International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

A Study on the Returns and Volatility of the top 05 PSUs and Private Sector Banks with Reference to Nifty 50

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Abstract

This paper is a humble attempt to measure the volatility of the top 05 Public Sector Banks and Private sector banks (as per Market Capitalization) with respect to volatility of NIFTY. Stock markets in general are considered volatile and this volatility plays important role in measuring the risk-return trade-offs. For investors estimating volatility enables the pricing of securities and, understanding stock market volatility or individual stock price volatility enables them to take informed decisions. Risk-averse Investorsare happy to invest in low Beta stocks, whereas Risk-takers would happily invest in stocks having higher Beta. Volatility is simply a measure of deviation from the mean values. In this study standard deviation and individual beta values have been calculated to get an idea of the volatility.

Introduction

Indian Stock market has drastically changed since last few decades. Capital market in India is a very robust market. Consequently, transparency of markets has increased over period. Volatility of Stock markets plays an important role in measuring the risk –return trade-offs. There are so many factors that make the stock market volatile and it is of general interest to understand if the volatility of the stock market in India in line with the volatility of the different sectors in India. Banks have been major contributors to the fluctuations in the stock market index (Anbukarasi&Nithya, 2013). For investors estimating volatility enables the pricing of securities and, understanding stock market volatility or individual stock price volatility enables them to take informed decisions. Risk-averse Investors are happy to invest in low Beta stocks, whereas Risk-takers would happily invest in stocks having higher Beta. Volatility is simply a measure of deviation from the mean values.

Given this premise, the banking sector is chosen in this study to see if the movements of the top 5 PSUs and top 5 Private sector banks is in line with NSE NIFTY. As on date there are 27 public sector banks in India out if which 19 are nationalised banks and six are SBI and its associate banks, the other two being IDBI Bank and BharatiyaMahila Bank. Apart from this there are 23 private sector banks and a good number of foreign banks operational in the country. Banks in India are regulated by RBI and as such have to comply with regulatory norms like the CRR, SLR, and Basel III among others. As per directions of RBI on managing the NPAs and stricter provisioning norms to meet the minimum capital adequacy standards, the banking sector and PSU banks in particular have been volatile recently. RBI controls the flow of funds in the economy and tries to control the liquidity in the economic system. RBI's actions affect banks' lending and thereby the profitability and therefore the demand for these securities.

A. National Stock Exchange Index (NIFTY)

National Stock Exchange, popularly known as NIFTY 50 is the leading index of the Indian Stock market. Nifty stocks consist of 23 different economic sectors. Banking sector is one of the most actively traded sectors in NSE.

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B. Constituents of Bank index

The Bank Nifty or CNX Bank Index provides an overview of the stock market performance of the Indian banking sector. This study comprises of top 05 PSU banks and top 5 Private sector Banks (by market capitalization) which are constituents of Bank NIFTY. These constituents (PSU Banks and Private sector banks) serve as a benchmark and assists investors to easily understand and make informed investment decisions.

II. Review of Literature

William and Vimala (2015) examined the volatility of equity share price of five select private banks listed in the National Stock Exchange. Considering that banks play an important role in the economy of India, an attempt was made to analyse the market volatility of the selected banks by using mean, standard deviation and beta values using the opening and closing prices. It was concluded that the volatility of the closing prices was similar for all the five banks selected for the study.

Anbukarasi and Nithya (2014) made an attempt to bring out the correlation between select stock indices and the NIFTY from January 2013 to June 2014. It was found that there was a significant correlation of all the selected indices except Metal, Pharma, Bank and Realty indices. It was also concluded that the Pharma and Bank indices have a strong impact on NIFTY movements.

Rajamohan.S and Muthukamu.M (2014), conducted a comparative study between bank Index and other sectoral indices using Pearsonian correlation coefficient. It was found that Bank index positively influenced almost all the other sectoral indices. Investors, before investing in any sector, hence need to check the patterns in the banking sector as it could influence the behaviour of other sector stocks.

Bhowmik.D (2013) evaluated the framework of stock market volatility at the country level. According to the study volatility would be spurred by political turmoil or instability and high volatility reduces growth rate of the economy. Volatility also influences the volume of international trade and increases current account deficits

Shanmugasundram and Benedict (2013) conducted a study on the volatility of the sectoral indices with reference to NSE. In this study the risk relationship in different time intervals of the CNX NIFTY index and five sectoral indices including Auto index, Bank index, FMCG index, Infrastructure index and IT index was examined. The results of the study did not support any significant difference across the risk of sectoral indices and NIFTY.

Swarna Lakshmi (2013) used the ARCH model to measure the volatility in NIFTY and other 11 select sectoral indices in India for the period 2008 to 2013. A conclusion was made on the 11 sectors volatility in comparison with the NIFTY and it was found that among the 11 sectors, the realty sector was the most volatile than any other sector. The paper also has discussions on the reasons for the same.

Iii. Scope of the Study

This study is limited to period of one year from 21stApril 2017 to 20th April 2018 and is restricted to measuring and comparing the returns, volatility and beta of the top5 PSUs and 5 Private sector banks (by market capitalization) with the NIFTY index.

IV. Objective of the Study

This study is carried out to evaluate the nature and extent of relationship between returns and volatility of the top 5 PSUs and 5 Private sector banks (by market capitalization) with the NIFTY index. Hence the returns, volatility and beta of the top 5 PSUs and 5 Private sector banks (by market capitalization) with the NIFTY index have been analysed.

V. Research Methodology

A. Data used

The data used in for the study is purely secondary in nature where the daily closing of the NIFTY index and daily closing prices of stock of thetop 5 PSUs and 5 Private sector banks (As per highest Market Capitalization). The daily closing prices have been collected from the official website of National stock Exchange (NSE) for a period of one year from 21stApril 2017 to 20th April 2018.

B. Tools used for analysis

For data analysis here the descriptive statistics with regard to daily closing prices average, high and low and the daily returns are used. Volatility is explained using standard deviation and beta. The NIFTY index returns and each of the bank returns have been correlated to see the relationship.

C. Daily returns

To measure the daily returns as a percentage between any two days, the difference between closing price of the individual stock value of second day and the first day is divided by the closing price of the individual stock of the first day.

D. Standard deviation as a measure of volatility

Volatility is a measure of dispersion. If volatility is high, the risk of the security is considered high as well. Here standard deviation is used as a tool to measure volatility. Standard deviation is measure of dispersion of a set of data from its mean. The formula for standard deviation is

$$s = \sqrt{\frac{\sum_{i=1}^{N}(x_i - \overline{x})^2}{N-1}}.$$

Where σ the standard deviation, x is each value of the data set, $\overline{x}$ is the mean value of the data set and n is the number of values in the data set.

E. Beta as a measure of volatility

Beta has also been calculated for the top 5 PSUs and 5 Private sector banks (by market capitalization) stock.Beta is also known systematic risk to indicate if the bank stock is more or less volatile than the NIFTY. Beta measures the volatility of the stock to the market. A beta of more than 1 is an indication that the stock's price is more volatile than the market. So, for e.g., if the beta of a stock is 1.2, it is meant to be 20 percent more volatile than the market. The formula used to arrive at Beta (β) is as follows:

$$\text{Beta} = \frac{\text{Covariance}\,(r_i, r_m)}{\text{Variance}\,(r_m)}$$

Where β is Beta, Covariance (rm, ri) is the covariance between the market and stock and Variance(ri) is the variance of the market. All calculations have been done using MS Excel 2016

F. Correlation

Correlation is used to find relationship between the NIFTY index returns and the individual stock returns. In this paper a one to one correlation using Ms Excel 2016 is used. The data sets of daily returns of NIFTY index were correlated to the daily returns of the top 5 PSUs and 5 Private sector banks (by market capitalization) individually and the correlation coefficient was generated to check for relationship.

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VI. Analysis and Interpretation

A. Descriptive statistics of the banks and NIFTY index

Daily closing value of the NIFTY 50 and the top 5 PSUs and 5 Private sector banks (by market capitalization) stocks for the period between 21stApril 2017 and 21st April 2018 were extracted from the NSE website and the mean and standard deviation was arrived at. The table one below shows the daily high, low, average equity share price and standard deviation of the top 5 PSUs and 5 Private sector banks (by market capitalization) stocks and also the highest, lowest and average values and standard deviation of the NIFTY index.

TABLE1: Closing Index and bank index stock prices: Highest, Lowest, Mean values and Standard Deviation for the period 21stApril 2017- 20th April 2018

TYPE	Name of Index/ Stock	Closing Highest	Closing Lowest	Closing Mean	Standard Deviation (AvgDaily Volatility in %)
	NIFTY INDEX	**11130.4**	**9119.4**	**10093.6**	**0.687**
PSUs	SBI	337.5	234.8	287.207	2.24
	Bank of Baroda	195.75	131.55	159.2659	2.87
	IDBI Bank	84.65	51.8	62.477	3.34
	Canara Bank	439.9	235.45	339.523	3.30
	Bank of India	207.85	95.1	151.685	3.15
Private Banks	HDFC	2005.7	1496.6	1789.32	0.93
	Kotak Mahindra	1172.1	880.4	1015.51	1.25
	ICICI	362.3	257.85	302.59	1.90
	Axis	620.1	449.95	524.38	1.81
	IndusInd	1866.85	1389.25	1637.307	1.16

The table shows that the highest value of the NIFTY index for the period 21stApril 2017 to 20th April 2018 was 11130.4 with the lowest being 9119.4 and a mean of 10093.6 and a standard deviation of 0.687 (Average daily Variance in %). Among the banks listed, IDBI bank had the highest standard deviation of 3.34% reflecting highest fluctuation in price. HDFC Bank has the least standard deviation of 0.93% reflecting least fluctuation in price.

B. Average returns of the Index and Bank stocks

The average of daily returns for the Bank index stocks and Average NIFTY daily returns was calculated. The average returns of the NIFTY index for the period April 2015 –March 2016 was -0.06%. Average daily returns for the top 5 PSUs and 5 Private sector banks (by market capitalization) for the corresponding period are presented in Table two below.

TABLE 2: Average Daily Returns of the bank index stock for the period between April 2017 and March 2018

Sr. No	Name of the bank	Average daily returns (in %)
PSUs	SBI	-0.06
	Bank of Baroda	-0.08
	IDBI Bank	-0.03
	Canara Bank	-0.09
	Bank of India	-0.16
Private Sector Banks	HDFC	0.11
	Kotak Mahindra	0.11
	ICICI	0.02
	Axis	0.02
	IndusInd	0.09

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The average daily returns shown in the table indicate returns similar to the NIFTY index average returns. All the stock in the bank index have small amounts of negative returns for the period mentioned except Private Sector Banks which have shown a small but positive return.

C. Correlation between the bank index stock and NIFTY index

The correlation statistics between the daily average returns of the individual banks with the NIFTY index is presented in Table three. From the table it is very clear that all the banks' returns have positively correlated with the NIFTY index. HDFC bank among the top 5 PSUs and 5 Private sector banks (by market capitalization) has the highest correlation (0.496) with the NIFTY index, followed by SBI (0.457), ICICI bank (0.444), and so on. The least co-relation is of Canara Bank and IDBI bank with 0.37 and 0.287 values respectively.

More than 75 percentages of the stocks in the bank index have positive correlations of more than 0.40 with that of the NIFTY index, reflecting that both the bank index stocks and the NIFTY index move parallel or vary together.

TABLE 3: Correlation between Bank index stock and NIFTY index for the period 21st April 2017 to 20th April 2018

Sr. No	Name of the bank	Correlation with NIFTY Index
PSUs	SBI	0.457
	Bank of Baroda	0.394
	IDBI Bank	0.287
	Canara Bank	0.37
	Bank of India	0.422
Private Sector Banks	HDFC	0.496
	Kotak Mahindra	0.4238
	ICICI	0.444
	Axis	0.408
	IndusInd	0.441

D. Beta of Bank Index stocks

As mentioned earlier beta reflects the volatility of the respective stock in relation to the market movements which is in this case considered as NIFTY index movements, as NIFTY reflects market movement. A beta of more than 1 is an indication that the stock's price is more volatile than the market.

Beta value has also been calculated for all the top 5 PSUs and 5 Private sector banks (by market capitalization) stock appearing in the bank index using Ms Excel 2016. The data related to daily returns of the NIFTY index and daily returns of the stock were used to arrive at the beta value to explain the share volatility corresponding to the index. Table 4 presents the details of calculated Beta values of the top 5 PSUs and 5 Private sector banks (by market capitalization).

TABLE 4: Beta values of the banks for the period 21st April 2017 – 20th April 2018

Sr No.	Name of the bank	Beta of the stock
PSUs	SBI	1.023
	Bank of Baroda	1.129
	IDBI Bank	0.983
	Canara Bank	1.22
	Bank of India	1.328
Private Sector Banks	HDFC	0.4598
	Kotak Mahindra	0.530
	ICICI	0.843
	Axis	0.738
	IndusInd	0.513

A look at the table four gives a clear indication that all the bank stock appearing in the bank index has been highly volatile during the period. Bank of Indiashows the highest beta value of 1.328 followed by Canara Bank (1.22), Bank of Baroda (1.129), SBI (1.023), IDBI Bank (0.983), ICICI Bank (0.843), Axis bank (0.738), Kotak Mahindra bank (0.53) and the lowest beta value among the banks was HDFC bank with 0.45 beta. This gives a clear indication that all banks except HDFC bank were more volatile than the market.

TABLE 5: Summary of research data

RESEARCH OF INVESTMENT RISK USING BETA COEFFICIENT							
Symbol	**Close Price**	**Daily return**	**Daily Volatilty**	**Annual Volatilty**	**Covariance**	**Correlation**	**Beta**
PSU Banks							
BANKINDIA	151.69	-0.16%	3.15%	60.11%	0.912	0.422	1.328
CANBK	339.52	-0.09%	3.30%	63.07%	0.837	0.369	1.219
BANKBARODA	159.27	-0.08%	2.87%	54.74%	0.775	0.394	1.129
SBIN	287.21	-0.06%	2.24%	42.72%	0.702	0.457	1.023
IDBI	62.48	-0.03%	3.43%	65.46%	0.675	0.287	0.983
PVT Banks							
ICICIBANK	302.59	0.02%	1.90%	36.31%	0.579	0.444	0.843
AXISBANK	524.39	0.02%	1.81%	34.54%	0.507	0.408	0.738
KOTAKBANK	1015.52	0.11%	1.25%	23.92%	0.364	0.424	0.531
INDUSINDBK	1637.31	0.09%	1.16%	22.23%	0.352	0.441	0.513
HDFCBANK	1789.33	0.11%	0.93%	17.71%	0.316	0.496	0.460

Table 5 shows comparative analysis between PSU banks and Private sector banks.

Vii. Discussion and Conclusion

The objective of the paper was to analyser the nature and extent of relationship between returns and volatility of top 5 PSU and Private sector banks (based on highest Market Capitalization). With reference to TABLE 5 showing research summary, following points can be concluded: -

1) The daily returns of the PSU banks are negative whereas that of Private sector banks are positive.
2) The PSU banks have higher daily volatility than the Private sector banks. Financially stronger banks have less volatility amongst the banking sector.
3) Similarly, the PSU banks have higher annual Volatility than the Private sector banks.
4) Both, PSUs and Private sectors banks are positively co-related with NIFTY (as shown

by Co-Variance and co-relation).

5) PSU banks are having higher β than the Private sector banks. PSU banks carry more risk than NIFTY whereas Private sector banks carry less risk than NIFTY.

6) For investors, going long on Private sector banks, and short on PSU banks has generated Alpha in the period studied.

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International Journal of Management, IT & Engineering
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Participation Level and Empowerment of Women through MGNREGP in Keerapalayam Block, Cuddalore District

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Abstract
This study focus on women's levels of participation in Mahatma Gandhi National Rural Employment Guarantee programme inKeerapalayam block of Cuddalore District. The MGNREGP has implemented in 2nd February in 2006, introduced in 200 most backward districts in the country. The programme aims toreduce poverty, create employment opportunity, create assets, and empowering rural women. The programme providing 100 days guarantee employment in rural peoples, now its increasing 100 days to 150 days and it also to improve labour market outcomes. MGNREGP increase income and expenditure of the households compare after the MGNREGP period and the scheme significantly enhances the social and economic decision making power to women in the men dominant rural society. This scheme improves the standard of living in rural poor especially among women. The programme aims for strengthening women empowerment, protect the social environment and also give equal power in the political level of men and women. MGNREGP is improving woman economically and socially.

Keywords: Employment Guarantee, Empowerment, Poverty elevation

Introduction

The women are an essential part of the society because they play a very important role in the development of the society. At the same time, women are needed some support for empowerment themselves and their family. Women empowerment in the power of having decision making to their own. The present day the word empowerment has become synonyms of the women.

At present it is generally seen that women are not lagging behind of men. They play vital role to the contribution of making their family decision independently. The women empowerment is very important who earn their livelihood and it can challenge the social gender relations and gender equality. The central government takes various rural development programmes for the upliftment of women development and women empowerment. The MahatmaGandhi National Rural Employment Guarantee Act (MGNREGA) introduced on 2nd February 2006 in implemented in the most backward district of our country to develop the women socio-economic status and women empowerment. The Act that provides guaranteed to work for rural poor and mainly for women's the main objective of this act is to improve the women socio-economic status and purchasing power in rural poor. It also aims to empowerwomen and strengthening the women weaker sections, improving women economic status and create self-respect in the society.

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The Mahatma Gandhi National Rural Employment Guarantee Act, besides, the main features mentioned in the above background note, also involves participatory planning and implementation of the Act through

(i) Proactive role of Gram Sabha

(ii) Rigorous & continuous monitoring by way of social audit

(iii) Involvement of ordinary people at the grass-roots level.

It addresses to reduce, chronic poverty, Drought, Deforestation and Soil erosion. It also aims at Generating productive assets, Protecting the environment, Empowering rural women and arresting rural-urban migration.

Review of Literature

SumeethAgarwal and Madhavi Devi (2015) have explained in this study woman of India are relatively disempowered and they enjoy somewhat lower status than that of men in spite of many efforts undertaken by the government. MGNREGA by adopting Inclusive participatory growth is playing a major role inbringing the women of the society into the productive zone. Rural women are more prone to domestic violence than that of urban women. A large gender gap exists in political participation too. The study concludes with an observation that MGNREGS has to lead to women empowerment through the active participation of women in MGNREGS works.

Sharma Vishnu Kanth and Kumar Ashvine (2013) have discussed in this article rural household whose adult members are willing to participate in unskilled manual work. The act is an important step towards the realization of the right to work and aims at arresting out-migration of rural households to strengthen the women employment by enforcing that about 33 percent of the totalworkforce should be allotted to women and also that there will be equal wages for men and women. It is playing a substantial role in creating employment for women thereby, leading to greater independence and self-respect among women. Employment and simultaneously enhancing people's livelihood on a sustained basis, by developing the economic and social infrastructure in rural areas

Venubabu and Sudhakar (2014) have discussed in this article about women empowerment.NREGA promises from the perspective of women's empowerment as well. Most boldly, in a rural milieu marked by stark inequalities between men and women. In the opportunities for gainful employment afforded as well as wage rates enhance livelihood security in rural areas by providing at least 100 days of guaranteed wage employment in a financial year. To every poor woman's whose adult members volunteer to do unskilled manual work? This work guarantee can also serve to generate productive assets, protecting the environment, empowering rural women, reducing rural-urban migration and fostering social equity, among others.

Objectives

1. To analysis socio-economic status of sample respondent in Keerapalayam block Cuddalore district.
2. To analysis participation level of women on MGNREGA in Keerapalayam block of Cuddalore district.

Methodology

This study used primary data in selected villages, the primary data were collected from Vayalur and Kannur in Keerapalayam block in Cuddalore district. To adopting the simple random sampling method the sample respondents were selected in the study area. The total sample size for 150 and were selected randomly in interview method in households in the study area.

Table-1: Classification of Respondents According to their Age

S.No	Age/Village	No of respondent		Total (%)
		Vayalur village	Kannur village	
1	**20-30**	21 (14.0)	29 (19.3)	**50 (33.3)**
2	**31-40**	34 (22.7)	17 (11.3)	**51 (34.0)**
3	**41-50**	14 (9.3)	19 (12.7)	**33 (22.0)**
4	**Above-50**	6 (4.0)	10 (7.0)	**16 (10.7)**
	Total	**75 (50.0)**	**75 (50.0)**	**150 (100.0)**

Sources: Primary data

The table-1 explicit the classification of sample respondents according to the category of age and village wise of the total 150 sample respondents 34.0 percentages of respondents (22.7 percent from Vayalur and 11.3 percent from Kannur) are under the age group of 31-40. Further 20-30 age group of respondents is involved 33.3 percent (14.0 percentages from Vayalur and 19.3 percentages from Kannur). Similarly, the 22.0 percent of respondents belong to the age group of (9.3 percent from Vayalur and 12.7 percent from Kannur) 46-50. Rest of the 10.7 percent of respondents (4.0 percent from Vayalur and 7.0 percent from Kaanur) above 50 age group.

Table-2: Classification of the Respondents According to their Education Level

S.No	Education	No of respondent		Total (%)
		Vayalur village	Kaanur village	
1	**Illiterate**	11 (7.3)	14 (9.3)	**25 (16.7)**
2	**Primary education**	25 (16.7)	29 (19.3)	**54 (36.0)**
3	**Middle education**	27 (18.0)	18 (12.0)	**45 (30.0)**
4	**Higher education**	12 (8.0)	14 (9.4)	**26 (17.3)**
	Total	**75 (50.0)**	**75 (50.0)**	**150 (100.0)**

Sources: Primary data

Table-3 shows that classification of sample respondents according to their educational level the 16.7 percent of respondents (7.3 percent from Vayalur and 9.3 percent from Kaanur) in the group of illiterate. Most of the respondents 36 percent (25 from Vayalur and 29 from Kaanur) have primary education. Further 30 percent of respondents (18 percent from Vayalur and 12 percent from Kaanur) having a middle education. Rest of 17.3 percent of respondents were fall (8 percent from Vayalur and 9.4 percent from Kaanur) in the group of higher education.

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Table-3: Classification of the Respondents According to their Income Level

S.No	Income	No of respondent		Total (%)
		Vayalur village	Kaanur village	
1	**Below-`.40000**	28 (18.7)	19 (12.7)	**47 (31.3)**
2	**40001-60000**	24 (16.0)	29 (19.3)	**53 (35.3)**
3	**60001-80000**	12 (8.0)	13 (8.7)	**25 (16.7)**
4	**Above-80001**	11 (7.3)	14 (9.3)	**25 (16.7)**
	Total	**75 (50.0)**	**75 (50.0)**	**150 (100.0)**

Source: Primary data

Table- 4 shows that the annual income of sample respondents, in the Kaanur village 18.7, 16, 8, and 7.3 of the respondents has an annual income below- `.40000. `.40001-`.60000, `.60001-`.80000 and above `.80001 earned respectively. In the second village of Kaanur 12.7, 19.3, 8.7, and 9.3 of the respondents their annual income below-`.40000, `.40001-`.60000, `.60001-`.80000 and above `.80001 earned respectively.

Table-4: Classification of Respondents According to their Savings

S.No	Saving	No of respondent		Total (%)
		Vayalur village	Kaanur village	
1	**Below-`.5000**	26 (17.3)	22 (14.7)	**48 (32.0)**
2	**`.5001-`.10000**	20 (13.4)	11 (7.3)	**31 (20.7)**
3	**`.10001-`.15000**	15 (10.0)	27 (18.0)	**42 (28.0)**
4	**Above-`.15000**	14 (9.3)	15 (10.0)	**29 (19.3)**
	Total	**75 (50.0)**	**75 (50.0)**	**150 (100.0)**

Source: Primary data

Table-5 shows the respondents saving the level in the study area. The 32.2 percent of the respondents (17.3 percent from Vayalurvillageand 14.7 percent from Kaanur village) have saved the money below-`.5000. The 28 percent of respondents (10 percent from Vayalur and 18 from Kaanur) saved money from their wage were fall under `.10001-`.15000. Further 20.7 percent of respondents (13.4 percent from Vayalur and 7.3 percent from Kaanur) have saved the money of `.5001-`.10000 and the remaining 19.3 percent of respondents (9.3 percent from Vayalur and 10 percent from Kaanur) saving fall under the range of above `.15000.

Table-5: Cross Table Analysis of the Respondents about their Empowerment in the Study Area

S.No	Category	Low	Moderate	High	Total
1	Skill development	59 (39.3)	82 (54.7)	9 (6.0)	150 (100.0)
2	Communication skill	27 (18.0)	79 (52.7)	44 (29.3)	150 (100.0)
3	Decision making skill	24 (16.0)	65 (43.3)	61 (40.7)	150 (100.0)
4	Ability to bargain skill	28 (18.7)	80 (53.3)	42 (28.0)	150 (100.0)
5	Ability to question various forum of exploitation	7 (4.7)	77 (51.3)	66 (44.0)	150 (100.0)

Table-5-explain empowerment of the respondents in Keerapalayam block, regarding the empowerment, five independent variables are taken to the account viz., skill development, communication skill, decision making skill, ability to bargain skill, ability to question various forum of exploitation. In Keerapalayam block the respondents are having a moderate level of communication skill, decision making skill. Regarding skill such as the ability to question various forum of exploitation, ability to bargain and skill development the respondents have a high level of skill are recorded in Keerapalayam block.

Hence, the respondents in Keerapalayam block Vayalur village respondents have a higher level of skills than the Kaanur village. At the same time, both village people are having socio-economic empowerment through the MGNREGP schemes.

