), existing big retailers and SMEs (benefit of 30% sourcing from SMEs, boosting manufacturing sector, new manufacturing opportunities will also open), rural youth (enhanced job opportunities, skill training by investors). The researcher pointed out negative impacts of FDI policy such as no employment opportunities for semi-illiterate people, negative impact on sales of unorganized retailers, less margin for small retail players due to lowered prices by foreign retailers, difficult for unorganized retailers to deal with organized retailers, small retail stores may shut down, condition of 30% procurement from Indian source may fade away with time. On the basis of the descriptive study they concluded that due to the conflict within the Government on various issues related to the FDI policy. It is difficult to judge whether FDI is beneficial or harmful for Indian economy. The study suggested that a locally constructed marketing network will benefit both consumers and retailers.

Conclusion

FMCG have become integral part of human life. This sector create huge employment opportunity in india.The revised FDI retail policy includes 100 percent FDI in Single brand and 51 per cent in multi brand, resulting in access to capital formation and technological enhancement. The competition from unorganized sector can overcome by increasing awareness of brands and reducing cost. FMCG companies should encase opportunities like increasing consumer income, changing consumer life style, aspiring rural consumer, consistent economic growth by utilizing its strengths.

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Problems And Challenges Faced By The Msmes: A Study With Special Reference To Chennai City

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Abstract

The MSME sector plays a significant position in the Indian Economy. A catalyst for socio-economic conversion of the country, the Sector is critical in meeting the national objectives of generating employment, overcoming poverty, and controlling rural-urban migration. These enterprises support to build a thriving entrepreneurial eco-system, in addition to improving the use of indigenous technologies. The Sector has displayed a consistent increase over the last several years, but it has done so in a restrained environment, often resulting in inefficient resource utilization. Of the many difficulties impeding the growth and development of MSMEs, inadequate access to financial resources is one of the important bottlenecks that make these enterprises vulnerable, particularly in periods of economic downturn. Exclusive credit Plans for Micro Small and Medium Enterprise entails providing a lower rate of interest for growing business units and allowing them access to banking services at a low rate of interest, quick processing, and servicing. The study found that the MSMEs are facing the problems and challenge their operation of business activities in the study area. Furthermore, the study inferred that the female MSMEs are facing the tough problems and challenges of their business activities in the study area.

Keywords: MSMEs, Problems, and Challenges

Introduction

The MSME sector represents a significant position in the Indian Economy. A catalyst for socio-economic conversion of the country, the Sector is critical in meeting the national objectives of generating employment, overcoming poverty, and discouraging rural-urban migration. These enterprises help to build a flourishing entrepreneurial eco-system, in addition to promoting the use of original technologies. The Sector has exhibited steady growth over the last few years, but it has done so in a constrained environment, often appearing in inefficient resource utilization. Of the many difficulties impeding the growth and development of MSMEs, inadequate access to financial support is one of the important bottlenecks that make these enterprises vulnerable, individually in periods of economic downturn. Exclusive credit Plans for Micro Small and Medium Enterprise entails providing a lower rate of interest for growing business units and offering them the way to banking services at a low rate of interest, quick processing, and servicing. MSMEs are complementary to great industries as ancillary units, and this Sector provides enormously to the socio-economic development of the country. The Division consisting of 36 million units, as of today, employs over 80 million persons. The Sector for more than 6,000 products provides about 8% to GDP besides 45% to the total production output and 40% to the exports

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from the country. The MSME sector has the high-level potential to spread industrial extension across the country and can be a primary partner in the process of inclusive majority. MSMEs also play a important role in Nation development through high level contribution to Domestic Production, Significant of Export Earnings, Low level Investment Requirements, Operational Flexibility, Location Wise Mobility, Low Intensive Imports, Capacities to Develop Relevant Indigenous Technology, Import Substitution, Contribution towards Defence Production, modern Technology – Oriented Industries, Competitiveness in the Domestic and Export Markets thereby creating new entrepreneurs by providing knowledge level and training. Despite their high-level enthusiasm and inherent capabilities to produce, MSMEs in India are also handling a fraction of problems like sub-optimal scale of operation, modern technological obsolescence, supply chain incompetence, increasing domestic & global competition, working capital deficiencies, not getting trade receivables from high and multinational companies on time, insufficient skilled manpower, change in production strategies and turbulent and uncertain market scenario. To remain with such issues and compete with large and global enterprises, SMEs need to adopt innovative approaches in their operations. MSMEs that are innovative, inventive, international in their business outlook, have a strong technological base, aggressive spirit and a willingness to restructure themselves can resist the immediate challenges and come out strongly to contribute 22% to GDP. Indian MSMEs are always ready to accept and acquire new technologies, new business ideas and automation in industrial and allied sectors

Review of Literature

Berger and Udell (2001) mentioned their study that the issue of credit accessibility to MSMEs has gathered overall concern as of late. Models of equilibrium credit rationing that indicate to 'moral hazard' and 'adverse selection problems' points out that inadequate information is the primary reason as to why MSMEs are vulnerable. That is; the informational gap between outsiders and MSMEs is more intense, which leads to the Procurement of external finance more difficult. MSMEs with prospects to invest into positive future projects may be obstructed from doing so on the grounds that the potential suppliers of external finance cannot promptly confirm that they have access to a quality project (adverse selection problems) nor means to check that the project funds will not be redirected to any other venture (moral hazard). MSMEs are additionally weak because of their reliance on financial institutions for outside financing. Their access to capital markets is minimal. Therefore, any banking policy change impacts MSMEs significantly. In this way, they are inclined to financing issues in equilibrium, and these issues may be aggravated during the disequilibrium in financial markets. **Penumaka (2009)** observed MSMEs had encountered a variety of problems. Credit requirement for the day to day operations - remains a major restriction. Technical obsolescence, lack of skilled workforce, scarcity of raw materials, infrastructure inadequacies, marketing bottlenecks, suboptimal quality specifications, competition from large businesses and management issues are some of the better-known difficulties dealing with the industry. First-generation business owners, especially in the micro-enterprise Sector, are compelled to face unprecedented problems. Auxiliary systems for the nascent industry are not sufficient enough to react with necessary understanding and efficiency. **Rajib Lahiri (2011)** The study revealed that except a marginal increase in germination rate in employment generation, the growth pace in other parameters is not encouraging during the liberalization period. **Dr. Padmasani, S. Karthika (2013)** The survey revealed that the problems could be overcome if MSMEs get connected in the

standardization of the business process, and can also adopt the latest technology to improve the productivity. It was said that banks could support the industry by providing the credit facilities at a low-interest rate and Government and Institutions relating to Small and Medium Scale industries should take effective measures to enhance the export performance of MSMEs to develop Economy. The study included the districts of Tirupur and Coimbatore district. **Nishanth P Dr. Zakkariya K.A. (May 2014)** examined that there exists a problem in accessing finance from banks and organized financial institutions and also viewed that this difficulty may vary from area to region between sectors, or between individual enterprises within a sector. Various difficulties faced by these units in establishing finance and also tried to distinguish various sources of finance other than banks. The study was limited to Kozhikode district in Kerala. **Aruna, N. (2015)** Small businesses often face a variety of problems related to their size. A frequent cause of bankruptcy is undercapitalization. This is often a result of inadequate planning rather than economic conditions. It is a general rule of thumb that the entrepreneur should have entrance to a sum of money at concise equal to the projected income for the first year of business in addition to his anticipated expenses. MSMEs in India face several problems - the absence of adequate and timely banking finance, non-availability of suitable technology, inefficient marketing due to limited resources and nonavailability of skilled workforce. These are frequently confronted with problems that are different from the more substantial companies and multinational corporations. These problems include Lack of ITs Support, Lack of ITs Literacy, Lack of Formal Procedure and Discipline, Uneven ITs Awareness and Management Skill, Shortage of Financial Resources, Lack of Human Resources, Raw Material problems, Production problem, etc. **Kumbhar, V. M. (2013)** Women are deemed an essential human resource of the nation, and every state should decide to utilize them as mediators of economic increase and development. Encouragement level of women entrepreneurship is one of the ways for that. But regrettably, the traditional mindset of the society and negligence of the state and respective authorities is an essential obstacle for the women entrepreneurship development in India. Aside from the capacity of the state and society, women face need of definite agenda of life, absence of balance among family and career obligations of women, poor degree of financial independence for women, deficiency direct ownership of the business to women, paradox of entrepreneurial skill and finance in economically strong and poor women, no awareness about capabilities, low capacity to support risk, problems of work with male workers, oversight of financial institutions, lack of self-confidence, lack of professional education level, mobility constraints and lack of interaction with successful entrepreneurs are major problems of women entrepreneurship development in India. Consequently, there is a need of continuous attempt to inspire, support, motivate and co-operate the women entrepreneurs, awareness programs should be carried on a mass scale with the purpose of generating awareness among women about the different areas to conduct business.

Need for the Study

Micro, Small, and Medium Enterprises play a powerful role in the Indian Economy. But there are different type problems faced by these enterprises due to which the expansion of the enterprises is concerned, in turn affecting the economy of the country. Hence the researcher suggested a need to study the problems and challenges faced by MSMEs in Chennai city.

Objectives of the study

The focused objective of the study is to find out Problems and Challenges Faced by the MSMEs: A Study with Special Reference to Chennai City. Also, the focuses on whether there is any significant difference among the male and female MSMEs concerning the problems and challenges during their business activities in the study area.

Statement of Hypothesis

1. There are no problems and Challenges faced by the MSMEs in the study area
2. The male and female MSMEs have a similar perception towards the issues and Challenges are facing their operation of business activities in the study area.

Research Methodology

The present paper's essential objectives are to find out the problems and challenges faced by the MSMEs at the time their business operations in the study area. The data acquired from both primary and secondary sources. The relevant data were collected from the organized MSME's in the study area. The data is collected through structured questionnaires. The purposive sampling method used for the study. In overall 250 questionnaires distributed, out of which nineteen surveys rejected due to incomplete information provided by the MSME's. Finally, 231 samples used for the final study. The data was collected through the period from February 2019 to June 2019. The data collected were classified, tabulated, processed, and systematically analyzed the data. The data analyzed with SPSS software version 21. The study used simple frequency distribution, one-sample t-test, Independent t-test.

Data Analysis and Interpretation

Table 1: Demographic Profile of MSME's

Gender	Frequency	Percent
Male	177	76.6
Female	54	23.4
Total	231	100.0
Entrepreneurial Background		
Employee Turned Entrepreneur	148	64.1
Entrepreneur Since Beginning	83	35.9
Total	231	100.0
Age		
Up to 30 years	23	10.0
31-40 years	65	28.1
41-50 years	76	32.9
Above 50 years	67	29.0
Total	231	100.0
Educational qualification		
Up to HSC	37	16.0
Under-Graduate	73	31.6
Post-Graduate	55	23.8

Professional	66	28.6
Total	231	100.0
Family Background		
Entrepreneurs	97	42.0
Government Service	29	12.6
Private Service	86	37.2
Others	19	8.2
Total	231	100.0

Source: Primary data

Table 1 shows the results of the demographic profile of MSME's in the study area. It is identified from the above table, the majority 76.6 % of the MSME's are a male category, and 23.4% of the MSME's are a female category. In connection with the entrepreneurial background of the MSME's, 64.1% of the MSME's emerge as an entrepreneur from the employee level, and 35.9% of the MSME's are developed as an entrepreneur through the traditional background. Regarding the age category of MSME's majority 32.9% of the MSME's are in the age classification between 41-50 years, followed by 29.0% of the MSME's are in the age group Above 50 years, 28.1% of the MSME's are in the age group of 31-40 years, and 10.0% of the MSME's are up to 30 years. As for the educational background of MSME's concern, majority 31.6% of the MSME's are undergraduates, followed by 28.6% of the MSME's are professionals, 23.8% of the MSME's are post-graduates, and 16% of the MSME's are studied up to HSC. In connection with the family ground of MSME's concern, the majority 42.0% of the MSME's family background is traditional entrepreneur's family, 37.2% of the MSME's family background is private services, 12.6% of the MSME's emerge from government services, and 8.2% of the entrepreneurs develop as entrepreneurs from the other categories.

Null Hypothesis-1

There are no problems and Challenges faced by the MSMEs in the study area

One-sample t-test employed to find out whether the MSMEs are facing any challenges and Problems during their business in the study area. The one-sample t-test results are shown in the following Table 2.

Table 2: One-sample t-test for problems and Challenges faced by the MSMEs in the study area

	Mean	SD	t	p
Nonavailability of adequate and timely credit	3.71	1.133	9.584	<0.001**
The high cost of credit	3.52	1.058	7.460	<0.001**
Collateral requirements	3.43	1.036	6.353	<0.001**
Limited access to equity capital	3.29	.818	5.468	<0.001**
Problems of delayed payments from government departments and agencies	3.39	1.317	4.545	<0.001**
Working capital getting locked in performance guarantees with customers for longer duration	3.57	1.365	6.313	<0.001**
Lack of suppliers line of credit in Procurement of raw materials at a competitive cost.	3.43	1.010	6.450	<0.001**

Factory to market challenges including problems of warehousing, designing, packaging and product display	3.58	1.127	7.821	<0.001**
Difficulty in access to global markets	3.46	1.264	5.570	<0.001**
Inadequate infrastructure facilities, including power, water, roads, etc	3.48	1.226	5.957	<0.001**
Technology challenges and lack of access to modern technology.	3.59	1.021	8.761	<0.001**
Lack of skilled workforce for manufacturing divisions, services, marketing, etc	3.77	1.231	9.571	<0.001**
Statutory obligations, Multiplicity of labor laws and compliance issues	3.48	1.115	6.612	<0.001**
Lack of Social Security	3.35	.794	6.798	<0.001**
GST related issues affecting MSME	3.39	.804	7.282	<0.001**

Table 2 exhibits the results of One-sample t-test for problems and Challenges faced by the MSMEs in the study area. Since the p-value of all the entire statements is <0.01, therefore the null hypothesis rejected at 1% level significance. However, the study concluded that the MSMEs are facing any challenges and Problems at the time their operations in the study area. Further, the study reveals that the entire statements mean values >3, which indicates that the MSMEs facing the problems and challenges like non-availability of adequate and timely credit, high cost of credit. The MSMEs significant challenges are to produce the collateral documents at the time availing the loans from banks and financial institutions. The MSMEs are restricted to access the equity of capital from their business and always getting the delayed payments from the government agencies. The essential challenges of MSMEs are Working capital getting locked in performance guarantees with customers for a longer duration. Besides, the MSMEs are Lack of supplier's line of credit in Procurement of raw materials at a competitive cost and Factory to market challenges, including problems of warehousing, designing, packaging, and product display. The MSMEs are facing a difficult task in access to global markets, inadequate infrastructure facilities like power, water, roads, etc. The MSMEs are not able to cope up with the new technology, non-availability of skilled manpower, statutory obligation, and lack of social security. The MSMEs are severely affected by the GST in the study area.

Null Hypothesis-2

The male and female MSMEs have a similar perception towards the problems and Challenges they are facing in their business activities in the study area

Table 3: Independent t-test for male and female MSMEs have the same attitude towards the problems and Challenges

	Gender	N	Mean	SD	t	p
Overall Score of Problems and Challenges of MSMEs	Male	177	3.4810	.57318	-2.011	0.046*
	Female	54	3.6637	.62097		

Table 3 reveals the results of Independent t-test for male and female MSMEs are having a similar perception towards the problems and Challenges. The calculated t-value and p-value of these two variables, i.e., gender category of MSMEs and Overall score of the issues and challenges of MSMEs are -2.011 and 0.046. Since the p-value is <0.05 and statistically significant at 5% level. Therefore the null hypothesis is rejected and concluded that there is no significant difference between male and female MSMEs concerning the problems and

Challenges are facing their operation of business activities in the study area. The study inferred that female MSMEs (3.6637) are significantly affected the issues and challenges at the time of services of their business than the male MSMEs (3.4810)

Conclusion

The present paper is focused on Problems and Challenges faced by the MSMEs: A Study with Special Reference to Chennai City. Besides, the study concentrates on what are the various problems faced by these enterprises. The MSMEs are facing the issues and challenges like non-availability of adequate and timely credit, high cost of credit. The MSMEs significant challenges are to produce the collateral documents at the time availing the loans from banks and financial institutions. The MSMEs are restricted to access the equity of capital from their business and always getting the delayed payments from the government agencies. The critical challenges of MSMEs are Working capital getting locked in performance guarantees with customers for a longer duration. Also, the MSMEs are Lack of supplier's line of credit in Procurement of raw materials at a competitive cost and Factory to market challenges, including problems of warehousing, designing, packaging, and product display. The MSMEs are facing a difficult task in access to global markets, inadequate infrastructure facilities like power, water, roads, etc. The MSMEs are not able to cope up with the new technology, non-availability of skilled workforce, statutory obligation, and lack of social security.

Limitation

The data was collected from the MSMEs operating in Chennai city. The enterprises were selected at random. The enterprises selected were both registered and unregistered. As per the data collected, there are many problems faced by these units.

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Adoption Of Supply Chain Management Practices In North-India Manufacturing Sector

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Dr. Sarang Narula**

Abstract: In today's world supply chain management (SCM) plays an important role in the achievement of organisational performance. Also now a days the competition not among the organisations but among the supply chain of organisations. Hence following the supply chain management practices is very important for the organisations to perform well. Through empirical research, attempt has been made to study the various supply chain management practices being followed by various manufacturing units.

Keywords: supply chain management

Introduction: In the new era, business faces a lot of challenges such as offering better and cheaper products to the customers in shortest possible time, along with large product options as well as higher level of service. Hence business enterprises realise that their success depend upon the performance of supply chain. So in order to overcome these challenges it is important to coordinate the supply chain process and fulfil customer demand. "supply chain management" plays a pivotal role in adding value to the product delivered to the customer and also helps the business units in existing challenging environment to attain competitive advantage.

Along with supply chain strategies, boosting plant productivity, improving product quality and reducing manufacturing cost are also important. In this digital age, internet has taken over the market and rising questions on traditional supply chain structures. Due to this, market has become more crystal clear and rate of change in market has increased which has led to fulfilling the customer's demand in customized manner. All these reasons have led companies to employ technology in their supply chains because now a day's competition is not among the companies, but among the supply chains of companies.

Supply chain is the process through which a good or service is being delivered to customer from the supplier. Having the lowest possible cost is one of the major objectives of any company in which supply chain plays a crucial role. Hence many companies strive to have most optimized supply chain to gain the advantage of lower cost. Supply chain includes every company that comes in contact with a particular product.

The Global Supply Chain Forum defines Supply Chain Management (SCM) as "The integration of key business processes from end user through original suppliers that provide products, services and information that add value for customers." Mentzer et al. (2001) further classified supply chain as either a "basic supply chain", and "an extended supply chain", or "an ultimate supply chain". The detailed definition of supply chain itself and each type of supply chain by *Mentzer et al.* are:

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1. A basic supply chain consists of company, an immediate supplier, and immediate customer directly linked by one or more of the upstream, and downstream flow of products, services, finance and information.
2. An extended supply chain includes suppliers of immediate supplier and customers of immediate customers, all linked by one or more of the upstream and downstream flows of products, services, finance and information.
3. An ultimate supply chain includes all the companies involved in all the upstream and downstream flows of products, services, finances and information from the initial supplier to the ultimate customers.

The main objective of supply chain is to lower the cost and increase working efficiency and operational capability with an ability to produce products which provide the value and satisfaction to the customers (Lancioni, 2000). The managing of three flows i.e. goods, information and cash will lead to higher customer service. Hence, improving both efficiency (reduction of cost), effectiveness (customer service) will lead to achieve competitive advantage, thus improving the profitability too (Mentzer et al., 2001).

The performance of a supply chain depends not only on improving the operational capability and other functional area of the firm rather the managers need to achieve competitive advantage through high customer service and satisfaction. Hence, the manufacturing companies in India need to find strategic ways to improve the performance of their supply chain and to develop some benchmark in order to perform better than their competitors.

Chen and Paulraj (2004) did a research work to develop a framework that improves the understanding of SCM by analyzing 400 articles. Based on the careful assessment the researchers made clear that literature has focused on many important areas of supply chain. The network of supply chain is complex and makes it challenging for the managers to describe and comprehend how supply chain activities are interrelated and how these influence each other.

Li et al. (2005) in their paper conceptualizes, develops and validate six dimensions of SCM practices i.e. (a) strategic supplier relationship, (b) customer relationship, (c) level of information sharing, (d) quality of information sharing, (e) internal lean practices and (f) postponement and empirically test the relationship between SCM practices, organizational performance. Data for study was collected from 196 organizations in USA. Finding depicts that supply chain practices have positive relationship on performance measures.

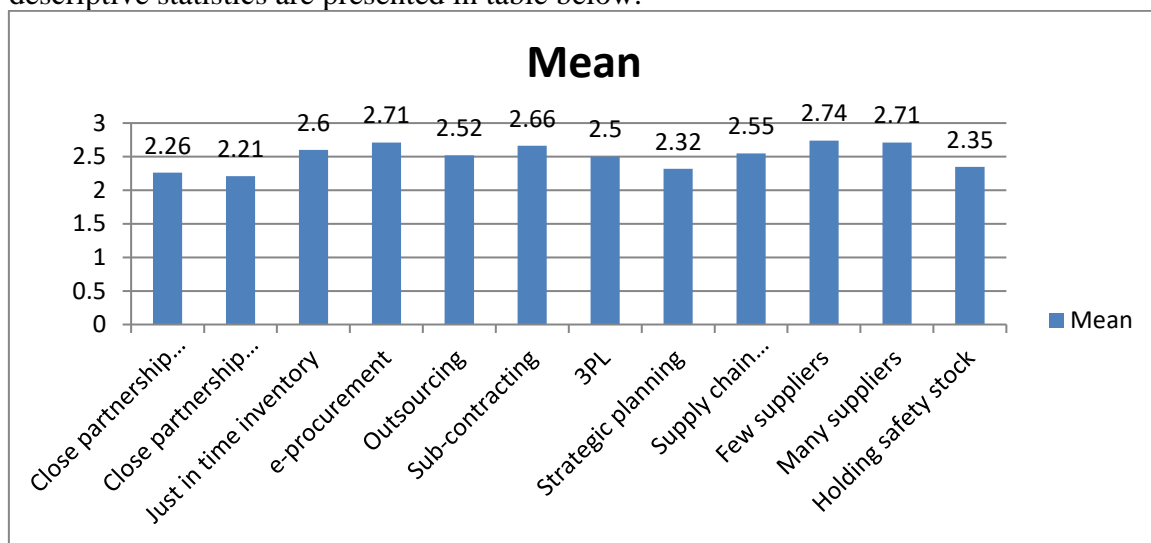
Zhou & Jr. Benton (2007) empirically investigated the integration of information sharing and supply chain practices in supply chain management in North American Manufacturing firms. The results show that both effective information sharing and effective supply chain practices are necessary to achieve the improvement in supply chain performance. The higher the level of information sharing the more important the effective supply chain practices to achieve superior performance

Deshpande(2012) in his study seeks to identify the underlying dimensions of SCM, how these dimensions are related to each other and to SCM performance measures. Also, what specific dimensions of SCM performance are directly to organizational performance? The author identified three main dimensions i.e. long term relationship, concurrent engineering and strategic purchasing. The linkage between SCM dimensions and SCM performance reveal significant findings. The positive relationship between concurrent engineering and customer responsiveness time reveals that concurrent engineering is essential for meeting customer demands. Results of the study also indicate that managing long term relationships

and implementing concurrent engineering would further improve the SCM performance terms of flexibility, inventory cost reduction and customer responsiveness time.

Research Methodology, results and discussion

This section sets out the descriptive statistics for the supply chain management practices being implemented in the manufacturing units of North India. 12 indicators were used to measure this objective. The respondents were asked to give response on 5-point Likert scale with 1- indicating totally implemented and 5 indicating not at all implemented. The descriptive statistics are presented in table below.



Key finding 1: According to the results, the mean value of close partnership with customers (2.21) is near to acceptance followed by close partnership with suppliers (2.26). This clearly shows that manufacturing companies are maintaining a good relationship with its customers and suppliers which help in better forecasting and good decision making. Strategic planning (2.32) is next important practice which is being followed. Companies try to integrate the strategies at each possible level such as manufacturing, innovation, marketing to help providing customers with high quality products at lower cost. Also they believe in holding safety stock (2.35) so that they do not face stock out or stock fall in raw material or finished goods due to uncertainties in supply and demand. Using 3PL (2.5) and outsourcing (2.52) services companies are provided with facility that outsource the distribution of the company and fulfil the service requirements. Benchmarking the supply chain (2.55) provide companies with a standard to compare its performance with the other companies. It is an important practice for the companies to follow that provides opportunity for continuous improvement. JIT (2.6) is an integrated set of activities which requires suppliers to provide with right quantity at right time. It is an important activity which companies should follow so as to improve lead time in production, inventory levels. When dealing with uncertainties of stock, sub-contracting (2.66) becomes an important activity. E-procurement (2.71) is a virtual purchasing application that also improves information visibility and reducing the purchasing cost. Companies should focus on implementing e-procurement activities so as to save cost and time and also to maintain transparency of information flow in and across the organisation. It will also help in becoming more responsive. It can be observed from the results that companies should focus more on selecting their suppliers. Selecting from many suppliers (2.71) will give companies the cost benefits. At the same time maintaining good relationship with few dedicated suppliers (2.74) will help in giving value to the customers.

Key finding 2: Cross tabulation of close partnership with suppliers with type of industry and category of industry.

- Almost 65% of the manufacturing companies maintain a good relationship with suppliers, while only 17% & companies indicate that maintaining a healthy relationship with suppliers is least important for their company.
- Out of 200 companies, 73 companies fully implement the practice of close partnership with suppliers & 54 companies have greatly implemented the same. While 34 companies have implemented this practice to the least or not implemented at all.
- Automobile industry (33) accounts for the maximum, which has implemented this practice followed by textile (17) and electronics (13).
- Large scale (86) and medium scale (33) industries accounts for the majority in implementing this practice, while very few small scale (8) industries implement the same.

Key finding 3: Cross tabulation of close partnership with customers with type of industry and category of industry.

- 65% of the companies follow the practice of close partnership with customers, while 19% companies do not follow this practice.
- Out of 200 manufacturing units, 130 units have either fully implemented or greatly implemented this practice, while 38 units have least implemented or not implemented at all.
- Automobile (33) industry leads in implementing the practice followed by electronics (16), food (14), textile (15) and agriculture (9).
- Out of 82 units which have fully implemented the practice of maintaining good relationship with customers, 56 are large scale, 19 are medium and 7 are small scale industries.

Key finding 4: Cross tabulation of Just-in-time inventory with type of industry and category of industry.

- 47% companies have either fully implemented or greatly implemented the practice of just-in-time inventory while 23.5% units have least implemented or do not implement at all.
- Out of 200 units, 94 units adopt JIT while 47 units least implement or do not implement at all.
- Automobile industry leads in adopting JIT practice followed by textile, food and electronics.
- Out of 46 units which fully implement this practice 35 are large scale industries, 10 medium scale and only 1 accounts for small scale industry. 13 firms say they do not follow this practice at all while majority 59 units sometimes follow this practice and sometimes not as per their requirements.

Key finding 5: Cross tabulation of e-procurement with type of industry and category of industry.

- 46% firms adopt the e-procurement practice and believe in virtual purchase from suppliers while 29% are still following the traditional methods for placing orders and 24% are on the way of adopting the same.
- Out of 200 units, 94 have either fully implemented or greatly implemented the practice of e-procurement while 59 units least implement or do not implement the same.

- Automobile industry leads in implementing the e-procurement activity thus reducing time, lowering purchasing cost and making the supply chain more responsive followed by electronics, textile and food industry.
- Large scale industries lead in implementing the e-procurement activities and making their supply chain virtual and responsive but there are certain large scale firms who still do not implement the same.

Key finding 6: Cross tabulation of outsourcing with type of industry and category of industry.

- According to the results, 54% of the companies adopt outsourcing activity in their supply chain. 23% are still working to implement the same while 23% companies least or do not implement at all.
- Out of 200 units, 108 units have fully implemented or greatly implemented while 46 units have least implemented or not implemented at all.
- Automobile industry is a leading manufacturing industry in adopting the outsourcing as a supply chain practice to their organisation followed by textile, electronics and food industry.
- The category of industry which leads in implementing the outsourcing supply chain practice is large scale, followed by medium and small scale industries. Also there are 8 large scale firms which do not implement the same.

Key finding 7: Cross tabulation of sub-contracting with type of industry and category of industry.

- Sub-contracting activity is majorly adopted by 52% of the companies, 27% companies have least implemented or not implemented at all. Also 20.5% companies are trying to inculcate this practice into their organisation.
- Sub-contracting activity is being majorly adopted by automobile industry followed by electronics, food and textile companies.
- Out of 200 manufacturing units, 104 units fully implemented or greatly implemented this practice.
- Out of 45 companies who have fully implemented sub-contracting practice 35 accounts for large scale, 7 medium and 3 small scale industries.

Key finding 8: Cross tabulation of 3PL with type of industry and category of industry.

- According to the results, 56% of companies implement the practice of 3PL (3rd party Logistics), 24 % of the companies least or do not implement at all while 19.5% companies are trying to use this practice for their benefit.
- Out of 200 manufacturing units, 112 units have fully implemented or greatly implemented this practice.
- Automobile industry leads in implementing the 3PL practice followed by electronics, food and textile industry.
- Out of 62 companies which fully implement 3PL consist of 44 large scale, 15 medium and 3 small scale industries. Also there are 24 industries which do not implement at all which contains 13 large scale, 7 medium scale and 4 small scale industries.

Key finding 9: Cross tabulation of strategic planning with type of industry and category of industry.

- There are 63% companies which adopt strategic planning in their operational, functional and financial aspects to produce goods at low cost and high quality. 13.5% companies

are working upon the same and 23.5% companies either have least implemented or implemented at all.

- Out of 200 manufacturing units, 126 industries have fully implemented or greatly implemented the practice of strategic planning while, 47 units have least implemented or not implemented at all.
- Automobile industry leads in adopting the strategic planning as an important practice of supply chain in their organisation followed by textile, electronics, and food.
- Out of 78 companies which have fully implemented strategic planning consist of 63 large scale companies, 13 medium and 2 small scale companies.

Key finding 10: Cross tabulation of supply chain benchmarking with type of industry and category of industry.

- 55.5% companies feel the need of implementing supply chain benchmarking for setting up standard for continuous improvement while 27% companies don't feel the need for same. Rather 17.5% companies are still working on implementing this practice to their supply chain.
- Out of 56 companies which fully implement supply chain benchmarking as a supply chain practice consist of 16 automobile industry followed by 9 textile and 8 electronics.
- As per the results, 46 large scale, 8 medium scale and 2 small scale companies tend to implement this practice fully while 11 large scale, 9 medium and 2 small scale industries do not implement the same at all.

Key finding 11: Cross tabulation of few suppliers with type of industry and category of industry.

- According to the results, 46% companies have either fully implemented or greatly implemented and believes in the practice of maintaining a good relationship with only few dedicated suppliers while 26% companies do not implement or least implement the same.
- Results depict that majorly automobile industry have fully implemented the practice of selecting few suppliers followed by electronics and textile industry.
- According to the results, only 32 industries fully implement the practice of few suppliers out of which 23 are large scale, 9 medium and none of them is small scale while who have not implemented at all includes 11 large scale, 5 medium scale and 3 small scale industries.

Key finding 12: Cross tabulation of many suppliers with type of industry and category of industry.

- According to the results, 48% companies have either greatly implemented or fully implemented the practice of many suppliers while 38% companies have either least implemented or not implemented at all.
- Automobile industry leads in implementing the practice of many suppliers to have the price benefit followed by electronics, building material and textile.
- Out of total 48 units which have fully implemented this practice majority includes large scale (41) followed by medium (6) and small (1) and of those which have not implemented at all includes 14 large scale, 7 medium and 3 small scale industries.

Key finding 13: Cross tabulation of holding safety stock with type of industry and category of industry.

- According to the results, 60% of the companies have either fully implemented or implemented to a great extent the practice of holding safety stock. 22.5% companies have either not implemented or least implemented and 17.5% companies are working towards the same.
- According to results, automobile industry leads in implementing this practice followed by textile, food and building material.
- Out of 72 industries which fully implement holding safety stock as a supply chain practice include 57 large scale, 13 medium scale and 2 small scale industries. Also those who have not implemented at all include 2 small scale, 5 medium scale and 9 large scale industries.

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A Study On The Pattern And Growth Of Chit Business In Kerala

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Abstract

The chit fund popularly called chitty, or kuri is an Indian counterpart of ROSCA (Rotating Savings and Credit Association) that are widespread internationally. This ethnic financial institution occupied dominancy in the economic life of the people of Southern India even before the advancement of banking system. From its modest founding to its current enormous development, the chit fund Institution has now reached the position of a quasi-banking system. Kerala is the cradle land of chits and is the only state in the country having a public sector undertaking to carry on chit business. Every year this sector is contributing cores of rupees to the state exchequer by way of chit registration. To safeguard the interest of both the subscribers and the foremen various laws have been enacted from time to time by the state government. The present study attempts to find out the recent trend in the chit registration and revenue generation in Kerala and also to forecast the future trend in chit revenue generation by using secondary data collected from the Inspector General of Registration, Government of Kerala. An attempt is also made to evaluate the effect of the implementation of Kerala Chit Rule 2012 on chit revenue generation.

Key Words: ROSCA (Rotating Savings and Credit Association), Chit Funds, Registered chits, Annual Turnover of chits, Chit Acts

Abbreviations: KSFE- *Kerala State Financial Enterprises Ltd*
ROSCA-Rotating saving and Credit Associations

1. Introduction

Chit fund is an indigenous financial arrangement that originated in the Southern parts of the country especially in Kerala and Tamil Nadu. Originated as a grain or dhanya chit this ethnic financial tradition gradually got extended to other areas of the country. Overseas it used to be accepted in the name of Rotating Savings and Credit Associations (ROSCAS). It was regarded as a unique financial instrument that incorporated the features of a recurring deposit and an advance loan in the financial markets of India and abroad. A chit fund permits its participant to act as a borrower, saver and lender at the same point of time. In doing so the scheme provides for mutual help, pools funds through compulsory saving mechanism which can be borrowed later and determines the borrowing cost as per the convenience of the borrower that is the subscriber of the chit. These are also the features that attract millions of households and small business men to this instrument.

1.1 Definition

As per Section 2 (b) of the Chit Funds Act 1982, a chit means “a transaction whether called chit, chit fund, chitty, kuri or by any other name by or under which a person enters into an agreement with a specified number of persons that every one of them shall subscribe a certain

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sum of money (or a certain quantity of grain instead) by way of periodical instalments over a definite period and that each such subscriber shall, in his turn, as determined by lot or by auction or by tender or in such other manner as may be specified in the chit agreement, be entitled to the prize amount.”

1.2 Different Categories of Chit Funds Operating in Kerala

Different categories of chit funds are operating in Kerala which may be grouped under a common umbrella - chit finance which is being controlled by Government of Kerala. They include The Kerala State Financial Enterprises Ltd (KSFE) - a public limited company, Chit funds run by private firms and co-operative societies. Besides there are also many an informal chit funds- not coming under any legal purview.

1.2.1 Chits Run by Kerala State Financial Enterprises Ltd (KSFE)

KSFE stands unique as the only public sector under taking in India carrying out chit business. Established in 1969 it is one among the profit making institutions in the state. It is a safe arena for the chit fans as investment in KSFE chits are riskless as it conducts the chit business as per the provisions laid down by the Central Chit Fund Act 1982 and Kerala Chitties Rule 2012. When it was started it had a paid up capital of only Rs 2,00,000 lakhs. There were only 45 employees who worked in 10 branches across the state. But today the institution has grown enormously and has 568 branches with 11 regional offices and around 6000 employees. The institution has also diversified by the launching of big sala chits. This has attracted the attention of several subscribers' especially big businessmen and has led to an exceptional growth of chit business in Kerala.

1.2.2 Chits Run by Co-Operatives

Co-operative institutions in Kerala are also conducting chit business. As these institutions are widespread within the length and breadth of the state it is quiet easy for them to mobilise the scattered savings even from the remote villages. However to escape from the rigorous provisions of the Chitty Act of 1983 these institutions are conducting chit like schemes in the name of Monthly Deposit Schemes and Mutual benefit Schemes mostly without seeking sanction from the government.

1.2.3. Chits Run by Private Firms

Private chit institutions had a long established history in the state. To escape from certain provisions of the Kerala Chitties Act 1975 like ceiling on chit amount, clumsy registration formalities and long procedural delays most of these institutions registered chits outside Kerala especially in states like Jammu & Kashmir and Faridabad where such chit rules do not exist. This trend resulted in huge revenue losses to the government. However with the implementation of the Central Chit Fund Act 1983 and Kerala chitty Rules 2012 it was possible to curb such practices to a great extent. Therefore the period after 2012 witnessed a sharp increase in the number of private chits registered in the state. According to All Kerala Chitty Foremen's Association the state has around 5000 private chit companies ensuring employment to around 35,000 persons directly and an equal number indirectly.

1.2.4. Informal Chits

Besides registered chit funds there also exists a highly differentiated and active unregistered sector offering wide ranging chit schemes to the subscribers. Most of them are conducted by trade unions, religious institutions, residents associations, educational institutions, etc about which no authentic data is available. These institutions are widely prevalent in the state and there are several cases of scams, disappearance of foreman etc in this sector resulting in substantial loss to the subscribers and damaging the goodwill of the chit business as a whole.

1.3 Chit Funds-Legislative Regulations in the State

To protect the interest of the subscribers and also to safeguard the rights of the foreman the Government of Kerala has enacted various legislative reforms from time to time. They are

1. The Chitties Regulation III of 1904 (1918)
2. The Cochin Kuries act VII of 1107 in Cochin area (1931-32)
3. The Cochin Starting Kuries (Restriction) Act XII (1945)
4. The Travancore Chitties Act 1120 (1945)
5. Kerala Chitties Act 1975
6. Kerala Chitties Amendment Act 2002

By exercising the powers stated on Section 89 of The Central Chit Fund Act of 1982 the Government of Kerala in consultation with RBI formulated The Kerala Chit Fund Rule 2012 for the proper conduct of chit business in the state. However it is criticised that certain provisions of the Act has resulted in procedural delays and difficulties in the proper conduct of chit business in the state.

2.1 Statement of the Research Problem

Kerala is a state with well-developed banking network, having a high financial literacy among the public. Even though the state had only one percentage of the total land area of the country it had 6166 bank branches as on March 2016 which accounts for about 4.65 percentage of the total bank branches of the country (Economic review 2016, Government of Kerala). The financial liberalisation has no doubt opened a vast array of financial products. Still chit funds in the state are displaying remarkable growth which is evidenced from the rapid rise in the volume of chits registered in the state and their turnover over the years. Kerala being the cradle of chit funds, this business has flourished well. As a traditional and distinctive financial intermediary it has always been capable of attracting the attention of people in all walks of life. This discloses the relevance of this traditional saving instrument and also highlights the need for spreading it to other areas of the country especially to those states where financial inclusion is at a very low pace.

The present study is an attempt to assess the trend in the volume of chits registered and chitty turn over in the state over the years and also to predict the future pattern of its growth. The main objectives of this research study are:-

2.2 Objectives

1. To assess the trend in the annual turnover of chit funds in Kerala.
2. To assess the impact of the implementation of Kerala Chitty Rules 2012 on the annual turnover from chit business in the state.
3. To forecast the future trend in chit turnover in the state.

2.3 Research Design and Methodology

The research is based on an exploratory research design using the secondary data collected from the Administration reports on chit funds of various years collected from the office of the Inspector General of Registration, Government of Kerala. As the present study is concentrating on the annual turnover from chit funds it is important to define the annual turnover. The approximate annual turnover of working chits is obtained by multiplying the total capital of working chits at the end of the year by twelve.

For the proper conduct of the study the researcher has made the following hypothesis

1. Annual turnover of chit fund industry in Kerala is non-stationary
2. There is no significant change or break point in the annual turnover of chits registered in the state after the implementation of Kerala chitty Rule 2012.