Findings

1. The 67 percent of the respondents belong to below 40 years of age
2. The participation level of women respondents was fall under the primary and middle education, ie 66 percent in the study region.
3. The 66.5 percent of the respondents were got an annual income of below `.60000 and only 33.5 percent of the respondents received their annual income of above `.60000 in the study region.
4. In the study region, the respondents have development skill at a high level. That is nearly 50 percent of the respondents have a skill like decision making, ability to bargain and ability to question in the various forum.
5. Based on this study more than 65 percent of the respondents are having economic empowerment and political empowerment through the MGNREGP schemes in the study region.

Suggestions

1. The number of working days should be increased to 200 days per yea
2. To arrange safe drinking water and health facility in the study region.

Conclusion

MGNREGP is playing vital role of a catalyst in the rural economy it is expended enhance peoples livelihood security on a sustained basis by developing economic and infrastructure in rural areas. MGNREGP play in active role in the implemented of employment guarantee scheme through Gramsabha, social audit, participatory planning, and other activities The MGNREGP in the study area shows an upward trend in all the aspects increase in a number of households, expenditure, the standard of living, saving and assets. The proper utilization of funds under the scheme will have a positive input in rural women, rural development and the economic development in the study region. Hence the MGNREGP play a vital role to develop the respondent's socio-economic empowerment in the study region.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

ROLE OF ICT IN EDUCATION SECTOR: A STUDY OF ICT TOOLS IN EDUCATIONAL SETTING

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Abstract
This study aims to explain the role of ICT in education sector, and to understand that how various ICT tools can help in making learning process easy and effective for students. Researcher has explained the concept of e-learning in modern era. The study is conceptual in nature and based on the studies conducted by various researchers in this area. It can be concluded from the study that adopting ICT tools in both primary & higher institutions does help in improving the effectiveness of learning**.** These tools are manifesting their usefulness both in the way Learners approach to their classes as well as how the Instructors deal with them. Hence it has become a necessity for institutions across the globe to adapt to ICT as the old traditional patter may not be sufficient in near future & will become obsolete as the human civilization advances & so does the sphere of knowledge.
Keywords: ICT, education, e-learning, educational tools, students, teachers, classroom training, and educational institutes.

1. Meaning of Ict

ICT is the short form of Information and communication technologies. This is an extensional term for Information technology(IT) which stresses the role of unified communication and integration of telecommunications (Telephone lines & Wireless signals), Computers as well as necessary enterprise software. Middleware, storage & audio visual systems which enables users to access, store, transmit & manipulate information (Chris, 2007). This includes Internet, Wireless networks, cell phones & other communication devices. The term ICT is also used to refer to the convergence of audiovisual & telephone networks with computer networks through a single cabling or link system (Watson, 1986). However, the definition is not sacrosanct as the "concepts, methods & application" involved in ICT are constantly evolving almost on daily basis The broadness of ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in digital form. ICT can enhance the quality of education in several ways such as increasing learner's motivation and engagement, facilitating the acquisition of basic skills and by enhancing teacher training. ICT are also transformational tools which when used appropriately can promote the shift to a learner centered environment (Lefrancois, 1972).

In recent years there has been a groundswell of interest in how computer & internet can be best used to improve the efficiency & effectiveness of education at all levels in both formal & non formal settings (McMahon, 1997). Hence ICT is being used widely in teaching & learning in both classroom settings & informal settings (Coleman, 1984).

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2. Literature Review

Currently IC technology is being employed by Instructors & Teachers across the Globe for designing instructional material which can not only be operated by students themselves but also give them a platform to connect not only with other Students but Teachers as well in their pursuit of education (Eric, et al., 2009). Though here the focus is on educational theories only but they are more interactive as compared to a traditional Classroom teaching. Using ICT tools the students can share their learnings, ideas, views & queries with others & vice versa. Same way they can collaborate with others to find solutions to problems. This could have been nearly impossible & erratic in traditional type of learning methods (Hamid et al., 2014). Another advantage is that large amount of historical & current data is available here which can be easily sorted & downloaded for quick reference (Peter, 2011). This is far easier than going across scores of books searching to find relevant data. Thus it also saves a lot of time & energy (Elis, 2004). Not only that but this is also a better leaning medium in which the learner can go thru the material again & again which was not possible in traditional way of teach (Desai et al., 2008). On the other side the Teachers can go through the instructions & further keep on refining those (Schroeder et al., 2010). This results in development of a system which continuously improves upon itself thus becoming more efficient & effective as a learning tool with each passing day (Seaman & Tinti-Kane, 2013).

Thus we can say that ICT is a continuously evolving system which makes the traditional teaching/learning system far more interesting, collaborative, efficient & effective. ICT is not only a tool for learning but has the capability to change the entire nature of the education & its objectives. We can understand it from the fact that with the growth of civilization human race has been continuously innovating (Odom, 2010). From being hunters in primitive ages it converted to farming, developed communities, defined laws & regulations for social co existence, acquired skills in various fields such as medicine, Engineering etc& developed a Global world order where different countries across various continents are bonded together with various treaties & Agreements. Thus the ambit of knowledge kept on expanding & today has become so wide that there is a fear of losing acquired skills as we move forward if we rely on the traditional systems only (McLoughlin& Lee, 2008). ICT as a tool here offers enormous advantage as not only all the acquired knowledge can be stored easily but can also be retrieved with equal ease for further working. Analysis & synchronization of data has become very smooth due to this (Griffith &Liyanage, 2008). Hence now the instructor role has basically changed to that of a moderator & the ICT tools provides the platform for the students to have an interactive learning (Tay& Allen, 2011). On the other hand, the effectiveness of Instructor has increased manifold as he can quickly retrieve & give references to students to explain his point of view without carrying a bundle of books or carefully stacked notes with him (Racthman&Firpo, 2011).

3. Usefulness of ICT Educational Tools

No doubt Institutions across the Globe are adopting ICT tools for imparting education not only at the basic level but at the advanced levels as well. These tools are easy to adopt, exciting to use, smooth to maneavur, flexible to operate & come at negligible price while providing Global access to knowledge. Also Online learning is not restricted to just one Classroom, One Instructor & the Students present there (Brown, 2010.) It has a wider reach across the Globe where we can find the responses to our views thereby getting

Global validation for same. Also against any query/problem posted we can get a myriad of solutions, may be all different but all correct under the environment & context it has been posted by respondent (As environment varies from Community to Community & from Nation to Nation). Moreover, Educational articles can be published online & their access can be provided to other learners under a controlled environment with the Author acting as an Administrator of that material (Hemmi et al., 2009). Thus it is possible for anybody to use the material of any Author though with the consent of Administrator, may be at a price or some quid pro quo (Selwyn, 2012).

As per the researches done by many psychologists with regards to ICT tools majority of them agree that using ICT tools increases learning speed by providing a better experience in an interesting environment (Crook et al., 2008). Practically also it has been observed that ICT tools give a better understanding to learners as they tend to become more attentive & hence there are lesser chances of losing interest when ICT is used in classroom setting (Chen et al., 2011). Not only that but they also imbibe the learning's better & this has reflected not only in the overall scores but also in effective operation of various tasks. Another important aspect is that some learners are hesitant to ask questions/queries in classroom & the resultant poor understanding of the topic weakens their base & the subsequent topics which are related to that subject matter become even more difficult to understand. ICT comes as a boon for such Learners as they can use social ICT educational tools such as wikis, Blogs & social networking sites to clear their queries as well as seek answers to their doubts as here they can frankly put in their views without any fear of adverse comments by the Instructor or their becoming centre of fun in the presence of others. This not only helps them to manifest themselves in a coherent & detailed way but also their motivation level & learning improves by the feedbacks received. Such feedbacks are very useful as the publisher get the detailed view of both the sides of coin thereby improving his analytical skills as well which in turn reflects in their quality of work (Ellison, 2007).

Researchers one after other have repeatedly observed that when learners publish their ideas, work or experiences online they are read by numerous viewers & audiences belonging to different social backgrounds & as a result the feedback which comes is very enriching (Tower et al., 2014). Moreover, even the viewers find it interesting to read as well as such works is genuine firsthand experience of a person & closer to reality (Hall and Hall, 2010).

Hence academicians have come to a conclusion that ICT, if utilized in the right way, can be one of the most effective tools as a learning aid for the students (Pursel&Xie, 2014). Not only that but it can be productively utilized in large organizations in motivating the Employees by improving their skills as well as by keeping them update on the vision & mission of the company thereby building efficient & cooperative work force aligned to Organizations objectives.

The Apple Classroom of Tomorrow concluded in the late 80's that ICT technological tools lead to improvement in the writing skills & speed of work and also the test scores showed improvement (Heide& Henderson, 2001). Moreover, it was found that the fear/concern of many that these learners may feel isolated & will be cut off from reality was unfounded and had no base (Wheeler et al., 2008). Instead their collaborative skills improved as they started interacting with a lot no of other people on the social sites. Also they developed a better team spirit & showed inclination towards continual use of ICT technology as here students take the centre stage in stark contrast to traditional classroom setup where learners tend to become bored after some time (Hoffer, 1988). Another effect was on scope of learning as the students were able to data mine a lot of relevant information & works of other from the Internet (Preece&Shneiderman, 2009). This also leads to assimilating new & innovative approaches in their own work. Moreover, learners as a result not only are more at ease with the Computers & modern communication gadgets but also get a fairly good idea of the various ethical & social issue which they need to take care when using these media. Also it was felt that with ICT tools as an aid in traditional classroom teaching the environment changed to learner centered (where careful attention is paid to the knowledge, skill, attitudes and beliefs that learner bring with them to the classroom) from being Instructor centred (Rifkin et al., 2009). In this type of set up the knowledge is "not out there" independent of learner and which the learner passively receives. Rather knowledge is created through an active process in which the learner transforms information. Constructs hypothesis & makes decisions using his/her mental models (Rosen and Michelle, 1995).

Most advantaged by these ICT tools are the learners in the under developed countries who earlier did not had a reach to latest things happening in the knowledge sphere as they lacked the basic infrastructure of traditional classroom setting in their countries. Such learners now with the help of ICT tools are connected to the entire world & are update on the latest developments & innovations happening across the globe.

4. Trends of Information Communication Technologies in Education

Classrooms equipped with ICT tools i.e. Smart classes as they are also called have an interactive whiteboard predominantly displayed along with a Projector connected to Computer with CD Rom, Scanner & Printer (Gateway, 2010). On the software side we have software programs. However, with the advent of technology these Smart Classrooms have also seen a qualitative improvement by deploying wireless connections & web portals (Casal, 2007). These things might seem to be complex to observe but due to user friendly applications have made lifes of both teachers & taught stress free to a great extent. As they contain a large amount of information which can be easily mined by the Instructor it has made his life simple as he does not need to keep an assortment of reference books at home & make notes out of same. Also he need not keep on collecting latest editions of books to update his knowledge as all that is available on the click of the mouse. The learners on the other hand by interacting with other learners across the globe get a fairly clear understanding of any subject (Rubina et al., 2011).

However, it is important for the Instructor as well as the learner to keep abreast of the latest trends which are happening globally with reference to ICT (Hawkins Roberts, 2010). Major 10 trends are as in numerated below:

1. **Mobile Learning:** Presently there are a plethora of devices such as cell phones, iPads, notebooks, smart devices etc. connected to the internet & also having preloaded software to not only provide data from across the world but also the facility to share one's own work with the global community. This is especially important in case of under developed & developing nations as these devices which are good educational tools are available at affordable prices. However, they can't replace the Classroom setting with ICT tools as the Instructor there makes the difference in terms of guiding through a systematic & disciplined step wise learning process. But that does not mean that these gadgets are a distraction. They are actually a parallel means of education

most useful when outside the class. In other words, they are definitely not a substitute for the ICT classrooms but are surely supplementing tools. Through this we can get answers of any queries we come across after classroom by directly mailing them to Wikipedia & getting response in the form of text message (Ramzan, 2004).

2. **Cloud Computing:** As this requires less power in computing memory & is economical to use as compared to a proper ICT Classroom set up it's very useful for underdeveloped, emerging & weak economies. Additionally, this can also be provided by a third Party in case the inherent competence & capabilities are not strong enough with regards to strategic support. Also this saves a lot of expenses as well which is required in case of independent set up. However, this does require Internet connectivity & is also sometimes susceptible to hackers.
3. **One-to-One Computing:** In a typical ICT Classroom setting across the world the concept is to have Students learn from one data gadget under supervision of one Instructor. However, some countries are experiencing with a novel concept where each student has been provided one individual gadget – That may be a PC, Laptop, Smart Cell Phone or Tablet etc with worldwide accessibility. One example is Uruguay who have given 1 PC to each student at the primary class level & planned to start this activity from small & remote towns & then gradually move towards big cities. Thus they are using the ICT tools not only for the purpose of education but to transform a community as a whole. Intention is to speed up their learning process by giving the kids the latest gadgets & thereby giving them a global exposure. Additionally, the children were also encouraged to share their ideas, experience & knowledge with relatives & seniors at home. They got very encouraging results though faced some implementation issues, major being keeping the instructors update in view of fast learning capabilities of the kids & arrangement of financial resources to procure so many gadgets at one time along in case of this **One-to-One Computing model.** Another issue down the line will be related to E-disposal of these machines & their batteries.
4. **All pervasive Learning:** As the high speed internet availability is increasing & at the same time the costs of Computer & other Gadgets is going down, Governments across the world are transforming the traditional classroom settings to ICT Classrooms. Further they are trying to develop the capabilities so that the Learners can learn at any point of time & at any location. This is going to be a big change from the traditional classroom settings where we had eight periods of half an hour each. Also the hardware & software needs to be modified to provide for Learner to Learner interaction as well as deeper learning of topics with the help of virtual teachers. Even the books can be converted in to digital form which learners can study after the classrooms with the help of virtual Instructors. This is going to have a very wide ramification for the Private Tuition Industry that flourishes across the world as of now.
5. **Gaming:** In order to be successful in corporate world two important characteristics are engagement & collaboration amongst peers while remaining focused on the task at hand. These traits are becoming increasingly vital for success with more & more organizations shifting to matrix form of structure from the earlier hierarchical structure. Numerous educational games have been developed which give emphasis on vigorous involvement for scoring thereby developing concentration skills in learners & since

they are multiplayer games they develop team spirit as well. Current generation is very knowledgeable about these games.

6. **Personalized Learning:** Present ICT tools are able to comprehensively assess the current knowledge level vis a vis past knowledge base of learner & accordingly identify the gaps therein. Accordingly, Instructions can be molded to not only bridge these identified gaps but also to suit the education style of the learner. Thus using ICT enables Institutes to properly regulate instructions as per the individual needs of the learner. This is a sea change from the current education pattern where learners are taught as a group whereas in this pattern the student is the centre of attention. Many institutions are shifting to this pattern whereas each student's individual needs are assessed regularly & then each one of them is tutored based on that assessment. Initial results of this approach have been very encouraging. This pattern is only going to increase with time as the technological innovation keep on happening in ICT to take care such needs
7. **Redefinition of Learning Spaces:** With the advent of these new ICT based approaches the pattern & setting of the Classrooms is also changing. The present seating pattern of Students & teaches in an enclosed room is increasingly being considered as a prison type of structure with more of monologues than dialogues. This is giving was to a seating system which is more open & flexible & promotes a collaborative type of atmosphere thereby developing team spirit amongst the learners. Accordingly, the Instructor role is also changing to that of a facilitator. Even the hardware of classroom is changing. The traditional desk & chair giving way to round tables & Room structures transforming to open spaces or conference halls type of setting. In short look wise classrooms are changing into Art galleries.
8. **Teacher-Generated Open Content:** This is a new style of teaching & MIT is one of the inventors of this approach & has played a crucial role in bringing it to the world. In this approach instructors are allowed to generate their own education content as per the need of their classrooms & their teaching style by suitable modifying, adding or converting the material available in web putting in their own insights & experience. Instructors following this approach regularly collaborate amongst with each other regarding subject matter & share data with each other. This is also leading to changes in the legal setup where creative common licenses are becoming norm of the day instead of earlier copyright system where permission was required from the author to even reproduce his ideas.
9. **Smart Portfolio Assessment:** ICT is also helping in systematic & orderly organization of all the educational information under various categories. This makes it easy for the Instructors to modify the matter & their education style based on the gaps observed. So far the students are concerned all their work whether in the form of blog, tweet, image etc which they put up on internet is also displayed on their individual collection. Consequently, their work available on the individual collection can be evaluated by the Instructor or feedbacks can be solicited from peers. This way ICT is actually transforming the entire evaluation system which is present today
10. **Teacher Managers/Mentors:** Last trend is the change in the role of Instructor. He is fast taking on the role of an education facilitator where his job is to identify & create suitable material for his learners, collaborative association with his students both within

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

the classroom & outside, recognizing gaps in individual leaner's education base to modify the instruction style & pace accordingly.

Above trends which are emerging fast across all nations of the world are challenging the present system of traditional classroom learning & many nations are adopting these in order to keep pace with the changing needs in a technology based world.

5. E-Learning and Its Importance

Earlier anybody had just one option to learn i.e., go to a school and attend lecture from teachers. However, in case of E Learning both student & teacher interact online through a collaborative approach (Morgan, 2003). Both of them communicate & learn the courses online even if they are in the same premises. Though student can use offline material as well but they are sent to Teacher through internet. Online learning also uses internet but is a combination of E leaning & blended learning & uses tools like eztalks& cloud meetings (Virkus, 2008.) On the other hand, Distance learning though was introduced to attract students globally but now is becoming a synonym of online learning. In this pattern of education courses are offered to students if they meet the qualification & entry requirements. For instance, it allows a student from America to attend a European college without having to travel physically to attend Classes (Volman, 2005). However, E Learning is the latest concept & is very important for instructors & learners due to below reasons:

1) **Flexibility:** Many learners have some constraints not allowing them to attend a traditional classroom on regular basis. There, E Learning extends an advantage that the Learners can assess the subject material & teachers as per their own convenience. Not only that they can also submit their work whenever they require through Internet for evaluation as well.
2) **Improved and Revitalized Teaching:** E Leaning is a dynamic process as both learner & Instructor are exposed to plenty of subject knowledge & is more open to evaluation & review. In this innovative strategies need to be continuously devised. Hence Instructors need to devote a lot of time to structure the discourse in order to provide students an exciting experience.
3) **Enhanced Learning Experience:** E learning provides enhanced learning experience as there is more collaboration amongst the learners as it is not limited as in case of traditional classroom setting to few hours. Moreover, as the performances can be compared with that of others gaps are easily identified & one can strategize to bridge that gap. Learners who are not comfortable with English ascent have a problem of understanding the spoken lecture & are also unable to put in their doubts/queries clearly. However, in case of E Learning they can take their own time in going through the material available online & can also send blogs etc which are quickly evaluated by Instructor & peers.
4) **Improved Time to Degree:** In case of E Leaning thefast learners can complete their courses before time & move ahead. Also in certain cases where Learners are not able to clear some subjects they can take advantage of E Learning to clear them without wasting another year. Employed people can also take the advantage of getting higher qualification while they earn being gainfully employed.

Thus ICT technology can make a major difference to education system by improving effectiveness of teaching by increased motivation level of students. However, considering the disparity in development status of various countries it can at present cannot be a substitute but does improves the current system.

6. Conclusion

Now it can be comfortably concluded that adopting ICT tools in both primary & higher institutions does help in improving the effectiveness of learning**.** These tools are manifesting their usefulness both in the way Learners approach to their classes as well as how the Instructors deal with them. Hence it has become a necessity for institutions across the globe to adapt to ICT as the old traditional patter may not be sufficient in near future & will become obsolete as the human civilization advances & so does the sphere of knowledge. With increasing literacy level & deeper penetration of Internet even Parent are influencing upon institution to shift to ICT tools as they are convinced that Learners using technology are far more successful in professional life's as compared to those not exposed to it. Various researches have repeatedly validated those students who adopted IC tools irrespective of subjects not only scored better but also developed better reading & writing skills. They became more collaborative, got more dedicated to task & exhibited enhanced confidence. Moreover, since they believe in interaction which involves acceptance of contrary views as well they are more patient to instructions by the Instructor. Another advantage that came out repeatedly was the correction of mistakes is far easier on computer than in traditional means like manual writing or typewriter where the mistake is to be crossed or retyped after putting white ink. Moreover, by using ICT tools work can be presented in a more beautiful way in the form of presentation with very little labor.

However, this has another aspect as well which is contrary to what has been discussed above. It is also possible that students may get bored also with ICT learning if it is not stimulating, inspiring & fulfilling the expectations of learners. Hence there is another school of thought which says that 100% dependence on ICT tools cannot bring out the desired results unless it is backed by proper teaching plan by the Instructor. Moreover, the ease with which a learner adopts top ICT tools also depends upon the social environment in which he has been brought up, his Family condition & the level of technology that is available in his country.

Thus we can conclude that the importance of ICT tools in learning cannot be discounted but at present it can act as supplement to traditional system of education in countries which are under developed & developing ones. However sooner or later entire Globe has to shift to ICT based learning as the enormous amount of knowledge generated cannot be retained & taught by manual methods.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Mutual Funds in India: A Comparative analysis of Mid cap Mutual fund schemes

Dr. NilamPanchal*

Abstract
The present paper analyses the performance of 10 mid cap mutual funds with its benchmark index as Nifty free float Midcap 100 for 12 months period starting from April, 2017 to March, 2018. Monthly NAV of different schemes have been used to calculate the returns from the fund schemes. Nifty free float midcap 100 has been used for market portfolio. The historical performance of the selected schemes were evaluated on the basis of Sharpe, Treynor, and Jensen's measure whose results will be useful to investors for taking better investment decisions.
Key Words: Mutual Funds, Portfolio

Introduction

Among many of the financial instruments, mutual fund is one of the most attractive financial investment instruments that play a vital role in the economy of a country. Mutual fund schemes provide new opportunities for investors. During the last few years many extraordinary and rapid changes have been seen in the Mutual fund industry. Therefore, due to the changed environment it becomes important to investigate the mutual fund performance. The need for evaluating the performance of mutual fund schemes in India to see whether the mutual fund schemes are outperforming or underperforming than the benchmark and to see the competency of schemes to make out a strong case for investment. For example, The Assets Under Management (AUM) of the Indian mutual fund (MF) industry witnessed an exceptional growth of 42% in FY2017. According to Association of Mutual Funds in India (AMFI) data, AUM grew from Rs. 12.3 lakh crore in March 2016 to Rs. 17.5 lakh crore in March 2017. The Quarterly Average Assets under Management (QAAUM) also registered a growth of 8% in the last quarter of FY2017. The growth can be attributed to strong retail participation and overall market gains.

Mid cap mutual funds primarily invest in mid cap stocks of companies whose market capitalization falls below top 100 companies in India. These funds are regarded risker tan large caps but safer than small caps. During Bullish phases, these funds can give you sky high returns but during bearish phases, these tend to lose more than small caps and usually wiping out fortunes. Mid cap equity funds often operates in niche segments of the economy and have the potential to become future large caps.

Basically, long-term investors benefit hugely in Midcaps. Overall, Midcaps tend to go through high volatility but, at the end of the day who has remained a long-term investor has amassed considerable wealth. The Midcap index has given an amazing 400% in the last one decade at the same time the large cap (Nifty 50) has given a return of 350%, so we are not really that far in terms of return, but in terms of volatility, the large cap has had a

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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standard deviation of almost half that of the Midcap index. This is the reason why mid cap over large cap have been chosen for analysis.

Literature Review

A number of studies on evaluating the performance of Indian Mutual Fund Schemes have been conducted in India and foreign countries. But the number of studies specifically for mid cap funds are very less. That was the main reason that mid cap funds have been chosen for analysis. Their review is presented in the following discussion which has been taken as guidance throughout the course of analysis and work on this project.

Dr. SaritaBhal and Minakshi Rani (July, 2012) : This research paper has been presented on comparative analysis of mutual fund schemes in India which was investigating the performance of 29 open-ended, growth-oriented equity schemes for the period from April 2005 to March 2011 (six years) of transition economy. BSE-sensex has been used for market portfolio. The historical performance of the selected schemes were evaluated on the basis of Sharpe, Treynor, and Jensen's measure whose results will be useful for investors for taking better investment decisions. The study revealed that 14 out of 29 (48.28 percent) sample mutual fund schemes had outperformed the benchmark return. The results also showed that some of the schemes had underperformed; these schemes were facing the diversification problem. In the study, the Sharpe ratio was positive for all schemes which showed that funds were providing returns greater than risk free rate. Results of Jensen measure revealed that 19 out of 29 (65.52 percent) schemes were showed positive alpha which indicated superior performance of the schemes.

KishorkumarBalpali(2016) : This study was conducted comparative analysis of top 5 mid cap equity mutual funds by using meausres like Sharpe ratio, Sortino ratio, standard deviation, Beta, DCR measure, R square, Alpha and expense ratio. It concluded that relatively high risk seeker may find commensurate returns in CanaraRobeco Emerging Equities. Moderate risk seekers may invest in UTI mid cap fund growth and SBI magnum Midcap fund reg. Growth. Low risk seekers may try their hands on Franklin India Prima Fund and Mirae Asset Emerging Bluechip growth.

Dr. Sunil M. Adhav and Mr. AnoopWaghmare(june, 2016) : The comparative study on selected large cap equity mutual fund was conducted. The total 29 equity mutual funds are selected for the study, which were analyzed with the help of Return, risk (standard Deviation), and Sharpe ratio. The average annual return is highest percent for ICICI Prudential Focused Blue-chip Equity Fund - Regular Plan whereas average annual return is lowest percent for Religare Invesco AGILE Fund. The standard deviation is highest for HDFC Top 200 Fund whereas standard deviation is lowest for Religare Invesco AGILE Fund for the period 2009-14.The Sharpe ratio signifying the performance of mutual fund is highest for ICICI Prudential Focused Blue-chip Equity Fund - Regular Plan whereas it is lowest for Sundaram Select Focus Fund - Regular Plan for the period 2009-14 Thus it is concluded that some Equity mutual funds have performed better than others and generated better returns for the investors during 2009-10 to 2013-14.