To study the first objective, that is to identify the trend in annual turnover of chitty registration in the state we have made use of the Augmented Dickey-Fuller Test (ADF) which is a Unit Root Test. ADF tests whether the time series data is stationary or not. Stationary Time Series means that the data does not have any upward or downward trend or seasonal effects. That is the statistical properties such as the mean, variance and autocorrelation are all constant over time. And if the data is Non-Stationary Time Series, data show trends, seasonal effects, and other structures depend on time.

The Structural point in annual turnover after the implementation of Kerala Chitty Rule 2012 is studied by using Chow Test to learn about the consequences. In econometrics, the **Chow test** is most commonly used in time series analysis to **test** for the presence of a structural break.

The Quadratic Trend Model is used for forecasting future trend in annual turnover.

2.4 Review of Literature

The Travancore Baking enquiry Committee made the initial effort to furnish the statistics regarding the volume and capital of chits working in the Travancore region of the state. Their report states the total number of registered chits operating in the state during the period 1918 to 1922 as 2,982 and the volume of capital as Rs.75 lakhs.

Kapoor et al (2013) made a study to access the size of registered chit fund industry by using the data collected from the office of the registrar of chits of five states viz Kerala, Tamil Nadu, Andhra Pradesh, Karnataka and Delhi. They noted that about 5-10 percent of the households in these states except Delhi are actively participating in chit funds. With regard to the percentage of change in the number of schemes registered their study showed a decline of 10 percent during the period from 2003 to 2006. Still an upward trend was noted by them in the total value of registered chit funds the percentage of rise being 13 percent.

Dr C.P.S Nayar (1973) stressed on the role chit funds played in the accumulation of savings. Unlike other saving institutions such as commercial banks, post office savings banks, etc. an element of compulsion is called for in the savings via chit funds. He highlights it as a remarkable feature peculiar to chit funds. While examining the history of chit funds, he has also discussed the different stages in its evolution pointing out the development of chit funds in the Union Territory of Delhi and in the states of Maharashtra, Kerala and Tamil Nadu. As per his reports the approximate annual turn over of chits working in the state of Kerala for 1968-69 was 9458.4 lakhs, where it was 2,826 lakhs in Tamil Nadu, 164.3 lakhs in Maharashtra and 496.8 in case of Delhi.

Rajendran (1997) made an effort to trace out the evolution and progress of credit in Kerala by making a careful analysis of the various practices and the institutions concerned with credit, from the beginning of the 19th century. The study emphasised the role of chits as an effective instrument of credit operating in the state from time immemorial. The number of chit funds working in the state, the extent and volume of chit business in the state are also covered in this study in this context.

2.5 Research Gap

Through a careful review of the existing literature the researcher has identified some research gaps. Even though a large number of studies relating to chit funds were carried out all of them were concentrating on chit subscribers or chit foremen by using primary data. The study relating to the growth, pattern and trend of chit fund registration in the state of Kerala by using secondary data is almost lacking and even those that were found explained the trends before the 1960s. Therefore the present study has made an attempt to study the pattern

and growth of chit business in the state by using secondary data collected from the Registration Department, Government of Kerala as a continuation of these earlier studies.

3. Analysis of Data and Interpretation

3.1 Descriptive Statistics

Table 1, 2 and 3 give information regarding the number of chits registered in the state and the revenue generated from them from 1965-66 onwards. This includes all the categories of chits registered in the state. For having a better analysis the period has been divided into three

1. The period from 1965-1966 to 1974-1975 (the period before the implementation of Kerala chitties Act 1975)
2. The period from 1974-1975 to 1991-92 (After the implementation of Kerala Chit Rule 1975)
3. The period from **2011-2012 to 2017- 2018** (after the implementation of Kerala Chitty Act 2012)

3.1.1 Growth of chit funds in Kerala before the implementation of Kerala Chitties Act 1975

In table one is given the information regarding the annual turnover and number of chits working in the state from the period 1965-66 to 1974-75 before the inception of the Kerala chit fund Rules 1975. This period is remarkable in the history of chit business in the state as Kerala State financial Enterprises began its operations in 1969 ending the monopoly of hither to dominated private firms carrying out chit business.

Table 1: Details of chits registered and revenue generated in Kerala from 1965-1966 to 1974-1975 before the implementation of Kerala Chitties Act 1975.

Year	No. of working chits at the end of the year	Growth rate of the No. of working chits	Total capital of working chits (Rs. lakhs)	Approximate annual turnover of working chits (in lakhs)	Growth rate of annual turnover (%)
1965-1966	4498	-	472.7	5672.4	-
1966-1967	4632	2.98	473.6	5683.2	0.19
1967-1968	5257	13.49	531.5	6378	12.23
1968-1969	6062	15.31	788.2	9458.4	48.30
1969-1970	6182	1.96	527.5	6330.6	-33.07
1970-1971	6371	1.89	652.8	7833.6	23.74
1971-1972	6606	2.35	1106	13272	69.42
1972-1973	6841	3.56	1559	18708	40.96
1973-1974	7235	5.76	1398	16776	-10.33
1974-1975	7784	7.59	1479	17748	5.79

Source: Inspector General of Registration, Government of Kerala

A close examination of the above data reveals that both the number of working chits in the state and the annual turnover from it is showing a more or less increasing trend with some exceptions which may be considered as a temporary phenomenon. Even though the annual turnover showed a decline in 1969-70 it increased during the subsequent periods and reached its peak in 1971-72 with a growth rate of 69.42 percent which is due to the registration of new chits by KSFE. During this period the annual chitty turnover from KSFE chits alone

was 372 lakhs with a remarkable annual growth rate of 210 percentage.(Annual report of KSFE 1971-72)

3.1.2 Growth of chit funds in Kerala after the implementation of Kerala Chitties Act 1975

The purpose of the enactment of Kerala Chitties Act 1975 was to bring a uniformity in the matter of chit financing in the state. The following table gives information regarding the details of chits registered in the state from 1975 to 2011 that is till the implementation of the new rule on 2012.

Table 2: Details of chits registered and revenue generated in Kerala from 1975-1976 to 2010-11(After the implementation of Kerala Chit Rule)

Year	No. of working chits at the end of the year	Growth rate of the No. of working chits	Total capital of working chits (Rs. lakhs)	Approximate annual turnover of working chits(in lakhs)	Growth rate of annual turnover (%)
1975-1976	8706	-	1509	18117	-
1976-1977	7818	-10.20	1265	15174	-16.24
1977-1978	6930	-11.36	1020	12240	-19.34
1978-1979	10032	44.76	967	11604	-5.20
1979-1980	6747	-32.75	1453	17436	50.26
1980-1981	7081	9.89	1782	21384	22.64
1981-1982	7781	14.09	926	11112	-48.04
1982-1983	8877	7.90	1161	13932	25.38
1983-1984	9578	12.83	1742	20904	50.04
1984-1985	10807	18.03	1638	19656	-5.97
1985-1986	12756	15.28	2253	27030	37.52
1986-1987	14705	5.69	2867	34404	27.28
1987-1988	15541	1.28	3065	36780	6.91
1988-1989	15740	-2.94	3234	38808	5.51
1989-1990	15278	9.12	3247	38964	0.40
1990-1991	14816	-4.62	3260	39120	0.40
1991-1992	14355	-3.11	3272	39264	0.37
1992-1993	18583	29.45	4328	51936	32.27
1993-1994	20660	11.18	4276	51312	-1.20
1994-1995	22489	8.85	5012	60144	17.21
1995-1996	21136	-6.02	6377	76524	27.23
1996-1997	20859	-1.31	5783	69396	-9.31
1997-1998	21744	4.24	7287	87444	26.01
1998-1999	22770	4.72	10706	128472	46.92
1999-2000	20617	-9.46	11799	141588	10.21
2000-2001	20445	-0.82	14523	174276	23.09
2001-2002	20380	-0.32	19001	215838	23.85
2002-2003	19700	-3.34	20850	228011	5.64
2003-2004	18959	-3.76	22247	250201	9.73
2004-2005	18222	-3.89	21560	266967	6.70
2005-2006	17949	-1.50	21639	259665	-2.74
2006-2007	18240	1.62	23699	284387	9.52
2007-2008	24160	32.46	29529	354353	24.60
2008-2009	28585	18.32	38471	461651	30.28
2009-2010	33265	16.37	56206	674474	46.10
2010-2011	31081	-6.57	62802	750024	11.20

Source: Inspector General of Registration, Government of Kerala

The period from 1975 onwards is showing a declining trend in the annual turnover and number of chits registered in the state mainly because of the impact of the implementation of Kerala Chitties Act 1975 that has resulted in the vast migration of chit foreman's to other states especially to Jammu and Kashmir and Faridabad where no such chit rule existed. This trend continued till early 1980s. This migration of chit foremen to other states to get rid of from the procedural formalities had resulted in huge revenue loss to the government. The period from 1982-83 to 1989-90 showed a more or less upward trend in both the number of chits registered and the turn over from it which may be because of the registration of new chits and opening of new branches by KSFE. During this period the same upward trend was noted in the growth rate of KSFE chits too (Annual reports of KSFE)

From 1990-91 the chit fund industry faced stiff competition from the banking sector mainly due to the financial liberalisation that has resulted in the emergence of several new financial instruments that were well garbed and marketed more intensively. Still the chit fund industry sustained and was able to recapture its old glory by 1998-99. The period from 2001 marked several changes in chit business like the emergence of big sala chits, especially by KSFE along with the continuous flight of private chit foreman to other states to escape from the stringent provisions of Kerala Chit Rule 1975.

3.1.3 The period from 2011-2012 to 2017- 2018 (after the implementation of Kerala Chitty Act 2012)

Table 3 Growth of chits in Kerala after the implementation of Kerala Chitty Act 2012. (2011-2012 to 2017- 2018)

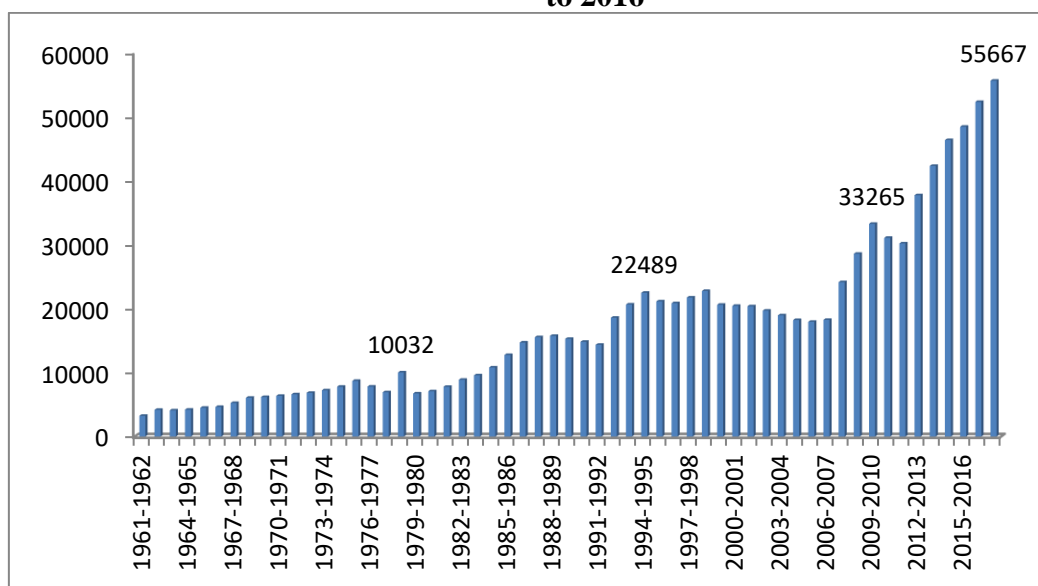
Year	No. of working chits at the end of the year	Growth rate of the No. of working chits	Total capital of working chits (Rs. lakhs)	Approximate annual turnover of working chits	Growth rate of annual turnover (%)
2011-2012	30207	-	92697	1112964	-----
2012-2013	37753	75.46	106737	1280844	15.08
2013-2014	42327	45.74	143735	1724820	34.66
2014-2015	46374	35.47	171637	2059644	19.41
2015-2016	48456	20.82	198567	2256988	9.58
2016-2017	52344	38.88	223456	2567543	13.76
2017-2018	55667	33.23	256755	2765432	7.71

Source: Inspector General of Registration, Government of Kerala

Above table gives information regarding the growth of chit funds in Kerala after the implementation of Kerala Chit Rules 2012, which contains strict rules to prevent the flight of chit foremen to other states. As per the new Act if a chit company has 20 percent or more customers residing in Kerala it is mandatory for them to get registered in the state which became a fatal provision for those chit companies with registration outside the state. Above table reveals that the chit revenue collected in the state after the period 2011-12 is showing only an increasing trend with the highest growth rate noted in 2013-2014 which is due to the increased registration of private chit foremen in the state. The same upward trend was noted in the growth rate of the number of working chits after 2011-2012. Therefore the enactment of the Central chit Fund Act 1983 may be considered as a major breakthrough in the history of chit financing in the state.

The following figure gives information regarding the decennial growth of chit funds in the state from 1960-70 onwards. A close examination of the figure reveals that the period 1960-70 showed the highest growth rate both in annual turnover and the number of registered chits in the state. The period 1970-80 marked the least growth rate in the number of chits registered which may be due to the impact of the implementation of Kerala Chitties Act 1975.

Figure 1: Graphical Representation - Number of working chits in the state from 1961 to 2016



A close examination of the above chart point out that even though the number of chits working in the state from 1961-up to 2011-12 was showing a fluctuating tendency, after the Enactment of Kerala Chit Rule only an upward trend was noted, which substantiate the relevance of this Act on chit business in the state.

4.1 Analysis of Data

4.1.1 Trend In The Annual Turnover Of Chit Funds In Kerala

Trend Analysis - Augmented Dickey-Fuller test (ADF); Table five shows the calculated values of mean, median and standard deviation with which long term trend in chit revenue generation is accessed.

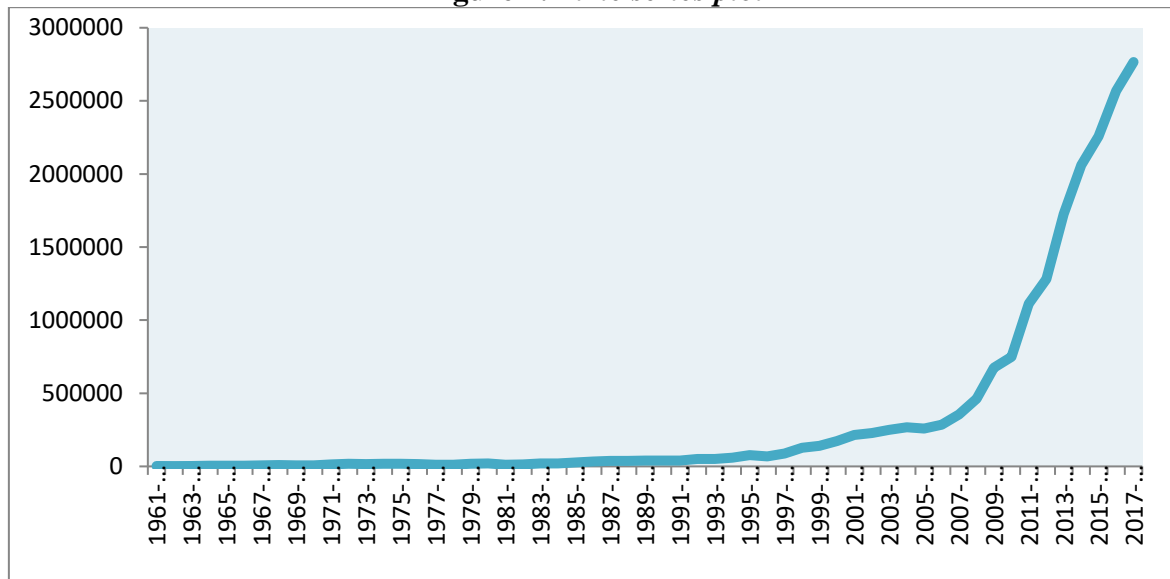
Descriptive statistics of Approximate annual turnover in Kerala

Mean	Median	Minimum	Maximum	Standard Deviation
331426.1	38964	2212.8	2765432	668338.2

Source: computed data

In the table the calculated values of mean, median and standard deviation are not constant and the P value 1 is greater than 0.05. Hence the first hypothesis we have made that the was that the Annual turnover of chit fund in Kerala sample is non-stationary is found true. In other words the annual turnover of chit fund in Kerala is varying over time and is showing an upward trend with statistical properties such as mean and variance as not constant.

Figure 2: Time series plot



This is also evident from the time series plot where we can see that the annual turnover of chit fund in Kerala is showing an increasing trend or upward rise over the years with no signs of seasonal or cyclical variation.

4.1.2 Effect of The Implementation of Kerala Chitty Rule 2012 on the Annual Turnover of Chit Funds

Now here we can test if there is any significant change or violent variation (structural break) in annual turnover of chit fund occurred after the implementation of Central Chit Fund Act 1983 and Kerala Chitty Rule 2012 on 30-04-2012 onwards.

Chow Test

The formula for applying Chow test is given below.

$$CHOW = \frac{(RSS_p - (RSS_1 + RSS_2)) / k}{(RSS_1 + RSS_2) / (N_1 + N_2 - 2k)}$$

RSSp = pooled (combined) Error sum of squares.

RSS1 = Error sum of squares before break.

RSS 2= Error sum of squares after break.

N1 = Number of samples before break

N2 = Number of samples after break

K = Degrees of freedom

Hypothesis

Ho: There is no significant change or break point in the annual turnover of chit fund in Kerala by the impact of Kerala Chitty Rules 2012.

H1: Ho is false.

Reject the null hypothesis if calculated p-value is less than the 0.05.

Result

Here Chow test is used for structural break at observation 2011-2012 and we get

F (1, 55) = 319.929

and P-value $0.000 < 0.05$. Therefore we reject the null hypothesis. So it can be concluded that there is significant change or break point in the annual turnover from chit fund registration in Kerala as an impact of the implementation of Kerala Chit Fund Act 2012.

4.1.3 Forecasting the trend in revenue generation in the state for 10 Years

The Quadratic Trend Model is given as

$$Y_t = b_0 + b_1 * t + (b_2 * t^2)$$

Where y_t is the variable, b_0 is the constant b_1 and b_2 are the coefficients, and t is the value of the time unit.

The Fitted Trend Equation for the model - Quadratic Trend Model is

$$Y_t = 449668 - 97738 \times t + 3893 \times t^2$$

With Accuracy Measures

MAPE 2.92188E+02

MAD 2.01397E+05

MSD 5.43871E+10

MAPE: The mean absolute percent error (MAPE) expresses accuracy as a percentage of the error.

MAD: The mean absolute deviation (MAD) expresses accuracy in the same units as the data, which helps conceptualize the amount of error.

MSD: The mean square deviation (MSD) measures the accuracy of the fitted time series values.

Trend: Trend values are also called fits. The trend values are point estimates of the variable at time (t).

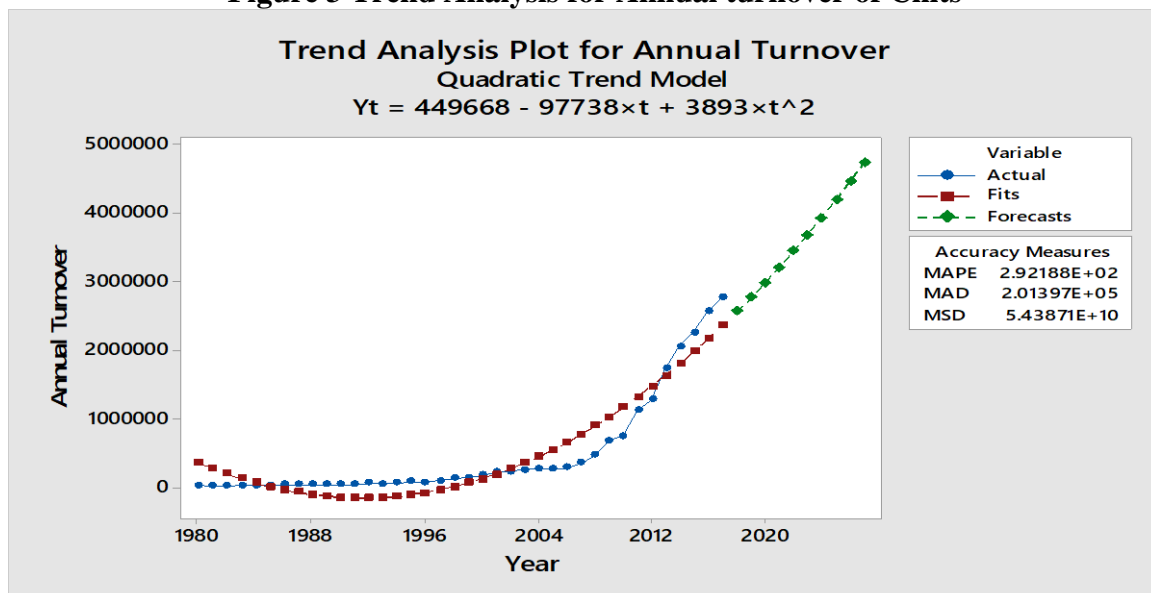
Detrend : Detrend values are also called residuals. The detrend values are the differences between the observed values and the trend values.)

Table 4: Model Summary of trend in revenue generation in the state

Time	Annual	Trend	Detrend
	Turnover		
1980-1981	21384	355823	-334439
1981-1982	11112	269763	-258651
1982-1983	13932	191488	-177556
1983-1984	20904	120998	-100094
1984-1985	19656	58294	-38638
1985-1986	27030	3374	23656
1986-1987	34404	-43760	78164
1987-1988	36780	-83110	119890
1988-1989	38808	-114674	153482
1989-1990	38964	-138453	177417
1990-1991	39120	-154447	193567
1991-1992	39264	-162656	201920
1992-1993	51936	-163080	215016
1993-1994	51312	-155719	207031
1994-1995	60144	-140572	200716
1995-1996	76524	-117641	194165

1996-1997	69396	-86924	156320
1997-1998	87444	-48422	135866
1998-1999	128472	-2136	130608
1999-2000	141588	51936	89652
2000-2001	174276	113793	60483
2001-2002	215838	183436	32402
2002-2003	228011	260863	-32852
2003-2004	250201	346075	-95874
2004-2005	266967	439073	-172106
2005-2006	259665	539855	-280190
2006-2007	284387	648423	-364036
2007-2008	354353	764776	-410423
2008-2009	461651	888913	-427262
2009-2010	674474	1020836	-346362
2010-2011	750024	1160544	-410520
2011-2012	1112964	1308038	-195074
2012-2013	1280844	1463316	-182472
2013-2014	1724820	1626379	98441
2014-2015	2059644	1797228	262416
2015-2016	2256988	1975861	281127
2016-2017	2567543	2162280	405263
2017-2018	2765432	2356484	408948

Figure 3 Trend Analysis for Annual turnover of Chits



The trend analysis plot for annual turnover of chit funds in Kerala has three lines, which are actual line, the fitted trend line and the forecasts. The actual line represents the observed sample values of annual turnover of chit fund in Kerala. Fitted trend line is plotted by using Quadratic Trend Model and in continuation to that the forecasted lines are plotted. The forecasted values of annual turnover of chit fund in Kerala are given below

Table 5: The forecasted values of annual turnover of chit fund in Kerala

Period	Forecast
2018-2019	2558473
2019-2020	2768247
2020-2021	2985806
2021-2022	3211150
2022-2023	3444279
2023-2024	3685194
2024-2025	3933893
2025-2026	4190378
2026-2027	4454648
2027-2028	4726703

The projected values for 10 years shows that the revenue generated in the state will continue to rise for the coming years also.

Conclusion

All the three tests used in the analysis reveals that the chit business in the state is showing an impressive growth rate both in terms of the number of chits registered and the revenue generated from it over the years. The implementation of Kerala Chit Rule 2012 has resulted in increase in the number of chits registered in the private sector. Analysis of future trend in chit revenue generation reveals that it will continue to raise over the years.

However it is noted that even after the implementation of the Central chit Fund Act 1982 and Kerala Chitties Rule 2012 several private chit companies are operating in the state without having chits registered in the state Registration Department. The Co-operative societies are also conducting chits like schemes in the names like Monthly Deposit Schemes (MDS) and Group Deposit Scheme (GDS) etc mostly without registering them with the registration department. Besides that a large number of informal chits are operating in the state with low administrative and other formalities causing difficulties to both the subscribers and government at large. If these chit funds were also registered in the state the revenue generated from chit funds in the state would be much higher.

It has been criticised that the Kerala Chit Rule 2012 contains certain provisions that seems less appealing to the private chit foremen and has resulted in the breakdown and disappearance of several small chit men from the state. The most important provisions are section 8(1)-minimum capital requirement for the commencement of chit business, creation and maintenance of a reserve fund from balance of profit of every year, Section 12(1)-prohibition of a chit company from carrying out any other type of business, Section 14-prohibition on the use of money collected from chit business for any other purpose other than chit business etc

However we can conclude that the chit funds growing in the state is a unique and traditional financial intermediary with vast potentialities to cater to the needs of people belonging to different segments of society. Researchers have pointed out that this saving technology has immense potentiality to mobilise rural savings (Bauman 1979) as they are working on the principle of group responsibility. Therefore there is a need to protect them and popularise them even to other parts of the country especially to those states with low financial inclusion. Easing the procedures associated with the registration of chits, establishment of a separate department to look on the activities of chit funds, facility for chitty arbitration in each district etc will help the chit fund sector to grow much faster.

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A Study To Measure The Awareness Among Customers Towards Experiential Marketing Practices

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Abstract

The study aims to measure the awareness level of customers towards the experiential marketing practices of the selected shopping malls of Delhi/NCR region and the impact of demographic variables of the customers on their awareness level. The sample size of the study was 150 customers from two biggest malls of the Delhi/NCR namely; The Great India Palace, and the Ambience Mall. Researcher has used one sample t-test and one way Anova for the analysis of primary data. It was found from the study that majority of the customers were well aware about the experiential marketing practices of the shopping malls. A significant difference was found in the awareness level of customers' towards the experiential marketing practices of selected shopping malls. Further, it was found that age, educational background and annual income of the customers have significant impact on their awareness level of customers' towards the experiential marketing practices of selected shopping malls, while gender and occupation have no significant impact on the awareness level of customers' towards the experiential marketing practices of selected shopping malls.

Keywords: experiential marketing, shopping malls, Delhi/NCR, Customer, shopping experience, and customer purchase behavior.

Introduction: The concept of experiential marketing has been prevalent in the marketing literature in distinctive contexts, engrossing brand experience, product experience, shopping experience, service experience and consumption experience (Brakus et al., 2009; Zarantonello and Schmitt, 2010). The core aspect of experiential marketing is the experience and it is focused on creating distinctive stimulus like ambience, special zones and new appearances to analyze the responses of customers to the stimulus. The active response enable the customers reflect their actual buying behavior, their experience and different feelings like pleasure and entertainment etc. (Alagoz and Elikiti, 2008). In the words of Holbrook and Hirschman, experiential marketing is considered as the consumption of the feelings, fun and fantasies. Csikszentmihalyi regarded experience as flow which is something away from the mere need gratification or something far beyond the 'stimulus response i.e. the flow is ultimate experience and the enjoyment in the life span (Csikszentmihalyi, 1991). Many researchers have conceptualized experiential marketing as per their distinctive perspectives. Sharma and Sharma have foregrounded it as a holistic approach with its prime focus on attitudes, beliefs, experiences and consumption patterns of emotional as well as rational beings in order to connect the marketers with their customers in the long run (Sharma and Sharma, 2011). Muarno has reckoned it as a competitive initiative for enhancing the customer loyalty, promoting the customer involvement and retaining the relationships for the fruitful reputation as well as image of the brand (Maurno,

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2011). Smilansky stated the experiential marketing as the dynamic and continuous process that encompass the investigation and provision of aspirations and profitability of the customers; enhance the association between brand and the customers, brand cognizance, gratification; brand and business (Smilansky, 2009). As a platform, it involves the provision of real time emotional as well as intellectual engrossment of the customers. In the words of Roche, experiential marketing act as the powerful mechanism for promoting the interests of the numerous companies and customers; as an influential tool for retaining the brand value as well as long term capital gain (Roche, 2003). The main focus of experiential marketing is on development of highly interactive, visible and sensory-involved environments where the goods as well as services are showcased for the real time experiences and reverts from the customers.

The experiential approach provides a two-way and real time interaction in terms of live brand experience by the customer as well as a magnificent deep customer attachment process (Smilansky, 2009). It creates and develops relationships; push brand engagement, enhance the loyalty among the customers as well as foster engagement (Maurno, 2011). Apart from being fruitful to the companies in many ways like building brand loyalty, enticing emotions, goading their hanker for product purchase, creating fond memories, building and transforming opinions, building trust and increasing the desire for the product; the experiential marketing is beneficial for the customers in many ways. Experiential marketing not only consider the customers as the buyers but also regarded them as the rational and sensible beings who aim at making purchase decisions with regard to the numerous things to satisfy their immense needs as well as gain experience of pleasure (Schmitt, 1999). Hence, keeping in view the benefits or importance of experiential marketing it is required to measure the awareness level of customers towards the Experiential marketing practices adopted by the shopping malls to attract and retain customers. Current study will be devoted solely to this purpose only. An in-depth review will be done in the subsequent section related to the experiential marketing practices prevailing in shopping malls.

Review of Literature:Lawler (2013) revealed that majority of the consumers relied on their experience before the adoption of particular product and service. The study highlighted that managers had to make precise identification of client's needs and their responses, compose a reliable as well as skilled team, and strike a balance between creative as well critical support processes to achieve the pre-decided objectives. Jaskari (2013) elucidated experiential marketing as the powerful discipline, which had enabled the marketers to create sound relationships with their customers as well bridge the gap between customers and the brand. Matthews (2013) elucidated the use of multiple experiential marketing strategies used by the companies in terms of social media outlets, sponsorships and event marketing. Industry Report (2013) stated social media as a valuable experience for creating stronger association and in-depth engagement in marketing strategies. Social media has been found to enhance the marketing experience in terms of one-to-one interaction and personalized marketing. Sharma and Sharma (2011) have documented the processes and strategies, which conceptualize experiential marketing. The researchers foregrounded experiential marketing as a holistic approach with its primarily focus on the experiences, attitudes, beliefs and consumption patterns with the foundational assumption of rational as well as emotional beings. The study also highlighted the major aspects such as Sense, Feel, Think, Act and Relate experiences as the core of the marketing strategy. Besides, it was also revealed that experiential marketing had been a major initiative to connect marketers with their worthy

customers for the long span of time. Maurno (2011) explained the use of experiential marketing to create long term and true association and develop brand loyalty. Experiential marketing has been recognized as a competitive strategy to enhance loyalty, create relationships as well as promote engagement. The study explained the use of experiential marketing as a magnificent for the promotion of fruitful reputation and image. It was suggested that brand strategy should match the needs of the firm. Wilde (2011) has considered media relationship impressions and monitoring metrics as the important strategies for experiential marketing campaigns. The study proclaimed experiential marketing as an effective measure for encouraging the target customers, cutting the costs and getting the maximum Rate of Interest (ROI). The study also mentioned ART (Activity, Relevant and Target) initiative to reach the maximum target of customers by designing, delivering as well as developing the customers' experiences. Smilansky (2009) has foregrounded experiential marketing as the significant measure to withstand all the barriers in the contemporary era. The study depicted the experiential marketing as a wider and continuous process, which encapsulate identification and provision of customers' aspirations and profitability. Experiential marketing had been recognized as the effective way to enhance interaction between brand and customers, brand and business, brand awareness and satisfaction. It was also found that experiential marketing provide platform for emotional and intellectual involvement of customers. Ueacharoenkit (2009) investigated the association between brand experience and loyalty among customers towards luxury cosmetics sector in Thailand. Brand experience had been evolving as an important segment for management of brand and marketing discipline. The study revealed the affective experience, behavioural experience, social experience, intellectual as well as sensory experience as important foundations of cosmetic brand experience. It was found that there had been direct significant association between cosmetic brand experience as well as consumer brand loyalty. Besides this, there had been an indirect relationship with consumer loyalty with the help of brand trust and consumer satisfaction. Raymond et al. (2008) have stated experiential marketing as a significant mechanism to promote the interests of the firms and customers. Experiential marketing had been found as a powerful tool to provide long-term competitive advantage and retain brand value. The study elucidated that such activities include brand awareness for customer acquisition and return. The study also stressed that marketers should devise a clear-cut picture of the effectiveness related to all brand-building tools.

It can be seen from the review of literature that researchers have focused on the benefits or importance of experiential marketing, or their impact on the company's reputation, goodwill, brand image or performance, but have not measured the awareness about the concept of experiential marketing among customers. There is a lack of studies conducted from customers' point of view, that how they perceive experiential marketing practices. In order, to bridge these gaps current study is an attempt in this direction only.

Objectives

1. To measure awareness level of customers' towards the experiential marketing practices of selected shopping malls.
2. To measure the difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different demographic profile of the customers.

Research methodology: Current study was based on the opinions of the customers towards the experiential marketing practices of selected shopping malls. Study was purely based on

the primary data collected with the help of survey method. The customers of two shopping malls of Delhi/NCR namely; The Great India Palace and Ambience Mall; have been selected for the data collection. Sample size of the study was 150 customers comprising 75 customers from each of the two shopping malls. Customers of these shopping malls were contacted personally and data was collected in face to face interaction with the customers. Survey was conducted during the month of December 2019 to January 2019, during weekends only from 11 am to 9 pm. The reason behind this is that the majority of the customers visit shopping malls during this period only. Researcher has used one sample t-test, and one-way Anova for testing hypothesis. Following hypothesis have been formulated in the current study:

Null Hypothesis 1: There is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls.

Null Hypothesis 2: There is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different demographic profile of the customers.

Findings and discussions:Demographic profile of the customers who have participated in the survey were mainly from age group of 20 to 30 years females, in service by profession, graduate and earning around 3 to 6 lakh per annum. The reliability of the instrument was measured using Cronbach Alpha method and it was found that the reliability of the research instrument was high and above 0.70, which indicates that the instrument is reliable.

Table 1: Customer Awareness towards Experiential Marketing Practices of shopping malls

S.N.	Statements	Yes	No	Can't Say	Total	Mean Value	Std. Dev.	t-test
1	Safe and secure payment gateways	10	128	12	150	1.08	0.27	48.593
2	Innovative products and services using modern technology	105	24	21	150	1.44	0.73	24.227
3	Attractive interior and exterior	141	6	3	150	1.04	0.35	36.894
4	Customer friendly policies	93	33	24	150	1.54	0.76	24.934
5	Regular communication with the customers	84	48	18	150	1.56	0.70	27.304
6	Keeping customers informed and updated about the brands and products	93	30	27	150	1.56	0.78	24.453
7	Trail based offers	66	51	33	150	1.78	0.78	27.783
8	Timely response to customers	93	27	30	150	1.58	0.80	24.040
9	Warm and delightful experience to customers	126	9	15	150	1.26	0.63	24.553
10	Flexibility in the policies	57	45	48	150	1.94	0.84	28.377
11	Trained and skilled employees	102	21	27	150	1.50	0.78	23.443
12	Complimentary services to customers	78	45	27	150	1.66	0.77	26.506

13	Regular feedback from customers	54	72	24	150	1.80	0.70	31.714
14	Social networking, use of social media for customers	81	45	24	150	1.62	0.75	26.529
15	Providing common platform for customers to express their views	48	72	30	150	1.88	0.71	32.274

Null Hypothesis 1: There is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls.

Table 1 depicts the awareness level of customers' towards the experiential marketing practices of selected shopping malls. Customers were found to be well aware about the various experiential marketing practices of the shopping malls, such as; Innovative products and services using modern technology, Attractive interior and exterior, Customer friendly policies, Regular communication with the customers, Keeping customers informed and updated about the brands and products, Trail based offers, Timely response to customers, Warm and delightful experience to customers, Flexibility in the policies, Trained and skilled employees, Complimentary services to customers, and Social networking, use of social media for customers. While, majority of the customers were not aware about the various experiential marketing practices of the shopping malls, such as; Safe and secure payment gateways, providing common platform for customers to express their views, and Regular feedback from customers. A considerable proportion of the customers have responded neutrally to the fifteen statements under awareness section. Overall, it can be said that majority of the customer were well about the experiential marketing practices of the shopping malls. It can be interpreted from the results of one-sample t-test, that there is a significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls. All the values for the t-test were found to be significant at 99 percent level of significance for each of the fifteen variables considered under the awareness among customers towards experiential marketing practices of the shopping malls.

Null Hypothesis 2: There is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different demographic profile of the customers.

Table 2: Age group and Customer Awareness

	N	Mean	Std. Deviation	Std. Error
Less than 20	30	1.4333	.24117	.04403
20 to 30 years	48	1.6625	.34474	.04976
30 to 40 years	42	1.5619	.38485	.05938
40 to 50 years	18	1.4556	.16047	.03782
Above 50 years	12	1.4833	.15076	.04352
Total	150	1.5493	.32011	.02614
F-Value = 3.192, Sig. 0.015				

Table 2 shows the difference in the mean values of the customer awareness towards experiential marketing practices of the selected shopping malls of Delhi/NCR region, due to difference in the age groups of the customers. Customers from an age group of 20 to 30 years

were found to be highly aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region, while the customers from an age group of less than 20 years were found to be least aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region. Further, the f value was found to be 3.192, which is significant and hence it can be said that there is a significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different age groups of the customers.

Table 3: Gender and Customer Awareness

	N	Mean	Std. Deviation	Std. Error
Male	57	1.5474	.35829	.04746
Female	93	1.5505	.29634	.03073
Total	150	1.5493	.32011	.02614

F-Value = 0.003, Sig. 0.953

Table 3 shows the difference in the mean values of the customer awareness towards experiential marketing practices of the selected shopping malls of Delhi/NCR region, due to difference in the gender of the customers. Female customers were found to be highly aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region, while the male customers were found to be least aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region. Further, the f value was found to be 0.003, which is insignificant and hence it can be said that there is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different gender of the customers.

Table 4: Education and Customer Awareness

	N	Mean	Std. Deviation	Std. Error
Below 10th	9	1.3500	.17638	.05879
Upto 10th	15	1.4533	.29407	.07593
Upto 12th/Diploma	24	1.6256	.31161	.06361
Graduate	63	1.5619	.31423	.03959
Post Graduate	39	1.8222	.30150	.04828
Total	150	1.5493	.32011	.02614

F-Value = 5.461, Sig. 0.000

Table 4 shows the difference in the mean values of the customer awareness towards experiential marketing practices of the selected shopping malls of Delhi/NCR region, due to difference in the educational background of the customers. Customers who were post graduate were found to be highly aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region, while the customers whose education qualification is below 10th, were found to be least aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region. Further, the f value was found to be 5.461, which is significant and hence it can be said that there is a significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different educational background of the customers.

Table 5: Occupation and Customer Awareness

	N	Mean	Std. Deviation	Std. Error
Student	12	1.6833	.07588	.02190
Housewife/Retired/Unemployed	27	1.4889	.39614	.07624
Service	90	1.5689	.30562	.03222
Business	21	1.4667	.34059	.07432
Total	150	1.5493	.32011	.02614
F-Value = 1.621, Sig. 0.187				

Table 5 shows the difference in the mean values of the customer awareness towards experiential marketing practices of the selected shopping malls of Delhi/NCR region, due to difference in the occupation of the customers. Students were found to be highly aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region, while the customers who were in business, were found to be least aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region. Further, the f value was found to be 1.621, which is insignificant and hence it can be said that there is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different occupation of the customers.

Table 6: Annual Income and Customer Awareness

	N	Mean	Std. Deviation	Std. Error
Less than 2 Lakhs	18	1.8778	.24227	.05710
2 to 3 Lakhs	27	1.5185	.33859	.06516
3 to 6 Lakhs	45	1.5644	.33382	.04976
6 to 8 Lakhs	48	1.4542	.26441	.03816
Above 8 Lakhs	12	1.4500	.22764	.06571
Total	150	1.5493	.32011	.02614
F-Value = 7.203, Sig. 0.000				

Table 6 shows the difference in the mean values of the customer awareness towards experiential marketing practices of the selected shopping malls of Delhi/NCR region, due to difference in the annual income of the customers. Customers, who were earning less than 2 lakhs, were found to be highly aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region, while the customers who were earning more than 8 lakhs, were found to be least aware about the experiential marketing practices of the selected shopping malls of Delhi/NCR region. Further, the f value was found to be 7.203, which is significant and hence it can be said that there is a significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different annual income of the customers.

Conclusion: Overall, it can be concluded from the study that majority of the customer were well about the experiential marketing practices of the shopping malls. A significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls, was found. From the comparative analysis of the awareness level of customers' towards the experiential marketing practices of selected shopping malls based

on their demographic profile, it was found that age, educational background and annual income of the customers have significant impact on their awareness level of customers' towards the experiential marketing practices of selected shopping malls, while gender and occupation have no significant impact on the awareness level of customers' towards the experiential marketing practices of selected shopping malls. Hence, null hypothesis which states that there is no significant difference in the awareness level of customers' towards the experiential marketing practices of selected shopping malls due to different annual income of the customers, tends to be partially accepted.

Limitations and Future Research: Geographic limitation is the major limitation of the study. Current study was limited to the Delhi/NCR region, while it can be extended to other cities of states also. Further, the researcher has taken two shopping malls, which can be extended in future studies to have generalized results. Researcher has measured the awareness level of the customers towards the experiential marketing practices of selected shopping malls, but how these awareness level have an impact on the customer busying behavior or the performance of the shopping malls have not been explored in the current study, which gives future researcher an option to further pursue studies in this direction.

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A Review Based On Study Of Applications And Usage Of ICT In Economic, Educational And Industrial Development

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Abstract: Current research aims to review the literature available on the role or applications of ICT in the economic development, educational and industrial development. The study is purely conceptual in nature, and based on the secondary data. Researchers have collected the studies conducted by researchers across the globe on the role of ICT in different areas; using various data bases such as; EbSco, ProQuest, Emerald etc. Overall, it was found that ICT has gained significant importance in the last decade, all the studies across the globe confirm the fact that increased use of ICT in different areas, can lead to high level of economic growth and development. At the same time ICT can be made a useful tool to improve the quality of education and also plays an important role in industrial development by simplifying the industrial processes and increasing the industrial output at its optimum level.

Keywords: Economic development, education, industrial development, India, ICT, E-governance etc.

Introduction: ICT sector in India traces its history to the initial period pre 1990's i.e. pre liberalization era when it was in a primitive stage. With the advent of many private & Global players the ICT sector in India has seen a meteoric rise both in terms of tools & services. But still till the end of the 90's decade owning a Mobile phone was considered to be a luxury available to the elite few. But in the last decade or so the technology has grown leaps & bounds, especially the wireless technology. Not only a lot of new innovations have been happening at a very fast pace but also the user base has increased drastically due to availability of affordable smart phones. Today more than 50% of mobile phone users have smart phones. It is expected that in next 4 years the no of Smart Phone users will reach 442 Million while just a year ago the population was just 300 Million. At the same time there are approximately 420 Million Internet connections as well. The low tariffs for calls & data, thanks to the competition amongst players, have been the enablers. However, with this rapid growth in users especially after the introduction of smart phones there have been certain concerns as well with regards to the efficiency of the data services & constant call drops which is forcing the telecom operators to address these needs on a priority basis. ICT has been one of the fastest growing sectors in India with its contribution to GDP increasing year on year. Its contribution to Government coffers is next only to Income tax collection. Not only that but it is also one of the significant contributors to FDI in India. An extensive information communication & technology infrastructure across the country has played an important role in this growth & in fact all the components of ICT such as Consumer & Industrial electronics, computers etc have registered a ballistic growth in last decade or so. In 2016 India's approximate revenue from ICT sector was USD 160 Billion, an increase of 9.2 % over previous year. Out of this major contribution of approximately 70% (USD 110

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Billion) came from exports. With the rise in GDP the demand for telecommunications which is one of the important part of ICT has registered an impressive growth year after year. In fact, in telecom sector India is one of the fastest growing economies across the world placed at 2nd position with 1.1 Billion connections & it's not without reason that India is host to maximum no of telecom operators in the world. These operators see a huge potential in India due to its large population & growing economy. Corresponding to the domestic front ICT growth in India is being fueled by a number of startups who are into Education, E-Commerce & Health care. In fact, education sector of ICT is expected to grow 5 times by 2021. In addition to that the government initiatives under Private Public partnership scheme to transform all the service deliveries through digital technology will further fuel the growth of ICT in India.

2. Objectives Of The Study: To review the literature available on the role or applications of ICT in the economic development, educational and industrial development.

3. Research Methodology: The study is purely conceptual in nature, and based on the secondary data. Researchers has collected the studies conducted by researchers across the globe on the role of ICT in different areas; using various data bases such as; EbSco, ProQuest, Emerald etc. Researchers have shown the major findings from the review in the summarized tables' format.

4. Findings And Discussion: This section comprises the review of the studies on the area of current research; into three different sections. First section comprises the review of studies available on the role of ICT on economic development, second section comprises the review of studies on role of ICT in educational area and third section explains the role of ICT in industrial area.

4.1 ICT And Economic Development

Souter (1999) has examined the role of ICT in democratic government in contemporary epoch. ICTs provide many imperative tools to empower poorer communities, investment by international organizations, development of grass root community business and help in reducing all inequalities. The study emphasizes the Government, NGOs and other economic development agencies must take suitable measures to enhance the use of ICTs for raising the level of cognizance among people thus influencing their empowerment, support for access development in marginalized areas, strengthening the rules and regulations, development of National telecoms and strategies related to ICT to improve quality of life and increase access in society. Shamos (2002) have highlighted the proliferation of ICT connectivity in Industrial, Commercial as well as utility systems by defining its 4Cs i.e. computing, connectivity, content and capacity (human). ICT has been regarded as a fundamental part of knowledge economy leading to the economic growth and development of nations, progress in education, prevalence of e-commerce and e-governance. ICT is considered as means as well as an end for the development and has made India, Philippines and many other developing nations as global IT players. The study draws the major challenges, which are certainly examined in terms of expense of training to the best possible use of ICT networks. It is necessary to develop ICT and other dynamic and intertwined societal systems so as to integrate both of them. Breitenbach (2003) over two decades ICT has profoundly influence on the way of living of citizens in the global. However, some studies have drawn the attention on the impact of ICT sector on economic growth and development notably, China, USA, Britain, and Asian region. Somehow, there has been less effort taken to address the impact of ICT sector on the economy in case of South Africa. Therefore, the central premise of the

study was to analyze the impact of ICT on South Africa's economy. The study adopted 22 observations to understand the relationship between ICT and GDP, which studied by using time series within the time-frame of 1975 to 2002. Concluding the study considers that there is the substantial contribution of ICT on GDP. It is also suggested that there is a positive relationship between ICT and economic growth. The statistical data shows that 1 percent rise in the telecom mainline will probably increase the GDP by 4 percent. Siddiqui (2004) has reviewed the proliferation of ICT deregulation and Liberalization across all segments and its influence on the overall development of Pakistan in contemporary epoch. Yester years have witnesses the increase in number of mobile subscribers which has direct positive influence on its growth and development. Telecom sector has provided magnificent benefits like socio-economic development with improved institutional ties, enhanced security and safety services, empowerment among women in terms of reduction in the dependence on men, improved family affairs and increase in telecom services run by many NGOs and International agencies, income generation, reduction in gender disparity. The study stresses on advancing the mobile applications by operating new utility avenues for social and economic development, empowerment the entrepreneurial facilities to bridge the gap between opportunities for gender. Government must take suitable actions for ensuring sustained socio-economic development. Hirvonen (2004) has stated the influence of ICT in economic development. Mobile technology has shown a drastic transformation in the ICT sector due to the public policy and private investments in Finland. ICT has supported the economy to manufacture and relocate country's labor costs. The study depicts the maintenance of high-value added industries, research, development and design in context to Finland's economy. The researcher emphasizes on increasing competitiveness, strong technological development to secure the future of ICT sector. Government has to intervene precisely to maintain the level of R&D through adequate expenditure, bring timely reforms, proper pursue of industrial and economy policies to promote growth and competitiveness in the environment. Export Processing Zones Authority (2005) has highlighted ICT as the world's fastest growing economic activity as it provides opportunities across transcending borders, cultures and new channels for service delivery. The information society provides foundation for social interaction, economic, political engagement and business operations in Kenya. There are many challenges, which are encountered by effective execution of ICT sector in economic development like business-friendly government, access to technology infrastructure and attracting high-tech industry. Government has taken many initiatives to transform and rejuvenate the economy into a market-oriented one. There is need of trained manpower to realize in economic growth, creating potential investors, reducing poverty and attaining incentives. Manpower must be trained to enhance the skills, proper framework for utilities. Kundishora (2005) has discussed the role of ICT in improving local economic development and poverty reduction. ICT acts as an enabler for growth, development and yielding maximum benefits in African nations. ICT has given inception of several new concepts like digital governance, assistance to International digital governance, assistance to international economic integration, enhancing standard of living and improving biodiversity management. The study stresses on the need to be actively involved in managing and monitoring the directions and positions of ICT sector. There must be establishment of proper resource investment, precise network partnerships and right policy interventions for streamlining ICT into a magnificent contributor to Gross Domestic Product. The proper utilization of ICT would lead to quality production of goods and utilities. Government must

undergo some transformations like improve the efficiency of departments and institutions, making the system transparent, providing conducive environment and enabling citizens to get proper information. Amiri and Woodside (2017) have highlighted the association between technological advancement, economic growth and societal employment. The study was conducted to examine the relationship between United Nations' International Telecommunication Union's ICT, Development Index, GDP and unemployment data across BRIC nations. The study reveals the significantly positive relationship between technological advancement (based on IDI) and economic growth (based on IDI) whereas negative association between technological enhancement and nation's unemployment rate which influence all in the society. Researchers insisted on the responsibilities of the countries to design and strengthen the policies to improve individual as well as organizational investment in ICT so as to contribute towards economic development. The limitation of the study was span of time as well as the lack of real time data while future application of data needs to update the resultant response, which is needed for better implications. Thomas Niebel (2017), the study attempts to analyse the significance of ICT on economic growth in 59 countries within the timeframe 1995-2010. The sample was select from the three groups of countries, i.e. developing, emerging and developed by evaluating the estimated output elasticity of ICT, ICT compensation factor, returns to ICT capital from all 59 countries. The central focus of the study was to examine the gains from investment in ICT varying among developing, emerging and developed countries. The outcomes found from the research indicates that these two economies, i.e. developing and emerging countries gain less from developed countries while investing in ICT. Also, a small difference among developing, emerging and developed countries is notice regarding output elasticity of ICT. Furthermore, the study argues that there is no clear statistical indicator that developing and emerging countries gain more from investment in ICT than the developed countries. However, assessing the result, the study suggests that in case of developing and emerging countries not only economic but political and social factors should also take into consideration while investing the impact of ICT on their economic growth. Wasiiu I. Oyeniran and Alliyu (2016), the study attempts to scrutinize the effect of government and foreign investment in telecommunication infrastructure of Nigeria economic growth. To conduct the research, it assesses the period from 1980 to 2012 using time series data. It also employs autoregressive distributed lag (ARDL) approach to estimate the investment in telecommunication infrastructure and its effect on economic growth in both long and short-term. The study relies data on interest from these sources: GDP, government expenditure on communication, gross capital formation and FDI in telecommunication infrastructure. Moreover, data on labor force acquire from development indicator of World Bank (2013). It can be found from the study that FDI seems to be more active while promoting economic growth than government investment in telecommunication infrastructure of Nigeria. Earth Institute of Columbia University (2015) have examined the association between ICT and SDGs (sustainable development goals) to investigate the ways to accelerate the roles and actions of ICT in attaining the SDGs. ICT has been regarded as major game changer in the contemporary era across education, health, energy, climate change and financial services. The report has addressed the major challenges encountered by the government, industry and various stakeholders in terms of privacy, security, loss of human efficiency, impact on health, digital exclusion, and impact of internet on children as well as electronic wastes. It is necessary to upgrade the quality of service, increase in public awareness and their involvement, upscaling

the utilities across numerous fields, increase in connectivity and productivity. There is dire need to train the personnel, inculcate PPP (Public-Private Partnership), and regulate the public sector and infrastructural development so that ICT sector could work significantly to attain the SDGs by 2030. Knut Blind et al. (2014), the study insights the role of intellectual property (IP) and information technology sector in Egypt. The present research work claims that ICT sector contributes significantly to economic growth and employment in Egypt. In this context, the study seeks to identify the role of IP in Egyptian ICT sector and figure out the linkages of IP, innovation, and FDI. For this purpose, the study addresses three segments the first, is to assess the economic feature of Egyptian ICT sector. The second is to discuss the role of IP in the ICT sector, and third is to describe policy related to IP which promotes Egyptian ICT industry. The study adopted a methodology look the concern objective by following four steps, firstly drawing information on a preliminary database of IP related from MCIT (ministry of communication and information technology), WIPO (World Intellectual Property Organization) Statistics Database, and other Egyptian databases. Secondly, follows a survey with a model questionnaire to real innovation and inventors. Thirdly, conduct structured interviews with leading stakeholders (in charge of ICT sector of government officials, patent officials, ICT entrepreneurs, a research center based on ICT, academicians). Thus, research work formulates that ICT services are the priority of both suppliers of ICT and business outsourcing. Darwiche et al. (2012) have documented the substantial role of regulators in getting the full potential of ICT sector in the betterment of entire nation's development. ICT has been regarded as the key components in the National Development strategies by the Government of Middle East and North Africa. The telecom segment has undergone a productive transformation and is evolving in terms of remote health monitoring system, e-government, cloud computing and smart meters as enablers of socio-economic wellbeing. The study highlights the lower regulator influence at the higher echelons of digitization. The study emphasizes the need of ascertaining and making regulations pertaining to ICT sector by enhancing the marketing efficiency, safeguarding the welfare of customers as well as managing scarce national resources. There is also need to drift the focus from focus telecom focused to digitization focus market. Use of best regulatory practices across the globe to gratify customers' and nations' interests is also essential. Lewis (2012) in his research work, has explored the major components and drivers of ICT sector reforms at all the levels as well as key trends related to ICT across South Africa. ICT plays an important role in socio-economic development of the Nation. Digital divide is the major constraint in the phenomenal growth of ICT sector in all the directions. The study reveals that there is a dire need of State intervention by making regulations, telecom reforms to steer the pace and direction of growth and development in ICT sector. There must be provision of Universal access to ICT making it within the reach of everybody. An integrated approach is substantial for converging domains as well as technologies to get the maximum benefits. Mohamed et al. (2010) have ascertained the role of ICT in mobilizing the sustainable development in knowledge era. Knowledge management, ICT infrastructure, ICT capability building and policy play important role for sustainable development. ICT has enabled the International sustainable development by bringing all the segregated units in unison. The study was conducted using the sample of 98 respondents who were the agents at local stations in USA. The study corroborated that ICT helps the organizations to achieve process-oriented approach and improve decision making. Organizations must adopt proper knowledge-oriented approach and enhance ICT infrastructural facilities to benefit all the

stakeholders. Organizations must work in collaboration and cooperate to harness the pool of knowledge essential for sustainable development and advancement. The limitation of the study was the data, which soared the experimental error whereas there must be more respondents who could give the right direction of outcomes so as to enable the organizations to form the suitable inferences. Raul L. Katz (2009), the study assesses the impact of a range of ICT. This study tries to fill the gap in the existing literature by evaluating the actual economic impact of ICT. For this purpose, paper, it uses both theoretical background and empirical data for Spain. Further, the research examines the extent of ICT growth by evaluating these parameters the productivity growth, employment creation, level of investment in ICT and telecommunication. Moreover, summing up the findings, in case of Spain ICT investment and broadband penetration shows a positive relationship, on the other hand, productivity growth and employment have positive outcomes. It also reflects a causal relationship between distribution and integration of ICT and economic growth. The result appears to show a transition of Spanish economy leading toward structural transformation, i.e. information society. Jain (2006) has explored the significance of Information and Communication Technology with the Knowledge Management approach in context to empowering Africa's indigenous knowledge. The study also draws attention towards the infrastructural limitations, which influence the effectiveness and efficacy of the utilities. It is necessary that people must be awareness of the benefits and proper education must be imparted at the primary level. There is a dire need to formulate a suitable legal framework as per the needs of localities as well as with the active involvement. Training to manpower is essential to work up with the knowledge on the turf and must have transparent transformational vision. The major limitation of the study is the scarcity of the in-depth knowledge in context to Africa where as more research is required to enhance the approach of the aspect.

Table 1: Studies showing the relationship between ICT and economic development

S. N.	Citations	Country	Impact of ICT on economic development
1	Souter (1999)	New Zealand	Empower poorer communities, investment by international organizations, development of grass root community business and help in reducing all inequalities.
2	Shamos (2002)	Developing countries like India, Philippines	Economic growth and development of nations, progress in education, prevalence of e-commerce and e-governance
3	Breitenbach (2003)	South Africa	Substantial contribution of ICT on GDP and positive relationship between ICT and economic growth
4	Siddiqui (2004)	Pakistan	Socio-economic development with improved institutional ties, enhanced security and safety services, empowerment among women in terms of reduction in the dependence on men, improved family affairs and increase in telecom services run by many NGOs and International agencies, income generation, reduction in gender disparity

5	Hirvonen (2004)	Finland	ICT has supported the economy to manufacture and relocate country's labor costs
6	Export Processing Zones Authority (2005)	Kenya	ICT provides foundation for social interaction, economic, political engagement and business operations.
7	Kundishora (2005)	Africa	ICT supports to Digital governance, assistance to International digital governance, assistance to international economic integration, enhancing standard of living and improving bio-diversity management.
8	Amiri and Woodside (2017)	BRICS nations	Significantly positive relationship between technological advancement (based on IDI) and economic growth (based on IDI) whereas negative association between technological enhancement and nation's unemployment rate which influence all in the society
9	Thomas Niebel (2017)	59 developing, emerging and developed countries	Developing and emerging countries gain less from developed countries while investing in ICT
10	Wasiu I. Oyeniran and Alliyu (2016)	Nigeria	FDI seems to be more active while promoting economic growth than government investment in telecommunication infrastructure of Nigeria
11	Earth Institute of Columbia University (2015)	Columbia	ICT has been regarded as major game changer in the contemporary era across education, health, energy, climate change and financial services
12	Knut Blind et al. (2014)	Egypt	ICT sector contributes significantly to economic growth and employment in Egypt
13	Darwiche et al. (2012)	Middle East and North Africa	ICT leads to remote health monitoring system, e-government, cloud computing and smart meters as enablers of socio-economic wellbeing.
14	Lewis (2012)	South Africa	ICT plays an important role in socio-economic development of the Nation
15	Mohamed et al. (2010)	USA	Knowledge management, ICT infrastructure, ICT capability building and policy play important role for sustainable development. ICT has enabled the International sustainable development by bringing all the segregated units in unison
16	Raul L. Katz (2009)	Spain	ICT helps in Productivity growth, employment creation, increased level of investment in ICT and telecommunication
17	Jain (2006)	Africa	ICT helps in improving awareness level among people and positive results in knowledge management.

4.2 ICT And Education

Salas (2010) has made an assessment of faculties' attitudes and perceptions for technology deliberation process in classroom dynamics. ICT has enabled the beginning of many MOOCs (massive open online courses) and hybrid learning formats through web-based learning management systems. The study reveals that faculty-perceived usefulness and ease to use influence the ability to harness ICT tools to make class-room experience marvelous. It is necessary to acknowledge the faculty views in technology acceptance discussions. The study was only confined to faculty perceived usefulness to technology acceptance process while other variables like perceived ease of use, competence and working skills are also essential to be taken into consideration. Kwapong (2009) made a comparative analysis of knowledge and usage of ICT among male and female distant learners. Distant learning institutions are using the ICT tools to provide wide opportunities to learners meeting the goal of education for all. The study was undertaken with the sample of 400 respondents from endowed and deprived regions of Ghana, West Africa. The study highlights that both male and female learners have access to ICT tools. Both have moderate knowledge regarding the usage of ICT facilities in distance learning programs. It is suggested that introduction of more ICT applications is essential to provide proper information and facilitate interaction among institutions and distant learners. The major limitation of the study was the peculiar comparison between two areas, which are poles apart and depict gender disparities while there must be consideration of suitable yardstick to draw precise inferences. Oye et al. (2017) examined the cognizance, adoption and acceptance of ICT tools in higher education institutions. The study was conducted with the sample of 100 respondents consisting mainly the academicians of University of Jos Plateau State, Nigeria. It was found that the low level of awareness among teachers of HEIs. Performance expectancy is the most influential factor for the acceptance and utilization of ICT programs. The study also highlights that lack of funds, less opportunities for training, lack of access to ICT facilities and lack of guidelines as well as government policies are the major challenges that affect adoption of the ICT tools. Therefore, it is mandatory on the part of Government to create specific guidelines to help the staff to enhance the academic performance and make their learning effective. The limitation of the study was the research specifically pertaining to one University while in order to get the broad insight, the study of other institutions is also essential. Liu et al. (2017) have analyzed the perceptions of technology and its instructional use among Chinese language teachers as well as the factors influencing the use of technology. The data was collected from 47 respondents from a University Certification program in Midwestern United States. The study highlights the facilitating conditions are significantly imperative than perceived usefulness and subjective norm in influencing use of technology among teachers. The study emphasizes the use of technology training aim to transmitting knowledge and skills keeping in view the needs of the trainer's perceptions. The academic subject content should be given more importance while framing the curriculum and courses. The limitation of the study was the comparative small sample and the use of path analysis approach while more sophisticated statistical analysis like data SEM would have been used to yield more explanatory results. Tochukwu and Hocanin (2017) conducted a study to ascertain the levels of awareness regarding ICT tools among students and the factors affecting the utilization as a part of their education. The sample of the study was 120 students of IT Department of Eastern Mediterranean University in Northern Cyprus. The study corroborated the synchronization between ICT and education for students' pedagogical

development. It is also found that Females and young students reveal high level of awareness and indulgence with ICT tools for making learning effective. Majority of respondents have positive attitude for the usage of ICT tools in their learning process. Students are moderately skilled about the use of ICT applications. The study suggests the needs of proper awareness camps and educator's actively participation to aware students to make the learning significant. The study was undertaken over the limited period of one year at one university while there must be emphasis on the study across different academics in other universities as well. AkindeandAdetimirin (2017) in their study have analyzed the use of ICT tools by the library educators and their perceived usefulness for teaching. ICT has enabled the provision of many infrastructural resources and software's easily on time as per the requirement. The data was collected from 280 library educators from 27 universities in Nigeria. The study corroborates that significant relationship between library educators' perceived usefulness of ICT for teaching whereas low level of usage for teaching LIS courses via ICT. The study emphasizes on regular training to educators to get good command over all the tools and synchronization among all stakeholders in acquisition and execution of ICT resources. The study was limited to educators of 27 universities whereas the study has to be enlarged with multiple unit analysis to get the in depth assessment. Muriithi et al. (2016) have identifies the factors that influence the adoption and use of ICT tools in Support Collaborative research. The eco-system of ICT encapsulates strategies, plans, policies and stakeholders which work in unison for the society, government and the entire nation. The study was undertaken by analyzing the responses from 248 academic scientists in 4 disciplines across 4 prominent universities in Kenya. The study supports that performance expectation, facilitating conditions, disciplinary factors, institutional policies and availability of support influence the use of ICT. The research also reveals the lesser usage of ICT available to support collaborative activities. The study neglected the role of university management and interaction of some other important factors, which contribute to successful collaborations. The researchers must appreciate the efforts of all and the effects of ICT on their research work. Alabi (2016) has examined the adoption of ICTs by agricultural science and extension teachers. The use of ICTs has positively impacted teaching, learning and research in the field of education. The data was collected from 60 respondents who were chiefly the teachers from Abuja, Nigeria. The study supports that Age, teaching experience, teaching attitude, access to ICTs and teacher's awareness towards ICT magnificently influence the adoption of ICTs. Besides, the researcher also found lack of infrastructural facilities, inappropriate equipment and irregular supply of electricity as the main challenges hindering the utilization of ICT tools. The study suggests proper awareness, ease to access and effective infrastructural development is essential to influence the adoption of ICTs by the teachers in educational management. The study was confined to a particular region with the limited segment of teachers while it is necessary to get a broad view by other untouched imperative variables as well. Ghavifekr et al. (2015) have investigated the teacher's perceptions on efficacy and effectiveness of ICT integration to lay support to learning and teaching in schools. The data was collected from 101 teachers from 10 public secondary schools in Kuala Lumpur, Malaysia. The research reveals the effectiveness of ICT integration for both students and teachers. The study also depicts that Teachers are aware and ready to use ICT tools in integrated learning. Students have acceptance for the use of ICT to make learning more effective. It is essential that teachers must be provided with adequate training to enable them enhancing the student's learning. The study only analyzed

the perception of teachers across public schools only while the study must also analyze the perceptions in private schools too for fundamental ramification. Manyilizu and Gilbert (2015) documented the use and awareness of ICT between male and female teachers. The data was gathered from 231 respondents who were chiefly the male and female teachers from 16 secondary schools in Dodoma Municipality, Tanzania. It is found that male teachers reveal awareness and high usage of ICT tools in secondary schools. Both find some difficulties in harnessing the tools for teaching. The study also reveals that teachers have dedicated more than 30 years showed higher usage of ICT tools. It is suggested that proper understanding of gender disbursement on ICT arenas among teachers is essential to harness the ICT in an appropriate way. The study is deprived of finding suitable reasons of gap across gender in the use of ICT and lack consideration of private schools while it is essential to encapsulate all imperative aspects related to the study. Tochukwu (2015) has analyzed the synchronization between ICT and education for overall development of students. The data was collected from 120 respondents who were the undergraduate IT students across gender, age and class level in EMU, USA. The study highlights the awareness among the undergraduate students (across genders) regarding the purpose of use, skill, possession and general usefulness of ICT tools. It is also found that the students are moderately skilled in harnessing them. There must be more focus on making the use an immaculate norm for advancement of students. The study was limited only to some undergraduate IT students while others would have been included to get the better understanding of the whole concept. Alharbi (2014) in his research work, has examined the Technology Acceptance Model to grasp the academic's behavioral intent to utilize Learning Management Systems. The study was undertaken with 59 faculty members from Shaqra University, Saudi Arabia. The study highlights that perceived ease of use, perceived usefulness, attitude towards usage, job relevance and prior experience are directly related to use of ICT in academics. The experienced users indicated a high degree of positivity towards LMS adoption. Experienced users also reflected a higher degree of positive correlation with LMS acceptance and adoption. The major limitation of the study was the short span of time and limited sample size whereas longitudinal research is more suitable and other statistical tools like multiple regression, structure equations mode is essential to understand the relationship between variables. Naciri (2013) have made comparative investigation of access and adaptability of plethora of ICT applications in high education across both gender. ICT has ever expanding and worth mentioning influence on higher education that it has more or less become its integral part. The data was collected from 200 respondents' mainly male and female students at Sultan MoulaySlimane University in BeniMellal, Morocco. The study supports the Male respondents have more confidence and positive perceptions in utilizing the ICT tools than the female respondents due to disparity in education factor. There is the reflection of gender disparity in availability and harnessing of ICT tools by female students. There must be appropriate provision of ICT tools to all and proper awareness to use them in a well way. The study was confined only to Arts and Humanities students from one university where as it is necessary to make a better analysis of other academic fields in the study. Owusu-Ansah (2013) made a comparative analysis of usage of ICT applications among academics. The data was collected using survey approach from 154 male and female academics across Humanities and Science from University of Ghana. The study foregrounds that male depicts more usage of ICT in collaboration with other tertiary faculties members for making learning, research and teaching swift and useful. The study also highlights the major

challenges like inadequate facilities, time consuming and rigid time schedule for training, work inconsistency, frequent breakdowns which hinders the effective utilization of these applications by faculties. It is essential to take strategical measures like improving infrastructural facilities, training programs, proper power supply and recruitment of suitable ICT employees. The major limitation of the study was the small sample of one institution where as it would have been generalization of large sample across important institutions. Slovak Investment and Trade Development Agency (2012) have stated that internet and other modern technologies have made ICT sector as an important part of the European Union especially in Slovakia. There has been a lot of improvement in infrastructural facilities, which potentially raise the level of development. The report highlights the contribution of high quality secondary education in popularizing the ICT as an incentive among youth. The various stakeholders like government bodies, producers and suppliers have supported in creating, mobilizing and promoting the competitiveness, innovative research and rearranging the resources in a better way. The report emphasizes on close partnership between state and private institutions across academic and industrial spheres so as to ensure the success of training staff for enhancing the skills of workforce. Marketing campaigns, legal advice, free hardware facilities and financial profits are substantial for participants in order to get the maximum advantage. Ahmad et al. (2012) have examined the Technology Acceptance Model to ascertain the adoption and usage of ICT in teaching and learning by faculties in higher education. The study was conducted with 200 respondents who were the staff members of 8 higher institutions in Northern Nigeria. The study highlights the positive relation between availability, perceived ease, intent to use and the adoption of ICT in universities. ICT anxiety negatively affects its acceptance. The research also highlights that technophobia is the major challenge encountered by academic staff. There is need to improvised the settings so that the faculties could be able to learn more and incorporate these measures in their teaching process. The major limitation of the study was single method of data collection with self-report data system from academic staff only across confined area while it is important to analyze other important variables across other institutions in Nigeria.

Table 2: Studies showing the usage of ICT in educational area

S. N.	Citations	Country	Usage of ICT in Educational Area
1	Salas (2010)	Spain	The study reveals that faculty-perceived usefulness and ease to use influence the ability to harness ICT tools to make class-room experience marvelous.
2	Kwapong (2009)	Ghana, West Africa	ICT applications is essential to provide proper information and facilitate interaction among institutions and distant learners.
3	Oye et al. (2017)	Nigeria	It was found that the low level of awareness among teachers of HEIs. Performance expectancy is the most influential factor for the acceptance and utilization of ICT programs.
4	Liu et al. (2017)	Midwestern United States	The study highlights the facilitating conditions are significantly imperative than perceived usefulness and subjective norm in influencing use of technology among teachers.

5	Tochukwu and Hocanin (2017)	Northern Cyprus	Females and young students reveal high level of awareness and indulgence with ICT tools for making learning effective. Majority of respondents have positive attitude for the usage of ICT tools in their learning process.
6	AkindeandAdetimirin (2017)	Nigeria	There is a significant relationship between library educators' perceived usefulness of ICT for teaching whereas low level of usage for teaching LIS courses via ICT.
7	Muriithi et al. (2016)	Kenya	The study supports that performance expectation, facilitating conditions, disciplinary factors, institutional policies and availability of support influence the use of ICT. The research also reveals the lesser usage of ICT available to support collaborative activities.
8	Alabi (2016)	Abuja, Nigeria	The use of ICTs has positively impacted teaching, learning and research in the field of education. The study supports that Age, teaching experience, teaching attitude, access to ICTs and teacher's awareness towards ICT magnificently influence the adoption of ICTs.
9	Ghavifekr et al. (2015)	Kuala Lumpur, Malaysia	The research reveals the effectiveness of ICT integration for both students and teachers. The study also depicts that Teachers are aware and ready to use ICT tools in integrated learning. Students have acceptance for the use of ICT to make learning more effective.
10	Manyilizu and Gilbert (2015)	Tanzania	It is found that male teachers reveal awareness and high usage of ICT tools in secondary schools. Both find some difficulties in harnessing the tools for teaching. The study also reveals that teachers have dedicated more than 30 years showed higher usage of ICT tools.
11	Tochukwu (2015)	USA	The study highlights the awareness among the undergraduate students (across genders) regarding the purpose of use, skill, possession and general usefulness of ICT tools. It is also found that the students are moderately skilled in harnessing them.
12	Alharbi (2014)	Suadi Arabia	The study highlights that perceived ease of use, perceived usefulness, attitude towards usage, job relevance and prior experience are directly related to use of ICT in academics. The experienced users indicated a high degree of positivity towards LMS adoption.
13	Naciri (2013)	Morocco	The study supports the Male respondents have more confidence and positive perceptions in utilizing the

			ICT tools than the female respondents due to disparity in education factor. There is the reflection of gender disparity in availability and harnessing of ICT tools by female students.
14	Ahmad et al. (2012)	Northern Nigeria	The study highlights the positive relation between availability, perceived ease, intent to use and the adoption of ICT in universities. ICT anxiety negatively affects its acceptance. The research also highlights that technophobia is the major challenge encountered by academic staff.
15	Slovak Investment and Trade Development Agency (2012)	Slovakia	The report highlights the contribution of high quality secondary education in popularizing the ICT as an incentive among youth.
16	Owusu-Ansah (2013)	Ghana	The study foregrounds that male depicts more usage of ICT in collaboration with other tertiary faculties members for making learning, research and teaching swift and useful.

4.3 ICT And Industrial Development

Hassan and Ogundipe (2017) have investigated the adaptation and utilization of ICT tools by Medium and small enterprises (MSEs). The data was collected from 100 respondents who are the employees operating in the enterprises from The Federal Capital Territory, Abuja, Nigeria. Study revealed that the employees' awareness, acquired knowledge on relevance, government support, and competitive pressure, influence their adoption of ICT in business. The study draws attention towards poor funding, training, poor nurturing programs and weak financial strategies. It recommends the Government's involvement to ensure efforts steered towards the accomplishment of ICT adoption by MSEs. Besides, there must be precise availability of infrastructural provisions, regulatory surveillance and proper training to be undertaken by owners and management for the survival of business organizations. IoannisGiotopoulset al. (2017), the study tries to find probable determinants of ICT adoption within organisations, particularly SMEs. The central premise of the study was to identify the factors of growth in SMEs of Greek. The study follows empirical analysis which includes data collection from 3500 SMEs in Greece. For conducting the survey, a structured questionnaire is adapted to analyse the internal structure of the organisation, the human capital of the firm, utilisation of ICTs and innovation related activities in SME in the year 2012. The researcher has measured ICT adoption by evaluating these five indicators, i.e. ICT implementation in the firm, ICT infrastructure, internet integration, role of e-sales and e-procurement. It appears from the empirical analysis that there is more positive involvement in R&D and innovation activities of Greece SMEs. Thus the study also shows a robust data on ICT adoption measures which includes participation in a research project, visionary collaboration to adopt new technologies in SMEs along with the five selected indicators. The results imply majorly from organizational perspective adopting decentralization scheme likely to increase the participation of low-level employees and facilitates new ICT technologies. The result shows the extension of boundaries of the firm with ICT integration. From the policy perspective, more attention pays toward ICT training of human resources at all levels. Moreover, ICT practitioners and the user should adequately trained to fulfil the

needs of organizations, particularly SMEs. EZE (2016) has examined the dynamic process of ICT adoption with the concept of dynamic capabilities among SMEs. Most of the firm supports the acceptance of ICT due to its significant focus on various factors influencing the decision making process like problem assessment, concept generation, evaluation, delegation of role, alignment of interests, product trials, modifications and redefining of problems. The data was collected from 26 participants who were the managers, government agencies, IT vendors and SMEs consultants across small services SMEs in UK. The study foregrounds that examining the persistence of Emerging ICT adoption among SMEs highlights the recursive nature of the entire process as well as analyses the variation of factors a single as well as multiple stages. The study supports that decisions are not affected by single individuals but with the indulgence of all stakeholders due to their different perceptions. The major limitation of the study was the limited participants, the scope and focus of the study where as it is essential that proper study is substantial for getting the better analysis. Alzubi et al. (2016) made a comprehensive analysis of awareness and utilization of internet banking facilities by the SMEs' owners. The data was collected from 200 SMEs owners in Yemen. The study shows trust, perceived usefulness, behavioral intention, actual system and awareness impact the readiness of SME's owners to use Internet banking. The research also highlights awareness as a negative mediating variable between technology and perceived ease of use among owners. The study suggests the better control mechanisms in collaboration with Government. The owners must be sentience (capacity to feel, experience) regarding the use and benefits of internet banking. The limitation of the study was the limited area which is not precisely mature to conduct the online operations, self-selection and voluntary participation of the respondents whereas ethical representation is essential for drawing better inference. Selamat et al. (2011) have examined the association between ICT and productivity growth in SMEs. ICT has been regarded as an important tool enabling the SMEs for survival in the competitive environment. The research was based on assessment of factors affecting the adoption of ICTs with the sample of 500 respondents who were the owners of SMEs manufacturing companies from South Malaysia. The study reveals that perceived usefulness, perceived ease of use, organization readiness and competence is positively correlated with the intent to use ICT among SMEs. It is necessary that there must be the provision of proper infrastructural facilities so that ICT tools could be harnessed in a well manner. The major limitation of the study is the confinement to owners of SMEs. It is also important to use different modes to find the acceptance of ICTs by including the views of managers and other employees as well. Irvine and Anderson (2008) have analyzed the pervasiveness and role of ICT in rural hospitality businesses. The data was collected from 93 independent hotels in Scotland. The study shows that majority of the businesses have the knowledge of Cyber space and harness ICT effectively for marketing and sales. ICT has been a mode of improving personal service and increased occupancy, quality of service, reducing several rents and attracting customers irrespective of locations and rurality. The study emphasizes on the need of promoting ICT awareness, its accessibility and training to the employees to act entrepreneurially to overcome the constraints of distance. The limitation of the study was the confinement to single rural environment while generalized overview is also substantial to draw better analysis.

Table 3: Studies showing the usage of ICT in Industrial Area

S. N.	Citations	Country	Usage of ICT in Industrial Area
1	Hassan and Ogundipe (2017)	Nigeria	Study revealed that the employees' awareness, acquired knowledge on relevance, government support, and competitive pressure, influence their adoption of ICT in business.
2	IoannisGiotopoulset al. (2017)	Greek	The study shows a robust data on ICT adoption measures which includes participation in a research project, visionary collaboration to adopt new technologies in SMEs along with the five selected indicators.
3	EZE (2016)	United Kingdom	Most of the firm supports the acceptance of ICT due to its significant focus on various factors influencing the decision making process like problem assessment, concept generation, evaluation, delegation of role, alignment of interests, product trials, modifications and redefining of problems.
4	Alzubi et al. (2016)	Yemen	The research highlights awareness as a negative mediating variable between technology and perceived ease of use among owners.
5	Selamat et al. (2011)	South Malaysia	The study reveals that perceived usefulness, perceived ease of use, organization readiness and competence is positively correlated with the intent to use ICT among SMEs.
6	Irvine and Anderson (2008)	Scotland	The study shows that majority of the businesses have the knowledge of Cyber space and harness ICT effectively for marketing and sales. ICT has been a mode of improving personal service and increased occupancy, quality of service, reducing several rents and attracting customers irrespective of locations and rurality.

Conclusion:It can be concluded from the study that, ICT has a positive and significant impact on the economic, educational and industrial growth of the economy. ICT makes the processes simple, speedy and error free, provides an environment where people can learn, share and enhance their skills and competencies. It also provides a variety of applications, and uses that helps in the growth and development.

Limitations And Future Scope:Current study is limited to the secondary data, and provides a conceptual framework for conducting a qualitative study using primary data to measure the relationship between the constructs used in current research. Researchers has concluded the results based on the literature, hence there is a need to prove these relationship by using actual field level survey data.

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Testing the Informational Efficiency of Indian Stock Market **with reference to** **Indian Steel Companies**

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Abstract

An efficient and integrated Capital Market is an important infrastructure that facilitates capital formation, which is possible only if the securities traded in the markets are priced appropriately. The efficiency with which the capital formation is carried out depends on the efficiency of the capital markets and financial institutions. A capital market is said to be efficient with respect to an information item if the prices of securities fully impound the returns implications of that item. This study has empirically examined the informational efficiency of capital market with regard to quarterly earnings released by the Indian steel companies in the semi-strong form of EMH. The study found that the Indian Capital market is not perfectly efficient in the semi- strong form of EMH, which can be used by the investors to make abnormal returns.

Key Words: Quarterly Announcement, Efficient Market Hypothesis, Market Reaction /Stock Price Reaction, Abnormal Returns, Announcement Period

I. Introduction

The economic development of any country depends upon the existence of a well organized financial system. The well established financial system in one which supplies the necessary financial inputs for the production of goods and services with view to promote the well being and standard of living of the people of a country. An efficient functioning of the financial system facilitates the free flow of funds to more productive activities and thus promotes investment. The financial system may be viewed as multistoried structure consisting mainly of financial institutions and financial markets. Financial institutions include all those banking and non-banking finance companies, which are involved in the activity of transfer of funds from those who hold surpluses to deficit unit.