Rahul Todur (2017):The main thrust of the research paper was on comparative study of mutual funds in India taking into reference of HDFC Mutual funds and SBI Mutual funds with analysis of small cap and mid cap companies. As investors generally feel that they should invest in private AMC held mutual funds for professional management and better returns over long term, It concluded that since inception SBI Mutual fund has given return of 20%, whereas HDFC mutual fund has given 14% return. So this study suggested investing in SBI mutual fund (Public company) over HDFC Mutual fund (Private Company).

Mr. Kamaljeetsingh (2010): This research paper was presented on comparative study of ICICI and HDFC mutual fund. The major findings of the paper were with increase in age; investors become risk averse and are satisfied by lower returns. Investors have more faith on HDFC MF over ICICI MF, with the former providing higher return than the latter.

S. Rajpurohit (2015) : This paper have conducted a comparative study on performance of top 5 mutual funds in India which is carried out through a performance index and risk analysis with the usage of daily NAV data. The study concluded that Overall, all selected mutual fund companies have positive return during 2009 to 2014. ICICImutual fund has performed well. Birla SL Intl. Equity A -Direct (G) and DWS Top Euroland Offshore Fund (G) mutual fund have lower level of risk compare to Franklin and DSP.Also, the rise in stock prices encouraged investors to book profits and shift money to debt schemesbecause the latter will generate healthy returns when interest rates soften, fund managers said.Clearly, investors are not convinced the stock market will continue to rise, with key indicestouching a new high this year.

Research Methodology

Objectives of the Study

To examine the performance of selected schemes by using the portfolio performance evaluation models namely Sharpe, Treynor and Jensen measures.

Research Methodology

To examine the mutual fund schemes performance, 10 schemes were selected on Total Asset basis. Monthly NAV of different schemes have been used in this study for the period of April 2017 to March 2018. Nifty Free Float midcap 100 has been used for market portfolio. In the study the monthly yield on 1 year SBI FD rate has been used as risk-free rate. The study was mainly secondary data based. Data regarding NAV were obtained from the web site of www.mutualfundindia.com and www.amfiindia.com for the period of April 2017 to March 2018. Data for monthly closing price for the benchmark index (Nifty Free float midcap 100) were collected from web National Stock Exchange.

Return: The monthly returns of the schemes were computed by using the following equation.

$$\text{Rpt} = \text{NAVt} - \text{NAVt} - 1 / \text{NAVt} - 1$$

Where, Rpt is return on fund scheme,

NAVt is the Net Asset value of the scheme at the end of 't',

Asset value of the scheme at the end of the month 't-1'.

The average return of the market portfolio is computed as follows:

$$\text{Rp} = \frac{1}{n}\sum_{t=1}^{n} \text{Rpt}$$

Where, Rp is the average return of the mutual fund schemes.

Similarly, the monthly returns for the market index were calculated by using the following formula:

$$\text{Rmt} = \text{NAVt} - \text{NAVt} - 1 / \text{NAVt} - 1$$

Where, Rmt return of the market index, Market Indext is the Market value of the index at the end of 't',

Market index of t-1 is the market value of the scheme at the end of the month 't-1'.

The average return of the market index is computed as follows:

$$Rm = \frac{1}{n}\sum_{t=1}^{n} Rmt$$

Risk: Standard deviation is a measure of risk. The standard deviation of mutual fund schemes has been calculated as under:

$$\sigma_p = \sqrt{\frac{1}{n-1}\sum (Rpt - Rp)^2}$$

The risk of the market has been calculated as under:

$$\sigma_m = \sqrt{\frac{1}{n-1}\sum (Rmt - Rm)^2}$$

Beta: Beta is the systematic risk. Beta is undiversificable in nature. It has been calculated by using this formula:

$$Beta = \frac{Cov(Rp - Rm)}{\sigma_p^2}$$

Sharpe Measure: William F. Sharpe (1966) had planned or invents an index of portfolio performance measure, namely Sharpe ratio. The formula for Sharpe measure is:

$$Sharpe = \frac{Rp - Rf}{\sigma_p}$$

Where, Rp is return of mutual fund portfolio,
Rf is risk free rate of return,
σ_p is standard deviation of the mutual fund portfolio.

Treynor Measure: This measure was developed by Jack Treynor in 1965 is based on systematic risk and known as reward to volatility ratio. The formula for this measure is

$$Treynor = \frac{Rp - Rf}{\beta_p}$$

Where, Rp is return of mutual fund portfolio,
Rf is risk free rate of return,
β_p is the systematic risk of the portfolio.

Jensen Measure: This measure developed by Michael Jensen. The formula for Jensen measure is:

$$(Rp - Rf) = \alpha + \beta_p(Rm - Rf) + ep$$

Where, Rp is return of mutual fund portfolio,
Rf is risk free rate of return,
β_p is the systematic risk of the portfolio,
Rm is the return of benchmark portfolio.

Results and Analysis

Ranking Of Funds: Treynor Measure

FUND	TREYNOR	RAKING
HDFC Mid-Cap Opportunities Fund	2.2622	1
ICICI Prudential Midcap Fund	1.8772	2
DSP BlackRock Midcap Fund	1.8449	3
L&T Mid Cap Fund-Regular Plan-Growth	1.2922	4
Principal Emerging Bluechip Fund	1.1454	5
UTI Mid Cap Fund	0.7525	6
Edelweiss Mid Cap Fund	0.6910	7
IDFC Sterling Equity Fund	0.4161	8
KotakMidCap	0.2753	9
Aditya Birla Sun Life MIDCAP Fund	0.0330	10

[Table 1]

The Treynor ratio relates excess return over the risk-free rate to the additional risk taken. However, systematic risk is used instead of total risk. The higher the Treynor ratio, the better the performance of the portfolio under analysis.Treynor measure also known as reward-to-volatility ratio. Here in Table 1, As per analysis HDFC midcap opportunities fund keeps beta of the portfolio as much low as possible. Therefore, in Treynor ratio this fund ranked 1. It signifies that this fund gives excess return keeping volatility of portfolio less than market portfolio.

Ranking Of Funds: Sharpe Measure

FUND	SHARPE	RANKING
Edelweiss Mid Cap Fund	4.2732	1
IDFC Sterling Equity Fund	3.9671	2
L&T Mid Cap Fund-Regular Plan-Growth	3.2081	3
Principal Emerging Bluechip Fund	2.1891	4
ICICI Prudential Midcap Fund	1.8997	5
UTI Mid Cap Fund	1.5979	6
DSP BlackRock Midcap Fund	1.4880	7

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

HDFC Mid-Cap Opportunities Fund	1.4156	8
KotakMidCap	1.3263	9
Aditya Birla Sun Life MIDCAP Fund	0.0330	10

[Table 2]

The Sharpe ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Here, Edelweiss Mid cap fund has the highest Sharpe ratio which shows that the excess portfolio return to the risk free return per unit of volatility or Total risk. Also, it has the lowest total risk compared to other funds which means the portfolio of Edelweiss mid cap fund has the lowest portfolio risk.

Ranking of Funds: Jensen Measure (Alpha)

FUND	JENSEN	RANKING
Edelweiss Mid Cap Fund	0.1308	1
IDFC Sterling Equity Fund	0.1183	2
L&T Mid Cap Fund-Regular Plan-Growth	0.1041	3
Principal Emerging Bluechip Fund	0.0727	4
ICICI Prudential Midcap Fund	0.0626	5
UTI Mid Cap Fund	0.0577	6
DSP BlackRock Midcap Fund	0.0443	7
HDFC Mid-Cap Opportunities Fund	0.0447	8
KotakMidCap	0.0292	9
Aditya Birla Sun Life MIDCAP Fund	0.0330	10

[Table 3]

The Jensen's measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment, above or below that predicted by the capital asset pricing model (CAPM), given the portfolio's or investment's beta and the average market return. This metric is also commonly referred to as Jensen's alpha, or simply alpha. Here, All 10 schemes shows positive Jensen alpha which shows superior performance of schemes predicted by CAPM model. But among all 10 schemes Edelweiss Midcap Fund outperformed performance predicted. Hence, ranked 1

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Vol. 8 Issue 5(1), May 2018,
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Performance Evaluation of Funds

Table 3 represents all 20 funds rankings as per 3 performance measure models. Aditya Birla Sun Life Midcap fund ranked last in all 3 measures. Therefore, it can be said that it has higher systematic risk with higher volatility in portfolio and has very low Jensen alpha.

FUND	TREYNOR	SHARPE	JENSEN
Aditya Birla Sun Life MIDCAP Fund	10	10	10
DSP BlackRock Midcap Fund	3	7	7
Edelweiss Mid Cap Fund	7	1	1
HDFC Mid-Cap Opportunities Fund	1	8	8
ICICI Prudential Midcap Fund	2	5	5
IDFC Sterling Equity Fund	8	2	2
KotakMidCap	9	9	9
L&T Mid Cap Fund-Regular Plan-Growth	4	3	3
Principal Emerging Bluechip Fund	5	4	4
UTI Mid Cap Fund	6	6	6

UTI midcap Fund has moderate beta, moderate volatility in portfolio and moderately superior performance predicted by CAPM model. Also, HDFC midcap opportunity and ICICI Prudential Midcap Fund have the lowest systematic risk and moderately superior performance predicted by CAPM model.

Conclusion

The present comparative analysis investigate 10 open ended, growth option MidCap mutual fund schemes for a period from April 2017 to March 2018. Results of the analysis based on Three portfolio measurement model shows that Investor should not invest Aditya Birla Mid Cap Fund, Kotak Mid Cap Fund as both of them have higher risk and low performance with compared to other schemes. If investor wants to invest lower systematic risk with moderately superior performance, then they are recommended to invest in HDFC Mid Cap Opportunities Fund and ICICI Prudential Mid Cap fund. To invest into fund which has superior performance with higher systematic, then Edelweiss Mid Cap fund is recommended. Also, with the requirement of moderate portfolio risk, moderate systematic risk and moderate performance L&T Mid Cap fund and UTI mid cap fund is recommended.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Issues and Challenges in Healthcare Decision Support System: A Review

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Dr. Shahnaz Fatima**
Dr. Swati Saxena***

Abstract
Information retrieval from medical knowledge base plays an increasingly very important part to assist doctors, physicians and domain experts to access better medical related knowledge and information to support effective decision making in Healthcare. Data mining and medical knowledge bases have the potential to improve the information retrieval performance and support to decision makers for relevance assessment and treatment. There are various healthcare decision support system and knowledge base but we mainly focus on Clinical decision support systems (CDSS), Health information systems (HIS) & Electronic health records (EHRs). In our critical review, we explore the uses of data mining in healthcare and compare these approaches to find their effectiveness, issues and challenges.
Keywords:CDSS;HIS;EHR;Data Mining:Information Retrival;Decision Support.

1. Introduction

With the exponential growth of medical related information, the retrieval of high quality results is becoming more significant [1]. Several previous research studies have shown the feasibility of computer assisted clinical information access and practice in terms of significantly reduced incidence of medical errors or improved accuracy of diagnosing multiple health issues [2] [3]. For medical applications like the Clinical Decision Support System (CDSS) and Health Information System (HIS) are effective and reliable information retrieval (IR) systems on the basis to provide scientific evidences to support the clinical decision making and improve the quality of health care [4]. But CDSS don't tell what treatment should be applied and they cannot suggest when to end a treatment. The knowledge base of CDSS and HER describes the symptoms of a potential health issue but doesn't tell what to do to solve the problem [9].

2. Clinical Decision Support System

CDSS belong to the wide range of expert systems used in medical practice, for in patient care and other medical needs, to support a physician's clinical knowledge for a diagnosis. These technologies can positively or negatively impact in patient quality of care [7]. CDSS provides clinicians, staff, patients or other individuals with knowledge and person specific information, intelligently filtered or presented at appropriate times, to enhance health and healthcare. A basic CDSS has normally two parts [9]:

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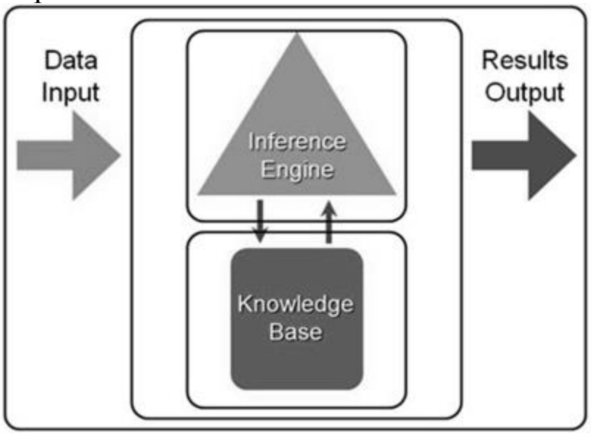
a. First component is the medical knowledge base component which stores information about specific common clinical patterns. It is the knowledge base.
b. a set of algorithms designed to recognize the patterns stored in the medical knowledge base. It is the medical software component.
Most CDSS consist of three parts, the knowledge base, inference engine, and mechanism to communicate. Using another interface, an advanced user could edit the knowledge base to keep it up to date with new drugs [9]. The inference engine combines the rules from the knowledge base with the patient's data.



[Figure 1: CDSS I/O System]

CDSS that do not have the knowledge base part use machine learning for clinical information analysis and those using only the knowledge base rely on health care search engines and health care provider's websites.

2.1 CDSS Classification

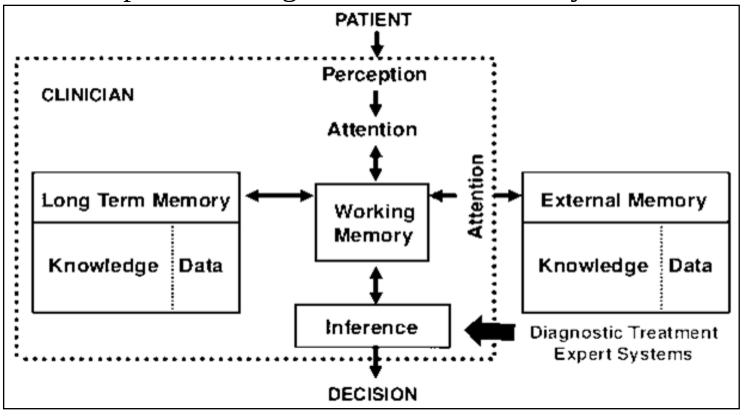
CDSS is classified into two parts:

Knowledge base CDSS	**Non Knowledge base CDSS**
The knowledge base contains the rules and associations of compiled data which most often take the form of IF-THEN rules.	CDSS that do not use a knowledge base, use a form of artificial intelligence called machine learning.
If this was a system for determining drug interactions, then a rule might be that IF drug X is taken AND drug Y is taken THEN alert user.	It allows computers to learn from past experiences and find patterns in clinical data.
The communication mechanism will allow the system to show the results to the user as well as have input into the system. [9, 10]	Two types of non knowledge based systems are artificial neural networks and genetic algorithms. [9, 10]

[Table 1: Knowledge base CDSS vs Non Knowledge base CDSS]

2.1 How does CDSS work?

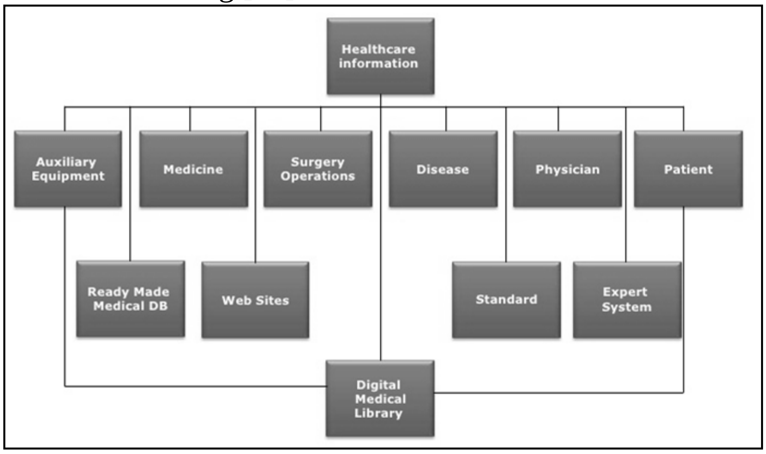
The Physician use the CDSS to ask basic questions his patient must accurately answer and the MDSS matches those answers with patterns within the knowledge base (database) to provide a first diagnosis [9]. Data mining is the common data management technique used by care providers to analyze a patient's medical history to get information to use with the CDSS. It is used to sort the available health care information of a patient to identify pathological patterns and to match them with those found in the knowledge base or if not, with machine learning. Predictive Analytics is one of the attributes of Data Mining that allow clinical practitioners to effectively analyze relationship between patterns and to forecast health issues their patients are likely to experience in the future. When it exists, the knowledge base must be updated on regular basis for accuracy [8].



[Figure 2: CDSS Working Process]

3. Health Information System

HIS provides the underpinnings for decision-making and has four key functions: data generation, compilation, analysis & synthesis, and communication. The health information system collects data from the health sector and other relevant sectors, analyses the data and ensures their overall quality, relevance and timeliness, and converts data into information for health related decision making [11].



[Figure 3: HIS Information Hierarchy]

3.1 Components of HIS

The Health Metrics Network (HMN), in their Framework and Standards for Country Health Information Systems, has defined a Health Information System as consisting of six components:

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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S. No.	Component	Functioning
1.	Health Information Systems Resources	These include the legislative, regulatory and planning frameworks required for a fully functioning health information system, and the resources that are required for such a system to be functional. Such resources involve personnel, financing, logistics support, ICT, and coordinating mechanisms within the six components.
2.	Indicators	A core set of indicators and related targets is the basis for a health information system plan and strategy. Indicators need to encompass determinants of health, health system inputs, outputs and outcomes and health status.
3.	Data Sources	These can be divided into two main categories: (1) population-based approaches (censuses, civil registration and population surveys) and (2) institution-based data (individual records, service records and resource records). These include occasional health surveys, research, and information produced by community based organizations.
4.	Data Management	This covers all aspects of data handling from collection, storage, quality-assurance and flow, to processing, compilation and analysis.
5.	Information Products	Data must be transformed into information that will become the basis for evidence and knowledge to shape health action.
6.	Dissemination and Use	The value of health information is enhanced by making it readily accessible to decision-makers and by providing incentives for, or otherwise facilitating, information use.

[Table 2: HIS Components and Its Functioning]

4. Electronic Health Records

EHRs are safe, confidential records kept on a computer about your health care or treatments. These records are kept by your doctor, other health care provider, medical office staff, or a hospital. If your providers use EHRs, they can join a network to securely share your records with each other.

4.1 Functions of the EHR

EHRs contain basic information like your name, contact numbers, medical history, information about medication and allergies, information about current medical issues, test results and progress notes, as well as administrative and financial documents. Digital records bring all your information together and allow different health professionals to share and exchange this information [11].

4.2 Benefits of EHRs

Some of the benefits of electronic or digital health records include:

a. Information gathered by primary care providers can be shared by emergency departments. For example, if a person is allergic to a certain drug, this lifesaving alert is passed on even if the patient is unconscious.
b. There is a record of recently run medical tests, so unnecessary duplication can be avoided.
c. Hospital notes, discharge plans and follow-up instructions are readily available, which makes transition from one setting to another smoother.
d. Users can log on to their own records and access their medical information.

5. Use of Data Mining in Healthcare and Decision Support

Data mining has attracted considerable attention during the past several decades and has found its way into a large number of applications that have included both data mining and health or clinical decision support systems. Decision support systems refer to a class of computer-based systems that aids the process of decision making [13]. A typical decision support system consists of five components: the data management, the model management, the knowledge engine, the user interface, and the user [14]. One of the major differences between decision support systems employing data mining tools and those that employ rule based expert systems rests in the knowledge engine. In the decision support systems that utilize rule-based expert systems, the inference engine must be supplied with the facts and the rules associated with them [15].

Data mining groups the variegated techniques and approaches, which are used for various purposes in knowledge discovery. Statistical techniques, machine learning, visualization, etc., are the base for the data mining techniques and methods. Some data mining techniques are discussed as follows [17]:

a. Classification: It is an important task of predictive modeling of data mining. This is use to predict the class of a data, it classifies a data item into one of different classes, these classes are predefined. The classification model is based on classification rules. The training data is used to understand the data. The rules of classification also focus on understanding the data of each class, which is found in the database.

Let's have an example from healthcare, from known cases of disease classification rules can be extracted. It can be used to aid diagnosis of diseases, based on the symptoms that have been identified.

One of the most important applications of classification is medical diagnosis. A patient with heart problems may be classified based on various types of heart diseases.

For applying the classification technique prior knowledge of under consideration data is necessary [16].

Suppose we have database of patients D. We may regard this patient's database (D) as set of sequences (x1, x2 … xn), x1, x2 … xn being values of attributes A1, A2 … .An of a particular disease. Different classes C= {C1, C2, C3 … Cn} of patients can be established based on gravity or specific classification type of the disease.

Basically, the problem concerns definition of a function f=D→C such that each ti€ D is mapped to f(ti) corresponding to some Cj.

b. Regression: Another task of predictive modeling of data mining is regression. It is a method which use some known type of function to map target data. It is used to determine the output value on basis of the input values.

c. Time series analysis: Time series analysis focuses on analyzing data for a given period of time, which is spaced. For instance, the characteristics or features of the diseases can be undertaken on hourly or daily basis. However, this depends on the existing condition of the patient. This analysis is applied for the purpose of predicting future values or for establishing similarity between time intervals.

d. Predictive Modeling: As we have already discussed in above section that classification, regression, time series analyses are major tasks of predictive modeling. On basis of past and present data values, it determines that provides forthcoming data trends. Predictions may be made using time series analysis, regression analysis, or other statistical techniques.

e. Visualization Technique: It is considered to be a descriptive model of data mining, which focuses on identifying data patterns for data sets given. Interesting subsets of medical data sets can be identified by using scatter diagrams in a Cartesian plane of two medical traits of interest. For instance, interesting subsets related to blood sugar can be found in patients with heart diseases.

f. Association Rule: This technique focuses on identifying the association between two quantities. It is expressed as "A1 ^A2 …^ Ai => B1 ^ B2^…^ Bj", that is, B1, B2, B3, …and Bj turn up with objects A1, A2, A3 … and Ai in the target data.

6. Issues and Challenges

a. The issues and challenges around a Data mining, data repository and rules engine can be summarized as follows:

1.	Data Repository	Growth rate of the data repositories that is created from various sources is too high and it is ever-challenging for any system to keep pace with it.
		Maintaining such huge data to provide zero down time and zero data loss with high performance response times is always a challenge from the infrastructure perspective
		Data repositories don't always come in a standard format – this varies from structured tables to highly unstructured text material to charts and diagrams. It is quite challenging to handle all such different data types in a single framework.
2.	Rules Engine	The creation and maintenance of rules is a complex process requiring both clinical and IT expertise
		The performance of the rules engine is always in question given the range of complex rules that the CDSS has to process against such a voluminous knowledge data.
		The quality, relevancy and dependency of the rules engine is not proven yet, as there are no healthcare domain certifications available for rules engines.

b. The issues and challenges around a Decision Support System, CDSS, HIS and HIR can be summarized as follows:

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

S. No.	CDSS	HIS	EHR
1.	The challenges are the inherent complexity of medical languages such as obscure medical terminologies and ambiguous abbreviations.	HIS are dispersedly obtained from distributed devices such as tablet computer, personal digital assistant, automated analyzer and other medical devices, they are raw, simple, weak-content and massive.	Challenges about EHRs, include the high cost, weak functionality and interoperability, safety & liability risks.
2.	Associated variety of information needs from different types of users, such as patients and physicians.	Such medical records cannot be used for further analyzing and decision supporting due to that they are collected in a weak-semantic manners	Interference with physician-patient and physician-to-physician relationships.

7. Conclusion

After the study of Data Mining, CDSS, HIS and EHR, we found that there are many constraint and challenges to explore the knowledge and take effective decision from medical knowledge base. These approaches are not effective when the clinical practitioners who use them are not well trained to understand and make an accurate interpretation of the outcomes. The above decision support systems don't tell what treatment should be applied and they cannot suggest when to end a treatment. Like the knowledge base of CDSS describes the symptoms of a potential health issue but doesn't tell what to do to solve the problem. Thus, side effects of a cure might not have been invoked in the knowledge base through existing patterns. There are also some limitations due to the size of the electronic or medical health database and might not be able to handle appropriately with huge database.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Tourists'Online Opinions Disclosed: A Case Study of Online Travel Reviews on ChokhiDhani, Jaipur

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Abstract
The online travel reviews posted by tourists are imperative to investigate tourist' views and experiences for analyzing of satisfaction. Tourists freely share their experience and opinions on reviews sites, and consider these more trustworthy than the information provided by the service providers. The objective of the study is to explore the factors influencing tourists experience and to identify major attributes of their satisfaction. 704 Online Travel Reviews (OTR) posted by tourists visiting Chokhi Dhani, Jaipur on travel review site Trip Advisor.com from April 2017 to May 2018 were examined. Content Analysis was applied to analyze the reviews. Through the tourists' reviews, it was found that the most commonly conversed topic was food followed by activities offered and services provided to visitors at Chokhi Dhani. The rating criteria showed that more than 70 % tourists found Chokhi Dhani as a good tourist place in Jaipur city. The food quality, service staffs' hospitality, picturesque environment etc are main factors influencing the revisit intentions and to recommend the place to others. Crowd, tip, price, unhygienic food, long queues, dirty toilets etc were the major problems mentioned by tourists. The Chokhi Dhani management can use the results of the analysis for improvement of overall performance.

Keywords: Online Travel Reviews, Tourists, Opinions, Experience, Satisfaction. Resorts

Introduction

Now a day, the information technologies are bringing changes in tourism industry. The Word of Mouth (WOM) has been replaced by Electronic Word of Mouth (eWOM). The consumers share their opinion concerning any product and service through Web 2.0 platforms (S. De Ascaniis, U. Gretzel 2013). They prefer these to share their experience, satisfaction, dissatisfaction, i.e. user generated content (UGC) issues and other relevant information. The consumer-created information is more useful for the potential consumers than the information provided by the sellers (Chen, Y., & Xie, J.,2008). Through Online travel reviews, many tourists post about their experiences regarding the destinations and each and everything about their travelling. The reviews are not written for any monetary advantage but to support the unknown potential consumers in their decision makings (S. De Ascaniis et al, 2013). Online Travel Reviews (OTR) acts as a helpful mechanism for the prospective tourists in many ways such as providing information, suggestions, ideas, dismissing any uncertainty, assessing opportunities, and image formulation of

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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destination (Gretzel, U., &Yoo, K. H 2008). Few studies have been carried out on overall ratings given by customers to the hotels (Ramanathan & Ramanathan, 2011), but for a comprehensive understanding of customers preferences and experiences, it is appropriate to study the detailed ratings given by customers (Jannach, Zanker, & Fuchs, 2014). Hotel location, room size, cleanliness, in-room amenities, staff, temperature, breakfast, comfortable, maintenance, and dirty are top ten frequently pointed out topics in the reviews of London hotels (O'Connor (2010). Expedia.com, Trip Advisor.com, Holiday Q.com, Yelp.com, Mouthshut.com etc. are the common sites which provide tourists to post reviews. In the travel business, the most acknowledged individual site is believed to be Trip Advisor.com (Gretzel, U, Hyan-Yoo, K and Purifoy, 2007). According to comScore Media Metrix for TripAdvisor Sites, worldwide, (October 2017), it is the largest travel site in the world. It provides the tourist information regarding travel products such as destinations, attractions, hotels, restaurants flights, cruises etc. There are 630 million reviews available on it out of which 7.5 million are on lodgings, restaurants and airlines. It is accessible for 49 markets and enjoys accessibility of 544 million of monthly visitors (TripAdvisor log files, average monthly unique visitors, Q3 2017). Trip Advisor reviews of visitors travelling to Chokhi Dhani are selected for this study, as it is one of the largest achieve.

Literature Review

Today the intangible features of tourism products can be estimated via a number of available online mediums and tools. Internet has proved as the most important element in minimising the distance between service providers and consumers. Consumers seek mediums of connecting to tourism stakeholders as well as former travellers for information. "Generation y" is the young generation which seeks information and other's views online by using various social networking sites. They depend of the videos, chat, comments, pictures posted online on various social media sites and service provider's websites for information search and forming their own views and expectations (Pantelidis 2010). Travel Review sites are considered more trustworthy than the agent websites by travellers (Teasdale (2007) and the failure of independent restaurants is due to ignorance of technological advancements in the field (Camilo, Connolly, and Woo 2008, 377). Thus in order to keep in touch with the customers, one should know their preferences, expectations and experiences. The travel service providers need to be positively present on avalaible social networking sites beside on their own websites. Numerous studies have been carried out to examine the tourists experiences, guests' satisfaction and dissatisfaction attributes (K. Berezina et al. 2015) and use of social media platforms in analyzing the tourists' attitude in tourism and hospitality.

Reported Customers' experience in Hospitality

Customer experience is formed and attributable to interactions between suppliers' offers and consumers' expectations about the product or sevices. MeyerandSchwager (2007: 118) defined customer experience as, "customer experience is the internal and subjective response customers have to any direct or indirect contact with a company." Another definition is given by Shaw is "Customer Experience is an interaction between an organization and a customer. It is a blend of an organization's physical performance, the senses stimulated, and emotions evoked, each intuitively measured against Customer Expectations across all moments of contact" (Shaw, 2005: 51).

In this area, a number of hospitality dimensions have been investigated time to time which have influences on the customers' satisfaction and attitude. Host–guest relationship, generosity, frequent small surprises, theatre and live performance, safety and security were found five major dimensions in hospitality experience (Hemmington 2007). Knutson et al. (2009) categorized customer experience in four dimensions; environment, accessibility, incentive and driving benefit. Walls (2013) classified experience in two dimensions i.e. physical environment and human interaction. The survey conducted on 200 budget hotel customers identified four dimensions of customer experience, i.e., tangible-sensorial experience, aesthetic perception, staff relational/interactional experience, and finally location. Among which tangible–sensorial experience influenced the customer satisfaction more (L. Ren et al. 2016). Sharing and interpreting tourists' experiences on social media help in understanding and presenting it in a new way (Tussyadiah and Fesenmaier 2009).

Reported Satisfaction attributes

Social networking sites bring changes in the post trip experiences. Sharing post trip satisfactory and unsatisfactory experiences through social media positively affect the overall appraisal (Kim and Fesenmaier2017). Satisfaction support positive attitudes towards the brand and repurchase intention while dissatisfaction directs to negative brand attitudes (K. Berezina et al. 2015). Applying a Text-mining approach to the hotel reviews K. Berezina et al.(2015) identified satisfaction and dissatisfaction among customers, and found that satisfied customers discussed intangible feature more while dissatisfied customers talked about tangible features of the property and their stay. In the article, Barreda and Bilgihan (2013) explored the motivating variables through social media and found that hotel location and quality of services provided were positively mentioned while cleanliness was a topic that was negatively cited. Online comments in China's budget hotel indicated detailed analysis of factors influencing satisfaction of guests. Quality of the guest rooms, cleanliness and calmness of the hotel environment, Internet access and connection speed, the pleasant attitude of the employees, convenience to public transportation etc are key mentioned variables of positive guest experience. Lack of soundproofing, F & B services and the appalling quality of bathrooms are some negative comments identified in reviews (L. Renet al.2015). Pantelidis (2010) in the study of customers' posts on an online restaurant guide about 300 London restaurants investigated the factors that articulate the restaurants' evaluation. Food was the key factor for guest's satisfactory experience in evaluating restaurant, service; ambience, menu, decor and price were found influencing attributes. Extensive literature analysis indicates a dearth of studies in field of OTR with reference to Indian tourism setting and that's why location of ChokhiDhani, Jaipur has been selected for this study. The main objective of this study is to identify the factors influencing the satisfaction and dissatisfaction of tourists visiting ChokhiDhani through Online Travel Reviews.

Research Methodology

To identify the factors influencing tourists experience and to evaluate their satisfaction or dissatisfaction attributes, the data was extracted from user generated content posted on social media about ChokhiDhani. Online Travel Reviews (OTR) posted on Trip advisor.com from April 2017 to May 2018 by tourists visiting ChokhiDhani was downloaded. Total numbers of reviews extracted for the analysis in the study were 704 including reviews from 1 star rating to 5 star. Content Analysis was applied to analyze the reviews. Content Analysis involved coding data, dividing or merging various categories, then grouping in new categories accordingly. Thus, a list of factors was identified derived from the expressions and keywords illustrated in the OTRS. The satisfaction or dissatisfaction attributes were identified from the list of factors and categorized. Tourists' experiences were examined about overall experience and their their experiences related to food, services, value, price, recommend or revisit intentions. The problems faced by tourists at ChokhiDhani Resort were also categorized and finally some suggestions for the resort have been prescribed.

Study Area-ChokhiDhani Village, Jaipur, Rajyasthan

For this paper, ChokhiDhani, resort with a Rajasthan village setting is our study area. ChokhiDhani is situated at the outcurcuite of Jaipur, the capital city of Rajaasthan the Pink city. It is a hospitality chain run by ChokhiDhani Group in many cities of country such as ChokhiDhani Palace Resort, Jaiselmer; ChokhiDhani Resort, Indore etc and it was awarded 'India's Most Innovative Tourism Project' by Ministry of Tourism, Government of India..ChokhiDhani, Jaipur is widely visited not only by the inhabitants of Rajasthan but is very famous among the foreigners. The major motive behind the establishment of the village is providing an opportunity to show the culture and traditions of Rajasthan and to create awareness about life of rural Rajasthan.

ChokhiDhani village known for the dinning opportunities it offers. The food is served with 'manuhar' appealing the visitors to eat till they feel like. Sangri-Dining –Hall, Chaupad-Dining-Hall, Gorbandh-Open Air Dining and Royal Fine Dinning are the differently designed dining halls for visitors to make choice according to their budgets and demands. ChokhiDhani is a hub of activities for all age groups, right from young to kid. It provides a number of activities which depict the rich culture of Rajasthan and it has become a mean of entertainment for the visitors. Rides are one of the core attractions among the various visitors. Camel rides, elephant ride, Horse ride, bullock cart ride etc are also held at chokhidhani. Apart from these, the lake Tal Talaiya also has boar-ride which is quite safe and enjjoyable. Various artists perform at the different sections of the village and entertain the visitors. Dances are another core attraction which includes Ghoomer, Kalbeliya. Potter dance, Bhopi dance, TerahTali and Manjir dances Acrobatics on a bamboo, puppet shows, traditional fire acts, magic shows, bird future tellers, bioscope, and astrologer also become core of amusements. GufaJharni the artificial water fall is core attraction at the fun zone apart from bhoolbhulaiya, and jungle fair. In order to encourage the local craftsmenship, Kalagram is set up where tourists can purchase reliable handicraft such as clothing, decor, home furniture etc. at reasonable price. ChokhiDhani not only signifies the Indian state Rajasthan and its culture but it also try to show the culture of India through its National Museum. The various states of India are replicated with minute details and foreigners get to know a lot about the rest of India's rural areas also. In this study, the online travel reviews of tourists visiting ChokhiDhani are examined in order to identify the tourist's experience. For this purpose 705 OTR posted by visitors between May 2017 and May 2018 were studied.

Results and Discussion

The online reviews posted by tourists are to a great deal and very important in investigating tourist' views and experiences and analysis of satisfaction. Trip advisor is an excellent platform for tourists to share their experience and information which can be easily utilized by potential travellers in decision making and tour planning. The content analysis of largely available reviews revealed some themes or topics about which most of the reviewers had posted their comments and these topics are considered as the factors contributing to the tourists' experiences. The most commonly conversed topic was food followed by activities offered and services provided to visitors at Chokhi Dhani. Besides these; value, price, ambience, staff, overall ratings, revisit intention, recommendation and problems faced by tourists are discussed. In the existing literature, many researchers have undertaken studies of guests' experiences in hotels or restaurants and investigated satisfaction depending on these all themes. Tourists' experiences about Chokhi Dhani are disclosed considering these independent variables located in online travel reviews.

Overall rating

Every reviewer posting on Trip Advisor rate the attraction, hotel or property or any product experienced an overall rating from 1 star to 5 stars indicating terrible to excellent based on his/her experience. Reviewers have given ratings to Chokhi Dhani as well and the results show that 44% tourists rated it excellent, where 27 % as very good, 15. % average and the percentage of tourists rating it below average are quite low. Only 5 % of tourists rated Chokhi Dhani poor while 9% tourists also rated it terrible. Although the percentage of people rating it poor or terrible rated every service, food or values either 2 or 1 star. The rating criteria show that more than 70 % tourists found Chokhi Dhani as a good tourist place in Jaipur city. The results are in similar to the overall ratings of tourists from all the review postings stating from 2012 where 73% tourists rated 5 stars and only 12 % tourists rated 1 or 2 stars. These ratings are based on the overall performance and experience received from the place, comprising food, service, entertainment, leisure activities etc. Tourists who rated it more than 3 stars are completely satisfied with their visit while reviewers rating below 3 stars expressed some problems or inconvenience faced by them.

Services offered

Besides overall rating Trip Advisor also facilitate reviewers to give star rating to "service", "food" and "value". It was fascinating to note that tourists are satisfied with the services offered to them by Chokhi Dhani staff and management. In the reviews where "service" was rated more than 78 % reviewers rated it either more than 4 stars or mentioned their satisfaction positively. Only 22% people rated services as average or below average. Chokhi Dhani is one of the best examples of hospitality in Jaipur city and staffs have succeeded in providing its guests a delightful experience. The commonly used expressions regarding services are 'charming', 'excellent', 'joyful', 'top class service', ' speed', 'courtesy', 'welcoming', 'quick' etc. However, the reviews demonstrating dissatisfaction towards services are mainly related to food staff services and ticket counters. Interestingly one reviewer cited the service and staff as 'over friendly'. Thus it can be concluded from the study that staff plays a prominent role in deciding the satisfaction of the guests and Chokhi Dhani is a service-oriented attraction, so the staffs here acknowledge the need of imparting good and satisfactory service very well. Tourists feel good about having quality time with friends and families assured good provisions from the staff.

Food

Attraction, accommodation, entertainment, leisure, luxury or food everything is there at Chokhi Dhani to offer to its guests. From the reviews it is clear that food plays most important role in fasten the guest's satisfaction positively. All the reviews either completed in four words or 200 words mentioned food as one major element of their visit. 62% of reviews rated 4 or 5 star to 'Food', whereas only 21% and 17 % reviews rated it average

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

and below average respectively. The findings disclose that pricing variations in food provide good option to have a choice. Although, food offered at various stalls is regarded as 'ethnic' and 'rich'. The serving style and ambience is determinant factor in influencing the satisfaction positively. 'Thali' is the mull over item commonly mentioned in reviews. The multicuisine offered here is a delightful ride to its guests and prompt then to have revisit intention. However, there are some complaints concerning buffet system which is pointed out in most of the' poor' or 'terrible' rated reviews. The food quality, service, cleanliness and hygiene are the major issues indicated about buffet. Apart from that the pricing of the coupon for children is also and dissatisfactory element hit upon in reviews.

Value

Any tourist travelling to any destination has some expectations from it and if the expectation is met and the place is considered to be worth travelling to or useful. Value is a criterion Trip Advisor offers to its users to rate it as an indication of being the visit valuable. Most of the tourists visiting Chokhi Dhani believed the place of value as % reviewers have rated 'value' very good or excellent. The reason behind positive ratings can be the overall experience Chokhi Dhani provides to its guests. Besides, there are so many activities to perform, various options of food, picturesque environment, photogenic display places etc which are major ingredients forming the positive attitude towards the place. The reviews recording low ratings to values have talked about some basic problems faced by them that might have influenced their attitude and satisfaction negatively such as, crowd, long queues, lighting etc.

Intention to revisit and Recommendation

Tourists are more likely to visit a place again or recommend it to others when they have got a satisfactory experience from the place. Although Chokhi Dhani is a place full of the combination of offers to its guests and there are numbers of elements which are responsible for forming a satisfying guest experience or dissatisfying. From the content analysis of online reviews it can be concluded that most of the tourists consider this place as 'must visit' or at least 'one time visit' place. Food, ethnic environment, rich and beautiful ambience are mainly determining factors forming a revisit intention and recommend the place to others. However, a few reviewers mentioned regular trips to the place and they are likely to visit the place in future with an expectation of some new elements added to the place or having new experiences.

Price

Price is an important attributes in deciding satisfaction, value and overall guest experience visiting any destination. Although pricing strategies are adopted by Chokhi Dhani operators keeping in mind various types of customers and their preferences. Not all the reviewers had written their opinions regarding pricing and those who talked about pricing it was interesting to note that 61% of reviews stated that pricing is high or the food coupons are overrated. Especially the Thali provided to kids was the major concern for tourists. Only 32 % tourists agreed that pricing was reasonable as the coupon included all the activities, food etc. However, alongside price, the main concern for tourists was the request for tip either by service staff or the artists performing in the area.

Ambience

The tourists visiting chokhidhani seemed quite satisfied with the ambience. It provides a number of activities. People are enthusiastically enjoying eating, riding, and watching

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artists performing. The whole setting is decorated with local handicraft which represents Rajasthan culture and traditions. In spite of so many crowds numerous reviewers found the village neat and clean. They call the site picturesque. Tourists prefer to capture themselves not only during enjoying activities but also at every possible decorated wall with handicraft items. Many tourists found the village well managed, maintained and decorated with expensive modern items to local handicraft items. It is a fun place for kids. Tourists said that the proper installation of signboards guide the visitors and provide chances of exploring each corner of site without any need of guide. Few tourists believed the colourful, dim light itself an attraction, when the whole atmosphere illuminate in lights but few others complained about the same through reviews. They found the dim light hurdle in getting pictures clicked, exploring the sites properly and even during dining at night. Overall by most of the reviewers who talked about the ambience of Chokhi dhani found it ethnic and beautiful.

Activities

Chokhi dhani is not only for foodies but it is a diversified site where one get chance of tasting the mouth-watering food and enjoy the different performances, rides along with live recreation. It offers a lot for the youngsters, culture seekers, foodies and especially kids. Almost in all reviews, the site was considered best to be enjoyed with family and kids. Camel ride and elephant rides were the top talked about rides among the reviewers. Many tourists admired the local artist's performances specially Kalbalia the snake dance. Few tourists also counted the continues rides and performances as 'human and animal exploitation' and found them distracted from their jobs. Some of the reviewers who experienced shopping found kalagram retail handicraft village cheaper and better than the rest of Jaipur and recommended this through their reviews to the potential tourists.

Problems

Although around 44% and 27% of reviewers gave the 5 and 4-star ratings and they were highly satisfied with the ambience, enjoyed activities, found the food and services outstanding, considered the pricing reasonable but they somehow counted few problems regarding other aspects. 29% of reviewers who gave 3 or less than 3 star ratings came up with some issues. Overcrowd long queues at ticket counters and food dining halls, high price were the top highlighted issues by most of the reviewers not only who give lower ratings but few who gave high rating also found the same. Food is the core attraction but still, mostly reviewers counted the price not reasonable. Few reviewers also said that pricing on the base of kids height should not be followed rather it should be on the basis of their age. They also highlighted on wastage of food, unhygienic food as well consider dim lights as a problem during dining and exploring the site. Although mostly tourists were quite satisfied and admired the services at chokhi dhani still there were few who found the services poor and calls the staff rude, while a reviewer also used word 'over friendly' with the staff. Messy toilets, dirty mattress, mismanaged operations, expensive items; un-understandable shows were the few other problems faces by the tourists visiting Chokhi dhani. The reviewers who had visited the villages previously reported that it has lost its past glory. The authenticity has transformed in commercialisation. It is more for the kid's interest even food had lost charm. They posted that although the infrastructure has been improved yet the brand is losing its shine.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Conclusion

Online travel reviews are of a great help in analysing tourists experiences, preferences, attitude, satisfaction or dissatisfaction, and revisit intention as these are the user-generated content that have already consumed the tourism services or products and share the experience on review sites. The content analysis of online travel reviews on Trip advisor about Chokhi Dhani, Jaipur give comprehensive details regarding tourists' experiences. It was found that ambience, food, services offered, pricing, values, activities etc are the major determinants of tourists' satisfaction and dissatisfaction at Chokhi Dhani. The overall experience reported online is satisfactory while food, service, activities and ambience are highly rated positive. The food quality, service staffs' hospitality, picturesque environment etc are main factors influencing the revisit intentions of the guests as well as to recommend the place to other tourists. The crowd, tip, price, unhygienic food, long queues, dirty toilets etc were the foremost problems cited by visitors. The Chokhi Dhani management can utilize these reviews analysis as the first-hand information to understand the choices, preferences and requirements of tourists.

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THE IMPACT OF CUSTOMER SATISFACTION ON ONLINE PURCHASING IN CHENNAI CITY

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Dr. KUMAR**

Introduction

Online shopping is the process whereby consumers directly buy goods, services etc. from a seller interactively in real-time without an intermediary service over the internet. Online shopping is the process of buying goods and services from merchants who sell on the Internet. Since the emergence of the World Wide Web, merchants have sought to sell their products to people who surf the Internet. Shoppers can visit web stores from the comfort of their homes and shop as they sit in front of the computer. Consumers buy a variety of items from online stores.

Online marketing is the wave of the future. Businesses turn to the internet to market themselves in place of billboards and paper advertisements, and find that it is not only more effective, but much less expensive. However, internet marketing plays by an entirely different set of rules than traditional marketing does, and it is important to understand the basic concepts before embarking on any marketing endeavour.

Nowadays, online shopping is a fast growing phenomenon. Growing numbers of consumers shop online to purchase goods and services, gather product information or even browse for enjoyment. Online shopping environments are therefore playing an increasing role in the overall relationship between marketers and their consumers (Koo et al. 2008). That is, consumer-purchases are mainly based on the cyberspace appearance such as pictures, images, quality information, and video clips of the product, not on the actual experience (Brennan et al., 2008; Constantinides, 2004).

Customer Satisfaction

Customer satisfaction is a critical issue in the success of any business system, traditional or online. In a turbulent commercial environment, in order to sustain the growth and market share, companies need to understand how to satisfy customers, since customer satisfaction is critical for establishing long term client relationships. It is evidenced by the fact that over the last five years, customer satisfaction surveys have become common in many financial institutions. Thus a fundamental understanding of factors impacting customer satisfaction is of great importance to business.

According to the model of "The Unidimensionalist View of Attitude", purchasing intention is the outcome of attitude which refers to the customer's willingness to buy from a particular e-retailer. Even though the actual purchase behavior is considerably interesting for the researchers, the purchasing intention is widely used as the representative of the actual purchase behavior especially in consumer behavior researches because it is normally not practical or impossible to experimentally study the actual purchase behaviour.

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Christian & France (2005) proves that customers satisfied the most were privacy (Technology factor), Merchandising (Product factor), and convenience (Shopping factor); also followed by trust, delivery, usability, product customization, product quality and security. Surprisingly, security was chosen as the last choice comparing to others. This was assumed that security is perceived as a standard attribute in any websites so other attributes take priority once customers have to choose the site to shop from.

Review of Literature

AistėDovalienė, AgnėGadeikienė, ŽanetaPiligrimienė (2007). This article emphasizes that customer satisfaction is one of the antecedents of long-term relationships between customer and service provider. The results of correlation and regression analyses are presented showing relations between satisfaction, its predictors and customer behavioral intentions.

Nai-Hwa Lien, Shu-Luan Kao (2008). This study investigates the relative importance of service quality dimensions on customers' satisfaction across utilitarian and hedonic services. The relationship between service quality dimensions and satisfaction varies with the degree of differentiation of other alternatives.

Christina G. Chi, DoganGursoy (2009). The purpose of this study is to examine the relationship between employee satisfaction and customer satisfaction, and to examine the impact of both on a hospitality company's financial performance utilizing service-profit-chain framework as the theoretical base. Findings suggest that while customer satisfaction has positive significant impact on financial performance, employee satisfaction has no direct significant impact on financial performance. Instead, there is an indirect relationship between employee satisfaction and financial performance, which is mediated by customer satisfaction.

Eboli and Gabriella Mazzulla (2009).The objective of this research is to provide a tool for measuring the overall transit service quality, taking into account user judgments about different service aspects.

H Maddern, Dr R S Maull, Dr P A Smart, P Baker (2010). This paper reports the results of a longitudinal study into the drivers of customer satisfaction in a large UK Bank. The findings confirm the significance of staff satisfaction and service quality, suggested by the service profit chain literature, but dispute that this comprises a simple linear relationship.

Rashed Al Karim (2013) Customer Satisfaction in Online Shopping: a study into the reasons for motivations and inhibitions . IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 11, Issue 6 (Jul. - Aug. 2013), PP 13-20. This study endeavours to understand customer satisfaction in online shopping while investigating the major reasons that motivated customers' decision-making processes as well as inhibitions of online shopping. The Kotler and Killers (2009) Five Stage Buying Process Model was chosen as the basis of framework of this study to explain customer satisfaction through their motivations to buy products online. In contrast, along with respondents' mind-sets, online payment security, personal privacy and trust, unclear warranties and returns policies and lack of personal customer service are the foremost barriers of online shopping. Furthermore, the result of hypotheses established that even though online shopping is convenient to all consumers, online payment system and privacy or security anxieties have significant impact on online shopping. Finally, some recommendations have been offered for online retailers to take initiatives for making online shopping more admired and trustworthy.

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TaweeratJiradilok, SettapongMalisuwan, NavneetMadan, and JesadaSivaraks(2014) . The Impact of Customer Satisfaction on Online Purchasing: A Case Study Analysis in ThailandJournal of Economics, Business and Management, Vol. 2, No. 1, February 2014. —E-commerce is gaining importance in Thailand. Shoppers have realized the benefits of online purchasing over purchasing from Brick and Mortars. Numerous researches have focused on descriptive research on customer satisfaction and purchase intentions on online purchasing but little or no knowledge regarding factors that are most influential in motivating online purchase intention in Thailand. This research utilizes a quantitative method to test the conceptual framework of customer satisfaction that leads to online purchase intentions for all online users, experienced online purchasers and inexperienced online purchasers. The results of this research will increase researcher's comprehension on difference in factors that influence online purchase intentions of experience and inexperienced online purchasers.
P. Jayasubramanian, D. Sivasakthi, AnanthiPriya K (2015) A Study on Customer Satisfaction towards Online Shopping. International Journal of Applied Research 2015; 1(8): 489-495.The rapid development of the internet has strongly impact upon the worldwide marketing environment. Thus it describes how modern market is replacing the traditional markets. This study is taking place to identify the factors that may influence customer's online shopping satisfaction. Generally, the success of online shopping essentially depends on the customer satisfaction during their purchase.
Dr. M. RAJARAJAN (2016) CUSTOMER SATISFACTION TOWARD ONLINE MARKETING - AN EMPIRICAL STUDY. International Journal of World Research, Vol: I Issue XXXIV, October 2016, the online marketing is one of the most interesting topics especially for researchers in the marketing field. It is a modern way of marketing a product or service to the targeted market around the world. This paper is an attempt to analyze customer satisfaction level in internet marketing. The primary goal of this research is to analyze the customer satisfaction of the online customers in cuddalore customer. The theoretical framework discusses in brief about the effects of customer retention on customer satisfaction. To understand the customer satisfaction level of online cuddalore customer shoppers, we pursued with the collection of quantitative data with the help of online survey. From marketing and strategic point of view we will point out those factors that might affect the customers, while purchasing goods online.
Gajendra Sharma(2017) Service Quality, Satisfaction and Loyalty on Online Marketing: An Empirical Investigation Global Journal of Management and Business Research: E Marketing Volume 17Issue 2 Version 1.0. The purpose of this study is to empirically investigate the impacts of satisfaction on eservice quality, trust and on e-loyalty in online marketing. The theoretical background used in this study was social exchange theory. Online survey from students and faculty members of Kathmandu University, Nepal was conducted in this study. The analytical results indicate that e-service quality, customer service, and trust have strong direct effect on satisfaction and impacts of indirect effects with e-loyalty are more significant. Findings also indicated that satisfaction was a significant variable that mediated the relationships between service quality and customer loyalty.