Financial markets refer to the place where financial assets are created and transferred. It classified into capital market and money market. Capital markets play a vital role in capital

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formation of the Indian economy. It would not be an exaggeration to say that of all the segments of the financial system, the capital markets have the most crucial role to play in the process of capital formation. The efficiency with which the process of capital formation is carried out depends on the efficiency of the capital markets and the financial institutions (Keane, 1983). All the developed economies of the world achieved a high level of growth in capital formation mainly on account of the efficient function of their capital market.

Capital Market Efficiency

Capital market efficiency is an important research topic. The efficiency, in the context of capital markets, is commonly assumed to refer to the incorporation of the expectations and information of all market participants into the prices of financial assets. The concept of efficient capital market has been continuously developed, studied and tested by French mathematician Bachelier (1900). Bachelier recognized that “past, present and even discounted future events are reflected in market price, but often show no apparent relations to price changes”.

Statement of the Problem

Capital market, being a vital institution facilitates economic development. It is true that so many parties are interested in knowing the efficiency of the capital market. The small and medium investors can be motivated to save and invest in the capital market only if their securities in the market are appropriately priced. The information content of events and its dissemination determine the efficiency of the capital market. That is how quickly and correctly the security prices reflect these information show the efficiency of the capital market. In the developed countries, lot of research studies has been conducted to test the efficiency of the capital market with respect to information content of events. Hence the present study is an attempt to test the information Efficiency Indian stock market with respect to quarterly earnings announcement by Indian steel companies.

II. Review Of Literature

The following some of the important studies relevant to the present study

Beaver (1968), a classic study in the field of event studies, examined Trading Volume Activity (TVA) and Security Return Variability (SRV). The study finds that there was a dramatic increase in the trading volume activity and security return variability during the annual earnings announcement week. Patel and Wolfson (1984) examined the intra-day behaviour of security returns in the period surrounding earnings announcements. The study concludes that there is a very strong reaction at the announcement, the major portion of which decays within two hours, but with detectable traces that lingers in to the following day. Examining the security return variability for a sample of interim and annual earnings announcements by Foster (1981) concludes that in the two-day trading day up to and including the report of earnings in The Wall Street Journal, there was a 78 percent increase in security return variability relative to the variability of two-day security returns in non-announcement periods. Richardson (1984) examined a sample of 153 New York Stock Exchange and American Stock Exchange firms and reports that there was a 40 percent increase in the variability of security returns in the earnings announcement week. Ball and Brown (1968) examined the security return behaviour of 261 firms listed in the New York Stock Exchange. The study finds that the reported earnings increases experience a 5.6% abnormal returns and earnings decrease resulted in a -11.3% abnormal returns in the 12 months up to and including the earnings announcement month.

McEnally (1971) and Beaver, Clarke and Wright (1979) report significant contemporaneous correlations between the magnitude and sign of unexpected annual earnings changes and the magnitude and sign of abnormal returns in the period preceding the annual earnings release. Abhijit Dutta (2001), has examined the investors' reaction to information using primary data collected from 600 individual investors and observes that the individual investors are less reactive to bad news as they invest for longer period. Prabina Das, S.Srinivasan and A.K.Dutta (2000) have studied the reaction of GDR prices and the underlying share prices to the announcement of dividends. The study finds that the CAR for the GDR is mostly negative irrespective of the rate of dividend, whereas the domestic share prices react in a more synchronous manner. Kakati (2001) finds that there is 15.4 percent abnormal return during the 30 days prior to the announcement date and a loss of 3.53 percent during the post announcement period of 15 days. On the ex-bonus date there is an abnormal return of 6.53 percent. The study, however, finds the bonus performance varies across companies. Jijo Lukose and Narayan Rao (2002) examine the security price behaviour around the announcement of stock splits and around ex-split date. They find that there is 7.69 percent abnormal return during the two days (i.e. the day of announcement of stock split and the next day).

The SRV model which has been used in many early studies on the developed markets indicates the market/security price reaction to information. This model has not been tested on the Indian capital market. Very few studies have been made in India to test the information content of quarterly announcement by petrochemical companies. Therefore, the present study is an attempt to fill this gap.

III. Data And Methodology

Objectives of the Study

The main objective of the study is to test the informational efficiency of the Indian capital market with respect to the quarterly earnings information released by the Indian steel companies. The specific objectives of the study are:

1. To examine the information content of the quarterly earnings report by the Indian steel companies
2. To test how quickly and how effectively the information content are captured by the market.
3. To test the direction and magnitude of change in the security prices around the date of announcement of quarterly earnings.

Hypothesis of the Study

The following hypotheses are to be tested in this study.

1. The Quarterly earnings announcement information's are not relevant for the valuation of Indian steel companies stocks.
2. Quarterly earnings announcement has no reaction in the security in prices of Indian steel companies.

Sample Selection

The study attempts to cover only the Indian steel industry stocks listed in the Bombay Stock Exchange. The criteria for selecting the sample were active trading, and availability of the dates of announcement of quarterly earnings and the availability of quarterly earnings. Active trading is considered in order to ensure the availability of daily prices. The study covers five accounting years from 2014 to 2018. The second quarter coincides with the half-

yearly reports and fourth quarter coincides with the annual reports. Therefore, the study is restricted to the first and third quarters only.

- (1) The companies, which find a place in list- A of Bombay Stock Exchange. (List A was chosen in order to ensure active trading)
- (2) The availability of daily quotations

Methodology

Security return variability (SRV) and Cumulative abnormal return (CAR) models have used for analyzing the reaction of security prices to the announcement of quarterly earnings using equation 1, as follows:

$$R_{i,t} = \frac{P_t - P_{t-1}}{P_{t-1}} \times 100 \text{ ----- (1)}$$

Where $R_{i,t}$ = Return on security i on time t.

P_t = Price of the security at time t.

P_{t-1} = Price at time t-1.

Equation 1 was used to calculate the return from the market index too.

Security Return Variability (SRV):

In order to examine the reaction security prices and the information content of quarterly earnings report, the Security Return Variability model is used. The model is,

$$SRV_{i,t} = \frac{AR_{i,t}^2}{V(AR_{i,t})} \text{ ----- (2)}$$

Where, $SRV_{i,t}$ = Security Return Variability of security i in time t.

$AR_{i,t}$ is the abnormal return on security i on day t.

$V(AR_{i,t})$ = Variance of abnormal returns during the announcement period.

The significance of reaction in prices is tested using the t-test. The t-statistic is calculated as,

$$t_{stat} = \frac{ASRV_{i,t} - 1}{S/\sqrt{n}} \text{ ----- (3)}$$

Where n is the number of bonus announcement in the sample and S is the standard deviation of SRV.

Abnormal Return

Abnormal return under **Risk Adjusted Return** were calculated using capital Asset Pricing Model (CAPM) as follows

$$R_i = R_f + (R_m - R_f) \beta_i \text{ ----- (4)}$$

Where R_f = Risk free rate

R_m = Market return

β_i = Beta coefficient for security i

$\beta_i = Cov_{im} / \sigma_m^2$

Where $Cov_{i,m}$ = Covariance of security return to market return

β_i = Beta for security i

σ_m^2 = Variance of market return

Beta for one year proceeding the announcement period were calculated and taken as beta for calculating return under CAPM for the same announcement period.

Abnormal Return under **Mean Adjusted Return** is

$$AR_{i,t} = R_{i,t} - R_i \text{ ----- (5)}$$

Whereby daily return over the 31 day period were adjusted against their mean return.

The **Average Abnormal Return** is calculated as

$$AAR_t = \frac{\sum_{i=1}^n AR_{i,t}}{n} \text{----- (6)}$$

AR_t is the average abnormal return on day t and $AR_{i,t}$ is the abnormal return on security i on day t.

The significance of the AAR_t is tested using the t test as follows:

$$t_{stat} = \frac{AAR_t - 0}{S/\sqrt{n}} \text{----- (7)}$$

The AAR_t is calculated for the overall positive and overall negative earnings change categories as well as for the different earnings change categories.

The cumulative abnormal return (CAAR) is calculated to find the magnitude of abnormal returns for different holding periods and for different quarterly announcements change categories. It is calculated as

$$CAAR_k = \sum_{t=1}^k AAR_t \text{----- (8)}$$

Where, AAR_t is the average abnormal return of the sample securities at time t

Limitations of the study

1. The study has been confined only to the steel industry companies
2. Only the semi-strong form of efficiency has been analyzed in this study
3. The study is restricted with SRV and CAR model alone

IV. Analysis and Discussions

Table: 1- Average Security Return Variability (ASRV) around Quarterly Earnings Announcement for Sensex Adjusted Return

The ASRV model is used to find out whether the quarterly earnings announcement by steel companies contains information relevant for security valuation. However, the ASRV model does not provide insight into the directional nature of the impact of quarterly earnings. That is whether the security prices react positively to positive earnings information and react negatively to negative earnings information. **Table-1** shows that the ASRV based on Sensex adjusted returns react sharply on day 0 and 1. The ASRV on day 0 is 1.39 and on day 1 it is 1.61. This shows that security prices react to the announcement of quarterly earnings on day 0 and day1. .

One of the major objectives of this study is to examine the information content of quarterly earnings announcement by sample steel companies. In order to examine the relevance quarterly earnings announcement information to valuing the security prices, the Security Return Variability (SRV) model is used. On an average, the SRV is expected to be 1. If the SRV is greater than 1, it may be said that there is a reaction in the security prices. If this reaction takes place around the announcement of corporate event, it may be said that the corporate event announcement is relevant for valuing the securities. From the overall analysis of Table1 it may be concluded that the value of ASRV for quarterly earnings is greater than one around the announcement days. Hence the hypothesis-1 entitled “Quarterly earnings announcements contained information are relevant for evaluating the security prices of steel companies” is accepted

Table: 2- Average Abnormal Returns for Quarterly Announcement Positive Changes (Sensex Adjusted Return)

Abnormal returns for the positive earnings change were calculated based on Sensex adjusted returns. The Table-2 gives the result of average abnormal return and the t statistics. This table gives the average abnormal returns based on Sensex. The result shows that on days -15 through -12 there has been negative abnormal returns. On days -11 through day 2 there has been positive abnormal returns excepting on day -8 and day -2. Beyond day 2, there have been negative abnormal returns in general. However, only on day 1 there has been statistically significant positive abnormal return of 1.21. In general, there is positive abnormal returns during the pre announcement period and negative returns beyond day 2. Only on day 1 there is significant abnormal returns. This indicates that the steel companies stocks react on the next day of announcement of quarterly earnings.

Table-3: Average Abnormal Return (ARR) for Quarterly Announcement Negative Earning Changes (Sensex Adjusted Return)

Table 3 presents the results of average abnormal return for negative earnings change. The table shows that there is a negative return as most of the days during the announcement period. The efficient market theory states that the reaction should take place during the pre announcement period. For instance, the abnormal returns based on Sensex are significant on day 1,6,9 and 11. Comparing these results with that of the results for positive earnings change shown in table 2, it is evident that the reaction for negative earnings change is delayed. The possible expectation for this delayed reaction may be that the investors have positive expectations about the steel companies stocks in general and hence they do not react to negative earnings change immediately. However, this delayed reaction shows the inefficiency of the market to capture information regarding negative earnings change. This inefficiency can be made use by investors for making superior returns. Hence it is clear understood from the analysis of tables 3 that, quarterly earnings announcement has significantly influenced the security price of sample steel companies during the study period.

Table-4: Cumulative Abnormal Return (CAR) for Quarterly Earnings Announcement Positive & Negative Changes (Sensex Adjusted Return)

Cumulative abnormal return (CAR) was calculated based on Sensex adjusted returns. The CAR was calculated separately for positive and negative earning changes. Table 4 show the result of CAR based on Sensex adjusted returns. During pre announcement period for negative earning changes CAR was negative during the days -7 to -1 and positive during days -11 to -8. During post announcement period the CAR was negative during the days +1 to +15 except day +5. During the preannouncement period for positive earning change CAR was negative during the days-15 to -11 and positive during days -10 to -1. Whereas during post announcement period the CAR was negative during the days +3 to +13 and positive during the days 0 to +2. The results clearly are inconsistent. Besides, the direction of CAR is not consistent. These results are contrary to the findings based on Sensex adjusted returns and the mean adjusted returns.

V. Summary of Findings, Suggestions and Conclusions

Findings of the Study

The following are the important findings from the present study

- (1)The quarterly earnings announcements made by steel companies contain information relevant for valuation of securities.
- (2) Investors reacted to the announcement of quarterly earnings by Indian steel companies

- (3) The security prices react to the quarterly earnings announcements on day 0 and 1, significantly.
- (4) The reaction is very sharp on day1, the next day of announcement.
- (5) The market does not react to the positive earnings information and negative earnings information in the same manner.
- (6) The investors can make use of the quarterly earnings information for making superior returns.
- (7) The Capital Asset Pricing Model (CAPM) does not hold for the Indian Capital Market.
- (8) The capital market for steel companies stocks is efficient with respect to positive earnings information and not efficient with respect to negative information.

Suggestion

The following are the important suggestions from the present study

1. Disclosure of adequate information will make the market more efficient. In order to make the Indian capital market efficient the regulators should impose stringent accounting regulations and information disclosure norms.
2. A market is said to be efficient, if there is equilibrium between risk and return. However, the most widely accepted equilibrium theory Capital Asset Pricing Model (CAPM) does not seem to be relevant for the Indian capital market. Therefore, the regulator must strive to make the market more efficient.
3. The present study has tested the efficiency only with respect to quarterly earnings information. Similar studies may be undertaken on other types of company related as well as market related information.
4. The present study finds that the Capital Asset Pricing Model is not relevant for the Indian capital market. A thorough study may be undertaken to test the relevance of CAPM for the Indian capital market.

Conclusion

This study has empirically examined the informational efficiency of capital market with regard to quarterly earnings released by the Indian steel companies. The results of the study showed that the security prices reacted to the announcement of quarterly earnings made by the companies. The reaction took place for the very few days surrounding day 0, for the quarterly earnings with positive earnings change while the reaction was extended up to +15 days for the quarterly earnings with negatively earnings change. Thus one can safely conclude from the foregoing discussions that the Indian capital market for the steel companies stocks, in general, are efficient, but not perfectly efficient, to the announcement of quarterly earnings (comes with positive earnings change information) and inefficient for the negative earnings change information. This informational inefficiency can be used by the investors for making abnormal returns at any point of the announcement period.

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Table-1

DAY	Sensex Adj. Return	
	ASRV	t.Stat
-15	1.17	0.43
-14	1.41	1.99 [@]
-13	1.29	1.12
-12	0.91	-0.73
-11	0.96	-0.26
-10	1.14	0.31
-9	1.23	0.87
-8	0.99	-0.05
-7	1.53	2.23 [@]
-6	1.16	0.46
-5	0.99	-0.08
-4	0.96	-0.32
-3	1.34	1.44
-2	1.24	0.97
-1	1.17	0.55
0	1.49	2.28 [@]
1	1.71	2.75*
2	1.26	0.9
3	0.92	-0.76
4	1.10	0.01
5	1.14	0.24
6	1.23	0.96
7	1.19	0.71
8	0.87	-2
9	0.99	-0.08
10	1.15	0.29
11	1.26	1.06
12	1.11	0.06
13	0.82	-2.83
14	0.71	-3.78
15	0.91	-0.77

Average Security Return Variability (ASRV) around Quarterly Earnings Announcement for Sensex Adjusted Return

Source: Computed from "PROWESS" a corporate database.

@ - Significant at 5% level * - Significant at 1% level

Table-2 Average Abnormal Returns for Quarterly Announcement Positive Changes (Sensex Adjusted Return)

DAY	Sensex Adj. Return	
	AAR	t.Stat
-15	-0.45	-0.95
-14	-0.11	-0.03
-13	-1.12	-2.63
-12	-0.92	-2.45
-11	0.39	0.72
-10	0.29	0.55
-9	0.66	1.31
-8	-0.34	-0.55
-7	0.29	-0.37
-6	0.15	1.19
-5	0.48	0.96
-4	0.91	2.08 [@]
-3	0.34	0.51
-2	-0.26	-0.36
-1	0.16	1.34
0	0.53	0.83

1	1.31	2.17 [@]
2	0.23	0.31
3	-1.26	-2.95
4	0.28	0.41
5	-0.44	-0.89
6	-0.63	-1.28
7	-0.43	-0.72
8	-0.62	-1.42
9	-0.55	-1.12
10	-0.17	-0.01
11	-0.12	-0.05
12	-0.32	-0.59
13	0.12	0.05
14	-0.11	-0.02
15	-0.13	-0.67

Source: Computed from "PROWESS" a corporate database.

[@] - Significant at 5% level * - Significant at 1% level

Table-3: Average Abnormal Return (ARR) for Quarterly Announcement Negative Earning Changes (Sensex Adjusted Return)

DAY	Sensex Adj. Return	
	AAR	t.Stat
-15	0.35	0.41
-14	-0.36	-0.45
-13	-0.85	-1.18
-12	-0.22	-0.27
-11	0.34	0.47
-10	0.41	0.47
-9	0.34	0.41
-8	0.26	0.3
-7	-0.59	-0.8
-6	-0.52	-0.79
-5	0.14	0.08
-4	-0.54	-0.92
-3	0.15	0.09
-2	-0.33	-0.4
-1	-0.24	-0.27

0	-0.43	-0.54
1	-1.21	-1.81
2	-0.37	-0.47
3	-0.73	-1.21
4	0.39	0.56
5	0.13	0.47
6	-1.34	-2.02
7	-0.19	-0.01
8	0.12	0.05
9	-1.11	-1.89
10	-0.85	-1.14
11	-1.31	-1.91
12	0.51	0.7
13	-0.68	-1.15
14	-0.21	-0.28
15	-0.69	-1.22

Source: Computed from "PROWESS" a corporate database.

@ - Significant at 5% level * - Significant at 1% level

Table-4: Cumulative Abnormal Return (CAR) for Quarterly Earnings Announcement Positive & Negative Changes (Sensex Adjusted Return)

DAY	Sensex Adj. Return	
	CAR-	CAR+
-15	0.35	-0.35
-14	-0.11	-0.36
-13	-1.11	-1.03
-12	-0.97	-1.94
-11	0.22	-0.63
-10	0.65	0.48
-9	0.65	0.75
-8	0.14	0.32
-7	-0.43	-0.05
-6	-0.91	0.69
-5	-0.48	0.88
-4	-0.14	1.29
-3	-0.49	1.15
-2	-0.28	0.08
-1	-0.47	0.44

0	-0.57	1.03
1	-1.54	1.64
2	-1.48	1.34
3	-0.19	-1.03
4	-0.44	-0.98
5	0.69	-0.16
6	-0.94	-0.87
7	-1.43	-0.86
8	-0.17	-0.85
9	-1.18	-0.97
10	-1.95	-0.52
11	-1.96	-0.09
12	-0.18	-0.24
13	-0.27	-0.2
14	-0.79	0.01
15	-0.17	-0.31

Source: Computed from "PROWESS" a corporate database.

@ - Significant at 5% level * - Significant at 1% level

Strategic Role of Talent Management on Employee Commitment in Indian Banking Sector

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Mohd Tariq Jamal^{#4*}**

Abstract

Purpose-This research paper intends to explore and clarify the importance and role of Talent Management practices such as (talent acquisition, talent development and talent retention) for building committed employees in banking sector.

Design/Methodology/Approach-Based on the review of popular Talent Management literatures available a well tested questionnaire was adopted. Through Convenience Sampling a survey was done on a sample of 150 employees of Banking Sector including both private and public banks. Mean, Correlation and Standard deviation was performed with the help of SPSS, apart from this Hierarchal Regression analysis were used to test the hypothesis.

Findings-The results were consistent with the expectations and shows that Talent Management practices plays an important role in creating committed and engaged employees.

Research Limitations/implications-The limitation of the research design was only 150 respondents were taken into consideration. The research is limited to Banking sector only, future studies may look into different area.

Originality/Value-This study indicates a positive relationship only for a limited time in banking sector. This article will be valuable for anyone seeking to understand the role of Talent Management practices for Employee Commitment.

Keywords: - Employee commitment, Talent management and Banking Sector.

Introduction

In the late 1980's the prominence of Talent Management can be traced out and the fragile birth of talent management came into existence in 1997, after the exposure of Internet, Web browsers and database technology (Schweyer, 2004). As this term was coined more than a decade ago in an article published by David Watkins of softscape, (Naik, 2012) it has become the call to action for a more consultative knowledge based role by human resources in overall business management. In order to make this Human Resources as a most recognized profession due reorganization is given to this live resources and their valuable talent, to achieve the organizations objectives and goals (Marants, 2012). "The correlation between these two concepts reinforced developments made in the 1970's that were overlooked by capitalist view points. Soon the notion of Talent Management Technologies was created. In hopes to attract, retain and sustain top organizational talent (and the intellectual capital they consume), a strategy was developed to monitor competency based management". (Marants, 2012)Talent Management is considered as a priority today in many organization in order to face the current global economic context, technological and macro-economic changes,

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intense demographical, which exerts pressure over Organization (Constanta and Madela, 2008), so in order to build a properly balanced mix of quantifiable, traditional elements, such as competitive salary and benefits, as well as more intangible rewards like providing development and learning opportunities is quintessential to engage, motivate and retain high talent (Berger and Berger, 2004).

Talent Management: A Research and Review Agenda

In this volatile, intricate and ambiguous environment there is a need for continuous up gradation of knowledge. The reason behind this is, what skills makes an employee successful in a particular role today, may not be significant tomorrow. There is a need to manage talent since it is not just essential that employee poses the right skills in the future. (Pandey, 2015). HRM always plays a stereotypical role in an organization by whipping out the talent of the people for their organization by hiring, training and making them competitive enough to compete (Kumar, 2013). Regis (2013) suggested that Talent Management is an analytical process of HR which ensures that organization should have best people in terms of quality and quantity as well in order to meet current and future needs. While (Sukanya, 2009) asserted that Talent management not only implicates individual development it is also responsible for organizational development as it creates people oriented organization culture. In today's talent hungry market to attract, select develop and retain talented employees is one of the greatest challenges our organizations are confronting (Regis, 2013). It is further convoluted by the practices like "job poaching". When an employee leaves an organization it is considered as attrition in one organization while for another it is an opportunity in terms of talent acquisition, as there is a huge demand for skilled professionals. The organizations are ready to pay handsome salary resulting into job hopping, in this way there is a strategic need to allocate, acquire, develop and retain the talent in the organization. (Pandey, 2015).

Talent acquisition: Identifying and acquiring talented workforces is one of the most crucial stages of talent management as they say, "Well begun is half completed." Jim Collins, in his book, *Good to Great* talks about right talent depends on employer branding activities, employer value proposition, the sourcing mix used by the company and acquiring the right talent depends on the selection criteria and selection process deployed (Joshi and Vohra, 2018). As Talent Acquisition is a unique and new function, it needs usually skilled professionals in compliance hiring standards, candidate assessment and sourcing tactics, as well as, in corporate hiring initiatives, employment branding practices, and the continuous development of employees (Chitra.M;n.d).

Talent development: As stated in (Joshi and Vohra, 2018) Talent Development primarily aims to develop the dynamic competencies of individuals through interventions such as formal training programs, coaching and mentoring by senior leaders of the organization, job rotations, on the job learning, special assignments, job shadowing, etc. There is a myth that training programs are the most popularly used methods for developing skills of employees. The area of talent development has received considerable interest of late, leading several researchers to suggest that there has been a shift in emphasis from talent detection and identification talent guidance and development (Reilly and Williams, 2000).

Talent retention: -Hiring the right talent, investing in further developing them and engaging them is futile effort if it does not lead to talent retention. All the hard work and efforts of the HR team go in vain when employees want to exit early from the organization. Organizations can maximize the possibility of low employee attrition by optimal reward management and

by ensuring they provide a work environment which is enabling, open collaborative, trusting, proactive and encouraging (Joshi and Vohra, 2018).

Organizational Commitment:-Commitment has been conceptualized and studied in multiple ways but it is found that employees who are least likely to leave their organization are found to be more committed. A three component model has been framed to integrate this conceptualization which are *Affective component*, *Continuance component* and *Normative component*. *Affective component* means employee's emotional bond towards organization. *Continuance component* means obligation based on the costs that employees associate with quitting the organization. *Normative component* means employees feeling of commitment to stay with the organization.(Allen and Meyer,1990).

Objectives of the study

1. To study the role of various practices of Talent Management (Talent Acquisition, Talent Development, Talent Retention)on Employee Commitment in Banking Sector.
2. To suggest remedial measures to improve Employee Commitment in Banking Sector.

Research Background and hypotheses

Talent Management is considered as an essential factor for the progress of many Organizations in today's era, in order to retain talented employees in the organization implementation of appropriate Talent Strategy should be done while focusing on group of employees who are at the stake of resigning or turnover (Khatri et al. ,2010).At several big organizations Talent Management is still considered as a critical issue for human resource management (Kaningham, 2007). (Sastry, Reddy and Swathi2011) focused on the concept of Talent Management in Banking Sector, they discussed the need as well as strategies of Talent Management such as attracting, recruiting, developing and retaining should be fostered among the employees of banks in order to achieve success.(Boxall and Purcell ,2003) argues that in order to increase organizational performance organizations should attract and nurture personnel who have the abilities and competencies that will contribute to organization success. Organizations which are using Talent Management as their priorities have a positive impact on their success and those Organizations which have not implemented Talent Management till yet they either have lack of sources or they have ignorance of it (Horvathova and Durdova,2010).(Bist and Srivastava,2013)argues that Talent Management in terms of reward and risk is well established in private sector banks in comparison to Public Sector Banks. Talent management initiative in terms of selection procedures, remuneration and rewards is well established in private banks in comparison to public sector banks(Hitu, 2015).(Nobarieidische, Chamanifard and Nikpour , 2014)found a significant relationship between talent management and its variables as talents attraction, talents development, and talents maintenance with organizational commitment..Talents maintenance was the highest ranked variable of talent management; talents development and talents attraction were the next to follow. Undoubtedly, talent management might be a complex process for organizations but it is essential for the organizations since they need talented employees for maximizing their organizational performance. Under such scenario, searching or managing the talents is not the real issue but to provide commitment for retention is highly important because from the strategic management view, it is critical to make performance high, permanent and sustainable and it can only be achieved through employee commitment. (Vural,Vardarlier and Aykier,2012). (Oladapo, 2014) HR departments in particular and organizations in general, directly control lot of variables that may be crucial in retention of esteemed employees. It is wise to presume their preference for the variables within their

control may be a result of their judgment of the effectiveness of these variables on rate of retention in comparison to their implementation cost. Management and HR departments both need to be convinced of the efficacy of talent management on retention before these policies can be implemented. Before implementing these policies, HR departments as well as management should be convinced about the capability of talent management in retaining employees. (Lockwood,2006 as cited in Oladapo, 2014).

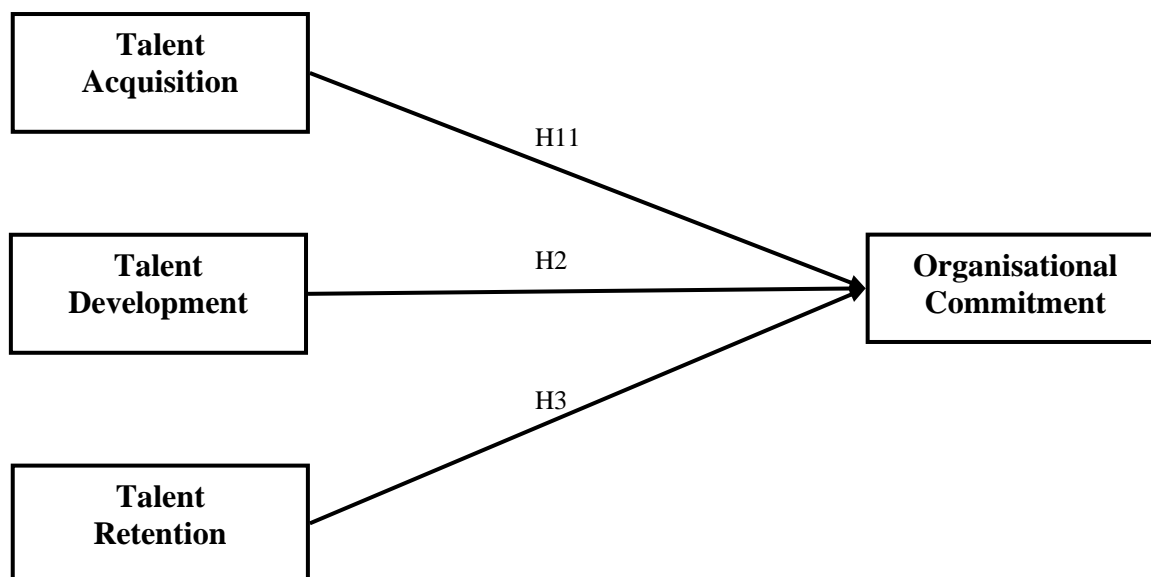


Figure 1 Research Model

Research Methodology

The present research is descriptive and empirical in nature; the research population includes the employees of various Banks. Employees' perception was taken into consideration in order to identify Talent management strategies which are prevailing in various Banks. Data collected from interviews was analyzed and a structured questionnaire was framed on five point likert scale to collect the information from the employees of Banking Sector. The questionnaire was divided into A and B part. Part A consists of demographic profiles and Part B consists of Talent Management Strategies which are prevailing in the Banks which are selected after an extensive literature review. Convenience sampling one of the most important non- probability sampling Technique was used to collect the data, the statistical population has been considered as 160 employees from Banks. It should be noted that the validity of questionnaires was approved by professional experts. For analysis of data in this study we used descriptive statistics such as mean, standard deviation and correlations moreover hierarchal regression was used to analyze the result.

Control Variable: Socio-demographic characteristics of respondents such as age, gender, qualification, tenure, designation, and organization.

Measurement

The item of talent acquisition was adopted from (Songo and Oloko,2016), the indicators of the talent development were adopted form the (Sharma,2015)while the statement talent retention was adopted from (Nguyen Ngoc Mai and Doan Thanh Ha,2016) and the items of employee commitment were adopted from(Allen and Meyer, 1990) with some modification, talent acquisition was measured using five items, talent development was measured using

five statements, talent retention was measured using five indicators and employee commitment was measured using five statements.

Table 1 Demographic Profile n=105

Measure	Items	Percentage
Gender	Male	61.91%
	Female	38.09%
Age	21-30	12.38%
	31-40	29.52%
	41-50	35.23%
	Above 50	22.87%
Designation	Manager	13.33%
	PO	15.23%
	Clerk	34.28%
	Others	37.14%
Educational Qualification	Intermediate	8.57%
	UG	48.57%
	PG	31.42%
	Others	11.445%
Organization	Public	51.21%
	Private	48.79%
Organizational Tenure	Less than one Year	20.95%
	1-5 Years	33.33%
	5-10 Years	24.76%
	10 Years and Above	20.96%

Source: Computed and Compiled on the basis of Questionnaire.

Results

Table II demonstrates means, standard deviations, and correlations. Results shows that mean values of talent acquisition, talent development, and talent retention are approximately on five point Likert scale, indicating employee perceive that organizations are not managing their talent effectively. Similarly, mean value of employee commitment is also low, demonstrating employees are not committed towards organization. Table II also demonstrates correlation coefficient providing basic support to our hypotheses. Employee qualification and tenure has positive significant relation with commitment. Talent retention is highly related with commitment as compared to talent acquisition and talent development.

Table II Means, Standard Deviations, and inter correlations

Variable	N	Mean	Std. Deviation	T_A	T_D	T_R	E_C
T_A	105	2.0229	.33434	1			
T_D	105	2.0057	.34913	.398**	1		
T_R	105	1.9943	.33219	.129	.103	1	
E_C	105	2.0171	.40961	.160	-.071	.481**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Computed and Compile on the basis of the Questionnaire

Table 2 shows the results of hierarchical regression analysis. The basic purpose of hierarchical regression analysis is to measure the impact of individual characteristics and

talent management practices on employee commitment. Steps 1 as shown in table 2, employee age have significant ($p < .01$) negative impact on organizational commitment whereas tenure in the organization has significant ($p < .05$) positive impact on organizational commitment. Other demographic characteristics such as gender, qualification, designation and organization are insignificant in predicting organizational commitment. All demographic characteristics explained 8% variance (Adjusted $R^2 = .083$) in organizational commitment.

Step 2 as shown in table 2 demonstrates the addition of talent management to the initial model (Step 1). Result shows that talent acquisition does not significantly ($p > .05$) affect organizational commitment. Talent development has negative impact on organizational commitment at higher significance level ($p < .10$). Whereas, talent retention has strong significant impact ($p < .001$, Beta = .592) on organizational commitment. It shows that the higher the organization tries to retain talented employees, the higher the employees are committed to the organization. The talent management variable explained strong variance (Adjusted $R^2 = .322$) in organizational commitment. On the basis of results it can be argued that talent retention is more important than talent acquisition and talent development to predict organizational commitment. Moreover, talent management substantially explains variances in commitment of employees for the organization.

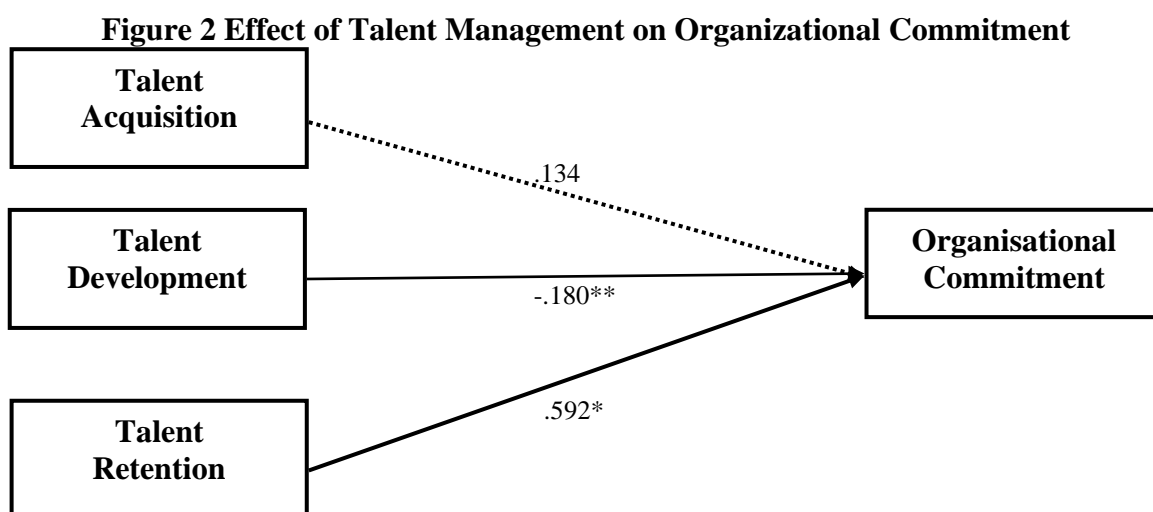
Table III Hierarchical Regression Analysis

Predictor	Step 1		Step 2	
	Beta	P-value	Beta	P-value
Age	-.092	.024	-.094	.009
Gender	.004	.956	.034	.641
Qualification	.088	.080	.060	.171
Tenure	.089	.32	.081	.025
Designation	-.043	.249	-.47	.153
Organization	-.056	.514	-.033	.654
Talent Acquisition			.134	.245
Talent Development			-.180	.090
Talent Retention			.592	.000
R	.369		.617	
R^2	.136		.381	
Adjusted R^2	.083		.322	

Note=Dependent variable is Organizational Commitment

Discussion and Conclusion

As shown in the above figure Talent Acquisition has insignificant impact on Organizational Commitment whereas Talent Development and Talent Retention have significant impact on Organizational Commitment. It is clear from the below figure that Talent Development has its negative impact on Organizational Commitment; it means if the inner abilities and qualities of employees are being developed, they are less committed to the organization as there are more chances of attrition. Therefore more attention should be paid on retaining the talented employees in the organization after their development in order to get committed and loyal workforce in the organization.



* P < 0.05, ** P < 0.01

The present study disclosed that in today's highly competitive business environment, Talent Management strategies are considered to be role model for the survival of Banking Sector. The objective of this study was to test the relationship between Talent Management practices (Talent Acquisition, Talent Development and Talent Retention) and Employee Commitment in Banks. This study empirically confirms that Talent Management Strategies such as Talent Development and Talent Retention has a significant impact on Employee Commitment whereas Talent Acquisition has an insignificant impact on Employee Commitment in Banks. Bank management is suggested to emphasize on Talent Retention and Talent Development in order to have committed employees.

The overall objective and overarching goal of Talent Management is to enable the achievement of the Organizational objective. Hence this requires the alignment of Talent Management strategies with Organizational Commitment. To build an effective Talent management system in Banking Sector there is a need to constantly assess and improve it. Banking Sectors are undergoing through modernization of techniques which focuses on improving quality and efficiency, therefore there is a need to focus on developing and retaining talented skills to operate in a technologically superior environment. Tracking and assessing talent provide Banks with an edge over its competitors.

Limitations and Recommendation

A constant challenge for Banks is to source, hire and retains talented employees across levels in order to meet the future challenges. Absence of skills to developed the talent and retain them in the Banks can create a barrier for the Banks that are trying to grow its talent pipeline. The other challenge that Banking Sectors are facing is disengaged employees as disengaged workforce leads to poor performance and this also reduces the attractiveness and competitiveness of Banks. The major limitation of this study is that the study asked for perceived data about actual talent management practices and performance measures, but the respondents might have given desired data, which made their banks sound good, as all of the respondents were employees. The size of the study sample was relatively small. Consequentially, the researcher adjusted the study data analysis strategy by using the best valuable statistical methods such as means, standard deviation to deal with such small

sample sizes. Future studies recruiting larger sample sizes are needed further more; studies can include the other Talent Management practices too.

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A Study On Consumers Satisfaction Towards The Consumption Of Organic Food Products In Chennai City

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Abstract

Organic food is the merchandise of a farming method which avoids the use of human-made fertilizers; pesticides; growth regulators and livestock feed additives. Irradiation and the use of genetically modified organisms (GMOs) or products originated from or by GMOs are generally prohibited by organic legislation. Due to the enhancement of health-consciousness among the consumers, the consumers prefer to consume healthy food products. In these circumstances, consumers prefer organic food products. In specifically the consumers preference of taking organic food products, they can avoid the chemicals used food products, they need nutrient foods from the organic food products, enjoy the better taste, avoid hormones, antibiotics and drugs in animal products, preserve our ecosystem, reduce pollution and protect water and soil, and preserve agricultural diversity. The factor of price and quality is significantly influencing consumers to purchase organic food products. The female consumers significantly satisfied organic food products than male consumers. The demographic profile of gender, age, monthly income, and Educational qualification significantly associated with the level of satisfaction of organic food products in the study area. In overall, the consumers are satisfied with the consumption of organic food products.

Keywords: Consumers, Attributes, Satisfaction, and Instant food products

Introduction

Organic food is the merchandise of a farming system which avoids the use of human-made fertilizers; pesticides; growth regulators and livestock feed additives. Irradiation and the use of genetically modified organisms (GMOs) or products produced from or by GMOs are generally prevented by organic legislation. Due to the enhancement of health consciousness among the consumers, the consumers prefer to consume healthy food products. In these circumstances, consumers prefer organic food products. In precisely the consumers preference of taking natural food products, they can avoid the chemicals used food products, they need nutrient foods from the organic food products, enjoy the better taste, avoid hormones, antibiotics and drugs in animal products, preserve our ecosystem, reduce pollution and protect water and soil, and preserve agricultural diversity. The raising of awareness level among the consumers, nearly 62% of households in the upper-end segment prefer to have organic products. There has been a significant shift in for natural products, especially fruit and vegetables in the cities as about 62% of metropolitans buy organic, an increase of 95% in the last five years, according to a survey undertaken by the Associated Chambers of Commerce and Industry of India (ASSOCHAM). The report on "Rising demand for Organic products in Metropolitan cities" is based on a survey done on 1,500 lead retailers selling non-organic and organic products. In the study, about 1,000 retailers cited

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that health and environment grounds are the main reasons for purchasing natural products by customer. The spending pattern on natural products jumps three folds in the last five years, highlights the ASSOCHAM report. Even our government is also promoting the production of organic crops, fruits, and vegetables, etc. through various schemes viz National Horticulture Mission (NHM), Horticulture Mission for North East and Himalayan States (HMNEH), Rashtriya Krishi Vikas Yojana (RKVY), National Project on Management of Soil Health and Fertility (NPMSHF), National Project on Organic Farming (NPOF), Network Project on Organic Farming under Indian Council of Agricultural Research (ICAR) and various schemes of Agricultural. Due to enhancement awareness level and consuming of the organic food products among the consumers, the present study focused on assessing the Consumers Satisfaction towards The Consumption of Organic Food Products in Chennai City.

Review Of Literature

Ratheesh Kumar k (2017) Availability of organic input and output is critical for the improvement of natural forming in the country. Development of an efficient marketing system is the need of the hour for strengthening the organic production in India. The results assumed that most of the consumer, especially in urban people, prefer natural food product. Marketing of organic product is so weak in the study area, so the demand for an organic product is increased, but supply is meager. The significant reasons are an organic producer is low, the adequate market facility is not there; a few numbers of shops, lack of awareness, and so on. Therefore, the farmer, as well as the government, also focuses interest to organic farming effortlessly enhancing sound marketing system in Tamil Nadu. **Singh, A., & Verma, P. (2017)**. The results reveal that these five factors also influence the actual buying behavior, but attitude and purchase purpose mediates the relationship.

Further, socio-demographic factors (age, education, and income) also found to have an influence on actual buying behavior. This study provides a greater understanding of consumers' attitude, purchase intention, and actual buying behavior towards organic food products. The findings have suggestions for companies of the organic food industry, retailers, and market regulatory agencies. The study also provides guidelines and recommendations for retailers and marketers who are dealing with natural foods and aim at expanding the organic food market. **Kumar, S. A., & Chandrasekhar, H. M. (2015)** Availability of organic input and output is critical for the improvement of natural forming in the country. Development of an efficient marketing system is the requirement of the hour for strengthening the organic production in India. This paper made a humble attempt to getting consumer perception about natural product and marketing in Mysore city. The results assumed that most of the consumer, especially in urban people, prefer organic food product. Marketing of organic product is so weak in the study area, so the demand for natural product is developed, but supply is meager. The significant reasons are an organic producer is low, the adequate market facility is not there; a few numbers of shops, lack of awareness, and so on. Therefore, the farmer, as well as the government, gives interest to organic farming, effortlessly enhancing sound marketing system in Karnataka. **Pino, G., Peluso, A. M., & Guido, G. (2012)** analyzes the impact of ethical motivations, food safety and health-related concerns on purchasing intentions of routine and less frequent consumers of organic food. A sample of 291 subjects was viewed through a paper-and-pencil questionnaire and classified either as "regular" or "occasional" purchasers of organic food according to their shopping frequency. Outcomes show different determinants of the plan for the two groups

of subjects: ethical motivations affect the purchase intentions of regular consumers, whereas food safety concerns influence the purchase intentions of occasional consumers. Implications are discussed. Paul, J., & Rana, J. (2012) found that the health, availability, and education from demographic factors positively influence the consumer's attitude towards purchasing organic food. Overall satisfaction of consumers for organic food is more than inorganic food, but the satisfaction level varies due to several factors.

Statement Of The Problem

Organic farm production and trade has developed as an important sector in India As in other parts of the developing world and is recognized as an essential strategy of promoting sustainable development. The growth of organic agriculture in India is getting increasing attention among farmer/ Producers, processors, trader, exporters, and consumers. Over the past decade consumption models of consumer will be change particularly in food consumption because all consumer to eat organic food because of the opinion is to eat the organic food is good for health and it begins with use of organic manual and use natural resource, so consumer behavior will be shift to organic food thing, and quality and safety in food attract consumer interest in organic food that is free from pesticides and chemical residues. Organic agriculture is produced to provide healthy and quality foods without using synthetic chemical products. Thus, organic agriculture not only protects the environment, but it also promotes public health, bringing significant benefits both to the economy as well as to the social cohesion of agricultural areas. The interest of consumers and public establishments in organically manufactured foods has increased, mainly in advanced countries, in response to consumers' concerns about food safety, human health, and the environment. The organic food market has increased continuously over the past decade, but, the total share of organic food is still small compared with the overall food market. Even our government also initiates to create an awareness of natural food products. Till now, the consumption of organic food products is 100% in our country.

Objectives Of The Study

1. To find out whether the attributes influencing the consumers to purchase the organic food products in Chennai city;
2. To examine the association between the demographic profile of the consumers and overall satisfaction of natural food products; and
3. To assess whether there is any significant difference between male and female consumers concerning the total satisfaction of organic food products in Chennai city.

Statement Of Hypothesis

1. The attributes are not influencing the consumers to purchase the organic food products in Chennai city.
2. There is no association between the demographic profile of the consumers and the overall satisfaction of organic food products.
3. There is no significant difference between male and female consumers concerning the overall satisfaction of organic food products in Chennai city.

Research Methodology

The core objective of the presents study is to find out the consumers satisfaction towards the consumption of organic food products. The study is purely descriptive. The study used both primary and secondary data. The use of a structured questionnaire obtained the Primary data. The Secondary data were obtained from various newsletters, reports, journals, textbooks, newspapers, and another form of electronically stored information like the internet and other

data accounts. All relevant literature was reviewed to provide a basis for the interpretation of responses. The total sample size of the study is 181 respondents. Convenience non-probability sampling method was followed. The elements covered in the survey included the attributes influencing the consumers to purchase organic food products. The data was collected during the period from March 2019 to June 2019. The data collected were classified, tabulated, processed, and analyzed systematically to fulfill the above objectives.

Data Analysis And Interpretation

Table 1: Demographic Profile of Respondents

Demographic profile	Frequency	Percent
Gender		
Male	66	36.5
Female	115	63.5
Total	181	100.0
Age		
Up to 25 Years	62	34.3
26-35 Years	47	26.0
36-45 Years	30	16.6
46 - 55 Years	24	13.3
Above 55 Years	18	9.9
Total	181	100.0
Educational qualification		
Up to HSC	23	12.7
UG	81	44.8
PG	51	28.2
Professional	26	14.4
Total	181	100.0
Marital status		
Married	104	57.5
Single	77	42.5
Total	181	100.0
Monthly Income		
Up to Rs.25,000	59	32.6
Rs.25,001 -50000	53	29.3
Rs.50,001-75,000	42	23.2
Above Rs.75,000	27	14.9
Total	181	100.0

Source: Primary data

Table 1 shows that demographic profile of respondents. It is noted from the study majority 63.5% of respondents are female, and 36.5% of respondents are male. Regarding age-wise distribution of respondents, majority 34.3% of the respondents are in the age group up to 25 years, followed by 26% of the respondents are in the age group between 26-35 years, 16.6% of the respondents are in the age group of between 36-45 years, 13.3% of the respondents are between 46-55 years and 9.9% of the respondents are above 55 years. Educational

qualification wise, majority 44.8% of the respondents are undergraduates, followed by 28.2% of respondents are postgraduates, 14.4% of the respondents are professionally qualified and 12.7% of the respondents are up to HSC qualified. Regarding the marital status of the respondents, majority 57.5% of the respondents are married, and 42.5% of the respondents are single. In connection with a monthly income of the respondents, majority 32.6% of the respondents monthly income was up to Rs.25,000, followed by 29.3% of the respondent's monthly income was between Rs 25,001- 50,000, 23.2% of respondents monthly income was between Rs.50,001-75,000 and 14.9% of the respondents monthly income was above Rs.75,000.

Null Hypothesis 1

The attributes are not influencing the consumers to purchase the organic food products in Chennai city

Table 2: One-sample t-test for whether the characteristics influencing the consumers to buy the instant food items

Attributes	Mean SD	N=181	
		t-value	P-value
Price	3.83 1.120	9.957	<0.001**
Quality	3.77 1.144	9.094	<0.001**
Variety	3.83 1.113	10.083	<0.001**
Taste	3.83 1.120	9.957	<0.001**
Packaging	3.82 1.106	10.010	<0.001**
Brand	3.83 1.120	9.957	<0.001**
Nutrient values	3.81 1.125	9.717	<0.001**
Ingredients	3.83 1.120	9.957	<0.001**
Manufacturing date and expiry date	3.82 1.118	9.840	<0.001**
Purchase place	3.61 1.227	9.957	<0.001**

Source: Primary data

Note: **denotes significant at 1% level

The above table reveals that the results of one-sample t-test for whether the attributes influencing the consumers to purchase the organic food items in Chennai city. It is identified from the above table, and all the attributes p-values are < 0.01. Therefore the null hypothesis is rejected at 1% level of significance. Hence it is concluded that all the attributes are significantly influencing the consumers to prefer the purchase of organic food items. It could

be found that all the qualities mean values are more significant than three. It indicates that all the attributes are influential factors for the purchase of organic food products.

Null Hypothesis 2

There is no significant difference between male and female consumers concerning the overall satisfaction about the organic food products in Chennai city.

Table 3: Independent t-test for male and female consumers concerning Overall satisfaction about the Instant food products

N(Male=66 & Female=115)

	Gender	Mean	SD	t-value	P-value
Overall satisfaction of consumption of organic food products	Male	32.90	5.93	2.211	0.029*
	Female	34.94	5.95		

Source: Primary data; Note: *denotes significant at 1% level

An independent t-test result for male and female consumers concerning the overall satisfaction of consumption of organic food products highlights the above table. The calculated t-value 2.211 and corresponding p-value is 0.029. The p-value is less than 0.05; therefore, the null hypothesis is rejected at 5% level of significance. Hence it is presumed that there is a significant difference between male and female consumers concerning the overall satisfaction of organic food products in Chennai city. The study found that the total satisfaction of natural food products significantly influencing female consumers (34.94) than male consumers (32.90).

Null Hypothesis 3

There is no association between the demographic profile of the respondents and the overall level of satisfaction of Instant food products in Chennai city

Table 4: Chi-square test for the demographic profile of the respondents and total satisfaction of instant food products

Variables	χ^2	p-value
Gender and Level of satisfaction of consumption of organic food products	18.267	0.009**
Age and Level of the comfort of use of natural food products	14.254	0.003**
Marital status and Level of satisfaction of consumption of organic food products	1.809	0.405
Monthly Income and Level of satisfaction of consumption of organic food products	21.258	0.000**
Educational Qualification and Level of pleasure of use of natural food products	23.984	0.000**

Source: Primary data; Note: **denotes significant at 1% level

The above table illustrates that the chi-square test results for the demographic profile of the respondents and the overall satisfaction of organic food products. As for a gender of the respondents and total satisfaction of natural food products concern, the calculated chi-square value is 18.267 and p-value 0.009. The p-value is less than 0.01; therefore, the null hypothesis is rejected at 1% level of significance. Hence it is concluded that there is a significant association between gender aspect and overall satisfaction of organic food products. Regarding the age factor of respondents and total satisfaction of natural food

products, the calculated chi-square value 14.254 and p-value is 0.003, which is less than 0.01. Therefore the null hypothesis is rejected at 1% level of significance. Hence it is concluded that there is a strong association between the age group of the respondents and the overall level of satisfaction of organic food products. In connection with the marital status concern, the calculated chi-square value 1.809 and p-value is 0.405. The p-value is more significant than 0.05, and the hypothesis is accepted at 5% level of significance. Hence it is concluded that the marital status of respondents and overall satisfaction of organic food products no association. It is identified from the above table, the monthly income and educational qualification of the respondents p values are less than 0.01. Therefore the null hypothesis is rejected at 1% level of significance. Hence it is concluded that there is a significant association between monthly income and educational qualification of the respondents with the overall satisfaction of organic food products.

Conclusion

It is observed from the study, and the investigation could be concluded that the attributes are significantly influencing the consumers to purchase organic food products. The factor of price and quality is considerably affecting the consumers to buy natural food products. The female consumers significantly satisfied organic food products than male consumers. The demographic profile of gender, age, monthly income, and Educational qualification significantly associated with the level of satisfaction of natural food products in the study area. In overall, the consumers are satisfied with the consumption of organic food products.

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A Study on Investor's Apprehension towards Mutual Fund Decision: An Indian Perspective

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Abstract: Indian financial market is becoming combative and the provision of various financial instruments needs to be in balance to the demand perspectives of the investor. The blossom drive of any investment is to get maximum return with a minimum jeopardy and mutual investment firm provide the opportunity for the investors. The research provides an insight into the types of risk of infection s which exist in a mutual monetary store scheme. The data was collated from mutual fund investors as well as non-mutual fund investors of this diligence. The research's focal point is the relationship between investment determination and factors like fluidness, financial awareness, and demography. It was found in the study that that low risk and liquidity of funds are having effect on the investor's percept for investing in the mutual fund.

Keywords: Financial Instruments, Investors' Decision, Risk Return, Systematic Investment Plan, AUM – Asset Under Management, AMC – Asset Management Company

1.Introduction

“Socioete Generale de Belique” formulated by Magnate William (Netherland) in 1822 was the first Mutual Fund in world. The emanation of Mutual Fund in India was the setup of UTI in 1964 by an act of the Parliament. The first argument highlighted was ‘Why do Mutual Fund are needed?’ And the clarified reasonableness was ‘It’s an attempt to mobilize the savings of number of small investors.’ This is the basic objective of a Mutual Fund Industry. It assist such investors who aren’t able to invest their economy in right focal point or in right securities. The reason may be fewer amount of savings of such retail investors, lack of financial mart data, and lack of specialized acquirement for investiture or concern of risk coming back analysis. Thus Mutual Fund pools the savings of various investors who share a common financial objective. Mutual fund industry has enumerated a six fold rise in AUM (Asset Under Management) in over the past 10 years, yet to come up as the favored investment choice for retail investors in India. Approximately 44+ AMCs are operating in India at present. In Dec 2014, the AUM of all Asset Management Companies (AMCs) in India was 10.5 trillion, equivalent to 0.5 % of global AUM. (Source: ICF 2015, ICRON analysis.)

Kothari Pioneer (now Franklin Templeton) was the first private firm mutual fund enrolled in July 1993. The number of AMCs (Asset Management Company) went on increasing with many offshore mutual investment firm set up in India and also the manufacture has witnessed several fusion and acquisitions. The doorway of commercial banks and private players in the Mutual Fund industry conjoin with the evolutionary growth of the Indian financial markets during the past few years has fostered an impressive boost in the Mutual Funds. Unit Trust

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of India (UTI) emerged as first mutual fund solidification up in India in the year 1963. In initial 1990s, government of India grant permission to public sector bank and institutes to start mutual funds operations. In the year 1992, Security and Exchange board of India (SEBI) act was passed in the parliament. The aim of SEBI act were to protect the pursuit of investor in security and to promote the development of Mutual Funds long with regulating the securities market. SEBI formulates the policies to regulate the mutual funds and to safeguard the interest of the investor. SEBI disseminate regulation for mutual funds in 1993. Thereafter, private sector Mutual Funds were permitted to enter the financial market. The regularization were reworked in 1996 and have been enhanced thereafter from time to time. SEBI also announced the guideline to the mutual funds from time to time to safeguard the interests of investors. All mutual funds – public sector, private sector and foreign entities were compulsorily governed by the same set of regularization. There is no divergence in regulatory requirements for those mutual funds and all are bailiwick to monitoring and inspections by SEBI. The risks linked to the different schemes options of the mutual funds sponsored by all these entities collectively are of more or less similar types.

1. Factors Poignant Mutual Fund Decision

The various framework that affects the decision making of investors can be categorized as:

1. Risk factor
2. Return factor
3. Liquidity factor
4. Consistency factor
5. Recognition factor
6. Specialization factor

Risk Factors: All the stake in the mutual monetary fund and security system are subjected to market danger and the NAV of the schemes may vary depending upon the factors and affecting the security and stock market. The offer documents / SAI / SID / KIM are very helpful to the investors. Entire mutual fund houses also required to divulge the risk factors in their offer documents which are presented by the funds and thus by the investors. Major risk associated in a mutual fund investiture can be grouped as:

1. **MARKET RISK:** *Stock market are always sensitive to what is prevailing in an economy (local, national, International). Performance of an economic system has opposite correlation with the risk involved. Market risk may include:*
 - i) **Country risk:** The risk involved in foreign investment changes as per the political unstableness in an area where the investment was issued.
 - ii) **Political risk:** The risk in nationwide investment changes due to political instability in home state like political unrest, government regulations, terrorism and other social changes.
 - iii) **Interest rate risk:** *Long term and rigid income securities like bonds and shares have the greatest amount of interest charge per unit risk while shorter term securities like treasury bills and money market tool affected less.*
 - iv) **Currency risk:** It refers to the contingency changes in the price of one currency which will affect another. If the currency of home country downslopes against foreign currency the investment will lose value.
2. **Liquidity risk:** Liquidity risk refers to the contingency that an investor may not be able to buy or sell an investing as and when required or in sufficient measurement because

opportunities are limited. The liquidity of an inventory depends on the nature of the fund. Investment in equity funds hold volatility from time after time whereas debt funds hold a risk of interest rates.

- 3. **Credit risk:** This relates to the possibility that a specific bond issuer may not be able to make conventional interest rate payments and / or principal repayment. Credit risk arises when bonds of a specific company being downgraded by the rating agencies which thus causes lower price. There could be a risk if the fund has been invested in higher grade investment securities as a company may default in terms of paying the interest, principal or both as the case may be. It can be tuned as Default risk also.

The ideal way to manage risk is to have a diversified bag of investments. There are different ways to mitigate the risks:

- i) Having equity fund exposure within the risk of tolerance.
- ii) Ensure that debt mutual fund exposure is well spread out.
- iii) Should have adequate exposure to debt assets outside to mutual fund.
- iv) Ensure the general assessment of risk. If the fund's return varies as expected it may be considered a more risky because its performance can change variably and quickly in either of the direction.

4. Return Factors

It is the percentile increase or decrease in the value of the investment in a particular period. The return on mutual funds can be understood in three different ways:

- a) **Absolute Return** (Point to Point Return): Absolute return is the simple increase or decrease in investing in condition of percent. It doesn't take into account the time taken for this change. This method is used if the incumbency/tenure of investment is less than 1 class. It can be calculated as

$$(i) \frac{\text{NAV}_{\text{End}} - \text{NAV}_{\text{Start}}}{\text{NAV}_{\text{Start}}} \times 100$$

Compounded Annual Growth Rate (CAGR): CAGR method is used to calculate the return for the period which is more than 1 year for the investment in mutual funds. These returns are annualized in compounding effect. Thus, they are also known as Annualized Return. It is calculated as

$$(ii) \sqrt[n]{\frac{T}{B}} - 1$$

Where n is no. of years, T is the maturity value of investment and B is the start value of amount invested.

- c) **Total Return:** This method overcomes the drawback of previous return by including dividends. It can be calculated as

$$(iii) \quad \frac{D_t + NAV_{End} - NAV_{Start}}{NAV_{Start}} \times 100$$

D_t = Dividend received per unit.

Dividends that are distributed during the retention period are added to absolute variety in NAV and divided it by NAV on the start date.

Liquidity Factors

Liquidity factors of any investment was not on anybody's radar before the global financial crunch occurred. Liquidity risk is further categorized as:

1. **Funding (cash flow) liquidity:** Inability to fund liability basically produces defaults which tends to manifest a credit risk. This can be recorded as current ratios and quick ratios.
2. **Market (Asset) liquidity:** *Ineptitude to sell an asset at time of requirement i.e. the market price indecipherability of a stock tends to manifests as market risks that. The market liquidity of an asset can be recorded in respect of width (bid ask spread), depth (position size) and resiliency.*

Mutual funds must maintain ample liquidity at all the time as per SEBI guideline in order to meet redemptions, and to minimize the kick on remaining shareholders. Mutual funds are required to process and pay shareholder redemption requests within seven days of approval. (PWC's A Closure Look, Asset Managers: The SEC's road ahead (May 2015).

Consistency Factors

The mutual funds' investments purely depend upon the obligation of the investor. For example, for investors of short term objectives debt investments may not be appropriate. For 3 to 7 years term objectives, equity fund investments are advisable. Basically long term performance, generally considered as good indicator of fund's potential, may not guarantee the future performance. The consistency of any fund's performance could be measured in terms of its performance with its benchmarks and category average. In a bearish market, all the returns could be negative, but the funds that plunge less than its benchmarks or its category average are considered to be outperformers. Similarly, in the bull market the outperformers are the funds which gain more than its benchmarks or relative category averages. These type of funds generally beat the market and possess head honcho and advanced fund management skills. CRISIL grant special rating to these consistent performers.

Recognition Factors

The recognition/ awareness about mutual funds investment and benefit is termed as the initial stage for investment. In the survey it was found that if the investors were given an opportunity to have more funds, then 50% of the investors would prefer to invest in the Real Estate, followed by 23% in Mutual Funds and only 2% prefer to invest in Equity Shares. Another survey stated that high salaried and high incomes self-employed are major investors due to the tax concessions. Lower income group people basically small traders, farmers and persons belonging to rural and semi-urban areas had no Recognition about the mutual funds. Considering the criticality of investor awareness and protection, after economic meltdown,

the government decided to set up a committee to increase recognition and interest among investors. The concern of investor recognition and protection was main focus areas for regulators, government and other stakeholder. The global financial crisis has also highlighted the vital features of financial Recognition. It was accordingly decided to set up a committee. (ET Bureau, 4 April 2009). The Television, magazines and newspapers are another source of information about various mutual fund schemes.

Specialization Factors

In the context of specialization, financial literacy plays a vital role. To extend the reach of Mutual Funds to smaller town's financial literacy is important. To make informed decisions about own financial futures or to fully participate in the economy the financial knowledge is needed. A financial ignorant person suffers from financial diseases like underinsurance, debt trap, insufficient retirement funds and low return on investment. As per previous study about 3/4th of Indian adults do not adequately understand key financial concepts such as inflation, compound interest and risk diversification, Standard & Poor's Ratings Services etc. This literacy ration is much lower than the international average of financial literacy, but somewhat in line with some other BRICS and South Asian nations. In comparison to this 57% of adults in US and 67 in UK are financially literate. (ET Bureau Dec 15, 2015,). The growing complexities and the continuous innovations in financial products adds enormous pressure on investors. Hence, it is suggested that financial literacy should be started in a school. We have an Investor Education and Protection Fund (IEPF) of BSE where 1 rupee of every transaction that takes place on a stock exchange is directed to the financial literacy fund. There is a need to increase the share of money from each transaction that will increase the availability of funds for organizing more seminars and creating financial literacy.

3.Review Of Literature

Sharma Priyanka and Agrawal Payal (2015) in their study make an attempt to understand the gist of demographic divisor in mutual fund investment decisiveness. The study's outcome was that the investor's apprehension is dependent on their demographic profile. Investor's age, marital position and occupation has a direct impact on investor's option of investment. The study further reveals that the female person segment is not fully tapped. The research also reveals that the liquid state and transparency are some factors which have a high impact on investment decisions.

Parihar B et. al. (2009) also studied that respondent's age, gender and income are undoubtedly associated with their attitude. Desigan G, Lalaiselvi S and Anusuya L (2006) conducted a study on female investors 'apprehension towards investment and concluded that female investors generally hesitate in investing in mutual funds due to lack of their knowledge and recognition regarding investment protection, procedure of making investment, valuation of investment and redressal of grievances regarding their investment related problems.

Peggy D Dwyer, James H Gilkenson and John A List (2001) also concluded in their paper which suggests that women take less risk than men in their mutual fund investments.

Binod Kumar Singh (2012) had studied the impact of various demographic aspect on investor's attitude towards mutual fund for measuring and analyzing various factors responsible for investment in mutual funds.

Simran Saini and BimalAnjum (2011) had analyzed the investment in MF in relation to investor's behavior which attract them to invest. Investor's opinion and apprehension was studied related to different issues like type of mutual fund scheme, prime objective behind

investing, level of satisfaction, need of financial advisors, distributors and brokers, sources of information, deficiencies in the services provided by the mutual fund managers, challenges faced by the mutual fund industry etc.

R. Vasudevan & Peermohaideen (2012) the study aimed to understand and analyze investor's apprehension of such risk and expectation associated with specific mutual fund. The research also revealed that investors perceive risk as under performance as risk and return in mutual fund investment are medium and not so satisfactory.

D. Rajasekar (2013) The study was conducted with a sample size of 150 respondent by applying the statistical tools like percentage analysis, chi square, weighted average, with an objective to know about the investor's apprehension on their profile, income, savings pattern, investment patterns and their personality criteria. The study was concluded by taking into consideration different parameters involved in investor's decision making keeping in mind investor's apprehension towards mutual fund investment.

Vipin Kumar & Preeti Bansal (2014) this research paper has focused attention on various parameters that highlights investor's apprehension on mutual funds. It was studied that the scheme of mutual fund investment were not known to many of the investors as still the investors rely upon the traditional pattern of investments like investment in banks and investment in postal savings. Many mutual fund investors used to invest in mutual fund for less than three years and used to quit as they were not giving aspired result as stated in the objective during inception of mutual fund scheme. It was also found from the research that investor has to mainly depend upon their brokers and agent to invest in mutual fund.

Subramanya PR (2015) researcher studied the socio economic factors like age, education, gender, income and savings of investor's apprehension towards mutual fund is not promising but the age of investor's and saving habit of the respondent is jointly correlated.

Mukesh. H.V. (2015) had studied investor's apprehension on mutual fund for return, tax benefit and capital appreciation. Most of the investors lack recognition about mutual funds and their various schemes like, SIP (Systematic Investment Plan). Hence, it becomes necessary to create Recognition among the investors through conducting seminars, workshops on financial market and published data like newspaper, magazines and journals.

Preeti Khitoliya (2014) examined that the respondents in the age of 35-44 years prefer to invest in mutual fund facilitated with moderate risk which ensures wealth maximization, followed by balanced fund and then income funds. Similar results have been seen in the age group of 25-34. Reverse trend were showcased in the age group of 45 years above where maximum were risk averse as they wish to invest in mutual fund schemes which guarantees safety of principal amount followed by balanced fund and growth fund.

K.Lakshman Rao (2011) examined that majority of respondents who has invested were in the age group of 31-50 years. People in the age group of above 60 years and below 20 years were least aware of different investment schemes and so their investments are comparatively much less.

Singh and Jha (2009) studied on Recognition and acceptability of mutual fund and concluded that consumers prefers to invest in mutual fund due to return potential, liquidity and safety. He also concluded that respondents were not properly aware about the systematic investment plan (SIP).

In this respect V Rathnamani (2013) concluded in her research that most of the investors prefer to invest in mutual fund to gain high gain at minimum level of risk, safety and liquidity.

4.Objectives Of The Study

- *To study the investor's apprehension relating to liquidity and investment decision.*
- To study the financial alertness of mutual fund investment
- To study the repercussion of gender difference on investment decision.
- To study the repercussion of age factors on investment decision in respect of age & gender

5.Research Methodology

Research Design: This research study is an analytical and descriptive research. It is related to the investment in mutual funds in India.

Sample Size: Primary source of data collection is used for present study with the sample size of 200 resident individual from the city of Jaipur. Chi square analysis was carried out to test the hypothesis.

Hypothesis:

H_{10} = There is association between liquidity factors and investment decision in mutual funds.

H_{20} = There is direct relationship between financial Recognition level and investment behavior in mutual fund.

H_{30} = *There is association between gender and investment decision in mutual fund.*

H_{40} = There is direct relationship between age and risk taking factors.

6.Data Analysis And Interpretation

H_{10} = **There is association between liquidity factors and investment decision in mutual funds.**

Interpretation: Table value of chi square at .05 level of significance with degree of freedom 4 is 9.49 and our calculated value 2.56 which is less than table value. Hence the hypothesis is accepted. It proves that there is a relationship between liquidity of mutual funds and investments in mutual funds.

H_{20} = There is direct relationship between financial Recognition level and investment behavior in mutual fund.

As, calculated value of Chi square is less than Table value, our hypothesis holds true. Thus Acceptance of the hypothesis proves that there is a direct relationship between the financial Recognition and mutual fund investment by customers.

H_{30} = There is an association between gender and investment decision in mutual fund.

Interpretation: The Table value of chi square at 5 percent level of significance with degrees of freedom 2 is 5.99 and our calculated value is 0.97. As, calculated value of Chi square is less than Table value, our hypothesis holds true. Thus, the acceptance of the hypothesis proves that there is a direct relationship between the gender and mutual fund investment by them.

H_{40} = There is direct relationship between age and risk taking factors.

Interpretation: The Table value of chi square at 5percent level of significance with degrees of freedom 6 is 12.6 but our calculated value is 9.69. As, calculated value of Chi square less than Table value, our hypothesis holds true. Thus acceptance of the hypothesis proves that them.

7.Findings

1. The lesser risk funds attract the investors in mutual fund schemes.
2. Gents are more interested in mutual fund investments than the females.
3. The younger generation and the elderly people are less aware about the mutual fund

information.

4. The mutual fund investors consider the liquidity of fund schemes as also an important factor for investment in such.

8.Implications

Mutual fund has been focused as an investment avenue in past few years only. The financial growth and stability of an economy plays a decisive role in this area. Gradually literate and civilized citizens are gaining the knowledge of saving and asset cycle and its effects in an economy. Many of the people has enrolled for SIP (Systematic Investment Plan). Still there are back fall in our economy especially in the field of mutual fund investment criteria. Many people still ponder to invade to this field. The research paper implies the various areas on which this industry has to struggle. The various target group, their Recognition and financial proficiency, their age group and gender differences play a imperative role to upgrade the mutual fund industry.

9.Scope For Further Research

The research work brings scope for other areas to enhance it. The education and Recognition among people is very essential part. Research works may be preceded on various Recognition programs and finance education and comparison of pre and post conditions of those target groups. Right people at right time with right information will definitely help to enhance the mutual fund investment. Female participation in investment dealings should also be encouraged. With girl child education and female job opportunities, the income generated by females has increased, with increased income, investment has to be increased. Thus this paper gives scope for female participation in investment. The age groups of people also affect their investment decisions. But mutual fund actually is the simplest and easiest technique of return generation. It is more convenient for senior citizens as they remain dependent on others in various aspects. This paper also gives scope to work on people of various age groups and their attitude toward mutual fund. This will help to get solutions of many problems which discourage mutual fund investment. The paper directly gives scope to research on strong portfolio investments. The detailed investigation of many companies is to be searched out for the same.

10. Conclusion

Mutual fund Corporation has still to struggle to gain more investors. Financial literacy among females and youngsters will definitely bring a huge success to this industry. For that reason the Indian government is looking to provide financial studies in school level. Adults who are already mutual fund investors should not withdraw from the same as they attain experience in the field. In Indian market where financial instruments are capturing almost every unit of society, Mutual Fund Corporation has a great scope if it gives more attention to some factors which will ultimately lead to satisfaction of investors which will aid the mutual fund industry to boom up. The organization to lift the mutual fund investment company shall educate the audience to the benefits of mutual funds through the advertisement, publicity campaigns having stall exhibition. The District Adoption Program [DAP] and the Investor Recognition Program [IAP] done by each AMC are aimed at bettering recognition, awareness about different types of mutual funds available in locations that have no or minimal penetration. AMCs have held 6, 600 IAP programs across 250 cities and covered 0.26 million contributors in the first 6 months of the current fiscal year.

Annexure Table 1
Liquidity Factors and Mutual Fund Investment Decision
Observed Frequency

<i>Category</i>	<i>Very Important</i>	<i>Neutral</i>	<i>Not so Important</i>	<i>Total</i>
Individual	75	10	5	90
NRI's	30	8	2	40
Corporate	55	12	3	70
Total	160	30	10	200

Observed Frequency

Table 2

<i>Age</i>	Financial Recognition		<i>Total</i>
	<i>Yes</i>	<i>No</i>	
25-34	35	18	53
35-44	43	16	59
45-54	40	18	58
55 +	22	8	30
Total	140	60	200

Table 3

Gender and Mutual Fund Investment

Observed Frequency

<i>Category</i>	<i>Positive</i>	<i>Neutral</i>	<i>Negative</i>	<i>Total</i>
Male	62	15	23	100
Female	58	20	22	100
Total	120	35	45	200

Table 4
Age and Risk Taking Factors

Observed Frequency

<i>Age</i>	<i>High risk</i>	<i>Moderate risk</i>	<i>Low risk</i>	<i>Total</i>
<30	2	11	17	30
31-40	11	35	34	80
41-50	2	31	37	70
51<	0	8	12	20
Total	15	85	100	200

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An Empirical Study On Knowledge Sharing Among Virtual Team Members Of Selected Software Companies, Chennai

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Dr. S.A. Lourthuraj**

Abstract

The teams that are correctly handled will contribute greatly to organizational values. In the current ICT area, the virtual team creation having latest work pattern type is in use. These modifications pose a distinct challenge for the research over the efficiency of the teams. Organizations have understood that knowledge establishes a useful intangible asset to sustain and create competitive benefits. The major sharing of knowledge is usually aided using knowledge management systems. But the technology establishes only one among the other factors which influence the knowledge sharing in organizations like incentives, culture, and trust of the organization. The knowledge sharing within the virtual teams establishes a key challenge in the knowledge management field since few employees try to struggle to share the knowledge. Even though many researchers performed earlier, still there is unobvious about the factors which contribute towards the efficiency of virtual teams. Therefore, this paper mostly concentrates on the virtual team's knowledge sharing in the chosen software companies in the Chennai area. The team-oriented culture's significance of knowledge sharing was further identified as important in the current research paper.

Keywords: Knowledge, Knowledge Sharing factors, Virtual teams, Software companies

1. Introduction

The organizations form teams for organizing tasks and for assisting the non-routine tasks and complex completion. Organizations have changed into team-based work for past few periods having the developments in the ICT allowing configuration of similar area employees with the employees of various organizations and geographical locations. These outcomes in virtual team creation with latest work pattern type. The difficulty is that the efficient factors of the conventional team may not be usable in the setting of virtual teams. Virtual teams must give way to get the individuals along with the essential skills and professionals for grouping on the organizational task and for sharing the knowledge that results in improving the performance of the organization. Trust is an important factor to address the difficulties and is the main element that influences the efficiency of the team. But the trust within the members of the team in the setting of the virtual team is a difficult task. Members of the virtual team cannot notice the physical behaviors that depend on face-to-face team members. Knowledge has been identified to be strategically vital resources for competitive benefits. The virtual communities highly depend on sharing knowledge and lately various organizations have founded with internal communities for enabling the knowledge sharing of employees about information related to work.

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2. Literature Review

Hsu *et al* (2007) stated trust is the key factor in the organizational and interpersonal relationship, using empirical research being carried out over a few decades investigating how various levels of trust impact association. According to Pavlou *et al* (2007), in the team atmosphere, trust is mentioned as the willingness of the team members in accepting the vulnerability that depends upon the wants of the team member's benevolence, integrity, and competence. The general association within knowledge sharing and trust behavior has been represented in the previous studies of the research. As per Denning (2001) Linde (2001) and Von Krogh *et al* (2000), if the members of the team trust each other, then they will get more interest in sharing (Staples and Webster, 2007). Lee (2001) mentioned some generally utilized methods for sharing knowledge are collaborative and brainstorming issue solving in order to get through this complication several researchers attempted to quantify the knowledge sharing through asking employees about how frequently they tell their experience in work, business knowledge, and expertise from training and education received informally using others from team.

According to Tynjala and Hakkinen (2005), Fischer and Mandl (2005), team collaboration has represented that working in such conditions shows difficulty in the new knowledge's collaborative construction. DeRosa (2009) and Lin *et al* (2008) described that in spite of many types of research have been carried out earlier, still, it is unsure about the factors that influence the effectiveness of the virtual team. Petersen (2004), Brahm and Kunze (2012) emphasized that among different factors that influence the efficiency of the team, trust is the most often adopted as being significant for efficient performance and processes of the team. The latest definition showed that members of the virtual teamwork inter feebly, sharing duty for their results, and have an important dependency on the technology for assisting their communication (Gaudeset, 2007).

Cohen and Bailey (1997) indicated that working in the virtual atmosphere, there is the low frequency for the teams in face-to-face communication; generally, rather they collaborate by utilizing the infrastructure of the developing communication and computer technologies in order to achieve a particular project or task. Hertel *et al* (2005) highlighted that the four different virtual team features involve culturally diverse, temporary, geographically spread and dependent upon the computer-based interaction. Duarte and Snyder (2001) and Fink (2007) mentioned from the examined factors, communication infrastructure, and formal processes is said to be the medium to decrease the distance's potentially negative influence. According to Pick *et al* (2008) and Yu *et al* (2009), the latest communication technology advancement has caused investigations of how such technologies contribute towards and influence the dispersed practices of work. As per Mathieu *et al* (2008), Tesluk and Mathieu (1999), the communication's effective part in the efficiency of teamwork has further been explored. Virtual teams (VT), when considered as arrangements of organizations, can work across distinct time and physical obstacles. Berry (2011) described that virtual team includes geographically distributed members of the team who use communication systems mediated by the computer. Edwards and Wilson (2004) said that when VT is an encounter for the first time, however, the team concentrates on the goal setting and developing trust association among the team members must be in a functional level, instead of concentrating on evaluating and developing the infrastructure of communication. Halawi *et al* (2005) interrogated how better an organization powers its asset of knowledge in producing the value by service and product creation which can have a major influence towards long-term

performance. Reed and Knight (2010) claimed that without enough knowledge transfer, risk performance of the virtual team will be influenced negatively. Srivastava et al (2006) deliberated that knowledge sharing within teams has been identified to cause the superior performance of the team. Members of virtual teamwork inter-dependently, sharing the responsibilities for the results and have a major dependence on the technology for assisting communication. According to Gaudes et al (2007), a virtual team is said to be the group collaboration of co-workers that come from different business units or organizational departments who utilize the communication technology and developed information for accomplishing the general goal or purpose. As per Cohen and Bailey (1997), working in the virtual atmosphere, team's face-to-face communication is low frequency; rather they generally collaborate by utilizing the developing computer and communication technologies for achieving a particular project or task.

Having face-to-face teams, the members can directly notice the fellow members of the team. They have the ability to look who attends participants or meetings in the conversations in terms of the progress of groups and projects. Wielkie (2008) mentioned that such visual cues types are impossible with virtual teams. Nunamaker et al (2009) mentioned that there are many other cons that make unfavorable in working with virtual teams to many such as loss of different non-verbal cues; decreased methods for informal conversation decreased chances to develop a friendship; complicates, variation in time zone, and unreliable technology. Petersen (2004), Brahm and Kunze (2012) emphasized that among different factors that influence the effectiveness of the team, trust is often embraced to be important for performance and processes of an effective team.

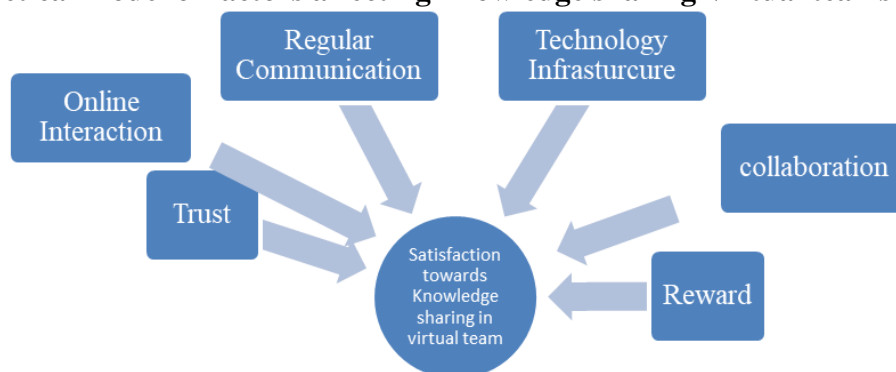
2.1 Main Objective

- To realize the influence of work experience and age in knowledge sharing within the members of the virtual team.