Objectives of the Study

1. To study the demographical factors of customer satisfaction in online shopping.

2. To analyze the factors influencing customer satisfaction in online shopping in Chennai city.
3. To know the impact of customer satisfaction in online shopping.

Hypotheses of the Study

1. There is no significant difference among different demographical factors of on; ine shopping.
2. There is no significant difference among factors influencing customer satisfaction of online shopping.
3. There is no significant of impact of customer satisfaction in online shopping.

Influence of Designation of the Customer towards Purchase Intention of Online Marketing

The perceptual difference between designation of customers towards purchase intention and customer satisfaction is presented in the following anova table

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Quick Delivery	Between Groups	136.002	3	45.334	167.399	.000
	Within Groups	25.998	96	.271		
	Total	162.000	99			
Exclusive Products	Between Groups	188.144	3	62.715	274.085	.000
	Within Groups	21.966	96	.229		
	Total	210.110	99			
Time save	Between Groups	147.172	3	49.057	224.931	.000
	Within Groups	20.938	96	.218		
	Total	168.110	99			
offers	Between Groups	216.131	3	72.044	112.167	.000
	Within Groups	61.659	96	.642		
	Total	277.790	99			
Payment Mode	Between Groups	147.374	3	49.125	173.788	.000
	Within Groups	27.136	96	.283		
	Total	174.510	99			
Price of the product	Between Groups	192.090	3	64.030	313.296	.000
	Within Groups	19.620	96	.204		
	Total	211.710	99			
Brand popularity	Between Groups	121.578	3	40.526	155.543	.000
	Within Groups	25.012	96	.261		
	Total	146.590	99			
Easily choose their options	Between Groups	147.003	3	49.001	222.867	.000
	Within Groups	21.107	96	.220		
	Total	168.110	99			

It was presented in the above table Quick delivery (F=167.399, P=.000) Exclusive Products (F=274.085 P=.000), Time save (F=224.931, P=.000), offers(F=112.167, P=.000), Payment mode (F=173.788, P=.000),price (F=312.296, P=.000) brand popularity(F=155.543, P=.000), Easily choose their options(F=222.867, P=.000) are statistically significant at 5% level. This leads to the mean comparison of professionals, Business peoples, and private sectors.of customer's perception.

It implied that professional is impressed by reliable price and brand popularity of online marketing. Business sectors are admired by time save and quick delivery. Private sectors are interested in the payment mode of the online purchasing.

Influence of Income of the Customer towards Purchase Intention of Online Purchasing

The perceptual difference between Income of customers towards purchase intention and customer satisfaction is presented in the following anova table

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Quick Delivery	Between Groups	134.721	3	44.907	158.035	.000
	Within Groups	27.279	96	.284		
	Total	162.000	99			
Exclusive Products	Between Groups	176.210	3	58.737	166.335	.000
	Within Groups	33.900	96	.353		
	Total	210.110	99			
Time save	Between Groups	127.052	3	42.351	99.023	.000
	Within Groups	41.058	96	.428		
	Total	168.110	99			
offers	Between Groups	210.621	3	70.207	100.342	.000
	Within Groups	67.169	96	.700		
	Total	277.790	99			
Payment Mode	Between Groups	143.362	3	47.787	147.285	.000
	Within Groups	31.148	96	.324		
	Total	174.510	99			
Price of the product	Between Groups	179.510	3	59.837	178.393	.000
	Within Groups	32.200	96	.335		
	Total	211.710	99			
Brand popularity	Between Groups	107.945	3	35.982	89.385	.000
	Within Groups	38.645	96	.403		
	Total	146.590	99			
Easily choose their options	Between Groups	128.502	3	42.834	103.818	.000
	Within Groups	39.608	96	.413		
	Total	168.110	99			

It was presented in the above table Quick delivery (F=158.035, P=.000) Exclusive Products (F=166.335 P=.000), Time save (F=99.023, P=.000), offers(F=100.342, P=.000), Payment mode (F=147.285, P=.000),price (F=178.393, P=.000) brand popularity(F=89.385, P=.000), Easily choose their options(F=103.818, P=.000) are statistically significant at 5% level. This leads to the mean comparison of income of the customers more tban 1,00,000, ;50,000 – 1,00,000, 25,000 – 50,000 and less than 25,000 of customer's perception.

It implied that more than 1,00,000 income group customers are admired by exclusive products in the social media marketing, 50,000 – 1,00,000 income group customers are attracted by brand popularity and payment mode. 25,000 – 50,000 income group customers are impressed by easily choose their options and quick delivery. Less than 25,000 income group customers are interested in price of the product and payment mode. Payment mode of the online purchasing.

Findings and Conclusions

In this researcher finds the customers of online marketing in Chennai City are satisfied mostly in the payment mode of the marketer. Exclusive products also offered by the online marketing inspired by the customers. Time saving of the customers is main reason to purchase through online marketing. Nowadays, online marketing is dominated in trading market.

The customers are satisfied through online marketing means they are very much interested to purchase more through the same. It increases loyal customers more to the concern firm. The equity and profit of the firm automatically increased.

Finally, it concludes that the firms of online marketing takes innovative steps and to provide offers, discounts and coupons to satisfy the customers to get more profit as well as to retain loyal customers.

Testing Of Hypotheses

1. There is no significant difference among different demographical factors of on;ine shopping – Rejected.
2. There is no significant difference among factors influencing customer satisfaction of online shopping – Rejected.
3. There is no significant of impact of customer satisfaction in online shopping – Rejected.

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Nanotechnology: A Modern Technology For Waste Water Treatment

Dr. Shiv Kumar*

Abstract

Water the one on of the most important constituent for the survival of life. Sufficient quantity and acceptable quality of potable water on a regular basis is demanded for the life. But most of the places in the word especially rural areas are not getting quality potable water now a day's due to excessive industrialization and also use of chemicals in modern agricultural practices. To ensure the supply of quality potable water, wastewater must be treated so that water can be reused and environmental consequences can be minimized.

In the present studies I wish to explore low cost treatment technology by the use of nanotechnology in wastewater treatment. We all know that traditional wastewater treatment technologies are found insufficient to ensure the quality of potable water. The development of cost-effective and easily available materials and methods for providing the potable water in sufficient quantity is the urgent need of the present world. Now a day's nanotechnology is evolved as multifunctional and highly efficient technology by which one can provide affordable solution to wastewater treatments. [5] This technology does not require large infrastructures or centralized systems. The aim of the present study is to develop the possible use of nanotechnology for waste water treatment.

Keywords: Nanotechnology, Dendrites, Zeolites, Wastewater Treatment, Contaminants, Nanoparticles

1. Introduction

According to recently published article in various newspaper Cape town the first city running out of water by the end of April 2018. This is the fact that no one can imagine life without water. Water has a widespread impact on all aspects of life which cannot be limited to energy, health, food, and economy of any country. Along with, economic, social and mainly environmental effects of poor water supply and sanitation. [1] When Water comes into contact with any kind of foreign material like industrial effluent, domestic waste material especially faecal content from toilets, urinals etc, it always loses its purity. [14,6] The supply of pure and fresh water is indispensable for the safety of children and the people living in rural areas and remote areas. It is estimated that millions of people in the world do not have access to clean water also within couple of decades the most of the places will lost their water resources by one-third due to overexploitation of underground water. This is really a challenge to maintain the supply of fresh water demands of ever increasing populations all over the world; also, water-related problems are anticipated to increase further due to severe climate changes and due to population growth over the next decades. [15] Drinking water is now a major issue in developing as well as developed countries that must be free from all kind of contaminants because bacteria and various other types of viruses, which are mainly responsible of causing water-borne diseases in

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human as well as animals too. Population and changing climatic conditions are also a threat to ensure the supply of clean water to society especially in developing countries. Characteristics and composition of wastewater differs extensively and it is dependent on the origin of source. Major inorganic constituents of wastewater are like metal ions, heavy metals, ammonia and complex organic compounds such as human excreta, plants dead material, food particles, protein, nitrate, and other pollutants present in wastewater. These constituents may pose a serious threat to living environment which create complications in water treatment before disposal. Various advance treatment technologies and traditional technologies like are being used for wastewater treatment but these traditional technologies like activated carbon, oxidation, reverse osmosis (RO) membranes and activated sludge are insufficient to treat out the complex polluted water especially pharmaceutical, surfactants, various industrial additives, and complex organic and inorganic chemicals. The traditional wastewater treatment technologies are not able to treat microorganisms, toxic chemicals, organic materials present in raw wastewater. Nanotechnology has been extensively explored by many scientist and researchers of various fields as it offers potential advantages. This is highly efficient in removing and recovering the pollutants. Different kinds of Nanomaterials like zeolites, carbon nanotubes (CNTs), nanomembranes etc. are found very helpful in the development of more efficient and proficient treatment processes among the advanced water systems. [11] The nanotechnology can be used to address the multiple problems of water quality in order to ensure the environmental quality and stability.

2. Nanotechnology: An Introduction

Nanotechnology ("**nanotech**") is change or manipulation of matter on an atomic, molecular, and supramolecular scale. Nanotechnology is one of the most revolutionary technologies in the world. All the technologies performing on nanoscale with broadly classified application can be described as nanotechnology. It is the creation of materials, devices, and systems using individual atoms and molecules. Nanotechnology uses particles that are having a size smaller than 100 nano-meters or 0.1 micro-meters or billionth part of a molecule. At billionth scale, new physical, chemical, and biological properties become evident. It is a multidisciplinary science that looks at how a matter can be manipulate at the molecular and atomic level. It is very difficult to quantify the size of an atom. as they don't tend to hold any particular shape. But in general, a typical atom is about billionth part, when these particles changed at nanoscale, matter can exhibit some extraordinary and valuable properties. The nanotechnology is now a major thrust area of research that promises breakthroughs in areas like computing, medicine, data storage, textiles, food industry, molecular biotechnology, defence, dying, robotics, waste water treatment and sanitation. [12] Desalination of water is another exciting and promising application of nanotechnology. [4]

3. Nanotechnology and Waste Water Treatment

Nanotechnology is revolutionary technology that has great potential to change the traditional water and wastewater treatment system. There are certain unique properties of many nanomaterials that offer the efficient removal of contaminants, control of microbial population etc. The better catalytic properties of nanomaterials are expected to improve the efficiency of various chemical and their physicochemical processes used in water and wastewater treatment that may therefore reduce the energy and chemical by reducing size of treatment system. [8] These unique features of nanoparticles have the potential to enable the paradigm shift towards water and wastewater treatment. There are four classes of nanomaterials that are being evaluated as functional materials for water treatment: (a) Carbonaceous nanomaterials (b) Zeolites, (c) metal-containing nanoparticles and (d) Dendrimers. These nanomaterials having excellent physicochemical properties that offer a better medium for separation. The interaction of nanoparticles with the bacterial population characterization can be done by using Atomic Force Microscopy (AFM), Transmission Electron Microscopy (TEM) etc. [3]. Nanoparticles are expected to play a vital role in water treatment [13] currently nanotechnologyplays an important role in water treatment techniques. In this technology, nano-membranes are being used for the softening of water and removal of physical, biological and chemical contaminants. There are varieties of techniques in nanotechnology which are based on nano-particles for providing safe potable water with a high level of effectiveness. [7] The nanotechnologies might help in removing contaminants from water including bacteria, viruses, toxic metals, pesticides and salts etc. [9] Now the nanotechnology having widespread application for the removal of toxic pollutants such as the pharmaceutical and personal care products, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, phthalates, furans and dioxins, , viruses and bacteria, dyes, inorganic pollutants, agrochemicals and pesticides, volatile organic compounds etc. [10] Researchers claiming that nanotechnology is highly efficient, affordable, technology. This is very useful and results have shown that environmental nanotechnology could be the most effectively utilized for the removal of organic and inorganic contaminants from municipal and industrial wastewater. Although, the potential impact of nanomaterials on human health and the environment is not clear. There is no doubt that nanotechnology is one of the best technology in waste water treatment and but the knowledge about the environmental fate, and toxicity of nanomaterials is still seem to be in infancy [2].

4. Conclusion

Increasing population, urbanization, Industrialization and developmental activities are the main reasons for increasing amount of wastewater. Several methods are being proposed and used to ensure a continuous supply of water to fulfil the daily requirements. The nanotechnology provides the new possibilities in the area of water purification, removal of contaminants, toxic elements etc. This is comparatively a cheaper and convenient and eco-friendly technology for the waste water treatment. Nanotechnology is a promising and latest technology, for the treatment of water and wastewaters. The working with the nanoparticles seems to be difficult because these particles are not easy to separate from the treated solution, which may resulting the loss of nanomaterial and this may increase the cost of treatment.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

USEFULNESS OF LORD KRISHNA'S MOTIVATIONAL AND MANAGERIAL SKILLS FOR MODERN PROFESSIONAL MANAGEMENT WORLD

Dr. Priyanka Gupta*

Abstract

In professional world, whether you are working for an organization or are doing your own business or even you are doing your household work, the most common thing is that you get depressed while doing your work. Depressed employees in any organization are a common sight. Depressed employees, unmotivated employees, dejected employees, hopeless employees, sullen looking employees are very harmful to any organization as they not only decrease the productivity but they also create an atmosphere in which other colleagues may also feel de-motivated and depressed. Similarly if someone run his/her own business and remain depressed while doing work, certainly he/she will not achieve that much in his/her business if he/she would have been highly motivated & energetic.

Now, De-motivation, Depression, Dejection, Desolation all these D-words relates to one's mind or relate to one's mental position. It's only the Mind that gets depressed, dejected. A professional may be physically fit with blood oozing in his/her nerves, but if he/she is not well with his/her Mind then that professional is certainly not going to perform to his/her full potential. Mental health is the key to success. If professionals are mentally supercharged then they can achieve any milestone in spite of having any physical inadequacy.

Now, how to get out of this Depression, De-motivation & how to increase the productivity at work, it can be learnt through the great teachings of lord Krishna in "Bhagwat Gita".

This research paper makes an attempt to extract the motivational and managerial skills of lord Krishna through analyzing his teachings in Bhagwat Gita and an attempt is also made as to how it can be implemented even today and gives the mantra behind success.

Key words: Management, Motivation, Skills, Mind, Bhagwat Gita.

Research Methodology

Bhagwat Gita is considered one of the greatest sources of knowledge relating to different matters of life. The teachings of lord Krishna and his management skills have been embraced by the world with open heart. The Bhagavad Gita simplifies the purpose of life by giving our souls a direction to follow and a path to tread. With this purpose, the author is trying to get management lessons for better understanding and practice. The doctrinal method of research is followed for writing this research paper and the data collected and interpreted for this research paper is of secondary nature.

Introduction

Have you ever seen that when you are motivated in life, you are able to do everything in life by doing some simple efforts? When you are motivated in life, success follows you in life. But when our mind gets depressed, dejected, de-motivated, life seems impossible & we become unable to lead life enthusiastically and as a result we do not get success in life.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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In the same way, a management professional may be physically fit, but if he/she is not well with his/her mind then that management professional is certainly not going to perform to his/her full potential. Mental health is the key to success. If management professionals are mentally supercharged then they can achieve any milestone, in spite of having any physical inadequacy. One can never succeed and be victorious in life if he feels himself, defeated at mind due to his Depression and De-motivation.

Now, how to get out of Depression, De-motivation & how to increase the productivity at work, is where the great teachings of "Bhagwat Gita" come into play. The Bhagavad Gita is a 700 verse Hindu scripture that advocates Lord Krishna's doctrine of doing one's duty without coveting any reward. It was written by Sri Ved Vyasa as a part of Mahabharata. The teachings contained in Bhagwat Gita, were given by Lord Sri Krishna to Arjuna on the battle field of Kurukshetra in the existing Haryana state of India in ancient times. Arjuna was involved in a battle against his enemies (some of them his own relatives too) but he refused to do his duty of fighting a righteous battle as he got infatuated and started thinking of his enemies as his own near & dear ones. He told Lord Sri Krishna that he is going away from the war & do not want to fight on the battle field. Arjuna's mental health became weak and he got deeply depressed. To overcome Arjuna's depression and in order to motivate him to fight a righteous war, Lord Krishna gave the great teachings of "Bhagwat Gita" to Arjuna. After listening to all these great teachings, Arjuna's mental health became well & he became motivated & energetic to fight the war. After so many years these teachings are still relevant in personal as well as professional world.

Management of imbalance of powers between Kauravas and Pandavas at the battle field of Kurukshetra

In the battle of Kurukshetra, Kauravas had 11 Akshouhini Army while Pandavas had 7 Akshouhini Army (1 Akshouhini = 21,870 chariots, 21,870 elephants, 65,610 horses and 109,350 foot-soldiers, in a ratio of 1:1:3:5).

Bhishma, Drona, Karna, Shalya, Kripacharya, Ashwatthama, Duryodhan fought for Kauravas and Arjuna, Bhima, Dhrshtadyumna, Abhimanyu, Ghatotkach, Shikhandi, Satyaki fought from the side of Pandavas. The battle Lasted in18 Days out of which 10 Days battle was led by Bhisma, 3 Days by Drona, 1½ Days by Karna, ½ Day (No General), 1 Day by Shalya and 1 Night by Ashwatthama from Kauravas' army. On 18th Night of the battle Ashwatthama slaughtered the Pandava camp in sleep.

Before That, Kauravas lost Bhishma, Drona, Karna and his sons, Shalya, Bhagadutta, Bhurisrava, Susharma, Jayadrath, Duhsasana and all of Duryodhana's brothers, Shakuni and Ulooka. On the other hand, Pandavas lost Drupad, Virat and his sons, Abhimanyu, Ghatotkach and Iravan in the battle of Krukshetra.

Now, one major question arises in our mind that even after so many imbalances of powers how did Pandavas manage to Win? Answer is very clear it became possible just because of lord Krishna's management skills. During and before the battle of Krukshetra, he continuously guide Pandavas and manage their deeds by numerous ways in order to win the battle such as he made Karna to donate his protecting kavach (body shield) and kundal (Ear's ornaments), Manage various divine powers to protect Pandavs' army which was not as strong as Kauravas' army. Beside this, he also motivated Pandavas to increase their strengths as a result of it, though in exile Pandavas turned their attention for improving over their weaknesses. Arjuna set out on a mission to acquire Divyastras. Bhima met his brother Hanuman and got a blessing of enhanced strength. Yudhisthira acquired teachings from the various wise rishis, and also learnt the Game of Dice from Gandharava Chtrasena, lest he was challenged to yet another dice game. It's said that he had become undefeatable in Dice.

These all strategies, motivational facilitation and management skills of lord Krishna are, timelessly, still very useful and relevant for modern managers. By learning through these developments of the battle of krukshetra, modern manager can understand the maximum utilization of the available limited resources in order to ensure required outcome.

Motivational skills of lord Krishna during the battle of Kurukshetra and its relevancy in present management world

In the battle of Kurukshetra, Arjuna came into a de-motivated & dejected state of mind. In the beginning of the battle Arjuna refused to do his duty of fighting as he got infatuated & started thinking of his enemies as his own near & dear ones. His mind became week & highly de-motivated. He told Lord Sri Krishna that he wanted go away from the battle and do not want to fight on the battle field. Arjuna's mental health became weak and he got deeply depressed. The following verses of Bhagwat Gita show how he became de-motivated and refused to fight.

"arjuna uvacha
drstvemam sva-janam krishna
yuyutsum samupasthitam
sidanti mama gatrani
mukham cha parisusyati"[*]

Which means Arjuna said: Krishna, at the sight of these friends and relatives present before me in such a fighting spirit, my limbs give away, my body is quivering and my mouth is parched.

"na cha saknomy avasthatum
bhramativa cha me manah
nimittani cha pasyami
viparitani keshava"[†]

Arjuna further said: O Krishna, "My mind is reeling & I am now unable able to stand here any longer. I see the omens also inauspicious; only causes of misfortune."

"sanjaya uvacha
evam uktvarjunah sankhye
rathopastha upavisat
visrjya sa-saram chapam
soka-samvigna-manasah"[‡]

Sanjaya said: Arjuna, having thus spoken on the battlefield, cast aside his bow and arrows and sat down on the chariot, his mind overwhelmed with grief.

"sanjaya uvacha
evam uktva hrishikesham
gudakeshah parantapah
na yotsya iti govindam
uktva tusnim babhuva ha"[§]

[*] Bhagwat Gita: Chapter One verse 28
[†] Bhagwat Gita: Chapter One verse 30
[‡] Bhagwat Gita: Chapter One verse 46
[§] Bhagwat Gita: Chapter Two verse 9

International Journal of Management, IT & Engineering
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Sanjaya said: O King, having spoken thus to Sri Krishna, Arjuna, again said to Lord Krishna, "Hey Govinda, I shall not fight," and fell silent.

Now to overcome Arjuna's depression and to motivate him to fight a righteous war, Lord Krishna gave the great teachings of Bhagwat Gita to Arjuna. Through the following verses of Bhagwat Gita Lord Krishna motivated Arjuna to do his duty of fighting a just & righteous war and motivated his mind.

"karmany evadhikaras te
ma phalesu kadachana
ma karma-phala-hetur bhur
ma te sango 'stv akarmani"[**]

by these words Lord Sri Krishna said: You have a right to perform your prescribed duty, but you are not entitled to the fruits of action. Never consider yourself the cause of the results of your activities, and never be attached to not doing your duty.

"yoga-sthah kuru karmani
sangam tyaktva dhananjaya
siddhy-asiddhyoh samo bhutva
samatvam yoga ucyate"[††]

Lord Sri Krishna said: Perform your duty equi-poised, O Arjuna, abandoning all attachment to success or failure. Such equanimity is called yoga.

By these teachings of Lord Krishna, weakness of mind of Arjuna was gone & he became motivated. Later on, Arjuna acknowledges that his weakness of mind has gone and said that he is now motivated to do his duty of fighting a just and righteous war in the following verse of Bhagwat Gita.

"arjuna uvacha
nasto mohah smritir labdha
tvat-prasadan mayacyuta
sthito 'smi gata-sandehah
karisye vachanam tava"[‡‡]

Arjuna said: O Lord Sri Krishna, my illusion is now gone. I have regained my memory by your grace. I am now firm and free from doubt and am prepared to act according to your instructions.

So it is seen above, how the defeated & de-motivated mind of Arjuna became good and motivated by the teachings of Bhagwat Gita. By doing this, Lord Krishna gave a message that any employee or employer cannot deliver results until and unless they know themselves, their true potential, skills or capabilities. A good manager must search deep into his/her consciousness to understand what his/her true worth is. If management professionals are broad minded and always open to learn new experiences, challenges and learning then nothing can stop them from achieving their goals or perfection in work. But if they close thier minds, limit themselves or attach themself to materialistic pleasures or people then they are giving a sorry excuse to avoid the work and retreat into a shell.[§§]

[**] Bhagwat Gita: Chapter Two verse 47
[††] Bhagwat Gita: Chapter Two verse 48
[‡‡] Bhagwat Gita: Chapter Eighteen verse 73
[§§] Pillai, M. N. (2017). Lessons on Management from the Bhagavad Gita. *AADYA-Journal of Management and Technology (JMT)*, *7*, 76-80.

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Conclusion

Lord Krishna, probably, is one of the best leaders of the world of all the time. He exhibited lots of managerial skills which are still relevant even in today's corporate world. For that matter, most of the leadership traits, management techniques, forecasting, planning, motivation, communication skills were already being implemented then in its own way. In fact, today's situational theory, traits theory of leadership was successfully practiced by Lord Krishna who used to play a tactical role under different situations of pressure, he was able to manage the issues and provide best solutions. He played a very crucial role and was able to manage the big, strong crowd against him with a small group he had. This shows how good he was in organizing and managing the human resources and thereby framing a right strategy.[***] The art of waging a war, that too against his own cousins was not so easy for a great warrior like Arjuna, who executed it excellently under the leadership and guidance of Lord Krishna (just imagine what must be the degree of motivation Krishna must have imparted on Arjuna). The modern management professionals can also come out of the state of depression, de-motivation & dejection by reading the teachings of lord Krishna in Bhagwat Gita. These teachings can show them how to do their duty properly and how to lead an excellent professional life. So let's all follow and spread the great teachings of Bhagwat Gita as told by Lord Sri Krishna Himself to Arjuna. These teachings are as much relevant in fast day to day life of ours today as these were in ancient times.

[***] Ram, H. S. G., & Narayanan, S. Learnings on Management from Indian Epics: An overview through the Mahabharatha.