3. Research Design

A questionnaire that is standardized self-administered were prepared for getting information regarding the behaviour of knowledge sharing in the organization and impact of human factors and organizational factors on the motivation and behavior of employees for sharing knowledge along with demographic information. The questionnaire was designed to include numerous employees in various levels of the three software firms in Chennai area. The survey tool was distributed for 180 study firm's employees. The questionnaire administration was carried out in two months period. The questionnaire was verified for inconsistent and incomplete answers. There present 160 questionnaires with overall answers. Thus, the rate of response was 88 percent. The questionnaire was intended to assess and measure the opinion and attitude of the participants on the behaviour of sharing knowledge and the organizational factors impact are a reward, communication, trust, team effectiveness, online interaction, and collaboration. A 7-point Likert scale evaluation varying between strongly disagree= 1 and strongly agree= 7, was utilized to evaluate the attitude of respondents and degree of agreement of the current practices and values of the virtual working environment in the organization system.

The theoretical model of factors affecting knowledge sharing Virtual teams



4.Results from the study

Hypotheses of the study

NH: There is no substantial variation between work experience and age regarding reward, team effectiveness, trust, communication, and online interaction.

Table no:1 - Demographic Profile

Gender	Frequen cy	Percen t	Qualification	Frequen cy	Perce nt
Male	70	44	Bachelor degree	97	61
Female	90	56	Master degree	63	39
Total	160	100	Total	160	100
Age			Annual Income		
25 years and below	26	16	Rs.3,00,000 and below	55	34
26 - 30 years	15	9	Between Rs.3,00,001 and Rs.6,00,000	37	23
31 - 35 years	53	33	Between Rs. 6,00,001 and Rs. 9,00,000	35	22
36 - 40 years	45	28	Between Rs. 9,00,001 and Rs. 12,00,000	19	12
40 years and above	21	13	Above Rs. 12,00,000	14	9
Total	160	100	Total	160	100
Experience			Designation		
5 years and less	41	26	Trainee Engineer	45	28
6- 10 years	52	33	System Analyst	35	22
11- 15 years	39	24	Project Manager	32	20
15 years and more	28	18	Programmer Analyst	13	8
			Project Lead	19	12
			Program Manager	16	10
Total	160	100	Total	160	100

From the table it is understood that, 70 (44%) were male and 90 (56%) were female. 16 percent of respondents come under 25 years of age group and below. 9 percent of respondents come under 26 to 30 years age group. 33 percent of respondents come under 31-35 years age group. 28 percent of respondents belong to 36-40 years age group. 13 percent of respondents were 40 and above age group. 26 percent of respondents had five and below five years' experience. 33 percent of respondents had 6 to 10 years experience. 24 percent of respondents had 11 to 15 years of experience. 18 percent of respondents have 15 and above 15 years of experience. Respondents mostly have six to 10 years of experience. 61 percent of respondents were with bachelor degree and 39 percent of respondents had a master's degree. Most respondents had bachelor's degree.

It is also observed that, 34 percent respondents annually earn Rs. 3, 00, 00 and below income. 23 percent respondents annually earn from Rs. 3, 00, 000 to Rs. 6, 00, 000 income. 22 percent of respondents annually earn income from RS.6, 00, 01 to Rs.9, 00, 000. 12 percent respondents earn over Rs.9, 00, 000 to Rs.12, 00, 000. 9 percent respondents earn over Rs.12, 00, 000. Most respondents annually earn Rs.3, 00, 000 and below income. 28 percent of respondents are trainee engineers. 10 percent of respondents are a program manager. 20 percent of respondents are the project manager. 8 percent of respondents are programmer analyst. 12 percent of respondents are projecting lead. 22 percent of respondents are system analyst. Most respondents are trainee engineer.

ANOVA

NH: There is no considerable variation between work experience and age regarding reward, team effectiveness, trust, communication, and online interaction.

Table no:2 – ANOVA results

From the below table shows that, the value of p is less than 0.01, the null hypothesis is declined at one percent level regarding knowledge sharing dimensions of a virtual team. Therefore, there is a major variation within work experience and every age respondent groups regarding every dimension.

Dimension	Age	N	Mean	Std. Deviation	F	Sig.	Experience	N	Mean	Std. Deviation	F	Sig.
Total of Trust	25 years and below	26	19.8077	1.23351	9.545	.000	5 years and less	41	19.7805	1.52500	11.722	.000
	26 - 30 years	15	19.9333	1.94447			6- 10 years	52	17.7500	2.23058		
	31 - 35 years	53	17.7358	2.17637			11- 15 years	39	17.2564	1.74292		
	36 - 40 years	45	17.0222	1.88883			15 years and more	28	16.8929	3.73511		
	Above 40 years	21	17.1429	4.06553								
	Total	160	18.0000	2.54272			Total	160	18.0000	2.54272		
Total of Online Interaction	25 years and below	26	25.9615	1.37057	19.531	.000	5 years and less	41	24.6829	2.19589	17.758	.000
	26 - 30 years	15	23.2667	1.79151			6- 10 years	52	22.8462	2.36299		
	31 - 35 years	53	22.6415	2.22827			11- 15 years	39	21.9487	2.32774		
	36 - 40 years	45	21.5778	2.38831			15 years and more	28	20.5000	3.06111		
	Above 40 years	21	20.7143	3.42261								
	Total	160	22.6875	2.81100			Total	160	22.6875	2.81100		
Regular Communication	25 years and below	26	26.6923	1.46340	26.361	.000	5 years and less	41	25.8293	2.27928	25.793	.000
	26 - 30 years	15	25.6667	1.71825			6- 10 years	52	23.0962	3.30928		
	31 - 35 years	53	22.7547	3.19799			11- 15 years	39	20.5128	3.09390		
	36 - 40 years	45	20.3333	3.21926			15 years and more	28	20.7143	3.29823		
	Above 40 years	21	20.9524	3.04099								
	Total	160	22.7500	3.66009			Total	160	22.7500	3.66009		
Technology Infrastructure	25 years and below	26	26.5000	1.27279	26.276	.000	5 years and less	41	24.9756	2.60277	22.299	.000
	26 - 30 years	15	22.9333	2.49189			6- 10 years	52	22.2500	2.97621		
	31 - 35 years	53	22.2264	2.89324			11- 15 years	39	20.3590	3.05638		
	36 - 40 years	45	20.0889	2.99106			15 years and more	28	19.8571	3.43958		
	Above 40 years	21	19.8095	3.41495								
	Total	160	22.0688	3.54330			Total	160	22.0688	3.54330		
Total of Collaboration	25 years and below	26	25.6154	1.89899	16.379	.000	5 years and less	41	25.2927	1.95248	17.385	.000
	26 - 30 years	15	25.2000	1.42428			6- 10 years	52	22.1731	3.03393		
	31 - 35 years	53	22.0755	2.93421			11- 15 years	39	21.7179	2.76204		
	36 - 40 years	45	21.9111	2.85897			15 years and more	28	21.2857	2.95468		
	Above 40 years	21	20.6190	2.74729								
	Total	160	22.7063	3.10325			Total	160	22.7063	3.10325		
Total of Reward	25 years and below	26	26.8077	1.09615	22.006	.000	5 years and less	41	25.3902	2.38619	19.711	.000
	26 - 30 years	15	24.0667	1.70992			6- 10 years	52	22.1731	2.50271		
	31 - 35 years	53	21.9623	2.35309			11- 15 years	39	20.6410	4.46323		
	36 - 40 years	45	20.5556	4.22953			15 years and more	28	19.0714	5.31893		
	Above 40 years	21	18.3810	5.80066								
	Total	160	22.0813	4.23518			Total	160	22.0813	4.23518		

4. Findings from the study

Employees under the age of 30 are fulfilled on knowledge sharing within a virtual team. Thus, the steps must be carried out to develop online interaction, trust, reward, communication, collaboration, and technology infrastructure among the employees of age more than 30. Developing team spirit not just provide everyone with the chance to understand each other but also supports to make an environment in which all can feel they contain investment in the result. This causes enhancement in communication. From the research, it is clear that effective sharing of knowledge with the helping dimension express reward system, technology infrastructure, trust, collaboration, online interaction and communication that give wat to fulfill the platform of knowledge sharing among the virtual teams which results in the effectiveness of team and performance of the organization.

5. Conclusion

Working in the virtual team by itself shows high complexity since it includes various challenges. The process that specifically requires more special management from leader and managers to be effective is called knowledge sharing. Trust, communication complexities, virtual-team member's unwillingness towards sharing knowledge, and cultural barriers are the several challenges that were faced by the organization with respect to knowledge sharing. Trust is the other component that includes the challenges of effective knowledge sharing and collaboration of virtual teams. In order to overcome these difficulties, the organization must use mechanisms for communicating the benefits of knowledge to the employees. The

organization must help the individual to work in distributed teams through defining the responsibilities, roles, and tasks and clarifying the manner that is to be used by the individual for collaboration and communication. Such actions may ultimately enable knowledge sharing.

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Perceived Social Support and Subjective Well-Being among Rural and Urban Women

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Dr. Jyotsana**

Abstract

The objective of the study undertaken here studies the relationship between perceived social support and subjective well-being among rural and urban women selected from Haryana. A survey was administered on a sample of 200 women (100 rural women and 100 urban women) selected from Haryana, Distt. (Hisar and Bhiwani). In Beirut using two instruments: Perceived Social Support Assessment (Zimet et al. (1988), and Subjective well being Inventory (Nagpal and Sell (1985). Statistical Analysis used Pearson's Product Moment Method of Correlation and t-test to examine the relationship between perceived social support and subjective well-being. The results of this study showed that perceived social support had significant impact on subjective well being among rural and urban women. On perceived social support there was significant difference found between rural and urban women. On overall subjective well being there was insignificant difference found between rural and urban women. The current study provides insight into the importance of social support and its relationship with an individual's subjective well being. Such an understanding could help educators, counselors and psychologists to design and develop suitable intervention strategies to reduce psychological problems among women.

Introduction

Social support stands as one of the resources between two individuals, contributor and receiver, and which promotes the health of the latter one. Social support is a major determinant of health. Women's situation is now noticeably diverse from what used to be a few decades ago. Looking at the positive side of an urbanized culture, we see living standard has risen; people live longer and are healthier. Possibilities for self-actualization have emerged, and there is more attentiveness among people. Looking at the pessimistic plane, we find that families are less established, and the time-pressure and tension must have increased in many women. Barrera et al. (1981) reported an early definition of social support, specifying that it refers to the "various forms of aid and assistance supplied by family members, friends, neighbors, and others", which broadly encompasses a multitude of social interactions. Although research has linked social support to measures of subjective well-being (Thomas et al. (2010).Some researchers have initiated negative or no consequences of social support on SWB (Lakey et al. 2010).The objective of this study was to determine the perceived social support and its associated subjective well being among women.

Perceived Social Support

A further one of the most importantly studied concepts has been perceived social support, which refers to an individual's cognitive evaluation of support to promote and thereby reduce the negative effects of stress on outcomes. Measures of perceived social support may differ

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in whether they focus on assessing an individual's assessment of the availability and/or the adequacy of support. Even though some concerns about possible self-reporting biases of respondents (Gore, 1981), measure of perceived social support classically have been found to have the strongest associations with measures of reduced stress and psychological distress, as well as events of improved well-being (e.g., Barrera, 1986). Single possibility for the dissimilarity in findings is how researchers conceptualize and operationalize social support and subjective well-being- both of which are often used as umbrella terms for multifaceted constructs. There are several facets of social support that have varied relations with subjective well-being.

Social Embeddedness

Social embeddedness refers to the regularity of contact with those in one's social network (Barrera 1986). In a meta-analysis, Finch et al. (1999) create that the number of support providers (a measure of social embeddedness) had a small unresponsive association with psychological distress (most frequently assessed with measures of depression). On the other hand, procedures of social embeddedness do not essentially judge the quality of the relationship, which may be critical in determining emotional consequences.

Enacted Support

Enacted support refers to actual received support, whether it is received emotional support, received touchable support, or received informational support (Barrera 1986). Enacted support and well-being share a composite relationship, with some research showing a small positive relationship between enacted support and psychological well-being (Finch et al. 1999) and other investigate connecting enacted support to increased negative affect (Lakey et al. 2010). Seidman et al. (2006) suggests that the relationship between enacted support and distress may be varied due to the confounding effect of distress on emotional well-being. Obtaining substantial or emotional enacted support would expect occur as a result of experiencing some form of distress, and the negative effects of this suffering may be related to lowered well-being.

Provided Support

Provided support, which refers to the touching, tangible, or informational help that one is able to supply to others, has also been linked to health and well-being (Brown et al. 2003). Likewise, others have established that those who have a higher tendency to provide social support report lower levels of depression (Piferi and Lawler 2006), and everyday diary study providing support to a colleague was associated with both reduced negative mood and improved positive mood (Gleason et al. 2003). There are several prospective explanations as to why providing support may influence subjective well being. Providing support to others may give one a sense of meaning and purpose (Taylor and Turner 2001), or increase self-evaluations (Williamson and Clark 1989).

Perceived Support

Perceived support refers to satisfaction with support interactions and estimated support. It differs from enacted support in that perceived support refers to the probability that support will be provided rather than referring to specific instances in which one has received support. Normally, perceptions of accessibility of social support have been linked to better outcomes during times of stress (e.g., Sarason et al. 1997). In a meta-analysis Finch et al. (1999) concluded that the weighted r for the relationship among ratings of perceived availability of support and psychological distress ranged from -0.29 to -0.35. These biased co-relations were significantly larger than the co-relations reported among measures of enacted support

and psychological pain (rs ranging from -0.12 to -0.17). In calculation, Finch et al. (1999) reported that perceived support satisfaction was an exclusive predictor of depression when examined in the framework of a structural equation model with several simultaneous predictors (counting the Big Five personality traits and types of coping). In regards to the cognitive-judgmental element of subjective well-being, Newsom and Schulz (1996) initiate that superior perceived social support was co-related with superior life satisfaction and linked to fewer depressive symptoms in older adults.

Perceived Social Support

There are a lot of types of social support in writing, which may clarify the differential relationship this variable has to outcomes and additional protective variables, such as health outcomes (Uchino, 2009) and anger (Green & Pomeroy, 2007). Study indicates that there are at least two definite aspects to social support: perceived and received social support. For instance, social support may refer to one's social system or the capacity of people available to help or give material or emotional support (e.g. primary care patients, Eurelings-Bontekoe, Diekstra, & Verschuur, 1995). On the other hand, social support may be conceptualized as the perception that assist provided by others is adequate, or to the perceived superiority of one's support, which may control adjustment (Asberg, Bowers, Renk, & McKinney, 2008). Above the past two decades, investigation has supported a so called buffering effect, in that social support, particularly perceived social support, protects next to the effects of negative stress (Dahlem, Zimet, & Walker, 1991).

Social support is defined by Cohen et al. (2000) as the "social resources that persons perceive to be available or that are actually provided to them by non-professionals in the context of both formal support groups and informal helping relationships". Cohen references Wills and Shinar (2000), who differentiate between perceived and received social support as that which is perceived to be available against that which is actually available. Cohen's theory is supported by a number of studies that found perceived social support more significant than actual social support in health and well-being (Rudnicki et al., 2001). As per Wethington & Kessler (1986), perceived social support is more significant than received social support. Simple perception of social support can perform as a bumper for individual facing stressful life situations (Cohen & Wills 1985). Perceived social support is subjective evaluation of property received in a given situation and it felt correctness and satisfaction (Vaux 1990). More than a few studies have provided strong verification in support of the relationship between social support and psychological well-being.

Moreover, it has been emphasized that insufficient social support is associated not only with an increase in humanity and morbidity but also a decrease in psychological well-being (WHO 2002). Skok, Harvey & Reddihough (2006) deliberate impact of perceived social support on well-being and complete that perceived social support appreciably predicted well-being.

Subjective Well-being

Subjective well-being (SWB), thought to consist of a cognitive-judgmental measurement reflecting life satisfaction and an emotional evaluation characterized by positive and negative effect, has been connected to important outcomes. For instance, explore has confirmed that happy individuals have a tendency to have larger social rewards, better work outcomes, greater coping abilities, better immune systems, to be more co-operative, pro-social, and charitable and to live longer than individuals who are not happy (see Lyubomirsky et al. 2005 for a review). For the reason that of the positive outcomes related

with subjective well being; it is important to realize the factors that contribute to well-being. One of the most dependable predictors of subjective well being is the excellence of social relationships (e.g., Diener and Seligman 2002). People who have pleasant relationships report feeling happy more recurrently and sadness less recurrently, and report being more satisfied with their lives than those who do not have enjoyable relationships. It is, though, undecided why having satisfying relationships is so valuable. One possibility is that individuals who have satisfying relationships can acquire support when they need it, whereas those who do not have satisfying relationships cannot easily attain support when they need it. Another possibility is that the attention (expectation) of being able to rely on somebody when they need it is comforting, and contributes to a sense of well-being. Anyway, social support is probably a key in accepting the link between the quality of social relationships and Subjective Well Being (SWB)

Subjective well-being can be clear as constructive evaluation of one's life associated with good feelings. Inside gerontology, there are several ways to judge subjective well-being, for example, by measuring self-esteem, life satisfaction, and happiness. While self-esteem tends to be a cognitive evaluation of the self (Rosenberg, 1979), and life satisfaction a cognitive evaluation of one's common situation, happiness normally represents an emotional component (Kozma, Stones, & McNeil, 1991). There are various evidences that self-esteem, life satisfaction, and morale tend to reflect relatively constant, long-term judgments of well-being, whereas happiness and affect actions reflect more short-term reports of subjective well-being and prove situational variability (George, 1981). In a meta-analysis, Pinquart (1998) reported a indicate observed co-relational, co-efficient of .46 between life satisfaction and happiness, .45 between life satisfaction and self-esteem, and .31 between self esteem and happiness. In numerous studies, life satisfaction and happiness overloaded on one general factor that can be called psychologicalwell-being (e.g., Kammann, Fatty, & Herbison, 1984). Overall, there is some overlap in the article formulations of questionnaires measuring self-esteem, life satisfaction, and happiness. Thus, life satisfaction, happiness, and self-esteem may characterize different but positively linked aspects of subjective well being. In the current meta-analysis, studies using any of these indicators of subjective well being were included. The need of depressive symptoms has also been considered an indicator of subjective well being (e.g., Newman, 1989). On the other hand, since most measures of depression do not only measure the non-appearance of psychological well-being, but moreover somatic symptoms, and because some of these questionnaires seem to be less sensitive to nuances of positive subjective well being, we did not include studies on depression in the current meta-analysis.

Subjective well-being (SWB) is defined as 'a person's cognitive and affective estimations of his or her life (Diener, Lucas, & Oshi, 2002). Robbins & Kliwer (2000) refers to subjective well-being to the self evaluation of life satisfaction. In the cognitive element one thinks of his or her life in terms of worldwide scenario. On the other hand, subjective happiness is defined from the perspective of a person's emotions, moods and feelings (Omodei& Wearing, 1990). Subjective well-being is expressed in simple conditions like saying often, "I feel good" and "I feel happy" (Schwartz & Strack, 1999). An individual who has a high level of happiness with their life, and who experiences a greater optimistic affect and little or less negative effect, would be deemed to have a high level of subjective well being. The determinants of well-being and life satisfaction are highly individualized or personalized as they teach depending on their own value orientations (Emmons, 1991). For

self-indulgent people, they evaluate their every day well-being based heavily on hedonic markers of well being such as avoiding pain and seeking pleasure (Oishi, Schimmack, & Diener, 2001) and the experience of excitement (Oishi, Schimmack, & Colcombe, 2003). Resting on the further give, this differs from the 'eudaimonic' perspective which, as Waterman (1993) stated, is somewhere one lives in friendship with one's 'true self'. This observation emphasizes the meaning of life and self-realization to which a person aspires to bring into his or her individual life. In association with this, it is relevant to note that Maddi (1970) discussed individual differences in the amount to which people search for sense in life. It creates an image of a person that he or she is very calculated in terms of personal gains.

1 Components of Subjective Well-Being

Subjective well being includes three primary components: satisfaction, pleasant affect and low levels of unpleasant affect. Constructive affect denotes pleasant moods and emotions such as joy and affection. Positive or lovely emotions are part of subjective well-being since they reflect a person's reactions to events that indicate to the person that life is proceeding in an attractive way. Main categories of affirmative or pleasant emotions include those of low excitement (e.g., contentment), moderate excitement (e.g., pleasure) and high excitement (e.g., euphoria). They take positive reactions to others (e.g., affection), positive reactions to activities (e.g., interest and appointment), and common positive moods (e.g., joy). Negative affect includes moods and emotions that are unpleasant and represents negative responses people experience in reaction to their lives, health, events and conditions. Most important forms of negative or unpleasant reactions consist of anger, sadness, anxiety and worry, stress, frustration, guilt and disgrace and jealousy. Further negative forms, such as loneliness or helplessness are significant indicators of ill-being. A number of negative emotions are part of life and can be compulsory for effective functioning, but numerous and extended negative emotions indicate that a person's life is happening imperfectly. Life satisfaction represents how a person evaluates or appraises his or her life in use as a whole. Life satisfaction intends to represent a broad, insightful appraisal the person makes of his or her life. The word life defines all areas of a person's life at a particular point in time or as an integrative judgment about the person's life since birth.

Objectives

- 1) To study the relationship between perceived social support and subjective well-being between rural and urban women.
- 2) To study the significance of difference between means on variable of perceived social support between rural and urban women.
- 3) To study the significance of difference between means on variable of subjective well-being between rural and urban women.

Hypotheses

- 1) There will be significant relationship between perceived social support and subjective well-being between rural and urban women.
- 2) There will be significant difference between means on the variable of perceived social support between rural and urban women.
- 3) There will be significant difference between means on the variable of subjective well-being between rural and urban women.

Method

Sample

The sample consisted of 200 women (100 rural and 100 urban). The sample was randomly selected from Haryana, Disst. (Hisar and Bhiwani).

Measures

Perceived Social Support Assessment was developed by Zimet et al. (1988). It has twelve items and seven alternatives. This test has been conducted for women above twenty five year. Internal reliability estimates (Cronbach's alpha) were calculated for the three subscales and the total scale. Both the Family and Friends subscales established high internal consistency (.88 and .90, respectively), While the Significant Other subscale demonstrated hardly adequate reliability (.61). The Total perceived Social Support demonstrated high internal consistency with an alpha of .86. The Scale was developed upon a Construct and Factorial Validity format.

Subjective well being Inventory: Subjective well being Inventory was developed by Nagpal and Sell (1985). It has forty items and three alternatives. This inventory is founded both on a theoretically clear and systematically validated mapping course regarding the various components of well-being and their eventual inter-relation. Subjective well being Inventory conceptualizes mental health as a factor comprising independent, positive and negative aspects of well-being as experienced by an individual. Subjective well being Inventory consists of 40 items, 20 of these elicit positive affect i.e., whether one feels happy or good or satisfied about particular life concerns. Validity of the tool was determined on the basis of nine experts' opinion for clarity, appropriateness, adequacy and relevance of the items. A test study was conducted in order to decide the tools. Reliability of the tool was established by Cronbach Alpha Coefficient method and it was 0.71.

Statistical Analysis

Pearson's Product Moment Method of Correlation

t- test

Procedure

The sample was taken purposefully from Haryana Disst. (Hisar and Bhiwani). First of all participants were approached. Participants were ensured for confidentiality and good rapport was established. Above two scales (Perceived Social Support Assessment and Subjective well being Inventory) were administered on 200 participants (100 rural women and 100 urban women). For each scale subjects were asked to read the instructions carefully and also instructed to fill the performa. After completion of the test, Performa was taken back from the subjects. Forty minutes were taken in administration of the test. Then, the scoring was done.

Results and Discussion

Table no.1 shows the inter-correlation between perceived social support and Subjective wellbeing between rural and urban women.

Variables	FS	FR	SO	PSSA	GWBPA	EAC	CC	TR	FGS	SS	PGC	IMM	PIH	DSC	GWBNA	SWB
FS	1	.14*	.66**	.67**	.41**	.39**	.15*	.27**	.39**	.20**	.17*	.27**	.21**	.10	.24**	.48**
FR		1	.17*	.80**	.17*	.11	.13	.02	.22**	.28**	.02	.13	.06	.17*	.04	.17*
SO			1	.65**	.31**	.26**	.14*	.41**	.14	.08	.26**	.29**	.29**	.17*	.22**	.46**
PSSA				1	.36**	.29**	.19**	.23**	.33**	.29**	.15*	.27**	.20**	-.03	.18*	.43**
GWBPA					1	.67**	.17*	.20**	.35**	.24**	.14*	.23**	.15*	.11	.34**	.56**
EAC						1	.13	.12	.30**	.18**	.09	.32**	.17*	.04	.40**	.58**
CC							1	.29**	.07	-.00	.11	.15*	.24**	-.02	.05	.40**
TR								1	.02	-.07	.17*	.25**	.39**	.18*	.19**	.46**
FGS									1	.36**	.06	.11	-.03	-.09	.15*	.34**
SS										1	.16*	.16*	-.07	.02	.10	.30**
PGC											1	.30**	.26**	.10	.39**	.48**
IMM												1	.41**	-.01	.52**	.75**
PIH													1	.14*	.25**	.58**
DSC														1	-.02	.14
GWBNA															1	.64**
SWB																1

**Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Table no. 1 shows that there is a significant positive correlation of the dimension of family support (FS) with General well-being positive affect (GWBPA) ($r=0.40, p<0.01$), Expectation-achievement congruence (EAC) ($r=0.39, P<0.01$), Transcendence (TR) ($r=0.27, P<0.01$), Family group support (FGS) ($r =0.39, p<0.01$), Social Support (SS) ($r=0.20, p<0.01$), Inadequate mental mastery (IMM) ($r=0.27, P<0.01$) Perceived ill-health (PIH), ($r=0.21, P<0.01$) and General well-being -negative affect (GWBNA), ($r=0.24, P<0.01$) dimensions of subjective well being in rural and urban women. The family support and General well-being positive affect, Expectation-achievement congruence, Family group support are moderately correlated yet it is significant. Although Transcendence, Social Support, Inadequate mental mastery, Perceived ill-health and General Well-being -negative affect has low correlation with family support. The relationship found between family support and Inadequate mental mastery and Perceived ill-health due to some reason when person receive more family support then they spare and fully depended on family. The positive correlation between family and Perceived ill-health indicates that more the support the women have more they are likely to perceive their health in low terms which may be due to the reason that the availability of more family support tend to make them pay more attention to their state of unease or poor health comparatively and they tend to perceive themselves having poor health which is otherwise less noticeable. These results are supported by several studies by Carstairs and Kapur (1976) also initiate that an increase in psychological distress as a result of changes in the family association. Friedman (1991)

reported that women, who have more family support from husband, have low stress and psychologically pleased, are more positively appropriate in psychological well being than others. Edwards & Lopez (2006) studied that perception of supportive family relationships have been related with increase in indicators of wellness such as life satisfaction and subjective well-being. The results of this study contradict with the earlier study conduct by Taqui et al. (2007) indicated that the mature living in a nuclear family system was more prone to psychological disorders and poor health status than those living in a joint family. The present findings support the finding of New York Reuters Health (2005) that studied stress the importance of social support in the mental health of women, reported that “feeling loved and supported by family and friends appear to safeguard women, from major stress and anxiety,” This finding indicates that the social network of family members constitutes an important aspect of social support for women. This could be because of this information that culture and our religious beliefs acting an important role between family members and family is the most important source of social support in Iran. Jung (2007) shows that those with a religion showed lower depression than those without a religion and that those engaged in religious behavior tended to be more physically vigorous, have better relations with friends and family and more social interaction, which can all lead to decreased depression. Bishop (2006) stated that mature women had poor subjective well-being because of careless care giver role and family group support. Most of them (68.9%) had medium whereas, 26.7 per cent high well-being in the dimension of Family Group Support. Manuel et al. (2013) reverse our result reveal that perceived social supports, particularly family social support are strong protecting factors for depression and anxiety. Although, the relationship between anxiety and social support has received less awareness than depression in the writing, conversely, the results about both of them are consistent with findings of several studies among different communities. The results also revealed that the higher the family support, the more will be the General well-being positive affect, Expectation-achievement congruence, Family Group Support. There is a positive but very low correlations between the dimension of family support (FA) and Confidence Coping (CC) ($r=0.15, p<0.05$), Primary Group Concern (PGC) ($r=0.17, p<0.05$ dimensions of subjective well being in rural and urban women. The results show that perceived social support of rural and urban women in different dimensions is positively related to subjective well being.

Another measures of perceived social support (PSSA), friend support (FR) had significant positive relationships with General well-being positive affect (GWBPA) ($r=0.17, p<0.05$) family group support (FGS), ($r=0.22, p<0.01$), social support (SS) ($r=0.28, p<0.01$) and Deficiency in Social Contacts (DSC), ($r=-0.17, p<0.05$) among rural and urban women. The results explain that a person high on friend support also shows better performance on family group support and social support. These results indicate that high friend support among rural and urban women is related to better family group support and social support. The correlation on social support higher than the family group support so the friend support more related to social support than family group support. The General well-being positive affect are very low correlated and Deficiency in Social Contacts very low but negatively correlated with friend support. The present study supported by Wenger (1992) shows that the role of social activities, having friends and confidantes, and better health status in promoting life satisfaction and well-being. Adams et al. (2000) shows that If social support is perceived as helpful, the individual's health and wellbeing improves, whereas lack of social support increases the risk of disease. Kearns et al., (1997) concludes current study that those women

who reported less social support from their partners established a higher possibility of distressed emotional behavior. The same study also found that lack of support from friends after delivery was predictive of higher levels of emotional distress. Waite and Harrison (1992:648) found that poor health limits social contact with friends but has no effect on contacts with family. Adams (1989) reveals that healthier individuals have larger social networks. Holahan and Moos (1981) supported the results that support the buffering effects of social support on health and well-being in the face of life events.

Significant other support, a dimension of perceived social support exhibited a significant positive relationship with nine dimensions of subjective well being i.e. , General Well-Being positive affect (GWBPA), ($r=0.31, p < 0.01$), Expectation-Achievement Congruence (EAC) ($r=0.26, p < 0.01$), Confidence in coping (CC) ($r=0.14, p < 0.05$), Transcendence (TR) ($r=0.41, p < 0.01$), Primary Group Concern (PGC) ($r=0.26, p < 0.01$), Inadequate Mental Mastery (IMM) ($r=0.29, p < 0.01$), Perceived ill-health (PIH) ($r=0.29, p < 0.01$), Deficiency in Social Contacts (DSC) ($r=0.17, p < 0.05$) and General Well-Being negative affect (GWBNA) ($r=0.22, p < 0.01$) among rural and urban women. These results show that significant other support may be facilitated due to better and healthy subjective well being. Overall perceived social support had a significant positive correlation with mostly dimensions of subjective well being. The higher significant other support, the better will be the relations with others. This study unsupported by Delongie (1985) shows that the relationship of everyday stress to mental health and well being. He observed that each day stress was linked with depression, somatic symptoms and health problems. Results indicated that those who received low emotional support from family, friend, and co-workers were about twice likely to develop mental health problems as compared to those who received high emotional support. Cohen et al., (2000) shows that the second theory, the "stress buffering model," suggests that social support acts as a buffer to allow people to cope better with stressful life events, thereby improving or maintaining well-being. McVeigh, (2000) explained that the most frequently reported sources of primary support were "spouse" and "significant other." This is consistent with the other journalism involving social support in an obstetric framework. Social support was found to be less for those who identified the source of primary support as "significant other" and even less so for those who indicated "parent." *This study contradicts our results McCorkle et al. (2008)* Social support is associated with many psychological benefits, such as enhanced self-confidence, sense of empowerment, efficiency, and quality of life. Likewise, lack of social support appears to be related to mental manifestations and weaker health perceptions. House and Kalin, 1995 shows that the number of social links, close or not close, is related to higher levels of well-being. Within relationships, different types of support from different sources may benefit health-such as practical, affecting and informational support. Fiskensbaum et al. (2006) results from this study also emphasize the patterns of contact that might be between perceived social support types and coping styles. The result showed the positive significant relationships between all types of perceived social support and active coping styles but, negative relationship between perceived friend social support and avoidant coping style. According to our outcome, some studies exposed that social support can increase positive coping. It seems that social support is related to the use of coping strategies. Blazer (1982) depicted the results this study, completed that low levels of perceived social support were found to behaving risk factors for developing cardiac events. Contradiction current study by Tang et al. (2002) health-promoting behaviors, Lui et al. (2009) mental health and as healthy as epidemiological studies showed that individuals

with low levels of social support have higher humanity rates; especially from cardiovascular disease, cancer, cachexia, and infection-related mortalities (Untas et al. 2011). These studies have indicated the importance of perceived social support. Adams et al. (2000) supported the findings of the result that there was a statistically significant association between social support and health support lifestyles of rural women. Furthermore, there was a statistically significant relationship between social support and religious growth, social support and interpersonal relations. Hence the study determined that a social support is a good interpreter of health-promoting lifestyles for rural women. WHO, (2004) revealed that well-being was theoretically supported by the positive mental health which allows individual to understand their abilities, cope and supply to their communities and capacity to maintain social relationships (WHO, 2001). Results support the findings of coverage by Alarie (1996) that these forms of social support are intended to have a positive impact on women's health but they can also have harmful penalty. While Alarie (1996) indicated that marital relations as a supporting system that helps women develop coping strategies to deal with stress. Umberson, (1987) explained that there is convincing evidence to show that individual well-being is enhanced by involvement in social relationships and that lack of public ties may contribute to poor psychological well-being and even loss (Turner et al. 1981). Amato & Zuo, (1992) showed that social communication and support are often missing due to ecological isolation for those living in rural deficiency. Economic and social dislocations are major contributors to psychological distress (Hoyt et al., 1997). Lachman (2004) found that psychological well-being in women and low social support and stressful relationships are reported to direct to stress and illness. Overall perceived social support had a significant positive correlation with more dimensions of subjective well being in rural and urban women.

Table no.2 shows the significance of difference between means on variable of perceived social support between rural and urban women.

Variables	Group	N	Mean	S.D.	t-value
FA	Rural women	100	24.46	4.48	2.61**
	Urban women	100	22.79	4.57	
FR	Rural women	100	21.45	8.17	3.90**
	Urban women	100	16.56	9.50	
SO	Rural women	100	25.79	4.77	.02
	Urban women	100	25.78	3.35	
PSSA	Rural women	100	71.60	13.38	3.69**
	Urban women	100	64.93	12.13	

** : $p < 0.01$; * : $p < 0.05$

Table 2 shows that there is a significant difference in the means of family support (FA), ($t=2.61, p<0.01$), friend support (FR), ($t=3.90, P<0.01$) and perceived social support (PSSA),

($t=3.69$, $P<0.01$) between the rural and urban women. As is evident from the mean scores the rural women scored higher on the dimension of family support (FA), ($M=24.46$), friend support (FR), ($M=21.45$) and perceived social support (PSSA), ($M=71.60$) than the urban women ($M=22.79$, $M=16.56$ and $M= 64.93$ respectively). This means that the rural women have a higher family support and friend support. However, no significant differences were found between the rural and urban women with significant other support. Overall highly significant differences found between the rural and urban women with perceived social support. The mean score of rural women is higher than the urban women, this clearly indicates that women living in rural areas received or perceived more social support than women living in urban areas. The mean value of both rural and urban women is 71.60 and 64.93 respectively. It shows that both rural and urban women perceived or got high support. The difference in perceived social support among rural and urban women might be to the availability of social networks. In rural areas the availability and the effective social network are more when compared with urban areas. Social networks might be friend, community contacts such as religions institutions etc. are in rural areas. The present study supported our results that rural families are more likely to live near complete family, which grants right to use to social support from family (Taylor, 2000). Even though rural areas are less likely to have easily accessible support services and resources, persons with a greater perception of social support are more willing to tap into the few present resources (Hoyt et al., 1997). Johnson, (1998) or else, rural residents were more likely to be negatively affected by touching stressors, such as loneliness from loss or isolation from friends and loved ones. Weinert & Long, (1987) in their study report that people living in rural areas report high levels of perceived social support. Such social communication is considered beneficial because it often serves as an obstacle from the stress. On the other hand, some researchers revealed that rural living is valuable to psychological health because rural people rarely mention mental health issues, ignore moderate distress, or deny psychological problems (Weinert & Long, 1987).

Table no. 3 shows the significance of difference between means on variable of subjective Wellbeing between rural and urban women.

Variables	Group	N	Mean	S.D.	t-value
GWBPA	Rural women	100	7.01	1.57	2.67**
	Urban women	100	6.46	1.33	
EAC	Rural women	100	6.93	1.55	2.30*
	Urban women	100	6.43	1.53	
CC	Rural women	100	7.78	1.56	2.25*
	Urban women	100	7.27	1.64	
TR	Rural women	100	8.41	.99	-2.50*
	Urban women	100	8.71	.69	

FGS	Rural women	100	7.25	1.20	5.41**
	Urban women	100	6.41	.99	
SS	Rural women	100	6.73	1.38	.23
	Urban women	100	6.69	1.08	
PGC	Rural women	100	8.05	1.13	-1.61
	Urban women	100	8.29	.98	
IMM	Rural women	100	16.61	3.19	-1.04
	Urban women	100	17.07	3.07	
PIH	Rural women	100	15.40	2.64	-.17
	Urban women	100	15.46	2.28	
DSC	Rural women	100	7.96	1.25	-2.15*
	Urban women	100	8.51	2.24	
GWBNA	Rural women	100	6.95	1.62	-2.32*
	Urban women	100	7.46	1.49	
SWB	Rural women	100	98.87	9.90	.24
	Urban women	100	98.56	8.64	

** : p< 0.01; * : p<0.05

From table no. 3 it was depicted that there is a significant difference in the means of General well-being positive affect (GWBPA), (t=2.67,p<0.01), Expectation-achievement congruence (EAC), (t=2.30,p<0.05), Confidence in coping (CC), (t=2.25,p<0.05), Transcendence (TR), (t=-2.50,p<0.05) Family group support (FGS), (t=5.41,p<0.01), Deficiency in social contacts (DSC), (t=-2.15,p<0.05) and General well-being negative affect (GWBNA), (t=-2.32,p<0.05) between rural and urban women. The mean scores of the rural women higher on the dimension of General well-being positive affect (GWBPA), (M=7.01), Expectation-achievement congruence (EAC), (M=6.93), Confidence in coping (CC), (M=7.78) and Family group support (FGS), (M=7.25) than the urban women (M=6.46, M=6.43, M=7.27 and M=6.41 respectively). This means that the rural women have a higher general well being, higher expectation, higher coping ability and higher family support than the urban women. The mean scores of the urban women higher on the dimension of Transcendence (TR), (M=8.71) Deficiency in social contacts (DSC), (M=8.51) and General well-being negative affect (GWBNA), (M=7.46) than the rural women (M=8.41, M=7.96

and $M= 6.95$ respectively). This means that the urban women have a higher transcendence or religions, deficiency in social relations and higher negative affect in general well being. Overall, there is no significant difference found between rural and urban women with subjective well being but there is a significant difference found between the dimensions of subjective well being. In this way we can conclude that the difference in subjective well being among rural and urban women might be due to lack of values and changing pattern of family structure. The result supported By David, (1991) who reported that people in rural areas have better subjective well-being than those in urban areas ($r = -.08$). In the primary stair, the consistent partial regression coefficient showed urbanism to be negatively correlated ($Beta = -.08$) with subjective well-being. Freudenberg et al., (2005) report that life expectancy was as much as fifty percent higher in the scenery than in larger towns and there was a clear mortality ascent from city centers through the less populated outskirts to surrounding rural areas. Nikkhah H.A., Nia M.Z., Sadeghi S. & Fani M. (2014) studies express that there is a significant difference in belief and ritual dimensions of religiosity between rural residents and urban residents. The levels of belief and ritual dimensions of religiosity are higher in rural residents in comparison with urban residents. In addition, among sub-dimensions of ritual religiosity, only intellectual religiosity has no significant difference between rural and urban residents. Moreover, the level of religiosity of total urban residents and rural residents has a significant difference and the level of religiosity in rural residents is higher than urban residents. The findings of table 7 show that the level of respondent's religiosity living in rural areas ($M=4.27$) is higher than respondents of urban areas ($M=4.13$) and this difference is significant. Therefore, the level of religiosity of rural residents is higher than that of urban. Daver (1999) indicated that higher rate is reliable for both urban and rural areas as well as across regions, religions and socio-economic classes. Marin-Reyes and Rodriguez-Moran, (2001) reported that observance with hypertensive treatment was directly linked to the support of family members. The conclusion of the present study may be a likeness of the fact that most people in this urban community (and in cities in general) talk and act together more with their friends than with their family members who do not live nearby. Ferdinand Tennies' (1887) Tennes' term *Gesellschaft*, found that which accurately means association, refers to the modern, industrial, urban society. Tennes report that people in urban areas are basically driven by economic self-interests. They have a tendency to work with their own goals in mind and are, thus, less likely to recognize and care about other people. So for, urban areas are characterized by a more impersonal, isolated atmosphere. As contrasting to the surplus sensory stimulation that is considered to be characteristic of urban life, rural life is seen as more socially isolated (Webb and Collette, 1977). Smith and Coward (1981) revealed that "geographic and social isolation are feature of much of rural America." David, 1991 Social class is strongly and positively related to subjective well-being. People in urban areas have higher socio-economic status, on average, than do rural residents. National Center for Health Statistics (2013) stated that the national data on women's health and outcomes according to residence are limited, and disparities in rural women are clear. General health conditions and behavior that U.S. rural women experience at higher rates than their urban counterparts include, self-reported fair or poor health status, unintended injury and motor vehicle-related deaths, cerebrovascular disease deaths, suicide, cigarette smoking, obesity, difficulty with basic actions or limitation of complex activities, Benard et al. (2007) reveal that incidence of cervical cancer. Rural Doctors Association of Australia, (2008) revealed that people are considerably more likely

to die of heart disease if they live in rural areas, with rural patients having overall poorer health as well as being lacking in relation to access to new investigation technologies and treatment techniques. Kearns, (1988) concluded that in modern Europe, urban areas were always associated with poorer health and higher humanity rates than rural areas. This is known as the “urban punishment,” was mainly attributable to transmissible disease resulting from overcrowding, poor urban hygiene, and lack of access to clean water and waste disposal. Millions living in cities died in epidemics of influenza, typhus and tuberculosis.

Conclusion

To summarize, it can be said that perceived social support had significant impact on subjective well being among rural and urban women. On perceived social support there was significant difference found between rural and urban women. On overall subjective well being, there was insignificant difference found between rural and urban women. But on dimension of subjective well being there was significant difference found between rural and urban women. The women, who live in rural areas, get more attention and care and more social support. This influences the well being of women. The rural women do not face on psychological problems such as isolation or stress. Whereas the women in urban areas suffer from isolation and depression due to lack of relations with others and the negligence of family members. The changing family pattern in urban areas has also placed more stress among women in urban areas resulting in lower level of subjective well being. This result indicates that rural women have higher social support which has influenced the subjective well-being i.e., higher level of social support influences higher level of well being. Hence, it can be said that social support acts as an essential factor to determine subjective well being. The presence of social support has positive effects on subjective well being of women.

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Serving Marketing Integrating Customer Focus Across Enterprise

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Abstract

Services marketing strategy for the most part center upon to convey different procedure, encounters, and intangibles as opposed to physical merchandise and discontinuous exchanges to clients. Conveying encounters effectively, to build client connections are convoluted endeavors including a wide range of methodologies and strategies. Effective administrations advertising methodology likewise includes incorporating an attention on the client all by the organizations and over all capacities. All organization capacities advertising, purchasing, HR, activities, and Research and Development ought to cooperate to make powerful administrations showcasing technique. Despite the fact that organizations have frequently thought that it was hard to tackle administration issues in a composed way, a well-established model called the holes model shows a overall structure to concentrate on the client and depicts the methodologies important to close the hole between client desires and discernment.

1. Introduction

Services marketing are a specialized branch of marketing. Services marketing emerged as a separate field of study in the early. Services marketing typically refers to both business to consumer and business-to-business services, and includes marketing of services such as telecommunications services, financial services, all types of hospitality, tourism leisure and entertainment services, car rental services, health care services and professional services and trade services. Service marketers often use an expanded marketing mix which consists of the seven Ps: product, price, place, promotion, people, physical evidence and process. According to service-dominant logic, argues that the demarcation between products and services that persisted throughout the 20th century was artificial and has obscured that everyone sells service. The S-D logic approach is changing the way that marketers understand value-creation and is changing concepts of the consumer's role in service delivery processes.[3,5]

2. Literature Review

Services marketing is based on cautiously understand the more profound requirements of your clients, and afterward giving administrations that will make them increasingly fruitful. The most reliably refereed to presumption in administration advertising writing is that the serious issues looked by administrations advertisers emerge from the essential qualities like immaterialness, indistinguishability, heterogeneity and perishability (for example Grönroos, from 1978 to 2000; Lovelock and Parasuraman et al., between a period of 1981-1983; Zeithaml, in 1996; the audit is exhibited here under similar measurements. In 1975, Rathmell during introducing a theoretical system for the showcasing difficulties presented by the fundamental qualities of administrations contends that elusiveness of administrations makes the issue in presentation and correspondence of administrations.

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During 1975 to 1981, Langeard shows that impalpability of administrations result into the issue in reviewing and ensuring administrations through licenses. Sesser (1977) propose that in view of immaterialness administrations can't be put away and hence changes sought after are regularly hard to oversee. Administrations could not be protected lawfully and accordingly latest administration ideas could undoubtedly be replicated by contenders restricting the likelihood of the organization to keep up its upper hand for long[4,3]

As per Bitner (1997) clients have a most troublesome time duration in assessing and picking administrations than merchandise mostly on the grounds that administrations are impalpable and non-institutionalized and halfway in light of the fact that utilization is so intently intertwined with generation. These qualities lead to contrasts in buyer assessment process for products and ventures in all phases of purchasing process. Additionally on the grounds that experience and confidence characteristics rule in administrations, purchasers utilize diverse assessment forms than those they use with products. Further administrations can't be promptly shown or effectively conveyed to clients, so the quality distinction might be hard for shoppers to survey. Henceforth the choices about what to incorporate into publicizing and other special materials are testing. Axelson (2003) guarantee that on account of the qualities of administrations certain parts of procurement procedure become more troublesome than the buy procedure for products. Administrations are unpredictable, requiring the client to pursue a confused and broad arrangement of activities to finish the procedure.[5,3]

3. Objectives of research

The below specifications of various goals have are set to be studied

1. Testing of the various features of services and the issues arising from all these features in finance related sector.
2. Identification of the most critical challenging situations faced by the marketing staff and customers while doing market of the services.
3. Studying about the scene varieties of perceived regarding the difficulties of services marketing in both public and private sector.

4. Methodology

4.1 The Sample

Twenty five monetary administration firms were chosen in Tamilnadu including 25 banks and 10 insurance agencies with an equivalent number of open and private division organizations in both the areas. These associations of money related administrations industry have been purposively chosen to incorporate both open and private part in the example and furthermore to have a legitimate portrayal of firms working at territorial, national and worldwide level. Further in Insurance part both life and non life fragments have been incorporated. The survey was dispersed in chosen urban areas of Delhi, Bangalore, Bombay, Chandigarh, Amritsar, Jammu and Srinagar. The determination of urban communities was made based on comfort and the volume of business led. One hundred surveys were circulated in every one of the twenty picked organizations making the complete number of dispersed polls to 2500 in Tamilnadu. In every one of the 950 polls were gotten making the reaction rate equivalent to half. Out of which of 950 gathered polls 50 were discovered unfit for utilize along these lines lessening the absolute number of usable surveys to 875. To examine the example associations absolutely, appropriate consideration has been taken in choosing the example with the goal that it covers all the statistic highlights of the sample.[7,9]

4.2 Research Instrument

So as to accomplish destinations and test the theory, essential information has been gathered by an organized survey controlled to the chiefs of money related administrations area. The survey has been created based on audit of writing and the discourse with the specialists in the zone of showcasing of administrations. The poll is conceived based on the plan utilized by Berry in 1985 to 1988 for the investigation of issues and procedures in administrations showcasing. The poll counts three areas. The main area records 25 things catching the substance of what the writing proposes are troubles one of a kind to administrations. The initial two things of this segment try to comprehend the degree of affectability of money related administrations advertisers towards the unique counter of administrations and the procedures required for the promoting of administrations. The remainder of the segment records the announcements of the issues looked by administrations advertisers in the light of four one of a kind attributes of administrations and involve the accompanying. In both the segments the respondents were approached to provide demonstration about on a five point scale, the degree to which they concur or can't help contradicting every announcement. The 5-point Likert-scale procedure collects various sentiment articulations applicable to the problem. The scale accept that every one of the things estimates the equivalent fundamental frames of mind. The subsequent area incorporates things characterizing respondents on the variables like age, capability, level in the executives, sexual orientation and involvement in administration segment. Before concluding the poll a pilot overview of administrators of budgetary administrations was made to look for their important perspectives and recommendations, as discover the troubles that could go over while directing the survey. The poll were modified after before-testing phase and filled in as a base for the conclusion of real survey for the present experiment.[4,6]

4.3 Pattern of Analysis:

The information gathered by essential and optional source factor have been broke down factually by implementing different measurable apparatuses, for example, Mean value, Average value, Comparative Mean Average, S.D and ANNOVA value. With the assistance of rates, mean value and S.D the general effect of various components has been examined. To notice a huge contrast among the impression of respondents crosswise over various measurements different factual strategies, for example, Z test and investigation of Variance (ANOVA) are to be used[7,4]

5. Findings

The table delineating the general effect of administrations promoting issues for chiefs, demonstrate that the four distinctive qualities of administrations are as yet seen to be profoundly testing by administrations advertisers as portrayed by a mean score of more than 2.75 and in a couple of cases more than 4.00(except for the issue of administration stockpiling which has a mean of under 3.00. Furthermore it is noticed that among all the recorded matters, the exhibition of administration worker being influenced by his state of mind, trouble in conveying the administration offering to the client and clients affecting each other's experience are viewed as the three greatest difficulties by the advertisers of money related administrations. Worker's state of mind influencing his presentation positions Ist with a mean score (M) of 4.25, recommending that the majority of the chiefs feel that a troubled administration representative can make an unsavory administration experience. Administrations being hard to convey supposedly is the second noticeable test by chiefs in the showcasing of their administrations scoring a M of 4.00. It proposes that administrators

discover it very hard to clarify the benefits of their contributions to the clients. Clients affecting each other's experiencing positions third with a M of 4.00 suggesting that the nearness of clients in case of the administration generation procedure is viewed as a major test by administrators. Things identified with perishability are viewed as minimum testing by administrations advertisers. When an administration is sold it can't be return back as a blemished physical item could be supplanted by another one. This is viewed as a lesser test and has acquired position 13.00 with M of 3.50. The following position is gotten by DSSD with value of $M = 3.50$. It mirrors that free market activity is hard to coordinate in administrations due to the flighty idea of men and machines. The last position for example the following position is acquired by SS with value of $M = 3.00$ proposing that administrations can't be put away or furthermore use.

Table 1: Relative Impact of Different Problems on Services Marketers

Problem	Mean	Standard deviation	Quartile(Q)	Quartile(Q1)	Coefficient of variation	Rank
Difficulty in displaying by service	3.12	1.02	3.25	4.00	21.35	5
Difficulty in communication by service	3.45	1.34	3.75	4.50	25.30	7
Customer presence affect the outcome	3.78	0.56	2.50	4.75	30.50	6
Customer affected by experiences	3.01	1.21	2.75	4.75	50.25	1
Effect on efficiency of product by customers	3.96	0.77	3.00	5.50	70.00	2
No return of service	4.03	1.89	3.25	5.75	80.25	4

5.1 Sectorwise Analysis

Regarding the issue of the restricted comprehension of clients ($Z=5.00$ and $p<.0002$), troublesome in valuing ($Z=3.00$ and $p=0.004$), trouble in quality control ($Z=2.25$ and $p=0.025$), and trouble in administration institutionalization ($Z=2.25$ and $p=0.05$) a noteworthy contrast is accounted among the troughs of open or a private segment. Supervisors in open area rate every one of these things higher mirroring that administrators in open division see these issues as more serious than the chiefs of private segment organizations. If there should be an occurrence of the issue of administration stockpiling ($Z=8.50$ and $p<0.0002$), nearness of clients influencing the result of the administration conveyance process ($Z=3.50$ and $p=0.0001$), clients affecting one another involvement of the administration got ($Z=2.50$ and $p=0.020$) and nearness affecting the proficiency of the administration procedure ($Z=3.75$ and $p=0.0025$) administrators in private part see the issues to be more serious than those of open division

Table 2: Relative Intensity of Problems faced by Managers across Sectors

Problem	N(both public and private)	Mean	S.D	Q	Q1	Z	Significance
Difficulty in display	400	3.50	1.15	3.25	4.25	4.00	0.002
Difficulty in communication	400	3.75	1.30	3.50	4.75	3.50	0.03
Limited understanding	400	4.25	1.60	4.00	5.25	4.25	0.05
Difficulty in price setting	400	4.75	1.90	4.50	5.50	5.00	0.001

6. Results

1. Suggesting customers and Implement the policies to Deal with Market difficulties in Finance related Sector, are implemented
2. Intensity in a relative manner for overall critical situations faced by Services Marketing staff crossing Sectors, is found

7. Conclusion

Services marketing strategy centers around conveying procedures, encounters, and intangibles for clients as opposed to physical merchandise and differentiate exchanges. Conveying encounters effectively and Making client connections are entangled endeavors including a wide range of techniques and strategies. Despite the fact that organizations have frequently thought that it was hard to tackle administration issues in a sorted out way, a full-established model known as the holes model spotlights on the client and portrays the methodologies important to disclose the hole among client desires and recognitions

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Angel Investment And Its Different Dimensions–A Study With Respect To Indian Scenario

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Abstract

Capital is a critical component of new venture creation. To start a new business how an innovative idea, structured business plan and dynamic team is required so is the requirement of capital. Capital acts as the blood of any organization. Capital can be created in many ways like personal savings, lines of equity, friends & families, Government grants, sale of property, sale of plot, business loans from banks, corporate strategic investors, IPOs, sale of jewels, sale of car, by using credit cards or taking loan from financial institution. Often an important source of capital creation is through family or friends but in many cases small entrepreneurs take the help of Angel Investors.

It is always observed that all small ventures will face many hurdles in the development process of the organization. Hurdles here not only referred on the basis of capital generation but also with regard to innovative thinking, structured business plan and a potential & dynamic team to accomplish the organizations objectives. Thus, it is always encouraged to engage with experts who can mold new entrepreneur's thinking and give an appropriate design for the organization and entrepreneur's business plans. Angel investors usually have experience in the industry which ensures the organization's potential and development. They not only contribute capital but with their industry experience will try to mentor and guide the fresh ventures being patient in the initial stage to set the organization in the development process and they will tolerate any risks in the development process.

Angel investing is the form of alternative investment, therefore it very essential to understand hence the present study is undertaken.

Key words Angel Investment, Start-ups, and Entrepreneur

Angel Investment – An Overview

An angel investor or angel is an affluent individual who provides capital for a start-up business, usually in exchange for convertible debt or ownership equity. A small but increasing number of angel investors organize themselves into angel groups or angel networks to share research and pool their investment capital, as well as to provide advice to their portfolio companies. Angel investments bear extremely high risk and are usually subject to dilution from future investment rounds. As such, they require a very high return on investment. Because a large percentage of angel investments are lost completely when early stage companies fail, professional angel investors seek investments that have the potential to return at least 10 or more times their original investment within five years, through a defined exit strategy, such as plans for an initial public offering or an acquisition.

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Usually, an angel investor is looking for a personal opportunity as well as an investment. Often angel investors have business experience as well as money, and will want to play some sort of active role in managing the company. Because he or she is interested in adding value to the company, it's important for any business person thinking of accepting investment from an angel investor to be very clear about what the angel investor is bringing to the deal besides money, and to develop an understanding of what the angel investor would be like to work with.

Objective of the Study

- To analyze the different dimensions of angel investments in India
- To study the investment made by angel investors with respect to reference period.

Review of Literature

Business angels **Wetzel (2011)**'s them as investors that plug the capital gap by financing entrepreneurial firms that other investors are reluctant to fund. Business angels are a source of risk capital and were the first to profile the demographic characteristics, preference patterns and expectations of business angels. **Tom McKaskill (2013)** insights into the 'art of the exit' provide a great roadmap for all Angel and Venture Capital investors. In a misguided investment world that relies too heavily on IPOs, mega-exits and too much quantitative analysis, McKaskill has taken an enlightened and straightforward approach to a topic that should be foremost on Start-up investors' minds. **Asrsimran Julka & Peerzada Abrar (2013)** A number of new angel investors are leading investments in young ventures as well as collaborating with risk capital funds that have turned cautious in a slowing economy."While some venture capitalists may have headed into the hills, we are extremely bullish on the India opportunity. **R S Gujra (2013)** The Finance Ministry has said it could bring in more safeguards in the income-tax law to ensure that genuine angel investors are not impacted by a budget proposal to tax exorbitant profits by venture capital funds, but effectively ruled out a rollback.

Methodology

This paper is based on secondary data and analyzed in the perspective of the different dimensions of Angel Investment in India. Content analysis method has been followed to know the different dimensions .This study conducted is basically exploratory in nature. Quantitative data collection was taken from different books, Journals and Articles

Reference Period 2014 to 2018

Data Presentation and Analysis

Table showing the Investment Made by Angels from 2014 to 2018

Year	Investment Amount (In Millions)Rs.
2014	2239
2015	6158
2016	4101
2017	4819
2018	2971

Source: Innoven Capital – Early stage insights report 2018

From the above table it is observed that the total no. of investments done by Angel Investors is in the year 2015-6158mm, Angel Investors invested more in 2015 than any other years from 2014-18.

Table showing the Priority City for Investment Made by Angels from 2016 to 2018

Cities	2016	2017	2018
Bangalore	36%	46%	28%
Mumbai	15%	6%	23%
NCR	28%	33%	25%
Hyderabad	3%	4%	7%
Chennai	3%	4%	7%
Others	15%	7%	10%

Source: Innoven Capital – Early stage insights report 2018

From the above table it is observed that Bengaluru is one of the top prioritized city than compared to other cities in India with 36% investments in 2016,46% in 2017 and 28% in 2018. But in 2018 the share of Mumbai is 4X up, where as the share of Bengaluru and NCR decline.

Table showing the Deals Made by Angels in 2018 and Their Future Plans

Area	2018 Deals	Future Plans
Consumer	24%	25%
Logistics	7%	10%
Enterprise Tech and AI	26%	25%
Education	7%	13%
Healthcare	19%	18%
Content	17%	10%

From the above table it is interpreted that the tops deals with respect to Angel Investment is of consumer Services and Enterprise Tech and AI than compared to other sectors and continues to be positive in 2019, Also there is a significant impact on the education as well as content Sectors as they are expected to raise by 6% and 7% respectively.

Table showing the Exits Made by Angels from funding

Years	Percent
2-4 years	21%
4-6 years	50%
>6 years	29%

Source: Innoven Capital – Early stage insights report 2018

From the above table and chart it is interpreted that 21% of the investors exits in 2-4 yrs, 50% in 4-6 years and 29% exits after 6 years and the observation here notices that Most angels exits their investments in 4-6 years.

Table showing the Investments made by Angels in different Sectors

Area	Rs. In Millions
Marketing & advertising	215.6
Enterprise Tech	167.3
Consumer Internet and Mob	137.2
Logistics	122.5
Other	93.2
Healthcare and Life sciences	78.1
E-commerce	77

Food	46.8
Consumer Services	24.7
Education	19
Financial Services	18
Social Network	11.6

From the above table it is interpreted that the total Investments made by Angel groups were related to Marketing and advertising sectors rather compared to other sectors

Table showing the Investments made by Angels in different Business Models

Model	Percent
B2B	60%
B2C	40%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted the investment made by Angels in more in B2B Sector which Comprises of 60% than B2C sectors which falls only at 40%.

Table showing the breakup of companies by Median Age since Funding

Years	Percentage
1 year or less	7%
1-2 Years	29%
2-3 Years	18%
3-4 Years	18%
5 Years or Greater	28%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted the breakup age of angel funding companies is 1-2 years where as the median age of all companies together is 3.8 years

Table showing the breakup of companies by Revenue stage

Stage	percent
Pre-Revenue	12%
Post-Revenue	88%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted 12% of the companies get funded from angels at Pre-Revenue stage, whereas most of the funding for companies get in Post-Revenue Stage

Table showing the breakup of companies by Number of Co-Founders

Co-Founders	Percent
1	38%
2	42%
3	12%
4	5%
5	3%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted that the companies founded by angels will have 1 to 2 Co-founders with 42%, where as an Angel start-up normally have 3 to 5 Co-founders

Table showing the Distribution of Founders by start-up Experience

Founders	Percent
Serial Entrepreneur	23%
First Time Entrepreneur	77%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted 77% of the investors were First Time Entrepreneurs and 23% were Serial Entrepreneurs

Table showing the Share of Companies with female Founders

Female Founders	Percent
At least 1 Founder	20%
No Female Founders	80%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted that 80% of the Companies with Angel investments were with no Female Founders

Table showing the Distribution of Founders by years of Experience

Years	Experience
0-2	26%
2-5	19%
5-10	22%
10-15	12%
15 + Years	21%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted that 26% of the Company's Founders with Angel investments having an experience of 0-2 Years

Table showing the breakup of Founders by Graduate Qualification

Qualification	Percent
Engineers	65%
Non-Engineers	35%

Source: Innoven Capital – Indian Angel report 2017

From the above table it is interpreted that 65% of the Angel investors are with Engineering Qualification.

Table showing the No. of Investments made by Angels in 2018

No Of Investments	Percent
< 5 Investments	39%
5-10 Investments	34%
10-20 Investments	18%
> 20 Investments	8%

Source: Let's Venture Report -2018

From the above table it is interpreted that 39% of the Angel investors are with Less than 5 investments in their portfolio.

Angel Investment Scenario in India



Source: Let's Venture Report-2018

The Majority of the Angel deals 214 and Amount invested Rs.693 Million Dollars is in the year 2016, Followed by 2015, 2017 and 2018

Summary of Findings, Conclusion and Suggestion

Findings

The main motive behind this research is to understand the importance of angel investors in helping the country's economic growth. The angel investors play important role in developing the start-up and help them achieve great success. This study helps the entrepreneurs to understand many financial and non-financial factors which influence the angel investors to make an investment decision. The findings from the research are:

- The Investment by angels is declining in the recent years due to strict policies with respect to Angel Financing and implementation of latest Tax on Angel Investment.
- Bangalore City is one of the top hub for Angel investments due to its infrastructural facilities ,availability of required skilled workforce, suitable government policies, Good Financing options and many more
- The tops deals with respect to Angel Investment are of consumer Services and Enterprise Tech and AI than compared to other sectors and continue to be positive in 2019. Consumer & Enterprise Tech are the dominating sectors and might be continued in 2019.
- The Majority of the angels quit from their investments between 4 to 6 years as they think the potentiality of the business is reduced, rivalry competition, Loss of money at earlier stages, successful IPO, Buyback of share, Large Acquisition and so on.
- The Majority of the total Investments made by Angel groups were related to Marketing and advertising sectors in 2018.
- Angels invest their funds more in Business to Business Sectors than Business to Consumer.
- Normally a Start-up or a company funded by angels last long for more than 5 years.
- The Majority of the investments made by angels were in Post Revenue stage than pre revenue stage
- The Normal Co-founders of an Angel Investment start-up is 5 where as Average Co-Founders is 2.
- The Majority of the Angel owners were First Time Entrepreneurs, who came to invest their funds in Start-ups, where as some Angel Start-ups was Co-Founded with some experienced senior Entrepreneurs like Mohandas Pai, Ratan Tata, Nandan Nilekani and So on.

- Only 20% of the Angel Start-ups Companies are started with Female Co-Founders, where as majority of Angel Start-ups is started with Male Entrepreneurs.
- The large number of Angel Start-ups started are funded by Fresh investors, only small number of investors are Existing Investors, who normally invests through Angel Clubs/Groups
- The Majority of the Angel Start-ups entrepreneurs were of Technical Background, who normally works for some years and starts Business with their own ideas.
- The Average investments made by an angel investor are normally in 5 or less than 5 start-ups.

Conclusion

Angel investors are high net worth individuals or a group of high net worth individual who pool in their funds to invest in start-ups which give them high returns. The angel investors not only contribute money but also contribute money's worth in other words non- financial investments such as building network connections, providing expertise in the angel investor's industry, and act as a member of advisory board. The angel investors not only expect financial returns but they tend to stay calm and patient and help the entrepreneur in building a successful business. They are ready to invest in small and medium enterprises in order to help young entrepreneurs and, normally, to make profit for themselves. Therefore angel investors not only helping the entrepreneur but is also helping the country and economy by creating more employment opportunities, helping in balance of payments, catering to the new motto of the Government of India, which is "MAKE IN INDIA".

It is essential for the governments to uplift the angel investors by providing them government benefits, by raising the awareness among the people about the angel investors and their investment patterns, by encouraging the financial sound people to turn into angel investors in order to develop the angel investor industry.

Suggestions

The angel investors play a very important role in the development of the start-ups; therefore it is essential to the entrepreneur to understand what factors influence the angel investor's investment decision in Indian Context.

- It is better for the government to create angel groups where the dilution of the risk takes place. By creating these angel investors groups it is easier for the angel investors to maintain privacy in their identity. Not all investors will disclose their identity. By approaching an angel investors group the entrepreneur will get confidence that any one of the angel investors will invest in the entrepreneur's startup.
- By understanding the various factors which influences the angel investor's, investment decision, the entrepreneur must take advantage of the same to attract angel investor. These factors range from very small to very obvious factors involving in the company. These factors help as guidelines to the entrepreneur in designing a suitable and structured business plan for the angel investor to be impressed.
- By understanding the different factors which determines the angel investor's outcome, the angel investors can more efficiently and effective develop these strategies in order to achieve high returns. The factors like due diligence time, the experience of the angel investor or the participation of the angel investors in the company/ startup determine the outcomes of the angel investors.
- The investment behavior pattern of the angel investors in some cases influence the investment decision of the angel investors. By analyzing and understand the angel

investor's profile the entrepreneur can analyze the investment behavior pattern which smoothens the entrepreneurs job in approaching the right angel investor. The appropriate angel investors contribute more than money to the startups. The value equivalent to the money such as industry knowledge, entrepreneurial experience will be rendered to the entrepreneurs.

Scope for further study

The concept of Angle Investment is gaining momentum in India. It is not totally organized. Angel Investment is contributing to the promotion of businesses, creation of employment opportunity and serving the society in the form of goods and services. Angel Investment is an established concept in developed countries. In India, the fertile area of Angel Investment need to be identified, nourished, nurtured, developed, promoted and regulated. The subject is having policy implication for Indian investors, entrepreneurs, Central and State Governments. An Angel Investment need to be organized effectively for that Government support is necessary. People should be educated, sensitized and awareness needs to be created. Angle Investment has a lot of opportunities and challenges in our country.

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Brand Behaviour Strategies to achieve customer engagement: Implications in Retail Industry

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Abstract

This paper illustrates the role of brand behaviour in achieving customer engagement in the global retail industry. The discussion is based on the literature review and industry experts. Brand behaviour can be used as an operative tool to influence the attributes of customer engagement such as rational customer participation, product quality and innovativeness, emotional engagement, ethical engagement, and customer's commitment to a brand. Customers feel empowered and satisfied with a brand if their cognition, emotionality, behaviour and the hunger for newness is being properly taken care of by the brand. This paper discusses the relevance of brand behaviour in the retail-based industry in a strategic way. The latest prevalent issues of the industry have been discussed and strategies to overcome these problems are suggested.

Keywords: brand behaviour, customer engagement, emotional engagement, retail industry.

1. Introduction

The retail industry is one of the most attractive and active sectors and is at an interesting crossroad. As technologies are all set to advance the productivity, the retail sales are at highest point. The Indian retail market is anticipated to grow by 60 per cent to reach US\$ 1.1 trillion by 2020, considering the factors like lifestyle changes and rising incomes in a digital connected economy. The competitive environment and technological changes demand this sector to work hard making it more difficult to engage their customers. The customer-brand relationship is still one of the key focus areas to be heavily researched in retail industry exhibiting the importance of developing and sustaining strong and durable relationships (Palmatier et al., 2006). The word "engagement" has its root in the organizational behaviour literature and has been subsequently employed as one of the key methods to predict performance in monetary terms (Saks, 2006; Bowden, 2009). The current study aims to consider the consumer's perspective behind engaging (active and collaborative) activities, to engage customers considering the positive and the negative behavioural engagement that goes beyond the point of purchase (Bijmolt et al., 2010). The firms, today, are no more concerned about conveying the marketing message, but on establishing eloquent relationship and involvement where customers can get actively engaged. The study considers the psychological state that occurs under a specific context and as an outcome measure of firm's activities. The product and services seem to be fine and convincing the customers- as having a great customer experience, good features against the price etc. Yet, there is something misplaced and makes them feel disconcerted

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about purchasing the same brand product/service from the existing brand. What is an individual supposed to do? Whether should he simply side-line the sensation and switch to some other product/service of some other brand, or go with the usual purchase pattern? Or, should he take feelings and thoughts into consideration while making a purchase decision. Unravelling glitches and making judicious decisions using both gut/intuition and rationale is a part of what call as behavioural pattern or brand behaviour. From the perspective of brand managers and marketers, brand behaviour is all about how your brand reaches out to people and how they respond back to you. The literature suggests that customers experience brand moments and not the brand strategies. The goal of brand behaviour is two-fold: make customers more satisfied and loyal, while creating an aligned, ambitious, and meaningful value that behaves in line with the customer's demand. The current study suggests some strategies to promote brand behaviour in the pursuit of achieving customer engagement in retail-based industry.

2. How Brand Behaviour Influences Customer Engagement

The increasing cognizance stressing upon the vitality of brand behaviour for customer engagement has been the centrepiece among researchers as well as the managers. It has been established that the behavioural pattern of an individual results in engagement while in turn, takes into consideration the socio-behavioural dynamics. The behaviour of the engaged customers suggests that customers vary in their expression, the way they perceive things and their purchase decisions (Vivek et al., 2012). The discipline of psychology suggests that engagement involves vigor (energy and resilience), dedication (sense of significance, inspiration, enthusiasm, and challenge), and absorption/engrossment (Schaufeli et al. 2002). The studies reflect that brand purchase behaviour is a cognitive, emotional and behavioural construct which goes hand in hand with customer engagement. In the evolutionary model of relational exchange, trust is an important aspect of human behaviour because it acts as a governance mechanism guaranteeing the partner reciprocity and non-opportunistic behaviour (Morgan & Hunt 1994).

The concept of customer engagement encompasses the multiple ways in which the customer behaviour beyond transactions may influence the firm. It is the interaction between the customer and the brand. It deals with grabbing the customers engaging them and then retaining them by building an emotional connection as we find in the case of Amazon, Flipkart, and Nike etc. The engagement of the customers is calculated by keeping in consideration the frequency of purchase decisions, repeat purchase rate as well as the total average value ordered. Researchers suggest that there is a tendency among the customers to form a buying habit (Shah et al. 2014). Additionally, products that the customers buy tend to share their experience and inform their network about the purchase influencing the purchase behaviour highlighting that emotions arise when there is an interruption of one's organized behaviour sequence, which generates emotions.

3. Strategies to promote Brand Behaviour

The current paper suggests that the following strategies affect brand behaviour in the customer as well as the functioning of retail organisations.

1. **Recognition:** Recognition is the degree to which a customer can suitably classify a product/service just by looking at the product/service logo, packaging, tag line, or advertising campaign (Olga et al., 2018). It is entirely based on the schema of the customer i.e. associated with the recall of prior knowledge. It primarily focuses upon the frequency, reach,

and consistency revolving round a concept or a character. This phenomenon deals with the issue of instinct buying.

2. Brand position: It focuses on the battle of the attempt to “own” a marketing niche for a brand or product/service to create a unique imprint on the customer’s mind in such a way that the customer links something specific and desirable with the brand that is distinctive in nature from the rest of the marketplace (Pike et al., 2018). It stresses on finding a place in the mind of the customers based on the concept that communication can only take place at the right time and under the right circumstances. The positioning of a brand gives a reason to believe that the brand stands true to its promise of providing the customer with something they desire for. It is one of the vital elements of the whole brand architecture and strategy as it conveys the values, vision, ethos, and the fundamentals of the brand as well as that of the overall company.

3. Maintenance: It is one of the survival skills of any brand i.e. to maintain a brand takes a lot of skills and is a never-ending task. It goes well with the saying that “The bad news is: Nothing lasts forever. The good news is: Nothing lasts forever.” A well-managed brand creates an emotional and enduring relationship with the customers which, in turn, provides them with the loyal customers. Also, repeatability is a vital part of brand maintenance providing a careful balance and momentum to keep the brand going as well as generating interest in the customers.

4. Preference: Brand preference (or attitude) is defined as a consumer’s disposition towards a brand that varies depending on the salient beliefs that are activated at a given point in time (Cuny et al., 2015). This can be explained with the help of example i.e. Marketers know that some brands in a category are more preferred over others. Some people prefer brand X over brand Y while others do not have any preferences between the brands. Also, the individualistic traits of a customer affect the preference of a customer.

5. Gratitude: It refers to the appreciation or thankful behaviour which an organization shares with the customers. This strategy basically deals with feeding the customers on an emotional front (Simon & Tossan, 2018). This could be explained with the help of example such as a handwritten card from a particular brand goes beyond the ephemeral nature of our digital inboxes and creates something tangible and meaningful. This sole strategy acts as the Holy Grail for building customers and keep them engaged.

The strategies that promote brand behaviour have been depicted in Figure 1.

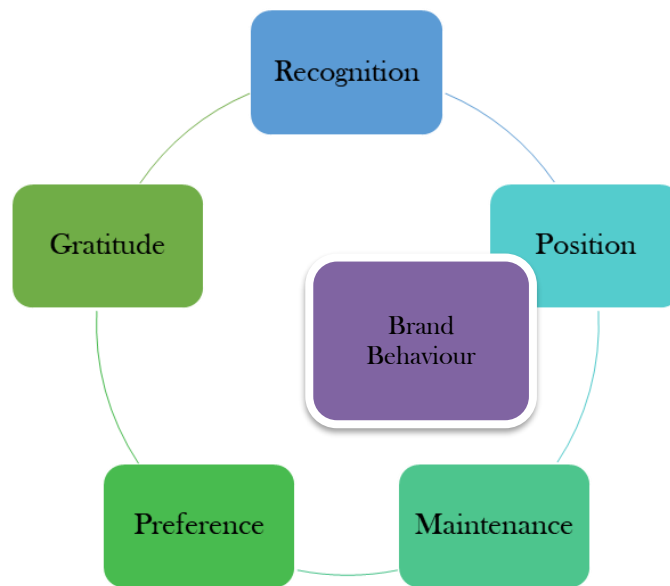


Figure1:
Strategies
to promote
Brand

4. Conclusion

The current article suggests that marketing managers should place greater emphasis on the cognitive aspect of employees, where they feel connected and exhibit emotions towards a particular brand. The service sector, especially the retail industry is largely dependent on its customers. Also, therapid changes in the technology has relatively high significance to learn and apply various concepts aswell as offer something new/different in order to sustain the customers. Compared to the manufacturing sector, service sector especially the retail sector involves more human interactions. Hence,it is important to learn about the behaviour as well as the individualistic personality to provide a unique experience to the customers as it can improve personal effectiveness, leading to healthier and improved lifestyle.

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Subjective Well-Being Of The Elderly: A Study Based On Selected Districts Of Kerala

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Abstract

Kerala is well known for its enduring and unprecedented fertility transition. The state had pioneered the demographic Transition in India towards end of the last century. At the time of independence Kerala's population was about 12.5 million. Over the period of 1941-1971, Kerala had a growth rate about 2.2 per cent per year. Until 1971, growth rate of population in Kerala had been significantly higher than the national average. The population of Kerala was 32 million in 2001 and now it stands at 33.38 million (2011). It is, now, growing at a rate less than 1 per cent per year. At present, in the southern states, viz., Andhra Pradesh, Tamil Nadu, Karnataka and Kerala, the fertility rate is lower than the all India average. Of these four states, Kerala, with high social sector achievements, currently experience a fertility growth well below the replacement level. As a result, the onset of final stage of demographic transition –a stage characterised by fewer fertility-mortality configuration, accompanied by lengthening of life expectancy was visible in Kerala after 1996. It poses several unpleasant social implications viz., elderly vulnerability and their subjective well-being at the fag end of their life. Hence, the article focuses on “*how happy the elderly are ?*”

Key words – Demographic transitions-demographic ageing-replacement fertility rate-elderly vulnerability and elderly subjective well being.

Introduction

Demographic transition, at the global level started first in the European Countries in the early nineteenth century and took several decades to appear in the developing countries. It was then dramatically accelerated after 1950s and the industrialized nations began to experience continuous fertility decline until it reach below the replacement fertility rate. Many high income countries attained the potential mortality reductions followed by falling fertility rates which transformed the existing age structure configuration with increasing proportion of older population. As a result, currently, most of the countries in the more developed regions and less developed regions of the World entered the final stage of demographic transition, characterised with, the problem of demographic ageing. Several studies on population ageing from the several parts of the world conform to the fact that the demographic make-up of many countries has been changing very fast. It is, also observed that, because of the rapidity of fertility decline in developing countries, the ageing process in these countries is occurring at a tremendous rate than in the more developed countries. As a result of these demographic changes, the proportion of the older population is also increasing at a rapid rate.

In Asia, especially in India, a similar pattern of age-structural transition occurred in the late sixties and seventies. Several studies show that the demographic transition and population ageing in India were not occurred uniformly across the states. These demographic changes had taken place against a backdrop of high poverty rates, unemployment, limited social

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security coverage and slow economic growth. The BIMARU states are lagging behind Haryana and the South Indian states. Kerala is the forerunner in terms of its unique age structural transition. The onset of demographic transition and population ageing began much earlier in Kerala than the other states. High social sector achievements, remarkable progress in the health care infrastructure and women centred factors such as their literacy, workforce participation and the mean-age at marriage substantially contributed the fertility-mortality transition in the state.

These demographic changes have several social, economic and health implications on the economy. It also poses some fiscal challenges to the society as well as to the state such as provision of continued informal social support, financing of pensions, health care's etc.

Significance of study

The social environment within which the elderly has to interact is rapidly changing. As one ages, he or she is more exposed to risks, threats and damages. The societal and family perception on elderly care and support has also been undergoing changes. The type of inter generational interactions, the flow of resources and the strong familial support enjoyed by the elderly are scanty now a days. In this context, the study focuses on elderly vulnerability and subjective well being as the important social challenges of population ageing. Moreover, the life expectancy as well as the proportion of women in the older population are also increasing very rapidly. Hence gender wise and age wise analysis of subjective well being of all the categories of the old-age will give a person's cognitive and affective evaluation of one's life.

Objectives of study

- i. To construct Subjective Well Being Index of the Older Cohorts.
- ii. To analyze the influence of the General Health on the Subjective Well Being.

Research Methodology

- i. The concept: 'aged'.

Benyaklef (1991) defines, "a man aged biologically as a continuing process, socially as perceived by the members of the society, economically when retired from the work force and chronologically one grows older with time" (quoted in project report, Ageing in a Changing Society, Asharaf Abdul Salam, 2013, Page 1). However, chronological definition of ageing is widely used to define ageing. International premier institutions in their research reports and conferences defined the term 'aged' in the chronological perspective. Thus, individuals aged 60 years or over are considered as aged (World Assembly of Ageing, 1982, International Conference on Ageing and Urbanization 1991). The term 'aged' is further regrouped into three categories viz., young-old (60-69), old-old (70-79) and oldest-old (80+).

Data Source

The study is carried out with primary and secondary data. Secondary sources include various Census Reports, SRS Bulletin, Reports of Population Division of Department of Economic and Social Affairs (UN), U.S. Population Reference Bureau, Kerala Ageing Survey (2005), Situation Analysis of Elderly in India (CSO 2011), NSSO Reports (Various Rounds) BKPAI Survey (ISEC Bangalore), various books journals and website.

Data on Kerala Ageing Survey Revisited (2008), Centre for Development Studies, Thiruvananthapuram were also used to make a comparative study of the status of elderly in households with the inmates in the old age homes. Primary data for the study were sourced

from the old age homes in the six districts of the State viz., Alapuzha, Pathanamthitta, Kottayam, Idukki, Ernakulam and Malapuram.