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Store Attributes in Jewellery Shopping Preference

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Abstract
Jewellery retailing is becoming the fast booming segment which grows in market share in all possible type of retail formats, locations and among various communities. Though it was expected to experience a fall in Jewellery business due to demonetization and global economic impact, there is a stable growth in the Jewellery industry, particularly in organized branded stores. With the increase in awareness and seriousness among people towards value for money rather than the sentiments, the buyers' preference towards the choice of Jewellery stores is becoming rational. This study aims to understand the Jewellery shopper's behavior in-store choice preference. The study was conducted among 160 Jewellery shoppers in Sivaganga region. Chi-square for association test and Factor analysis for identifying the factors of preference is used.
Key words: Jewellery Shopping, Store Choice Factors, Buyer Behaviour

I. Introduction to Jewellery

Jewellery goods are the type of accessories that includes the goods like necklaces, earrings, rings, watches, bracelets etc. Jewellery products are made for all genders, all age groups, all type of communities, religion, caste etc. Jewellery business evolved well before 1000 years. The first known Jewellery pieces were started with teeth, bones and other hard parts of animals and birds. Even now these Jewellery pieces were famous as necklaces and earrings among tribal members. They evolved and changed to forms of beads, stone & gems. Egyptians first used ornaments from gold and metals and created customized Jewellery for each category of people and were kept as a status to show their power and wealth. Nowadays, mostly in Asian countries, the willingness to wear or keep Jewelleries made on Gold, Silver, Diamond and other Gems.

Jewellery market in India

Pearls and Gems have been used by the Indian people since kings ruling period. Valuable metals and stones have been an indispensable piece of the Indian human advancement since it was seen as a symbol of status and prosperity. India has the qualification of being the main nation to acquaint precious stones with the world. The nation was likewise the first to cut and clean and exchange precious stones as business. Changing the way of life and urbanization are likewise fuelling the development in the diamonds and gems industry, fundamentally in marked gems. Marked Jewellery has discovered a specialty for itself in the intense Indian market, and its expanding development rates demonstrate that after a short time it will corner a huge offer of the gems advertises. With the retail business in India prospering, a few organizations have made advances into the customary Jewellery industry, offering the item that was never truly marketed earlier. To such an extent that Jewellery retailing is the new mantra in the market, having quickly procured a specialty in

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the course of recent years. The Jewellery industry is still in its outset; however expanding development rates demonstrate that in a brief timeframe it will corner a noteworthy lump of the market.

II. Review of Literature

The retailer wishes to appeal to the feel of sight, touch, sound and smell. When guided by these, he can create a shopping experience that will entice the shopper into the store. Hence, many times, retail has been likened to the theatre. (Booms and Bitner, 1981), Visual aesthetics explains the effect of aspects of visual physical evidence like cues and atmospherics.

(Lovelock and Gummesson, 2004), Jewellery customers usually depend on cues from physical evidence to understand and analyze the quality of the service. In services, the process of consumption and production occurs simultaneously. (While Bitner, 1992), used the term service-scape to refer to the physical surroundings as designed in service organizations to support the provision of offering service to buyers. Researchers found that the design of the service-scape can influence customer preference of store choice for buying goods.

The retailers know that customers are affected by smell, décor, music and store layout. The big challenge in most of the service settings is to design the physical space and evidence so that it can support the needs and preferences of both customers and sellers simultaneously.

The store physical environment influences

(1) Customers' beliefs about the service providers

(2) Customers' emotions in response to the location and

(3) Customers' physiological reactions while in the physical facilities in the stores.

These dimensions affect people's belief, emotions, and physical responses, causing them to behave in certain ways while in the servicescape. Retailers and other service organizations increasingly recognize that the physical characteristics of their trading spaces represent an opportunity to communicate with their target market, create in-store experiences as means of competitive positioning, and build their brands.

Gidwani Devika (2002) that there is certainly a business opportunity for marked Jewellery particularly if something is gone for the more youthful age, which needs to purchase elegant genuine gems. This is the perfect time to get into the market, as it has recently removed." The Indian market was seeing a fast move of screening Jewellery from speculation to creative engaging trimmings. The concentration had moved to outline. The Indian purchaser was eager to explore different avenues regarding new plans. **Craig Symons (2004**), stated "Marking gives clients more trust in their acquiring choice as they can relate to the brand and in this manner feel they've made a decent buy which they can demonstrate their loved ones. "This brand acknowledgment gets retailers a large portion of the route through making a deal before a client even strolls into their store." Therefore, maybe as anyone might expect, the Jewellery business has at long last observed the marking light and started to saddle its energy to offer gems. **Mckinsey (2005) told that** the marked Jewellery industry is still in its earliest stages; yet expanding development rates demonstrate that in a brief span it will corner a critical piece of the market. The best compliment to the marked portion is that customary gem dealers have additionally started to plan gems lines under a brand name. **Paul Noronha (2005)** in her study said, Marked Jewellery has cut a specialty for itself in the intense Indian market and its expanding development rates demonstrate that after a short time it will corner a critical offer of the gems showcase. DTC's Supplier plans to develop buyer interest for precious stone gems with regards to the developing focused extravagance products segment. **Rancos (2006)** reported in his article "that Indian Gems and Jewellery Market Future Prospects to 2011, pearls and Jewellery advertise in India have huge potential for future growth. It has an additional favourable position of low creation cost and very gifted work that separate it from its rivals. It is anticipated that the general pearls and Jewellery market will develop at a CAGR (Compound Annual Growth Rate) of around 14% amid 2009-2012. Study released by the **Bullion Association of India (2007)** stated that because of the evolving flow, customary gem dealers are hoping to hop on the "brand wagon" by putting resources into publicizing and endeavouring to manufacture a nearness in the psyches of buyers. Conventional diamond setters have joined Bollywood champions as brand representatives to advance their items. **Shikha Saroj (2008)** told in her paper that Jewellery has turned into a necessary piece of the Indian mind, today more than even before the Indian customer is arranging to purchase marked gems that puts forth a mold expression or communicates her singularity. Jewellery has turned into energy. Individuals long for the contemporary outlines at incredible costs. The idea of marked Jewellery has hence taken a full swing in India. The opposition of enhancing something new continues, flooding the commercial centre with fine and crisp plans. Here there are a couple of Premium ways of life marks that guarantee to offer high calibre at awesome costs.

Osjag's (2009) concluded that branding is "an irreversible trend". "It gives consumers a certain degree of confidence that they're buying a genuine product," Branded jewellery has arrived and earned its place on World jewellery retail shelves. **Baranwa Shashank (2009)** told in his study that the business of gems has blasted in a previous couple of years because of the expanded request of popular gems. The fare and import of gems have likewise made strides. **Becker, Vivienne (2003), in his book, titled mentioned that** Jewellery is a sort of embellishment that incorporates accessories, rings, arm ornaments, watches, and hoops, and so forth. Jewellery is intended for men, ladies, and youngsters and can be produced using a wide range of classes. Gems began around 1,00,000 years back, Began with materials produced using bone, teeth, and shell. The primary known gems pieces were worn by the Cro-Magnons around 40,000 years prior, these pieces were made of bone and teeth and were worn as accessories and hoops to indicate innate enrollment. Later on fused globules, stone, and jewels. Egyptians were first to utilize gold and metals for making jewellery, Jewellery was viewed as an image of influence and riches. Brands have directed Jewellery with numerous qualities - style, as well as hotness, fervour, and mold. As the quantity of clients who need to be associated with these qualities rises, obviously the main route is up for marked gems.

Top Ten Cif (Consumer Impulsive Factors) -Jewellery Store Choice

- Sentimental value
- To feel good about self
- Express individuality
- Be modern & up-to-date
- Be cool and trendy
- Make a good first impression
- Look professional at work
- Make a good impression on the opposite sex

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- Be admired and respected
- Display wealth & status

III. Objectives of the Study

1. To identify the store attributes influencing Jewellery buyers' store preference.

2. To know the association between the demographic variables and store preference behavior.

3. To offer suggestions based on the findings to the Jewellery stores regarding deciding and designing store attributes.

IV. Research Methodology

Study area: Sivaganga region (Karaikudi, Thirupathur, Devekottai and Singampuneri

Period of the study: April 2018 to May 2018

Sampling design: Convenience Sampling

Sample size: 160

Sources of data:

a) Primary data: Survey using a structured questionnaire

b) Secondary Data: Articles from journals, books, Thesis reports and other internet sources.

Research Hypotheses

H11: Customers' Education and Jewellery Store Preference are having an association.

H12: Store Personnel Hospitality and Volume of Jewellery Shopping are having an association

V. Analysis and Interpretation

Table1: Chi-square test

Alternative Hypothesis	Pearson Chi-Square	DF	Sig (2 sided)	Table Value	Results
1: Customers' education and Jewellery Store Preference are having an association.	179.243[a]	16	.000	21.32	Accepted
2: Store Personnel Hospitality and Volume of Jewellery shopping are having an association	82.249a	16	.000	22.26	Accepted

Findings from Chi-square test

- From the study, it is found that there exists association between the education status of the Jewellery buyers and their store choice behavior.
- It is also found that the personality and behavior of the Jewellery stop employees and the volume of the purchase of the shoppers vary.

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Table 2: Factor Analysis

Factor Name	Eigen Value	Variance %	Statement	Loading
Store Atmospherics (Interior and Exterior)	5.832	32.254	Store exterior should be appealing	0.624
	3.224	10.863	Should have impressive entrance	0.912
	0.754	4.284	Need attractive In-store displays	0.623
	0.682	3.364	Look for In-store Information	0.872
	0.836	1.827	Displays covey In-store information	0.69
	11.328	**52.592**		**3.721**
Store Aesthetics	1.626	7.926	Demand aesthetics stores appearance	0.812
	1.298	7.12	Need enough moving space in the store	0.631
	1.421	6.128	Store should have Scent/Perfume	0.714
	0.823	4.412	Look for air conditioning in store	0.796
	5.168	**25.586**		**2.953**
Hospitality in the Store	0.321	1.312	Expects greeting from sales associates while entering the store	0.732
	0.196	1.361	Wish to see well groomed & trained store staff	0.696
	0.181	1.126	Expects Sales associates guidance in buying decision	0.912
	0.061	0.312	Good hospitability will make shopper to recommend the store to others	0.729
	0.759	**4.111**		**3.069**
In-Store Merchandising	0.632	3.812	Displays impulse to see Jewelleries	0.723
	0.412	1.963	Proper arrangement of Jewels creates beauty to the store	0.923
	1.044	**5.775**		**1.646**
Store Buying Impulsiveness	0.345	1.362	Impressive displays will impulse the Jewellery buying	0.826
	0.078	0.363	The behavior of sales associates creates a willingness to buy more	0.712
	0.423	**1.725**		**1.538**
Extraction Method: Principal Component Analysis, **Rotation Method:** Varimax with Kaiser Normalization				

Findings from the Factor analysis

- Store Atmospherics (Interior and Exterior), Store Aesthetics, Hospitality in the Store, In-Store Merchandising, and Store Buying Impulsiveness are the **five attributes** shortlisted using the factor analysis which is having an influence on Jewellery shoppers behavior in choosing the Jewellery store.

- In-**Store Atmospherics category**, Impressive entrance, In-store Information, Displays conveying information, Appealing store exterior and Attractive In-store displays are the **five factors** having weight age in Jewellery store selection criteria in order.
- In-**Store Aesthetics,** Demand aesthetics stores appearance, Look for air conditioning in store, Store should have Scent/Perfume and Need enough moving space in the store are the **four factors** having weight age in Jewellery store selection criteria in order.
- In **Hospitality in the Store,** Expects Sales associates guidance in buying decision, Expects greeting from sales associates while entering the store, Good hospitability will make shopper to recommend the store to others and Wish to see well groomed & trained store staff is the **four factors** having weight age in Jewellery store selection criteria in order.
- In **In-Store Merchandising, the** Proper arrangement of Jewels creates beauty to the store and Displays impulse to see Jewelleries are the **two factors** having weight age in Jewellery store selection criteria in order.
- **In-Store Buying Impulsiveness,** Impressive displays will impulse the Jewellery buying and the behavior of sales associates creates a willingness to buy more are the **two factors** having weight age in Jewellery store selection criteria in order.

VI. Suggestions

- Store Attributes have a great influence on the buying decision of the Jewellery consumers so more focus on Store characteristics needs to be concentrated.
- The Jewellery Stores interior and exterior store atmospherics should be given much importance as a part of store promotion.
- Apart from differentiating themselves from others in their offers and special discounts, should consider store attributes and salesmen in the stores also.
- The psychological factors in giving good hospitality and creating buyer rapport with the sales personnel in the stores also to be added to the performance appraisal of the store employees along with the sales volume criteria.
- Jewellery stores should try to promote their stores by participating in exhibitions and trade shows with their simulated store designs to educate the customers about their store ambience and product availability.

VII. Conclusion

The selection of Jewellery stores is dependent on the promotional efforts to aware about the stores and impulse them to check the store. The exterior atmospherics of the Jewellery stores attract them to walk into the outlet. But the actual purchase and customer retention and creating store loyalty depend on the interior merchandising, salesmen hospitability and service provided during and after the purchase of the jewels. Now the Jewellery customers prefer a retail store that provides many Pieces of jewellery under a single roof. Thus if the attracted customers are convinced and retained then that itself acts as a differentiation and word of mouth promotion for new customers to have a steady growth in the Jewellery business.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Gender Inequality: Rise Violence against Womens in India

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Abstract

Gender inequality in India refers to health, education, economic and political inequalities between men and women in India. Various international gender inequality indices rank India differently on each of these factors, as well as on a composite basis, and these indices are controversial. Gender inequalities, and their social causes, impact India's sex ratio, women's health over their lifetimes, their educational attainment, and economic conditions. Rising violence against women in India has always been an issue of concern. The society at large considers women as second class citizens. Attitude is quite hypocritical, where at one place women are admired and preached in the name of Sakthi, at the same time are, also abused in the form of Child -marriage, Female infanticide, Sexual harassment, Dowry and so on. From a largely unknown status in ancient times through the low points of the medieval period, to the promotion of equal rights by many reformers, the history of women in India has been lively. Manifestations of violence include physical aggression, such as blows of varying intensity, burns, attempted hanging, sexual abuse and rape, psychological and emotional violence through insults, humiliation, coercion, blackmail, economic or emotional threats, and control over speech and actions. A new section, 376A has been added which states that if a person committing the offence of sexual assault, "inflicts an injury which causes the death of the person or causes the person to be in a persistent vegetative state, shall be punished with rigorous imprisonment for a term which shall not be less than twenty. The research paper aims to bring forth the rising violence against women in India and has suggested measure to control the same.

Key words: Crime Against Women, Crime Against Children, Atrocities/Crime Against **SC-ST,** Cyber Crimes, Human Trafficking, Forced and Child Marriage, Female Feticide, Dowry Death etc,

1. Introduction

Gender inequality in India refers to health, education, economic and political inequalities between men and women in India. Various international gender inequality indices rank India differently on each of these factors, as well as on a composite basis, and these indices are controversial. Gender inequalities, and their social causes, impact India's sex ratio, women's health over their lifetimes, their educational attainment, and economic conditions. Gender inequality in India is a multifaceted issue that concerns men and women. Some argue that various gender equality indices place men at a disadvantage. However, when India's population is examined as a whole, women are at a disadvantage in several important ways. In India, discriminatory attitudes towards either sex have existed for generations and affect the lives of both sexes. Although the constitution of India grants men and women equal rights, gender disparities remain. The research paper aims to bring

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Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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forth the rising violence against women in India and has suggested measure to control the same.

1.1 Rise Violence against Women in India

Rising violence against women in India has always been an issue of concern. The society at large considers women as second class citizens. Attitude is quite hypocritical, where at one place women are admired and preached in the name of Sakthi, at the same time are, also abused in the form of Child-marriage, Female infanticide, Sexual harassment, Dowry etc. The status of women in India has been subject to many great alterations over the past few millenniums. From a largely unknown status in ancient times through the low points of the medieval period, to the promotion of equal rights by many reformers, the history of women in India has been lively. Violence against women is partly a result of gender relations that assumes men to be superior to women. Manifestations of violence include physical aggression, such as blows of varying intensity, burns, attempted hanging, sexual abuse and rape, psychological and emotional violence through insults, humiliation, coercion, blackmail, economic or emotional threats, and control over speech and actions. A new section, 376A has been added which states that if a person committing the offence of sexual assault, "inflicts an injury which causes the death of the person or causes the person to be in a persistent vegetative state, shall be punished with rigorous imprisonment for a term which shall not be less than twenty.

2. Review of Literature

John Simister and Judith Makowiece (2008) in their study, "Domestic violence in Indian: Effects of education" laid stress on domestic violence between husband and wife in India and attitudes to domestic violence. They use the term 'gender based violence' because some men use violence to control their wives. Data from the demographic and health survey 1998 to 2000 has been analyzed. This survey includes women in the age 15 to 49, in 26 Indian states and focus only on violence (such as a wife is being hit by her husband's family, or a men being hit by his wife). Authors suggest that there are similarities between the behavior of some Indian men and the 'machismo' values reported in other cultures. They confirm previous claims that violence is less common if women and men are well educated. Moreover, acceptance of domestic violence appears to be related to the respondent's education level. Thus, government of India must give priorities to education for both boys and girls. Devi and Prema (2006) assert that violence against women should be viewed as a human right violation and a crime, detrimental to the development of women and the society. Capacity building, awareness generation and developing leadership skills among women can help them gain confidence to raise a voice against violence and assert their rights.

3. Objectives of Current Study

1. Indicating alarming rise violence against women in India
2. What is the Measures control crime against women?

3.1 Crime against Women

Cases under "crime against women" category reported an increase of 2.9 per cent in 2016over 2015. Majority of these cases "cruelty by husband or his relatives" (32.6 per cent)followed by "assault on women with intent to outrage her modesty" (25.0 per cent), "kidnapping abduction of women" (19.0 per cent) and "rape" (11.5 per cent).Rape cases have reported an increase of 12.4 per cent from 34,651 cases in 2015 to 38,947 in 2016. Madhya Pradesh and Uttar Pradesh reported the highest incidence of rape with 4,882 (12.5

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per cent) and 4,816 (12.4 per cent) respectively, followed by Maharashtra 4,189 (10.7 per cent) during 2016.Uttar Pradesh reported 14.5per cent (49,262) of the total cases of crimes against women followed by West Bengal (9.6 per cent) (32,513 cases), during 2016. Delhi reported the highest crime rate (160.4) compared to the national average rate of 55.2. Crime rate is calculated as the incidents of crime per million populations.

3.2 Crime against Children

Crimes against children have gone up by a whopping 13 per cent, from 94,172 in 2015 to 1, 06,958in 2016. While kidnapping and abduction accounted for 52.3 per cent of the cases, cases under Protection of Children from Sexual Offences Act, 2012 (POCSO) were at a worrying 34.4 per cent. In these categories too, Uttar Pradesh, Maharashtra and Madhya Pradesh are at the top, with 9,657 kidnapping and abduction cases in UP, 7,956 in Maharashtra and 6,016 in Madhya Pradesh. Under POCSO, Uttar Pradesh was on the top with 4,954 cases; Maharashtra had 4,815 cases while Madhya Pradesh registered 4,717 cases. Cases of juveniles in conflict with the law have gone up again after a dip of 13.1 per cent was registered in 2015 over 2014. In 2016, 35,849 such cases were registered, an increase of 7.2 per cent over the 33,433 cases of 2015.Madhya Pradesh had the most number of juveniles in conflict with the law at 20.6 per cent (7,369), followed by 18.4 per cent in Maharashtra.

3.4 Atrocities/Crime against Sc-St

Atrocities/crime against SCs went up by 5.5 per cent in 2016 (40,801) over 2015 (38,670).Uttar Pradesh led the way here with 10,426, or 25.6 per cent cases of atrocities against Scheduled

Castes, (SCs) followed by Bihar with 14 per cent (5,701) and Rajasthan with 12.6 per cent (5,134). atrocities/Crime Against Scheduled Tribes also spiked by 4.7 per cent, (6,568 in 2016 over 6,276 in 2015.Madhya Pradesh (1,823, or 27.8 per cent) reported the highest number of cases, followed by Rajasthan with 18.2 per cent (1,195 cases) and Odisha with 10.4 per cent (681 cases).

3.5 Cyber Crimes

Cyber crime went up by 6.3 per cent in 2016 (12,317) over 2015 (11,592).Uttar Pradesh (2,639 cases, 21.4 per cent) reported the most cases, followed by Maharashtra with 19.3 per cent (2,380 cases) and Karnataka with 8.9 per cent (1,101 cases).

3.6 Human Trafficking

As many as 8,132 cases of human trafficking were reported across India, with West Bengal at ,579, accounting for nearly 44 per cent of the cases. Rajasthan (1,422) saw 17.9 per cent of all such cases reported. Worryingly, of the 15,379 persons trafficked in the year, 58.7 per cent were children. Ass many as 23,117 persons were rescued, of which children made up 61.3 per cent, including victims of previous year.

3.7 Ncrb Data Shows 95% Rape Victims in India Known to Offenders

One of the biggest misconceptions around rape is the other-ing of both the criminal and the victim that a certain type of man rapes and a certain type of women get raped, often under certain circumstances. The overwhelming complicity of perpetrators in familial positions of power, or those who are known to victims is grossly understated.

The Victims Know the Rapists

The 2015 National Crime Record Bureau (NCRB) data on the proximity of offenders to victims (the most recent data available) shows that in 95 percent of all rape cases, the offender knew the victim. For example, 27 percent of rapes are committed by neighbors, 22 percent involves the promise of marriage and 9 percent are committed by immediate family members and relatives. The data further stated that at least two percent of all rape cases involves live-in partners or husbands (former partners or separated husbands rape within marriage is not recorded), 1.6 percent are committed by employers or co-workers and 33 percent are committed by other known associates. According to the data collated by the NCRB, Madhya Pradesh with 4,391 cases, Maharashtra with 4,144, Rajasthan with 3,644,Uttar Pradesh with 3,025, and Odessa with 2,251 and Delhi with 2,199 recorded the highest number of reported rape cases. However, it must be noted that a lower rape count could mean a lower 'reported' rape count. States that do better on other gender parity metrics (literacy rate, sex ratio, Workforce participation etc) are likely to see a higher count of reported rapes because more victims. Try to access the justice system. For example, Kerala reported 1,256 rapes while Bihar reported 1,041 rapes, despite the fact that the population of Bihar is three times the population of Kerala. The interactive data dashboard breaks down the numbers by national average, state/Union territory and proximity of offenders to victims. This is a list of States and Union Territories of India ranked according to safety of women as on 2015 based on the number of reported sexual assault cases. The list is compiled from the 2015 Crime in India Report published by National Crime Records Bureau (NCRB), India. The rank is calculated according to the rate of Assaults on Women. The assault rate represents number of incidents charged with Assault on Women with intent to outrage her modesty (Section 354 of the Indian Penal Code) per 1, 00,000 of the female population. Regions where assault on women is lower have better ranks and are considered safer for women.

According to National Crime Records Bureau data, Odessa, Telangana and Assam ranked worst with the highest rate of assaults on women, while the state with the lowest rate for sexual assaults on women in India is Nagaland.

Safety Rank	State/U.T.	Rate of Assault on Women (per 100,000 population) 2015	Safety Rank	State/U.T.	Rate of Assault on Women (per 100,000 population) 2015
1	Nagaland	8	14	Jharkhand	40.2
2	Tamil Nadu	17	15	Karnataka	41.6
3	Sikkim	17.6	16	Chhattisgarh	44.8
4	Manipur	20.8	17	Kerala	53.4
5	Meghalaya	24.5	**	**All India Average**	**53.9**
6	Gujarat	26.3	18	Maharashtra	54.8
7	Bihar	27.9	19	Jammu and Kashmir	57
8	Uttarakhand	28.2	20	Arunachal Pradesh	62.1
9	Mizoram	30.9	21	Andhra Pradesh	62.3
10	Uttar Pradesh	34.8	22	Madhya Pradesh	65.5
11	Himachal Pradesh	37.4	23	Tripura	68.2
12	Punjab	39.7	24	West Bengal	73.4
13	Goa	39.9			

3.8 Honour Killings

An honors killing is a murder of a family member who has been considered to have brought dishonor and shame upon the family. Examples of reasons for honor killings include the refusal to enter an arranged marriage, committing adultery, choosing a partner that the family disapproves of, and becoming a victim of rape. The most prominent areas where honors killings occur in India are northern regions. Honour killings are especially seen in Haryana, Bihar, Uttar Pradesh, Rajasthan, Jharkhand, Himachal Pradesh, and Madhya Pradesh. Honors killings have notably increased in some Indian states which have led to the Supreme Court of India, in June 2010, issuing notices to both the Indian central government and six states to take preventative measures against honour killings.

4. Female Feticide

Female feticide is the elected abortion of a fetus, because it is female. Female feticide occurs when a family has a strong preference for sons over daughters, which is a common cultural theme in India. Modern medical technology has allowed for the gender of a child to be determined while the child is still a fetus. Once these modern prenatal diagnostic techniques determine the gender of the fetus, families then are able to decide if they would like to abort based on gender. If they decide to abort the fetus after discovering it is female, they are committing female feticide. The fetal sex determination and sex-selective abortion by medical professionals is now a R.s 1,000 crore (US$244 million) industry. The Preconception and Prenatal Diagnostic Techniques Act of 1994 (PCPNDT Act 1994) was modified in 2003 in order to target medical professionals. The Act has proven ineffective due to the lack of implementation. Sex-selective abortions have totaled approximately 4.2-12.1 million from 1980-2010. There was a greater increase in the number of sex-selective abortions in the 1990s than the 2000s. Poorer families are responsible for a higher proportion of abortions than wealthier families. Significantly more abortions occur in rural areas versus urban areas when the first child is female.

4.1 Marital Rape

In India, marital rape is not a criminal offense. 26% of Indian men admit to forcing their wives or partners to have sex.Marital rape can be classified into one of three types:

Battering rape: This includes both physical and sexual violence. The majority of marital rape victims experience battering rape.

Force-only rape: Husbands use the minimum amount of force necessary to coerce his wife.

Compulsive or obsessive rape: Torture and/or "perverse" sexual acts occur and are often physically violent.

4.2. Gang Rape

Gang rape is defined as the rape of an individual by two or more perpetrators. The Delhi gang brought a lot of international attention to India. Every 9 minutes, a case of cruelty is committed by either of husbands or a relative of the husband. Cruelty by a husband or his relatives is the greatest occurring crime against women. From 2011 to 2012, there was a 7.5% increase in cruelty by husbands and relatives. In Bengal there were 19,865 cases, accounting for 18.7% of the national total, and in Pradesh, there were 13,389 cases, accounting for 12.6% of the national total. However the point to be noted here is that the Section 498a, which is called the anty dowry law is the most misused law in India.

Vol. 8 Issue 5(1), May 2018,
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5. Forced and Child Marriage

Girls are vulnerable to being forced into marriage at young ages, suffering from a double vulnerability: both for being a child and for being female. Child brides often do not understand the meaning and responsibilities of marriage. Causes of such marriages include the view that girls are a burden for their parents, and the fear of girls losing their chastity before marriage.

5.1 Acid Throwing

Acid throwing,also called an acid attack, a vitriol attack is a form of violent assault used against women in India. Acid throwing is the act of throwing acid or an alternative corrosive substance onto a person's body "with the intention to disfigure, maim, torture, or kill." Acid attacks are usually directed at a victim's face which burns the skin causing damage and often exposing or dissolving bone. Acid attacks can lead to permanent scarring, blindness, as well as social, psychological and economic difficulties. The Indian legislature has regulated the sale of acid. Compared to women throughout the world, women in India are at a higher risk of being victims of acid attacks. At least 72% of reported acid attacks in India have involved women. India has been experiencing an increasing trend of acid attacks over the past decade.In 2010, there was a high of 27 reported cases of chemical assaults. Scholars believe that acid attacks in India are being under-reported. 34% of acid attacks in India have been determined to be related to rejection of marriage or refusal by women of sexual advances. 20% of acid attacks have been determined to be related to land, property, and/or business disputes. Acid attacks related to marriage are often spurred by dowry disagreements.

6. Measures to Control Crime against Women

It is clear from above data that crime against women is raising at an alarming pace in India. Following measures must be taken to combat this situation.

Educate community members on their responsibilities under international and national human rights laws.

Promote the peaceful resolution of disputes by including the perspectives of women and girls.

Sensitize the public to the disadvantages of early and forced child marriages.

Highlight the value of girls' education and of women's participation in economic development.

Encourage women to participate in the political process and educate the public about the value of women's votes.Raise public awareness of the poor conditions some women face, in rural and urban areas.

6.1 Crimes in India Rise in 2018 As Compared To Last Year; Murder, Rapes

A recent report points out that the crimes in India have seen a spike. The report adds that the Cases of murder, rapes, and kidnapping have seen a rise. Many other reports keep India at low ranks in the safety index. In a report, it has been claimed that crimes in India saw a 'marginal increase in the first 45 days of this year (2018) as compared to the corresponding period of the previous year. Citing the official data, the TOI report points out that the cases of murder, abduction, rape, dowry death, and fatal accidents have seen a spike as compared to the last year. The government has been unable to check crimes even in the national capital. The report cites many abduction cases, and dowry death cases to support the data. It further adds that the country on an average is witnessing a death due to dowry every second day. The spike in crimes is a major concern as the crime rate in India was already quite high. It is worth mentioning here that, in 2016, according to theNCRB data, the total crimes were recorded to be 2.97 million while the crime rate was found to be 379 crimes per lakh population.Coming to the specifics of the report, the murder count has increased from 53 to 59, cases of kidnapping for ransom increased from 1 to 3, the rape case went up to 243 from 240, and the death due to dowry case also saw a spike increasing from 14 to 19.Notably, all these data are a comparison of the crime recorded in the first 45 days with the crimes during the same period in 2016. The molestation cases have seen a nominal dip from 378 cases last year to 315 cases this year.

24,771 Dowry Deaths Reported In Last 3 Years: Government

Uttar Pradesh is followed by Bihar and Madhya Pradesh with 3,830 and 2,252 deaths during the same period.Uttar Pradesh is followed by Bihar and Madhya Pradesh with 3,830 and 2,252 deaths during the same period.As per National Crime Records Bureau data, the country has recorded 3.48 lakh cases of cruelty by husband or his relative and West Bengal tops the chart with 61,259 such cases in past three years, followed by Rajasthan (44,311) and Andhra Pradesh (34,835).“Government conducts awareness generation programme and publicity campaigns on various laws relating to women including Dowry Prohibition Act, 1961 through workshops, fairs, cultural and training programme, seminars etc,” the Minister said.

7. Conclusion

A new section, 376A has been added which states that if a person committing the offence of sexual assault, "inflicts an injury which causes the death of the person or causes the person to be in a persistent vegetative state, shall be punished with rigorous imprisonment for a term which shall not be less than twenty. The research paper aims to bring forth the rising violence against women in India and has suggested measure to control the same. That, sadly, is the theme around which women in a free country, in the 21st century, live. It also defines the current and past government's failure against providing a secure environment for women .To give the devil its due, the Indian government must try hard to show its support towards women. Social, moral and financial assistance should be provided to the victims. Strict judicial actions must be taken against criminals, without any delay. These are necessary and laudable steps. As a matter of fact, no matter how economically independent the educated, urban woman becomes or how hard rural outreach programs work at improving female education, the narrative always meanders back to safety or the lack of it. If these factors can be controlled, then more than one form of violence can be prevented from harming a female and our society, India would be a much better place to live in.

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Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Study on FM/FE$_2$/1 Model with Hexagonal Fuzzy Number

S. Josephine Vinnarasi, W. Ritha and Rajavarni*

Abstract

This journal projects on fuzzy single server queuing model $\left(FM/FE_2/1\right)$ with finite capacity and infinite population in hexagonal fuzzy numbers using α-cut method. The inter arrival time and the service time are in fuzzified nature. Approximate method of extension namely DSW (Dong, Shah, Wong) algorithm is applied to characterize the membership function of fuzzy numbers and performance measures for α-cuts. Numerical example and graph is given to portray its potency.

Keywords: Membership function, hexagonal fuzzy numbers, α-cuts, performance measures, standard interval analysis, DSW algorithm

Introduction

Waiting line models have an impact and vitality in existing trendy environment. It shapes richness in service concerns and production rings, where clients acquire service by distinct servers consistent with queue discipline. The inter arrival times and the service times are confined to spring uniquely from probability distributions. The heritage of Queuing theory and traffic engineering was fabricated in research by Agner Karup Erlang which pursued applicability in telecommunication, computing, designing and in project management. In common practice, when the arrival and service rate are not confessed numerically, it is complicated to evaluate the performance measures of queueing systems using statistical theory. To deal with such queues, Zadeh introduced the concept of Fuzziness in 1965.

Fuzzy queueing model was established by R.J. Li and E. S. Lee [5] in 1989. Later many authors like J. J. Buckley [2], Negi D.S. and Lee E.S. [8], and Chen S. P. [3] developed queuing models. Recently, R. Srinivasan[11], S. Shanmugasundaram[10], Mohammed Shapique .A[6], analysed fuzzy queueing models using DSW algorithm and S.Thamotharan[13], Narayanamoorthy.S, Ramya.L7] worked on multi- server fuzzy queueing models, Barak .S and Fallahnezhad M.S.[1] researched on cost analysis of fuzzy queuing system,Dhurai.K, Rajarajeswari. P discussed hexagonal fuzzy numbers

Definitions

Trapezoidal fuzzy number

A trapezoidal fuzzy number is defined as $\mathring{A}=\left[a_{1,}a_2,a_3,a_4\right]$with its membership function as

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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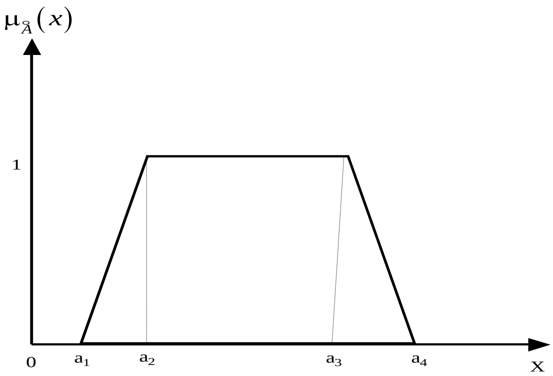
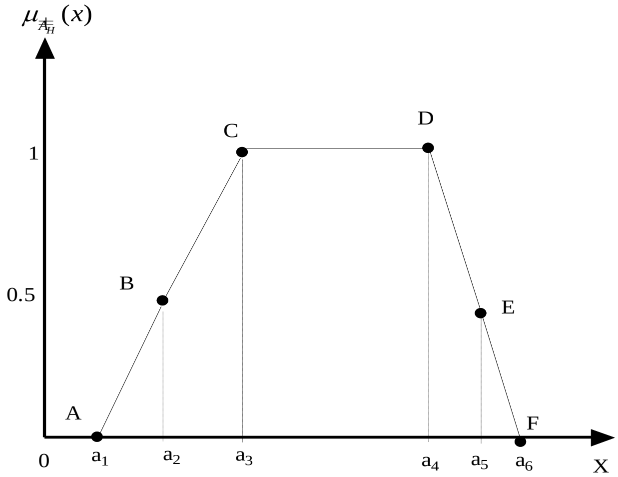
$$\mu_{\tilde{A}}(x) = \begin{cases} \dfrac{x-a_1}{a_2-a_1}, & a_1 \le x \le a_2 \\ 1, & a_1 \le x \le a_2 \\ \dfrac{a_4-x}{a_4-a_2}, & a_2 \le x \le a_4 \end{cases}$$



Hexagonal Fuzzy number

A fuzzy number $\tilde{A}_H$ is a hexagonal number denoted by $\tilde{A}_H$ = $(a_1, a_2, a_3, a_4, a_5, a_6)$ where $a_1, a_2, a_3, a_4, a_5, a_6$ are all numbers and its membership function $\mu_{\tilde{A}_H}(x)$ is given below

$$\mu_{\tilde{A}_H}(x) = \begin{cases} 0 & for \quad x < a_1 \\ \frac{1}{2}\left(\frac{x-a_1}{a_2-a_1}\right) & for \quad a_1 \le x \le a_2 \\ \frac{1}{2}+\frac{1}{2}\left(\frac{x-a_2}{a_3-a_2}\right) & for \quad a_2 \le x \le a_3 \\ 1 & for \quad a_3 \le x \le a_4 \\ 1-\frac{1}{2}\left(\frac{x-a_4}{a_5-a_4}\right) & for \quad a_4 \le x \le a_5 \\ \frac{1}{2}\left(\frac{a_6-x}{a_6-a_5}\right) & for \quad a_5 \le x \le a_6 \\ 0 & for \quad x > a_6 \end{cases}$$



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Interval number

Let R be the set of real numbers. Then the closed interval [a, b] is said to be an interval number, where a, b $\in$ R, a $\leq$ b.

Standard Interval Analysis Arithmetic

Let I_1 and I_2 be two interval numbers defined by ordered pairs of real numbers with lower and upper bounds.

$$I_1 = [a,b], a \leq b, \qquad I_2 = [c,d], c \leq d$$

Define a general arithmetic property with the symbol *, where * = [+, -, x, ÷] symbolically the operation.

$I_1 * I_2 = [a,b]*[c,d]$ represents another interval. The interval calculation depends on the magnitudes and signs of the elements a, b, c, d

[a, b] + [c, d] = [a + c, b + d]

[a, b] - [c, d] = [a - d, b - c]

[a, b] . [c, d] = [min (ac, ad, bc, bd), max (ac, ad, bc, bd)]

[a, b] ÷ [c, d] = [a, b].$\left[\frac{1}{d},\frac{1}{c}\right]$ Provided that $o \notin [c,d]$

$$\alpha[a,b] = \begin{cases} [\alpha a, \alpha b] & , for \quad \alpha > 0 \\ [\alpha b, \alpha a] & , for \quad \alpha < 0 \end{cases}$$

Where ac, ad, bc, bd are arithmetic products and $\frac{1}{d}$, $\frac{1}{c}$ are quotients.

DSW ALGORITHM

DSW (Dong, Shah, and Wong) is one of the approximate methods which makes use of intervals at various α-cut levels to define the membership functions. It uses the full α-cut intervals in a standard interval analysis.

The DSW algorithm consists of the following steps:

1. Choose a α-cut value where $0 \leq \alpha \leq 1$

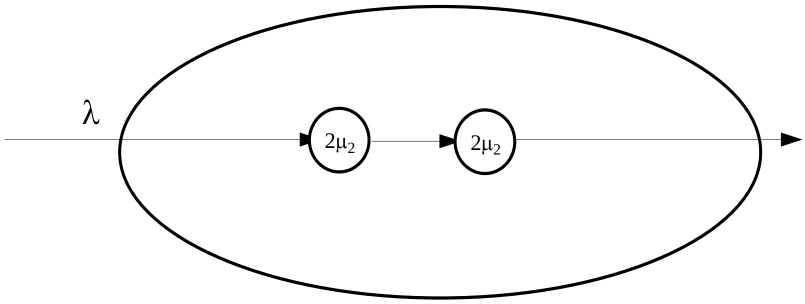
2. Find the intervals in the input membership functions that correspond to this α.

3. Using standard binary interval operations, compute the interval for the output membership functions for the selected α-cut level.

4. Repeat the above steps for various values of α to complete α-cut representation of the solution.

1.5 M/E2/1: (FCFS/ ∞ /∞)

Erlang service time distributions are very useful in queuing problems. In thesis queuing model, customers arrival follow Poisson distribution with mean rate λ. Erlang service time with 2 phases, single channel, first come, first served discipline infinite population. It is assumed that two service stations have been replaced with a single service station that can perform two services consecutively. Since this single service station presents two services to each customer thus it is assumed that the total servicing time follows an Erlang distribution (two services in one stage). If the service time follows an Erlang distribution with 2 degrees of freedom with the mean $\frac{1}{\mu_2}$, it can be assumed that in this system, the service station includes two consecutive stages in which the service time in each stage follows an exponential distribution with the parameter $2\mu_2$



The service model in Erlang service time

At first, the customer passes the first stage which its service time has an exponential distribution with the mean $\frac{1}{2\mu_2}$. Then, he enters to the second stage which its service time has an exponential distribution with the mean $\frac{1}{2\mu_2}$ (the expected mean of servicing time). The customer leaves the system after entering both stages. Because the two services are not separable practically (they are only divided in two stages mathematically). Hence there will be only one customer in one of the service stages and the other stage is without any customer. The characteristics of M/E$_2$/ 1 Model in the queue and the system are calculated as follows:

$$L_S^{'} = \frac{3}{4} \times \frac{\lambda^2}{\mu_2(\mu_2 - \lambda)} + \frac{\lambda}{\mu_2}$$

$$L_q^{\prime} = \frac{3}{4} \times \frac{\lambda^2}{\mu_2(\mu_2 - \lambda)}$$

$$W_S^{'} = \frac{3}{4} \times \frac{\lambda}{\mu_2(\mu_2 - \lambda)} + \frac{1}{\mu_2}$$

$$W_q^{'} = \frac{3}{4} \times \frac{\lambda}{\mu_2(\mu_2 - \lambda)}$$

Fuzzy Model

In recent scenario, the information collected form real life problems have a sort of vagueness. The arrival rate and service rate of the customers can be expressed as semantic data, but obstructed in probability distributions. The fuzzy set is a weapon to deal with such uncertainties. Because of imprecise data, fuzzy parameters are adopted.

Let us consider a single server $(M / E_2 / 1)$ queuing system with infinite source population. The inter arrival time I and the service time S are represented by the fuzzy sets:

$$\text{I}=\{(x, \mu_I(x)) / x \in X\}$$

$$S = \{(y, \mu_S(y)) / y \in Y\}$$

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Where X and Y are the crisp universal sets of I and S denotes the universal set of the inter arrival time and service time. $\mu_I(x)$ and $\mu_S(y)$ are the membership functions of the inter arrival time and service time.

The α -cuts of I and S are denoted as:

$$I(\alpha)=\{x\in X/\mu_I(x)\geq\alpha\}$$

$$S(\alpha)=\{y\in Y/\mu_S(y)\geq\alpha\}$$

Where the inter arrival time and the service time can be represented by various levels of confidence intervals.

The hexagonal membership functions $P(I,S)$ as follows

$$\mu_{P(I,S)}=\begin{cases} 0 & , \quad x<a \\ \frac{1}{2}\left(\frac{x-a}{b-a}\right) & , \quad a\leq x\leq b \\ \frac{1}{2}+\frac{1}{2}\left(\frac{x-b}{c-b}\right) & , \quad b\leq x\leq c \\ 1 & \quad c\leq x\leq d \\ 1-\frac{1}{2}\left(\frac{x-d}{e-d}\right) & , \quad d\leq x\leq e \\ \frac{1}{2}\left(\frac{f-x}{f-e}\right) & , \quad e\leq x\leq f \\ 0 & , \quad x>f \end{cases}$$

Where a, b, c, d, e, f are all real numbers. An approximate method of extension is propagating fuzziness for continuous valued mapping which determines the membership functions for the output variables.

In this model, a unit is served in 2 phases. A new arrival creates 2 phases of service. Here the population is infinite with first come first serviced discipline where both the inter arrival time λ and the service time μ follows Poisson distribution and Erlang distribution.

The expected number of customers in the system

$$L_S^{'}=\frac{3}{4}\times\frac{\lambda^2}{\mu(\mu-\lambda)}+\frac{\lambda}{\mu}$$

The expected number of customers in the queue

$$L_q^{'}=\frac{3}{4}\times\frac{\lambda^2}{\mu(\mu-\lambda)}$$

Average waiting time of a customer in the system

$$W_S^{'}=\frac{3}{4}\times\frac{\lambda}{\mu(\mu-\lambda)}+\frac{1}{\mu}$$

Average waiting time of a customer in the queue

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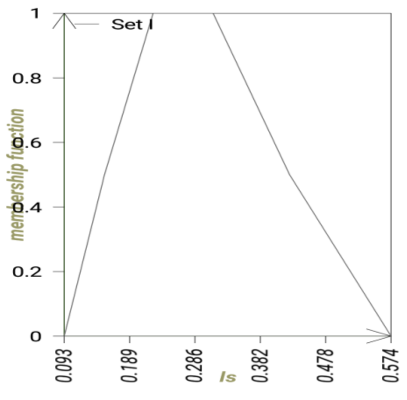
$$W_q^{'} = \frac{3}{4} \times \frac{\lambda}{\mu(\mu-\lambda)}$$

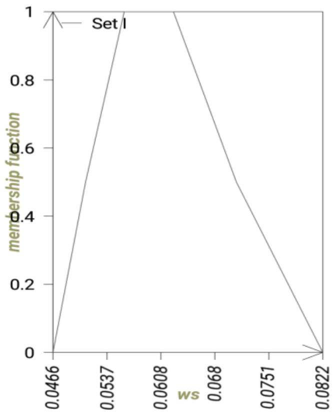
Numerical Example

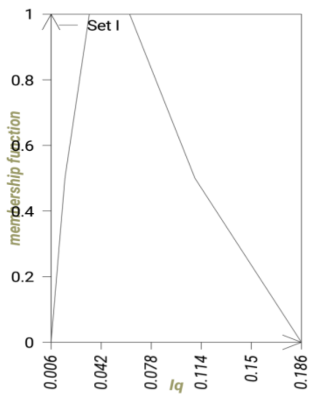
Consider a system in which the service consists of two phases where both the inter arrival and the service rates are hexagonal fuzzy numbers represented by $\tilde{\lambda}$=[2,3,4,5,6,7] and $\tilde{\mu}$ =[18,19,20,21,22,23].The interval of confidence at possibility level α as [2+2α ,7-2α] and [18+2α ,23-2α].

The α -cuts of $L_q^{'}, L_s^{'}, W_q^{'}, W_s^{'}$ at various α values are

α	$L_S^{'}$	$L_q^{'}$	$w_S^{'}$	$W_q^{'}$
0	[0.0932, 0.5745]	[0.0062, 0.1856]	[0.0466,0.0822]	[0.0031,0.0266]
0.1	[0.1042, 0.5408]	[0.0077, 0.1672]	[0.0474,0.0795]	[0.0035,0.0246]
0.2	[0.1157, 0.5092]	[0.0095, 0.1505]	[0.0482,0.0771]	[0.0040,0.0228]
0.3	[0.1275, 0.4795]	[0.0114, 0.1354]	[0.0490,0.0750]	[0.0044,0.0212]
0.4	[0.1398, 0.4515]	[0.0137, 0.1217]	[0.0499,0.0729]	[0.0049,0.0197]
0.5	[0.1525, 0.4251]	[0.0161, 0.1093]	[0.0509,0.0708]	[0.0054,0.0182]
0.6	[0.1658, 0.4002]	[0.0190, 0.0981]	[0.0518,0.0690]	[0.0059,0.0169]
0.7	[0.1795, 0.3765]	[0.0221, 0.0878]	[0.0528,0.0672]	[0.0065,0.0157]
0.8	[0.1937, 0.3541]	[0.0255, 0.0786]	[0.0538,0.0656]	[0.0071,0.0146]
0.9	[0.2085, 0.3327]	[0.0293, 0.0701]	[0.0549,0.0640]	[0.0077,0.0135]
1.0	[0.2241, 0.3125]	[0.0336, 0.0625]	[0.0560,0.0625]	[0.0084,0.0125]







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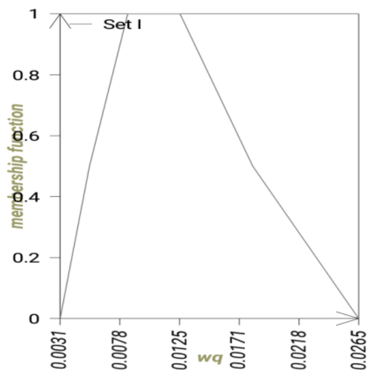

The α-cuts of $L_q^{'}, L_s^{'}, W_q^{'}, W_s^{'}$ for various α values are calculated. The crisp interval for expected number of customers in the system ($L_S^{'}$), expected number of customers in the queue ($L_q^{'}$), average waiting time in the system $\left(W_s^{'}\right)$ and the average waiting time of a customer in the queue $\left(W_q^{'}\right)$ are depicted in the above table and graph. The performance measures are fuzzy in the representation of α- cuts.

The expected number of customers ($L_S^{'}$) in the system is [0.2241, 0.3125] and it will never fall outside the range [0.0932, 0.5745]. The expected number of customers ($L_q^{'}$) in the queue is [0.0336, 0.0625] and it will never fall outside the range [0.0062, 0.1856]. The average waiting time in the system $\left(W_s^{'}\right)$ is [0.0560, 0.0625] and it will never fall outside the range [0.0466, 0.0822]. The average waiting time of a customer $\left(W_q^{'}\right)$ in the queue is [0.0084, 0.0125] and it will never fall outside the range [0.0031, 0.0266].

The above inputs are profitable to frame a queuing system.

Conclusion

Fuzzy set theory concepts are universal and are enforced to a number of queuing models to contribute an outspread utility in all fields of research areas. In this paper, we have studied the performance measure of the fuzzy queuing system and the scope of $M/E_2/1$ queuing model with hexagonal fuzzy number. Our proposed queuing model using DSW algorithm is more beneficial to coin fuzzy queuing system. This paper explores the performance measures of the particular queuing model, but the approach we proposed is obviously not limited to these and it can be extended to others also.

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Supply Chain Model with Different Holding & Emission Costs under Cap and Trade Policy

W.Ritha, S.Infancy Vimal Priya*

Abstract
With ever-increasing environmental concerns and the responsibility of companies in this context, they are integrating environmental practices into their operations to curb carbon emissions. Regulatory bodies are also imposing carbon policies to check emission. In this paper, we developed the supply chain model considering carbon policy.The objective of this paper is to investigate the impact of cap and trade policy on acoordinated supply chain model with different holding and emission costs for good and imperfect quality items, which are the result of warehousing, waste disposal, packaging and transportation is derived with numerical example.
Keywords: Imperfect Supply Process, Different holding & Emissions, Cap and Trade

1. Introduction

Environment pollution is a burning issue in recent time. Continuous emissions of greenhouse gases into the atmosphere due to rapid industrial progression have raised the threat to environment and existence of human civilization. It is clear that environmental pollution can cause many harmful consequences on the human species. To address these issues organizations pay a great deal of attention for reducing greenhouse gases, associated with industrial operations. In recent years, organizations are becoming environment conscious due to stringent laws, competitive advantages and increasing awareness of customers. They are integrating environmental practices into their operations to curb carbon emissions. Regulatory bodies are also imposed several laws and initiated different carbon policies. The existing carbon policies can be classified under three basic categories: carbon cost/tax policy, carbon cap-and-trade policy and strict carbon cap policy. Among these policies, carbon taxes and carbon markets (carbon capand-trade) are recognized as the most cost-effective mechanisms (Labatt and White 2007).

Initially, all the environmental initiatives were organization centric. But in constantly changing business world, companies cannot compete solely as individual entities. Nowadays, all the big business houses are part of one or more supply chains (SCs).With the increasing environmental awareness in public and the implementation of new regulations in some countries, there is increased pressure on organizations to improve environmental performance. So, incorporation of environmental aspects into SC has become call of hours. Integration of environmental thinking into supply chain management (SCM) including product design, material sourcing, manufacturing processes, delivery of the product to the customers and end-of-life management of the product after its use can be defined as green supply chain management (GSCM) (Srivastava 2007). Sustainable supply chain management (SSCM) is another coeval concept exists in the area of SCM to deal with environmental issues. SSCM pay emphasis on economic, ecological and social issues (Svensson 2007).This efficient management can be achieved through greater cooperation and better coordination among the different parties. This means that the vendor and the

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buyers should work cooperatively towards minimizing their costsand maximizing their profits. Integrated inventory management has received a great deal of attention.