Sampling Procedure

The study is carried out in two phases. In the first, phase a pilot study was conducted in two of the six districts chosen for the research. In the initial phase of the pilot study, information was collected from 113 inmates of six old age homes in these districts. In order to test the genuineness and consistency in opinion in different occasions, test-retest was administered among a few respondents (15) and no significant difference was observed in the test-retest. During the pilot study, inmates were found more concerned about joy and happiness than their material and physical requirements. Hence, the interview schedule was restructured with self-rated opinions about the subjective well-being for final administration.

In the second phase, multi-stage sampling was adopted for the selection of old age homes in Kerala. In the first stage, six out of the fourteen districts were chosen on the basis of selected vital demographic variables and socio-economic features. It was, then, followed by random selection of 47 registered old age homes from among 128 such institutions in the above districts. Finally, self- perceived opinions of 634 inmates were used for the analysis and interpretation.

Theoretical Framework

People, from ancient periods have been searching for the essential ingredients that make their life good, happy, rewarding and satisfactory. Philosophers like Jeremy Bentham pointed out that the presence of pleasure and the absence of pain in one's life are the defining characteristics of good life. The Utilitarian school led by Jeremy Bentham analyzed the subjective well-being on the ground of emotional, mental and physical pleasure and pain that individuals experience. They concluded that, despite other desirable personal characteristics beyond the happiness, the individual with abundant joy has been one key ingredient of good life.

Subjective well-being is a state of mind of one's perception about self-actualization and fulfilment in one's life. It may be defined as a "person's cognitive and affective evaluation of his or her life. These evaluations include emotional reactions to events as well as cognitive" (Dienier et.al 2002, Page 63). This definition demonstrates subjective well-being as a multifaceted concept focusing on the pleasant emotions and life satisfaction high self esteem and threats low levels of risks and damages.

Models Used

Subjective well-being is a matter of great concern and is analyzed with Subjective Well-Being Index-computed as the sum of eight inventories purposed in this studies using multiple scale with positive polarity. The Mann-Whitney Utest and Kruskal-Wallis test are adopted for assessing the gender-age wise subjective well being of the respondents. Simple correlation is also applied to look into the influence of general health on the elderly subjective well-being.

Results and Discussions

People at all ages, despite the gender difference, from time immemorial have been looking for the living conditions that make their life good, happy, rewarding and satisfactory. Philosophers like Jeremy Bentham pointed out that the presence of pleasure and the absence of pain in ones life are the defining characteristics of good life. The Utilitarian school led by Jeremy Bentham analyzed the subjective well-being on the ground of emotional, mental and physical pleasure and pains that individual's experience. They concluded that, despite other

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Subjective well-being is a state of mind of one's perception about self-actualization and fulfilment in one's life. It may be defined as "a person's cognitive and affective evaluation of his or her life". These evaluations include emotional reactions to events as well as cognitive judgments of satisfaction and fulfilment (Ed. Dienier et. al 2002. page. 63). This definition demonstrates subjective well-being as a multifaceted concept focusing on the pleasant emotions and life satisfaction, high self esteem and low levels of risks and damages. In this study, subjective well-being index is constructed on the basis of eight statements showing the situational variables that have profound impact on life satisfaction and mood reports. Using the multiple rating scale with positive polarity, the respondents were given chance to express their opinion about the situational variables.

Subjective well-being index in this context is (SWBI) computed as the sum of eight inventories with three levels. The possible values for the index can lie between 8 and 24. Scoring and interpretation of the index is done in the following way. Responses are added up to eight items and the following normative information is used to help interpretation.

8-15	-	Below average
15-17	-	Average
17-24	-	Above average

Here one sample 't' test is used to test the subjective well being of the elderly. The computed value of Subjective well-being Index in this study lies between 8 and 15.57. Hence the test suggest that the subjective well-being of the elderly is lower than the middle value 16, with $t = -7.329$ with $p < 0.001$

Moreover, for assessing the reliability of the variables used for the construction of Social Well Being Index, Cronbach's Alpha test is performed in this study. Nunally J.C (1978) recommends that instrument used in the basic research have reliability of about 0.7 or more is better. The reliability measure Cronbach's Alpha in this study is 0.946, indicating nearly 95 per cent reliability for the information contained in this study.

The Mann-Whitney U test is used to compare the gender wise Subjective Well-Being Index. The test suggests that the reported Subjective Well-Being Index for men (households) is significantly higher than their female counterparts with Mann-Whitney $U = -7.925$, $p < 0.05$.

The mean rank for men = 2638.16

The mean rank for women = 2327.73

The test results of the reported Subjective Well-Being Index for the inmates in the old age home show that there is no significant difference in the subjective well-being of males and female and fails to reject the null hypothesis with

Mann-Whitney $U = 7.925$, $p = 0.277$

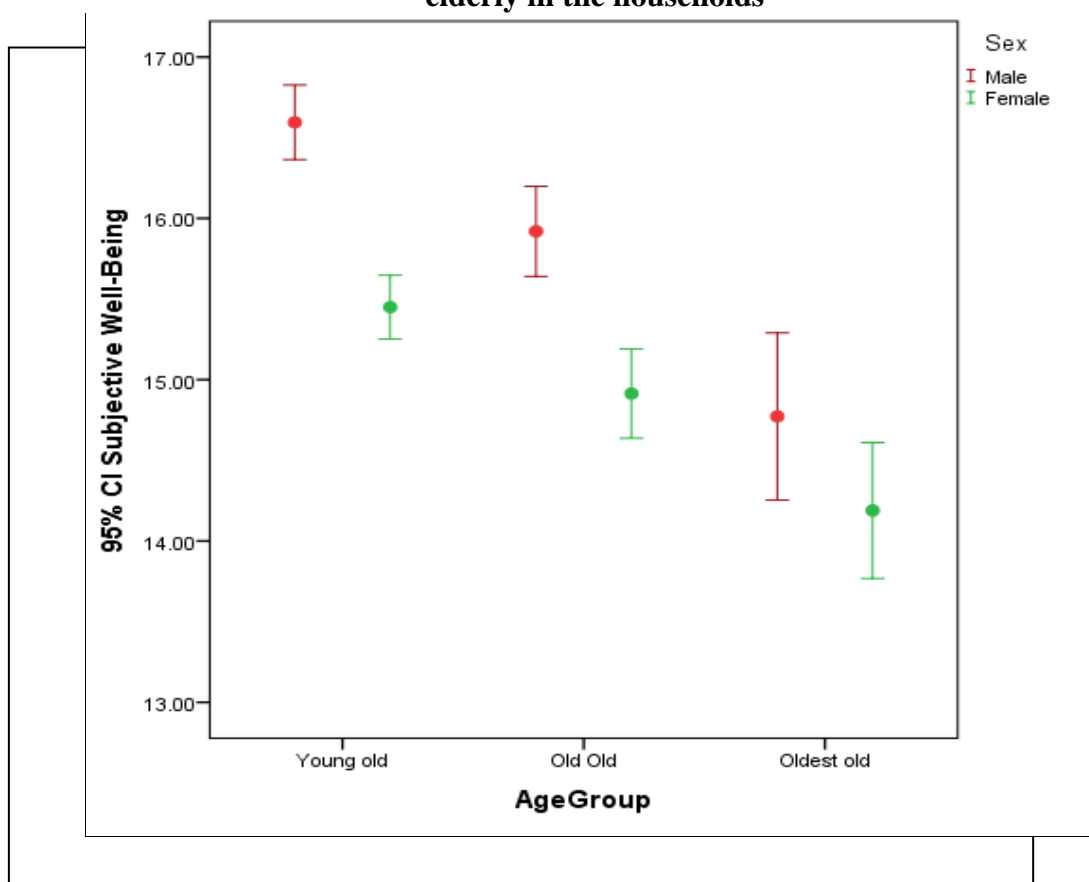
The mean rank for men = 323.29

The mean rank for women = 2327.73

Special tabulations on subjective well-being are also made in terms of the various categories of age group among the older persons in the households. The figure 4.22 shows that there is significant difference in the subjective well-being at all old age groups. The Kruskal-Wallis non parametric ANOVA is found to be highly significant with $\chi^2 = 72.092$ with $p < 0.05$. The result shows that the reported Subjective Well-Being Index for the young-old group is fairly high as compared to other age groups .(Fig.4.22). Well-being diminishes as age

advances for both the sexes. However, a steep decline is observed among the oldest-old, partly because of widowhood and loss of caring spouse during extreme old age and partly because of physiological deterioration, ill health and disability.

Figure 4.22: Subjective well-being: Gender and sex wise Error Bar for the elderly in the households

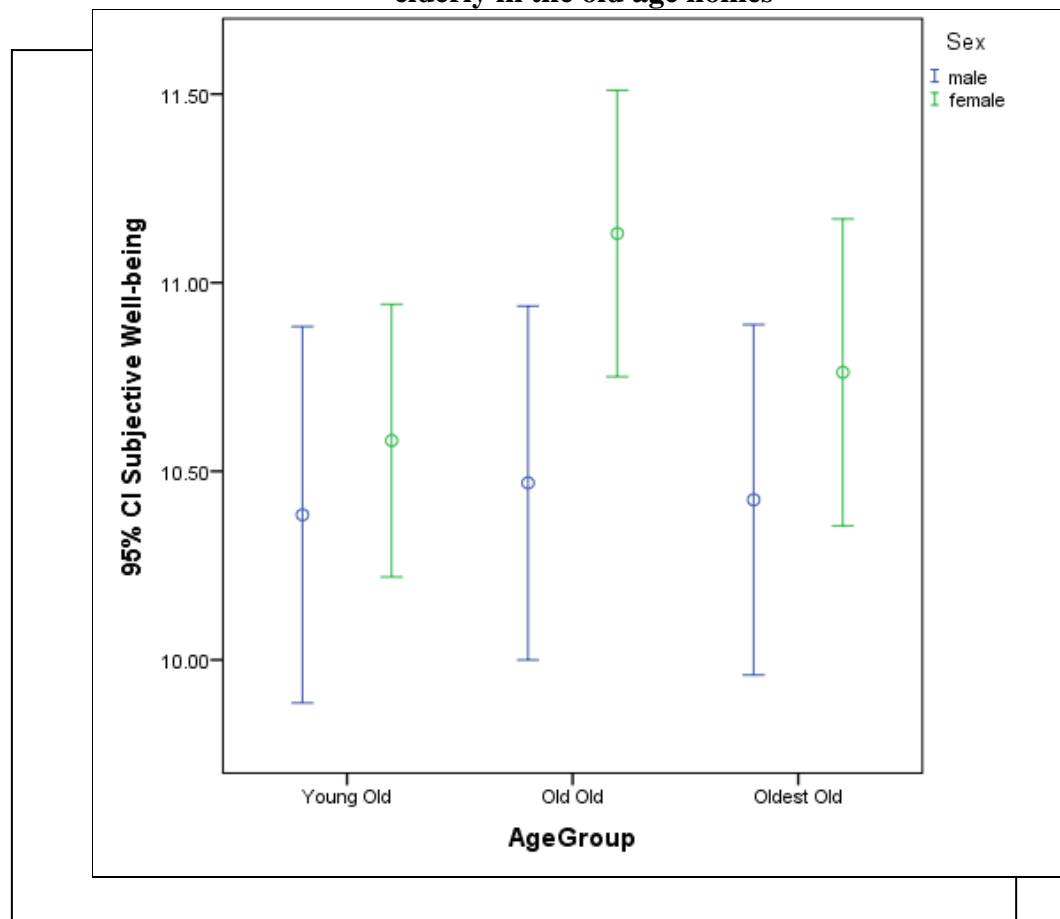


Source: Computed from Kerala Ageing Survey 2005

Moreover, the profile plot suggests gender as one of the ingredients influencing profoundly the subjective well-being of the older people. The results show that, being men is an advantage during the old age. For all the three old age groups, men are found to enjoy high life satisfaction and happiness than the women, who are exposed more to risks and damages during the old age period.

However the Kruskal Wallis non-parametric ANOVA is found insignificant with $\chi^2 = 2.097$, $p = 0.351$. It shows that there is no significant difference in the subjective well-being of the elderly in the old age homes according to age and sex.

Figure 4.23: Subjective well being; Gender and sex wise Clustered Error Bar for the elderly in the old age homes

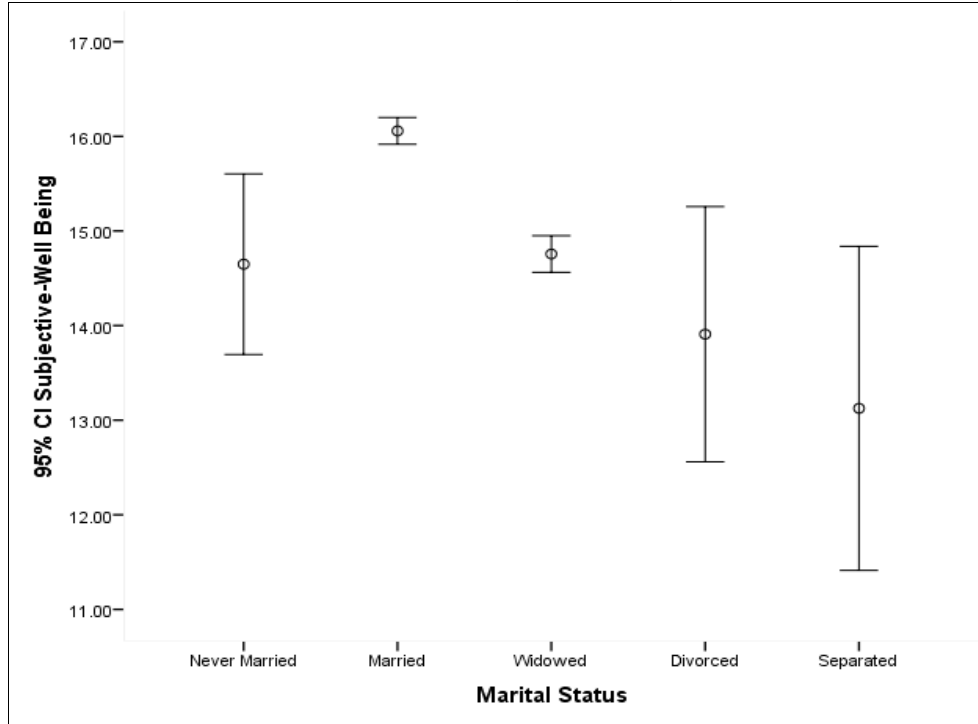


Source: Primary data

Figure 4.23 suggests that, according to the normative information mentioned earlier, the subjective well-being of the men and women at three categories of old age is above the mean value 16 in the old age homes. In addition, the overlapping of the profile plots also confirms that there is no significant difference in the subjective well-being according to age and sex among the elderly population in the institutions.

Another important key indicator variable of subjective well-being is the marital status. It is not uncommon that those who are in the marital union enjoy more freedom and autonomy than the elderly in other marital status. Hence, subjective well-being among the elderly is also analyzed according to their marital status. A non parametric ANOVA, Kruskal-Wallis test is taken as the appropriate tool. The test accepts the hypothesis of interest that there is significant difference between Subjective Well-Being Index among different forms of marital status. The test statistic is 109.227 with $p < 0.05$.

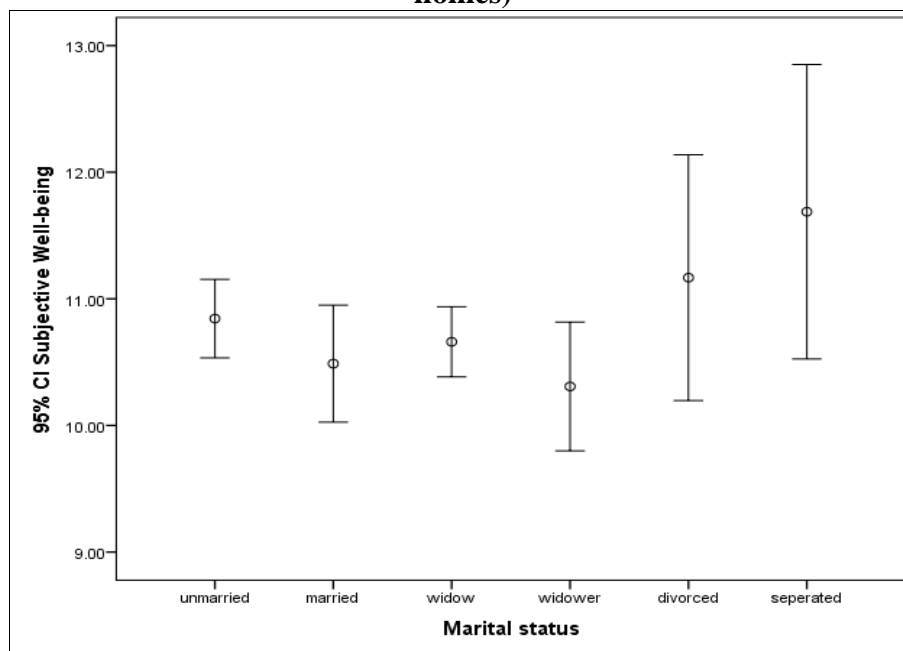
Figure 4.24: Subjective well-being: Error Bar according to marital status (households)



Source: Computed from Kerala Ageing Survey 2005

The profile plot indicates that the reported elderly Subjective Well Being Index score is high for the married as well as the widowed, while for the elderly in all other forms of marital status, the reported Subjective Well Being Index shows greater variability

Figure 4.25: Subjective well-being: Profile Plot according to marital status (old age homes)



Source: Primary data

The figure 4.25 shows that the divorced and separated in the institutions reported their subjective well-being with greater variability as compared to the divorced and separated in the households.

Similarly, the researchers point out that the subjective well being depends not only on the pleasant affects but the unpleasant affects like ill health and disability also exert substantial influence on the subjective well being. Wilson W (1967) in his article, *Correlates to Avow Happiness*, concluded that physical health correlates positively with subjective well being. Hence an attempt is made in this study to analyze the relationship between subjective well-being and general health with Spearman's coefficient of correlation. The result shows that there is a positive correlation between general health and subjective well-being with Spearman's $\rho = 0.596$ with $p < 0.05$.

Analysis of the interrelationship between the general health and the subjective well-being by age and sex brings out the following results.

Table 4.9: Spearman's Coefficient of Correlation between general health and subjective well-being

Age group	Spearman's Coefficient of correlation	
	M	F
60-69	0.545	0.579
70-79	0.629	0.604
80+	0.568	0.601

The association between general health and subjective well-being is found to be high for both the sexes in the age group 70-79 (old-old) and for all other age groups women have an upper hand in terms of general health and subjective well-being.

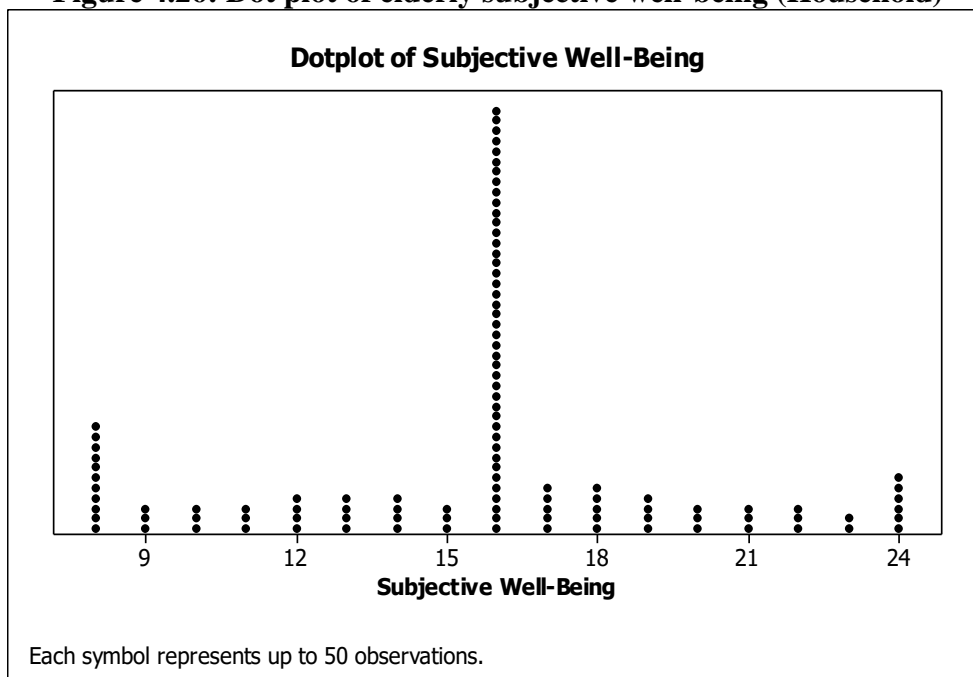
Regression analysis is also conducted to testify the earlier result showing the effect of general health on subjective well-being. The regression results also confirm the positive association between general health and subjective well-being as explained earlier with Spearman's coefficient. For every one unit increase in the general health can cause approximately 0.33 units increase in the subjective well-being of old men and women (Table 4.10).

Table 4.10: Regression results: General health on subjective well being.

Age group	Standardized regression coefficients	
	Male	Female
60-69	.336	.323
70-79	.338	.325
80+	.331	.310

Source: Computed from CDS Kerala Ageing Survey 2005

Figure 4.26: Dot plot of elderly subjective well-being (Household)

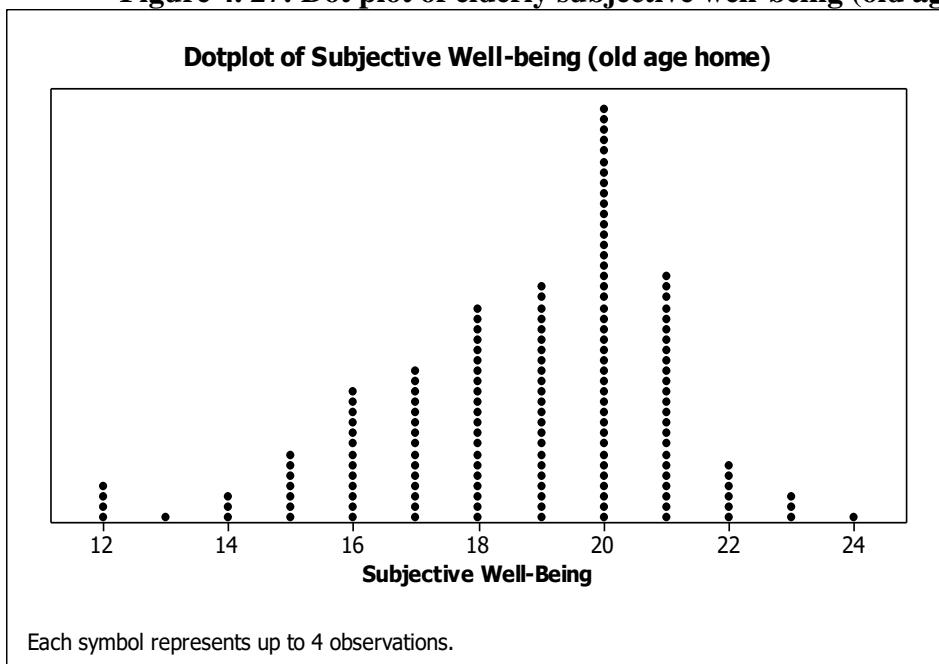


Source: Computed from Kerala Ageing Survey 2005

SWB: Subjective Well-Being

The subjective well-being index is computed as the sum of eight inventories used in this study. The possible values for the index are expected to fall between 8 and 24 with most frequently occurring value (Mode) 16. The self rated opinion about the subjective well-being shows a wide variation, where some rated high (30 %), some 35 per cent rated below satisfactory, while the remaining rated satisfactory.

Figure 4. 27: Dot plot of elderly subjective well-being (old age homes)



Source: Primary Survey

Contrary to the opinions of elderly in the households, only 18 per cent of the inmates in the institutions rated their subjective well-being as lower, while others reported their life rewarding, happy and pleasant.

Discussion

The age structural transition and the consequent ageing of population are predominantly higher in Kerala because of faster decline in fertility along with comfortable low level of mortality. The sex ratio is favourable to women not only in the general population; they outnumber men in the older population as well.

Moreover, as one shift to higher ages, he or she is more likely to be exposed to risks and damages in life with limited entitlements to cop up with these threats. Physiological deterioration, disability, poor health and lack of financial autonomy and poverty make elderly as the most vulnerable segment of the population. The gender wise and age wise analyses of subjective well-being among the elderly in the families reveal that gender and age are important aspects of well-being. The subjective well being index for elderly men is significantly higher than the women and well-being diminishes as age advances for both the sexes and sharp decline is observed for those who are out of marital union. However no such significant difference has been observed among the older people in the old age homes.

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EMOTIONAL INTELLIGENCE & LIFE SATISFACTION : A STUDY ON SENIOR CIVIL SERVANTS

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ABSTRACT

Behavioral sciences have constantly attempted to bring rigour changes in studying human behavior. This work deals with the concept of Emotional Intelligence which is a set of skills that underlie the assessment, evaluation, expression, regulation of emotions to achieve desired goals. This study was conducted to examine the relationship between Emotional Intelligence and Life Satisfaction among Senior Civil Servants (I.A.S. & R.A.S. Officers). A group of 50 Senior Civil Servants (only males) were selected from Rajasthan state with in the age limit of 40-60 years. Personal Profile survey by Dr Surbhi Purohit & Life Satisfaction Questionnaire by Q.G. Alam & Srivastava were taken to assess Emotional Intelligence & Life Satisfaction respectively. Data was analysed using statistical techniques such as z-test, Percentage score & Correlation. Findings revealed a positive correlation between Emotional Intelligence & Life Satisfaction in Senior Civil Servants.

Key Words: Emotional Intelligence, Life Satisfaction

Emotions deal with feelings. Anger, love, joy, sadness, anxiety etc are all emotions that each of us feel in our daily lives along with their blends, variations, degrees, shades & mutations. These emotions are the actual drivers of our life because emotions can lead us toward the positive side as well as the negative side of life. Action or reaction of a person in a particular situation depend on how he deals with his emotions. Therefore, success in personal, social or professional life is definitely affected by the ability to use emotions.

Emotional Intelligence is basically the capability of an individual to understand, distinguish, control and manage emotions of oneself and others. **Mayor & Salovey (1993)** defined emotional intelligence as the ability to monitor one's own & other's feelings and emotions to discriminate among them, and to use this information to guide one's thinking and action.

Intelligence Quotient could be defined as a person's reasoning, linguistic & mathematical ability as compared to the statistical norms or average for their age. During the last few decades there has been so much increasing emphasis on IQ that emotions of persons got a severe set back. **Dr Daniel Goleman (1995)** has drawn attention to this neglected aspect of life. He pointed to an American study which showed that, at best IQ contributes about 20% to the factor that determine life success and 80% of other forces and these forces can be defined as EQ skills.

A **2017** study by **Pekaar and colleagues** showed that emotional intelligence is significantly correlated with job performance particularly the EI/EQ components of recognizing and managing the emotions of self & others. The higher level of emotional intelligence has been found as a strong predictor of improved work performance, job satisfaction and more success in almost every sphere of life than lower ones. (**Hafiz et al, 2015**). Emotional intelligence is a ability to decide clear goals in life and work in a balanced manner to achieve it.

Life Satisfaction refers to a person's general happiness, feeling of contentment & fulfilment, freedom from tension, interest in life etc. It is referred to an individual's overall

cognitive appraisal of the quality of his/her life (**Diener, 1984**) . According to **Gilman and Huebner (2003)** , Life satisfaction is an important construct in positive psychology. The measures of Life Satisfaction are sensitive to the entire spectrum of functioning, and thus, provide indicators of both well-being and psychopathology. Satisfaction with life, a cognitive, global evaluation of one's life satisfaction, constitutes one of the three core dimensions of hedonic well being and is well-established as a pivotal index of psychological health (**Pavot & Diener, 2008**).

Satisfaction is mental state where an individual experiences positive feeling about what he has done or has been able to achieve. Life satisfaction is a matter of mental attitude, whether one feels comfortable both inside as well as outside. This is related to coping abilities & emotional strategies of a person. If a person is satisfied with his life he takes pleasures in everyday activities. He also considers his life meaningful with holding a positive self-image. All these feelings help him to become an optimistic person.

Life satisfaction as a research field became relevant during the 1970s. In those years, a psychosocial dimension was added to the concept of quality of life beyond the physical and material conditions necessary for a comfortable life (food, housing, and medical care, among others). In this way, life satisfaction relates to a personal feeling of well-being or happiness. Therefore, it reflects a personal perception about one's own life situation based on one's own goals, expectations, values, and interests, influenced by the cultural context of reference (**Pérez Escoda, 2013**). Life satisfaction is defined as the subjectively perceived quality of life based on the individual preferences of multiple life domains and the satisfaction in these domains (**Henrich & Herschbach, 2000**).

According to **Núria Pérez Escoda (2016)** individuals experience higher satisfaction with life when they are satisfied with their jobs, with their social environment, and with themselves. Also, independent of their life situations, individuals with higher emotional intelligence tend to feel higher life satisfaction. A study done by **Mostafa Sahraei et.al (2016)** revealed that emotional intelligence and its components are positively correlated with life satisfaction. This means that with an increase in emotional intelligence and life satisfaction also increased its emphasis and vice versa.

Purpose of the Study- Civil Service Entrance examination is considered as the toughest exam in India, therefore candidates who join civil services are definitely high on IQ. On the basis of several studies it has been known that IQ contributes 20% and EQ contributes 80% in success of any person. On the other side many researches indicate a positive correlation between emotional intelligence and life satisfaction. Therefore, it inspired to conduct a research study on Civil Servants to assess their EQ level in relation to life satisfaction which is presumed to be very high in them. Therefore, The the study was an attempt to examine the relationship between Emotional Intelligence and Life Satisfaction among Senior Civil Servants.

Objectives -

1. To find out the level of Emotional Intelligence among Senior Civil Servants.
2. To find out the level of Life Satisfaction among Senior Civil Servants.

3. To find out the relationship between Emotional Intelligence and Life Satisfaction among Senior Civil Servants.
4. To find out the difference between Senior Civil Servants belonging to age range of 40-50 years & 50-60 years regarding Emotional Intelligence.
5. To find out the difference between Senior Civil Servants belonging to age range of 40-50 & 50-60 years regarding Life Satisfaction.

Methodology-The study was conducted to see the relationship between Emotional Intelligence and Life Satisfaction among Senior Civil Servants.

Description of Tools- For the present research work, standardized tests were used to collect the data. The variables under study were –

1. Emotional Intelligence 2. Life – Satisfaction

These variables were studied with the help of standardized tools suited to Indian social and cultural set up. Personal Profile Survey prepared by **Dr. Surbhi Purohit** to measure level of Emotional Intelligence and Life Satisfaction Scale prepared by **Dr. Q.G. Alam and Ramji Srivastava** to measure life satisfaction were used.

Personal profile survey test consists of 48 statements categorized into 6 dimensions named Self awareness, Self management, Internality, Motivation, Empathy & Social Skills. Its 5 point scale based on Salovey's concept and including new researches reported by Seligman and others, the following aspects of emotional intelligence have been based in developing this instrument.

- (1) **Self Awareness-** It includes the ability to recognize and understand one's own moods, emotion and drives and accepting self strengths and weakness.
- (2) **Self Management-** It includes the ability of a person to redirect and control disruptive impulse and moods, judging how others might feel before taking actions and postponing gratification of immediate needs for long term goals.
- (3) **Internality and Optimism-** It include an orientation of taking charge of the situations, seeing failure as temporary, high hope and intense involvement in experience (flow) as contrasted with brooding over and recollecting miseries (rumination).
- (4) **Motivation-** It involves a person's passion to work for reasons that go beyond money or status, resilience i.e. ability to bounce back from disappointments, and pursuing goals with energy and perusing.
- (5) **Empathy-** It is the ability of a person to understand the emotional make up of other people. It also involves skill in dealing with people according to their emotional reaction. At the highest levels empathy is understanding the issues or concerns that lie behind another feelings.
- (6) **Social Skills-** It refers to a person's proficiency in managing relationships and building networks. It its reflected in building and leading items.

The total of score for each category i.e. self awareness, self management, internality, motivation, empathy & social skills vary in between 0 to 24, where as the grant total of the personal profile survey ranges from 0 to 144. The questionnaire consists some reversible (questions) items, which are –2,3,4,5,7,9,18,19,20,21,22,30,33,37,38,39,40,42,47.

Life Satisfaction Scale- "Life satisfaction scale" by Dr. Q.G. Alam and Ramji Srivastva was used. The scale consisted of 60 items related to six areas i.e. health, personal, economic, marital, social and job. All the sixty questions in the scale have to be responded

in either 'yes' or 'no'. There is no other alternative. Every 'yes' response was assigned 1 mark. The sum of marks was obtained for the entire scale.

Locale of the Study- The present study was conducted in Rajasthan state with in municipal limits to ensure optimum personal contact for data collection. The cities selected for study were Jaipur, Bikaner, Sri Ganganagar and Jodhpur.

Sample- The primary source for conducting the study in research is the respondent, termed as sample. It represents the group characteristics. A sample of 50 senior civil servants (I.A.S., R.A.S..)was drawn using purposive sampling method. The sample comprised of 50 men with in the age range of 40-60 yrs.

Procedure for Data Collection- As mentioned earlier the sampling for the present study was done on the basis of purposive random technique. Firstly the subjects were contacted on phone. An appointment was seeked and they were contacted by the researcher as scheduled. The purpose of the research was explained to them. The subjects were also informed that the data obtained will be kept strictly confidential, will not be missed and will be used only for research purpose. After establishing a good rapport with the subjects three tests were administered to the subjects. Instructions were given to them on the basis of information provided in the manual.

Statistical Analysis- The data was compiled and tabulated. The different statistical techniques i.e. Mean, z-test and co-relation were used.

Results and Discussion- The result of the study is being presented under three sections i.e. Percentage Score, Correlation Coefficient and Z-test.

A. Percentage Score- Table 1 depicts the percentage obtained for various levels of Emotional Intelligence named High, Average and Low. The table shows that 58% of the sample had average levelof EI, 24% had High level and 18 % had low levelof Emotional Intelligence.

Table-1

Percentage profile of Emotional Intelligence in Senior Civil Servants (n=50)

Scores	Level of EI	Frequency	Percentage
Below 81.11	Low	09	18%
81.22 to 114.69	Average	29	58%
Above 114.69	High	12	24%

On the basis of mean value of 97.96 and S.D. value of 16.7368, sample falls into the category of average level of Emotional Intelligence.

Table-2

Percentage profile of Life Satisfaction in Senior Civil Servants (n=50)

Scores	Level of EI	Frequency	Percentage
15-29	Low	02	6%
30-44	Average	42	84%
45-60	High	06	12%

Table 2 indicates 84% of the sample had average levelof life satisfaction, 12% senior civil servants assessed as highly satisfied with their life and 4% of the total sample showed low levelof life satisfaction. On the basis of mean value of 40.96 and S.D. value of 3.9277, sample falls into the category of average level of Life Satisfaction.

B. Correlation Coefficient- Table 3 revealed a positive correlation between Emotional Intelligence and Life Satisfaction among senior civil servants. This indicates that with an increase of emotional intelligence there will be an increase of level of life satisfaction too. It can be concluded as senior civil servants with high emotional intelligence will have high life satisfaction.

Table-3

Correlation between Emotional Intelligence and Life Satisfaction (n=50)

Variables	EI	LS
EI	1.00	0.5100*
LS		1.00

* Significant

A large number of studies have explored the relationship between emotional intelligence (EI) and life satisfaction by self-report and performance instruments finding significant evidence for EI as an important predictor for real-life outcomes (**Charbonneau & Nicol, 2002; Ciarrochi, Deane, & Anderson, 2002**). Emotional intelligence (EI) is a psychological construct that has attracted a lot of attention in recent years and has therefore been intensely examined. Although there are different definitions of EI most of them include the ability to control and regulate one's own emotions. Another important assumption implicitly included in many theoretical frameworks is that high EI should lead to high life satisfaction.

Correlations between EI and the life satisfaction showed that higher EI was associated with higher life satisfaction, problem-solving and coping ability and with lower anxiety. Correlations between EI and academic achievement, however, were not statistically significant. Self-report EI measures had higher correlations with the life skills than did the ability EI measure. It is likely that this is due to the correspondingly high correlations between life skills and personality and between personality and self-report EI measures, which may partly be attributed to method variance and desirable self-presentation. Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities.

People with high emotional intelligence are socially active, well behaved, balanced, expressive and cheerful. They are active enough to take initiatives and responsibilities on domestic as well professional front. The higher level of emotional intelligence has been found as a strong predictor of improved work performance, job satisfaction, life satisfaction and more success in almost every sphere of life than lower ones. (<https://www.questia.com/library/journal/1P3-3931412971/impact-of-emotional-intelligence-on-life-satisfaction>)

C. Z-test- Significant difference found between Senior citizens with the age range of 40-50 years and 50-60 years. Senior Citizens age range 50-60 years scored high (Mean value 42.14) on emotional intelligence in comparison to senior citizens age range of 40-50 years (Mean Value 40.04).

Table -4

Mean, S.D. and level of significance Emotional Intelligence of Senior Civil Servants (n=50)

Age	N	Mean	S.D.	Z
40-50 yrs	28	94.54	17.69	-1.69*
50-60 yrs	22	102.32	14.67	

***Significant**

Table 4 shows that calculated Z value is higher than actual Z value at one tailed Z test. Results revealed that senior civil servants with the age range of 50-60 years scored higher (Mean 102.32) than senior civil servants with age range of 40-50 years (Mean 94.54). It can be concluded as increase in age and experience make a person efficient on life skills. A number of studies have suggested that older people may have a higher level of emotional intelligence compared to their younger counterparts. Individuals' Subjective Well-being (SWB) increases as they grow older. Past literature suggests that emotional intelligence may increase with age and lead to higher levels of SWB in older adults. Emotional intelligence partially mediated the relationship between age and life satisfaction, and fully mediated the relationship between age and affective well-being. The findings suggest that older adults may use their increased emotional intelligence to enhance their SWB (Chen et al, 2016).

Acc. to above findings we can conclude it as; Every stage of life has its own challenges and opportunities. During the life cycle we all move through different phases and learn through them. These learnings help us in shaping our personality with an understanding to achieve desired goals . Therefore, experiences come from age enhance emotional intelligence which gives a vision to handle different situations and consequences of own and others too with emotional management . EI is a set of skills which improves with age and can take our life to a meaningful and appropriate direction.

Table -5

Mean, S.D. and level of significance Life Satisfaction of Senior Civil Servants (n=50)

Age	N	Mean	S.D.	Z
40-50 yrs	28	40.04	4.58	-2.05*
50-60 TRS	22	42.14	2.53	

***Significant**

Table 5 shows that calculated Z value is higher than actual Z value at one tailed Z test. Results revealed that senior civil servants with the age range of 50-60 years scored higher (Mean 42.14) than senior civil servants with age range of 40-50 years (Mean 40.04). Several investigators have found a positive correlation between age and life satisfaction (**Medley 1980, Clemmente & Sauer, 1976**). Many studies have found a U-shaped relationship between age and life satisfaction, in other words, young and older people are more satisfied with life than people of middle age (**Frey and Stutzer 2002**).

Conclusion- Human beings are gifted. They are different from other living organisms by and because of their intelligence. Intelligence helps them to select the best and appropriate solution for a problem among many alternatives. They also have ability to express their thinking and feelings through emotions. Emotional Intelligence is a bunch of personal and social skills required for managing one's own and others emotions to fulfil desired life goals. A person who can manage his emotions well can manage every sphere of life successfully. Feeling of contentment & fulfilment maintains equilibrium in a personality, that gives a deeper sense of satisfaction. Senior civil servants with high emotional intelligence are more satisfied from their life because they have ability to control their outer and inner world both. Simultaneously, positive correlation between age and life satisfaction indicates as the age increases acceptance and understanding for life also increases. And when a human being realizes what the life is, what is the purpose of life and how to balance it; satisfaction comes. Therefore, we can conclude it on the basis of previous studies & the present study that emotional intelligence is directly proportional to life satisfaction.

Suggestions- This study could have been done on the larger sample. Gender differences could have been seen in the study. For future research sample of different professionals can be taken. As many studies indicate that EQ can be improved by training, counselling session could be arranged. Case studies can also give a deeper view and understanding.

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