The remainder of the work is organized into four sections. Section 2 deals with the detailed review of the literature. Assumptions, notation used and the formulation of the mathematical model, are covered in section 3. In section 4, numerical illustration is carried out to demonstrate the computational results with the help of a numerical example. Finally, in section 5, conclusions are discussed.

2. Literature Review

Inventory models with imperfect quality items have received significant attention in the literature. Many researchers have developed the models with integrated inventory model consisting of a vendor and a buyer under various cases.Benjaafar, Li, and Daskin [2010] investigated single and multiple lot-sizing models and showed how carbon emission constraints could be incorporated into both models. Bouchery et al.[2012] included sustainable criteria into the classical EOQ model and formulated a new multi-objective type model, which considered carbonemission in inventory holding and transportation. Arıkan and Jammernegg[2014] studied a newsvendor problemwith two supply options and carbonemission constraints, where emissions from manufacturing,warehousing and transportation are considered.Amodel that linked carbon emission and price tothe demand offered by Hovelaque and Bironneau[2015],who made a trade-off between retailers' total profit andcarbon emission reduction, with some policies as results. Helmrich et al.[2015] developed a Non-deterministicPolynomial-time (NP) hard model that includes a constrainton the set-up, holding and production emission. Dye and Yang[2015] combined carbon emissionin an inventory model with deteriorating items andtrade credit under differentemission policies to obtain joint decisions on emissionreduction, trade credit and replenishment policies. Jaber et al. [2013] developed a JELSmodel inspired by The European Union Emissions TradingSystem, which includes emission tax and emissionpenalty. In their model, the emission released from thesupply chain is linked to the production rate of themanufacturer.

Zanoni, Mazzoldi, and Jaber [2014] investigatedthe model of Jaber et al. [2013] with a vendor-managedinventory with consignment stock (VMI-CS) agreementin lowertotal costs and lower emissions levels. Finally, Hammami, Nouira, and Frein [2015] optimized a multi-echelonsupply chain model with environmental measures andlead time constraint with the objective to minimize thetotal cost of the supply chain. Fahimnia et al. (2013) developed a closed-loop SC considering both carbon emission and economical concerns under fixed-price regulatory environment. Li (2013) extended Arrow–Karlin model to solve production-inventory problem considering tradable permitted emission. Chen, Benjaafar, and Elomri (2013) described how by operational adjustments emissions can be reduced significantly without increasing cost under different carbon policies (carbon cap, carbon tax, cap-and-offset and cap-and-price). Zhang and Xu (2013) developed a multi-item production-planning problem with carbon cap-and-trade mechanism. They examined the impacts of carbon cap and carbon price on order size, carbon emission and total cost for a single firm. Hammami, Nouira, and Frein (2015) formulated a deterministic model considering both carbon cap and carbon tax policies with lead time constraint in finite planning horizon for a supply chain. In all these papers deterministic demand has been considered. Recently, few authors have started considering stochastic demand. Rosič and Jammernegg (2013) optimize a dual-sourcing problem with carbon tax and carbon-cap-and-trade policy under stochastic demand. Zhang and Xu (2013) developed a multi-item production planning model to maximize profit considering carbon trading cost into cost function under stochastic demand. While Dong et al. (2016) developed a profit maximization multi-stage supply chain considering carbon-cap-and-trade policy and stochastic demand, and Swami and Shah (2013) considered carbon cost policy for their model. In recent years, integration of carbon policies in operational decision-making for improved sustainability performance has enriched operations management literature.NimaKazemi [2016] extended an EOQ models for items with imperfect quality and emission considerations using different cases.

3. Model Formulation

In this section, we extended the modelwith imperfect quality, different holding and carbon emission costs in NimaKazemi [2016] as the integrated Vendor-Buyer model with different holding and emissions considering transportation, packaging and its emission costs.

The following notations and assumptions are used to develop the model.

Notations

P	Vendor's production rate
D	buyer's demand rate (units/yr)
x	buyer's screening rate(unit/time)
S_v	Vendor's setup cost for a batch
S_b	Buyer's ordering cost ($/order)
n	number of shipments in a batch for vendor to buyer
F	fixed transportation cost
E	initial cost of packaging equipment
m	number of parcels
k	cost of material used for packaging($/parcel)
h	Buyer's unit holding cost for both good and imperfect items ($/unit/yr)
b	space occupied by an item(m^3/unit)
c_{eh}	Average of carbon emission cost of the warehouse ($/$m^3$)
a	weight of an item stored in the warehouse(ton/unit)
t_{eh}	Rate of the emission tax for the warehouse ($/ton)
μ	Average annual rate of inventory obsolescence for good quality items
μ'	Average annual rate of inventory obsolescence for imperfect items
c_p	Buyer's purchasing price ($/unit)
p_{sc}	Scrap price ($/unit)
β	Social cost of emission from packaging
c_{eo}	Average carbon emission cost coefficient of obsolete items ($/ton)
α	Social cost of emission from transportation
h_v	Vendor's holding cost ($/unit/yr)
t	screening time
d	buyer's screening cost($/unit)
c	unit cost for the vendor
v	selling price of imperfect items for buyer($/unit)
s	selling price of good items for buyer($/unit)
γ	Fraction of imperfect items which is a random variable with support in [0, 1]

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

$f(\gamma)$	Probability density function of fraction of imperfect items
T	cycle length
$\hat{C}$	cap (maximum limit) on carbon emission per unit time
r	buying/selling price of per unit of carbon
h_g	Holding cost of good quality items ($/unit/yr)
h_d	Holding cost of imperfect quality items ($/unit/yr)
W_e	Annual emission cost of obsolescence disposal ($/yr)
W_c	Annual cost of obsolescence ($/yr)
V_e	Cost of emission from transportation
P_e	Cost of emission from packaging ($/yr)
Q_e	Lot size with emission considerations (unit/cycle)

Assumptions

1. There is a single vendor and a single buyer with a single item is considered.
2. Demand rate is constant
3. Production rate is greater than the demand rate.
4. The defective units are sold with discounted price by the buyer as a single batch atthe end of the screening period.
5. Eco-friendly materials are used for packaging.
6. Shortages and backorder are not allowed.
7. Theplanninghorizonisinfinite.

Vendor's cost formation

The vendor's inventory cost per cycle consists of the setup and holding cost of an inventory,

$$TC_V(n, Q_e) = S_v + ch_v\left\{\frac{Q_e}{2n} + \frac{(n-2)Q_e}{2n}\left(1 - \frac{D}{P}\right)\right\} \quad \text{-- (1)}$$

Buyer's cost formation

The buyer's inventory cost per cycle includes the ordering cost, unit purchasing cost, unit screening, transportation, packaging withdifferent holding and emission costs,

Where, Holding costs for good and imperfectquality items,

$$H_c = h_g\left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\} + h_d\left\{\frac{\gamma {Q_e}^2}{2x}\right\}$$

Holding costs forobsoleted from good and imperfect qualityitems,

$$W_c = \left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\}\mu(c_p - p_{sc}) + \left\{\frac{\gamma {Q_e}^2}{2x}\right\}\mu'(c_p - p_{sc})$$

Thus, the buyer's inventory cost per cycle can be written as,

$$TC_B(n, Q_e) = S_b + c_pQ_e + dQ_e + nF + (E + mk) + \left(h_d + \mu'(c_p - p_{sc})\right)\left\{\frac{\gamma {Q_e}^2}{2x}\right\} + \left(h_g + \mu(c_p - p_{sc})\right)\left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\} \text{-- (2)}$$

Emission costs consists of vendor's warehouse, buyer's warehouse and obsolescence disposal for good and imperfect quality items, emission tax for inventory holding, transportation and packaging wastage.

$$TE_e(n, Q_e) = \left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\}(bc_{eh} + at_{eh} + \mu ac_{eo} + m\beta) + \left\{\frac{\gamma {Q_e}^2}{2x}\right\}(bc'_{eh} + at_{eh} + \mu' ac_{eo} + m\beta) + n\alpha Q_e + c\alpha_v\left\{\frac{Q_e}{2n} + \frac{(n-2)Q_e}{2n}\left(1 - \frac{D}{P}\right)\right\} \quad \text{-- (3)}$$

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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Vendor-Buyer model using cap and trade policy

We assume that the permissible limit of carbon emission is $\hat{C}$ per unit time also the selling price and buying cost per unit of carbon is same, which is denoted as r (monetary unit).
The total profit per cycle for the supply chain under cap and trade policy is the sum of the selling price of good items and the discounted selling price of imperfect items less total cost. Thus, it can be written as,

$$\mathrm{TPU_e}(n, Q_e)\gamma = sQ_e(1-\gamma) + vQ_e\gamma - \Big\{S_v + S_b + c_pQ_e + dQ_e + nF + (E + mk) + ch_v\left\{\frac{Q_e}{2n} + \frac{(n-2)Q_e}{2n}\left(1-\frac{D}{P}\right)\right\} + \left(h_g + \mu(c_p - p_{sc})\right)\left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\} + \left(h_d + \mu'(c_p - p_{sc})\right)\left\{\frac{\gamma {Q_e}^2}{2x}\right\} + r\left[\left\{\frac{\gamma {Q_e}^2}{2x} + \frac{{Q_e}^2(1-\gamma)^2}{2D}\right\}(bc_{eh} + at_{eh} + \mu ac_{eo} + m\beta) + \left\{\frac{\gamma {Q_e}^2}{2x}\right\}(bc'_{eh} + at_{eh} + \mu' ac_{eo} + m\beta) + n\alpha Q_e + c\,\alpha_v\left\{\frac{Q_e}{2n} + \frac{(n-2)Q_e}{2n}\left(1-\frac{D}{P}\right)\right\} - \hat{C}\right]\Big\} \quad \text{-- (4)}$$

Since the cycle length in the emission case is $T = \frac{(1-\gamma)Q_e}{D}$, we have the expected value of cycle length as, $E[T] = \frac{(1-E[\gamma])Q_e}{D}$.
Using the Renewal-Reward theorem, the expected total profit per unit time of vendor-buyer is,

$$\mathrm{ETPU_e}(n, Q_e) = \frac{E[TC_e(n, Q_e)]}{E[T]}$$
$$= sD + \frac{D}{(1-E[\gamma])}\Big[vE[\gamma] - c_p - d - rn\alpha - c(h_v + r\alpha_v)\left\{\frac{1}{2n} + \frac{(n-2)}{2n}\left(1-\frac{D}{P}\right)\right\} - \frac{1}{Q_e}\left(S_v + S_b + nF + E + mk - r\hat{C}\right) - Q_e\Big\{\left(\frac{E[\gamma]}{2x}\right)(h_d + rbc'_{eh} + rat_{eh} + \mu'(c_p - p_{sc} + rac_{eo}) + rm\beta) + \left(\frac{E[(1-\gamma)^2]}{2D} + \frac{E[\gamma]}{2x}\right)\left(h_g + rbc_{eh} + rat_{eh} + \mu(c_p - p_{sc} + rac_{eo}) + rm\beta\right)\Big\}\Big] \quad \text{-- (5)}$$

Taking the second derivative of $E[TPU_e(n, Q_e)]$ with respect to Q_e, we have

$$\frac{\partial^2(\mathrm{ETPU_e}(n,Q_e))}{\partial {Q_e}^2} = -\frac{2D}{(1-E[\gamma]){Q_e}^3}\left(S_v + S_b + nF + E + mk - r\hat{C}\right) \quad \text{-- (6)}$$

Clearly it can be seen in (6) that $\frac{\partial^2(\mathrm{ETPU_e}(n,Q_e))}{\partial {Q_e}^2} < 0$ for all values of n,Q_e.Hence n and Q_e become optimum. Then,$\mathrm{ETPU_e}(n, Q_e)$ is strictly said to beconcave.
By setting $\frac{\partial(\mathrm{ETPU_e}(n,Q_e))}{\partial Q_e} = 0$, we get

$$\text{i.e. } {Q_e}^* = \sqrt{\frac{2Dx\,(S_v+S_b+nF+E+mk-r\hat{C})}{\{xE[(1-\gamma)^2]\,(h_g + rbc_{eh} + rat_{eh} + \mu(c_p-p_{sc}+rac_{eo}) + rm\beta)\} + \{DE[\gamma]\,(h_d + h_g + rb\,(c_{eh}+c'_{eh}) + 2rat_{eh} + (\mu+\mu')(c_p-p_{sc}+rac_{eo}) + 2rm\beta)\}}} \quad \text{-- (7)}$$

4. Numerical Example

In this paper, we consider an example with the following parameters,
D = 50,000, x = 175,200, S_v = 300, S_b= 100, n = 3, F = 25, E = 500, m = 100, k = 0.5, h_d = 5,b = 0.017, c_{eh} = 0.55, a = 0.002, t_{eh} = 13, μ = 0.06, c_p = 25, p_{sc} = 6, β = 0.2, c_{eo} = 13, α =0.5,h_v =2, d = 0.5, c = 10, v = 20, s = 50, P = 160,000, α_v = 0.80, r = 2,

$\hat{C}$ = 250, c'_{eh} = 0.6, μ'= 0.1, h_g = 20.

If the fraction of imperfect items follows a uniform distributionwith$f(\gamma) = \begin{cases} 25, \text{for } 0 \le \gamma \le 0.04 \\ 0, \quad \text{otherwise.} \end{cases}$, then we have $E[\gamma]$ = ***0.02***, $E[(1-\gamma)^2]$ = ***0.96.***

- From (7),Optimal lot size$Q_e{}^*$ = *940.24 units*
- From(5),Expectedtotal profit for Vendor-Buyer $\mathbf{ETPU_e(n, Q_e)}$=**$476,589.05/yr.**

5. Conclusion

As most companies nowadays are trying to include sustainability criteria in their decisions and due to the fact that quality is becoming increasingly important for companies in their day-by-day operations, more studies are required to develop analytical models that help inventory decision-makers to adjust their inventory policies when taking both measures into account.Given these facts, this study aims to include both environmental and quality concerns into a single model to help decision-makers in adopting right policies when taking into account both aspects in an inventory decision. Environmental factors are the main concerns of the decision makers. Therefore, in this context, Economic order quantity modelwith Vendor-Buyer coordination for items with good and imperfect quality and emission costs considering cap and trade policy is formulated. The equations to calculate the expected average total profit per unit time for vendor-buyer and optimal lot size quantities are presented. A numerical example is provided to demonstrate its practical usage.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

A Study on Customer Retention in Indian Banks

Dr.D.Madan Mohan*

Abstract

The main purpose of this study is to examine how customer retention is affected by the factors of customer retention. A structured questionnaire was distributed to banking customers based on demographics (gender, age, marital status, education, occupation and, income level) in National Capital Territory. Data was successfully collected from 500 respondents who have either saving account or current account or both. Respondents' opinion on 20 items related to customer retention was obtained. Factors of customer retention were categorized into four main groups i.e. tangible, reliability, responsiveness and assurance & empathy Factors. Further multiple-regression analysis was used to measure the factors of customer retention and their impact on customers' retention decision. After multiple-regression it was found that 'Within Timeframe Service Delivery', 'Sincere Efforts in Solving Customer Problems' and 'Accepting & Resolving Faults' are the most important factors which affect customers' retention intention.

Keywords: Customer Retention; Banking Customers; Service Delivery; Customer Problems.

1. Introduction

India is second most populated country with seventh place in land holding in the world. Social, economic and geographic characteristics of India are different from that of other Asian countries which makes Indian banking sector unique as compared to its Asian counterparts. Customers are in better position to compare the services offered by different banks, if they get better services from competitor bank; they are prone to switch to other bank. Globalisation of banking sector has also added some fuel to this completion because with globalisation Indian banking sector is more open and exposed to the international competition. Now Indian banks are facing a great challenge to attain operational efficiency to sustain in the global competition. To face and counter the challenges caused by international and domestic banks and compete with international players Indian banks have to adopt a customer centric approach which should be mainly focused on building and deepening the relationship with their customers (Roy and Shekhar, 2010). To retain customers in service industry the organisations must be customer focus, which will improve service quality and consequently will be successful in retaining their customers.

2. Literature Review

Various studied have been conducted to know and explain the repurchase intentions of the customers. Customer retention has been described as customer's intention to stay with the particular service provider in future (Ranaweera et al, 2003).

Some researchers argued that customer retention is the outcome of relational marketing efforts (Sheth and Parvatiyar, 2002; Manoj and Sunil, 2011; Jeng and Bailey, 2012). Payne

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and Frow (1999) suggested that existing and potential customer value should be considered as one of the criteria for market segmentation.

Hennig (2000) developed a linear model to analyze customer retention and propounded that relationship quality is an important factor for retaining customers which lies between customer satisfaction and retention. Tamuliene et al. (2014) claimed that there is statistically proven significant positive relationship between customer satisfaction, relationship quality, switching costs and customer retention. Customer centric culture based on coordinated and integrated organisational structure is essential for successful customer retention.

3. Research Objective

Review of existing literature in the field of customer retention discloses that in past various studies have been conducted on customer retention and these studies given some factor affecting customer retention like service quality, reliability, Assurance, customer satisfaction, Relationship Quality, relationship trust, switching barrier, integrated organisational structure and customer centric culture etc. The main objective of this study to examine the various factors constituting customer retention and find out the most important factors affecting customer retention in Indian banking industry.To fulfill the research objective, descriptive research design was adopted as it was found suitable for the study. A questionnaire was designed to collect the data and find out the most important aspect of customer retention in banking industry. Questionnaire contains 20 items related to customer retention which are broadly divided into four groups i.e. Tangible, Reliability, Responsiveness and Assurance & empathy Factors. The data was collected from 500 banking customers in National Capital Region. Customers were requested to give their opinion regarding the factors affecting customer retention on Likert's 5 point scale. Opinions were recorded from 'Strongly Disagree' to 'Strongly Agree' and weight 1 assigned to 'Strongly disagree' and 5 to 'Strongly Agree'. Questionnaires were distributed at the bank premises and were Face-to-Face administered in order to maximize the response rate and solve the queries of the respondents.

Table 1: Demographic profile of the Respondents (N=500)

Gender	**Marital Status**	**Age**	**Qualification**	**Occupation**	**Monthly Income**
Male: 60.40% **Female:** 39.60%	**Single**: 30.20% **Married:** 68.40% **Separated:** 1.40%	**20-30 Years:** 8.00% **30-40 Years:** 40.20% **40-50 Years:** 18.40% **50-60 Years:** 10.60% **>60 Years:** 2.80%	**Upto Graduation:** 57.20% **Above Graduation:** 42.80%	**Self Employed:** 24.80% **Government Job:** 29.00% **Private Job:** 32.80% **Professionals:** 7.80% **Unemployed:** 5.60%	**< Rs. 30000:** 23.80% **Rs. 30000-Rs.80000:** 60.20% **> Rs.80000:** 16.00

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Table 1 shows out of 500 customer surveyed male customers (60.40%) are more than female customers (39.60%). Most of the customers surveyed are married (68.40%), followed by Single (30.20%) and Separated (1.40%). 57.20% customers are having education qualification upto graduations and remaining 42.80% are above graduation. 24.80% are self-employed. Most of the customers are employed as 29.00% doing government jobs and 32.80% doing private job. Only 7.80% are professionals and remaining 5.60% are unemployed. Maximum respondents earn between Rs. 30000-Rs. 80000.

5. Results and Discussion

Customer retention data was collected on 20 items related to customer retention which are broadly divided into four groups i.e. Tangible, Reliability, Responsiveness and Assurance & empathy Factors. Overall Cronbach's Alpha is 0.897 which proves the reliability of the data collected. The interpretation of mean score and standard deviation (see table 3) suggests that 'Modern Equipment/Software' used by banks is most important tangible factor having mean value 3.87; Out of 5 reliability related factors 'Secrecy and Accuracy' (Mean: 4.22) is most important factor; 'Efficiency Service Delivery' (Mean: 4.09) is highest rated among responsiveness factors; and 'Feeling of Safety while Transacting' (Mean: 4.11) is an important assurance and empathy factor.

Table 2: Multiple Regression Results regarding Consumer Retention

Independent Variable	β Coefficients	t-Value	Significance
Modern Equipments/Software	.021	.372	.710
Visually appealing physical facility	-.007	-.123	.902
Dressing Sense and Appearance of Staff	-.020	-.414	.679
Visually Appealing Material	.062	1.239	.216
Within Timeframe Service Delivery	-.291	-4.561	.000
Sincere efforts in Solving Problems	.289	4.602	.000
Operational Accuracy	-.004	-.065	.948
Secrecy and Accuracy	-.084	-1.385	.167
Help in Financial Planning	-.081	-1.442	.150
Prompt services delivery and error Correction	.042	.645	.519
Responding customer requests	-.063	-.988	.323
Responding customers' correspondence	-.113	-1.878	.061
Efficiency Service Delivery	.103	1.584	.114
Knowledge and Competency of Staff	.098	1.726	.085
Feeling of Safety while Transacting	-.011	-.182	.856
Feedback Guided Behaviour	.049	.830	.407
Personal Attention	.005	.093	.926
Understanding Specific Needs	.118	2.116	.035
Accepting and Resolving Faults	-.188	-3.036	.003
Extending Banking Hours	-.068	-1.379	.169

Sample $R^2 = .115$

Adjusted $R^2 = .078$

Overall Degree of Freedom = 499
F = 3.104

Number of Cases = 500

In this study multiple-regression analysis was used to measure the factors of customer retention and their impact on customers' retention decision (See table 3). The regression analysis shows that R^2 =0.115, F= 3.104 and p-value=0.000. The value of R^2 shows that there is 11.5variance. It can be observed from the above table that 'Within Timeframe Service Delivery' (p-value=.001), 'Sincere Efforts in Solving Customer Problems' (p-value=.001) and 'Accepting & Resolving Faults' (p-value=.003) are the most important factors which affect customers retention in Indian banking industry. Previous studies on customer retention discloses various factors responsible for customer retention like customer satisfaction; relationship quality (Hennig); customer participation, relationship, satisfaction and quality (Zeithaml et al. 1996); customer satisfaction, relationship quality, switching costs (Tamuliene et al. 2014); trust (Hart and Johnson 1999); switching barrier (Gremler and Brown, 1996; Bansal and Taylor, 1999); customer participation, relationship, satisfaction and quality (Zeithaml et al. 1996).

6. Conclusion and Recommendations

In the era of cut throat competition it has become essential to retain the existing customer to succeed in the market. Customer centric approach is a prerequisite to retain the customers because customer centric organisations will focus on providing quality services and will deliver these services within time. Firms have to build a quality relationship with the customers to make them loyal to the organisation as emotional cost (switching barrier) is attached with it. Service providers must also focus on creating switching barrier to stop or reduce the defection of customer. Customer satisfaction should be given utmost importance as it is one of the most important variables impacting customer retention. It has always been claimed that customer retention efforts cost less to the organisation as compare to customer acquisition efforts. Reichheld & Sasser, (1990) suggested that managers should shift their focus from prospective customers to retaining the existing customers through Customer Relationship management. The real focus remains on reducing defection of the profitable customer (Cao & Gruca, 2005; Reinartz et al. 2005). Most importantly as per this study Indian banks should deliver services to the customers within the prescribed time, they should put sincere efforts in solving customers' problems and if there is any fault from bank side, they should accept it and try to correct the same.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

A study of Compensation and Benefits Structure and Support Enterprises Resources Planning implementation in E-commerce platform

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Ms.Deepika Jadhav [**]

Abstract
This research intends to gain an insight on implementation of ERP in an organization and also to develop an understanding of how effective the implementation can be for various operational parameters of the organization,the research aimed at supporting implementation of Enterprises Resources Planning in E-commerce platform which will enhance operational efficiency by holding one central database with unique data and to ensure that all information are maintained and managed in a consistent manner with accuracy across the departments and empower functional users, employee HR Team for better decision making. The research also aimed at studying about Compensation and benefits structure in E-commerce platform.
Key words: Enterprise Resource Planning, Implementation, Data

Introduction
Human resources professionals need considerable amount of data to carry out HR operations. Gone are the days when decision about the future could be based on assumption. Now Human resource professionals need to collect concrete information for effective decision making. Manpower planning, recruitment, performance management, employees' leave-management are mainly data-driven activities. Hence, a comprehensive data system like Enterprises Resources Planning is, therefore, necessary to fulfill the HR informational needs of an organization
Compensation and benefits is a key to attracting, retaining and motivating talent. In today's competitive environment, organization will be able to retain the best talent by providing them adequate compensation thereby stopping them from switching over to another job. This compensation and benefits study conveys cost- to-the- company model, allowances, various benefits to employee such as Provident fund, gratuity, maternity, Meal card, medical benefits. As far as benefits are concerned, this paper discusses about the calculation of employee and employer's contribution to employee provident fund account, process of nomination, gratuity, maternity benefits and law relating to all benefits. It also focusses about conditions for withdrawal of provident fund (refundable and non-refundable both) and eligibility for all benefits.
As every payment is made by the employer to his employee for the services rendered would be chargeable to tax as income from salaries, this compensation and benefits study includes taxability of all components of compensation and benefits as well.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Scope of the Study

This paper gives a clear picture about the effectiveness and uses of existing ERP which can be helpful in implementation of forthcoming modules of ERP effectively. It would provide platform for integration of varied organizational system. All the users of ERP package in all the major departments like HR, Technical dept, Marketing and Finance department at a major E-commerce organization in Bangalore were considered for the research.

Objectives of the study

The primary objectives of the research paper were:

- To support implementation of Enterprises Resources planning in E-commerce platform which will enhance operational efficiency by holding one central database with unique data.
- To ensure that all information is maintained and managed in a consistent manner with accuracy across the departments and empower functional users, employee HR Team.

The secondary objectives are as follows:

- To study the application & benefits of ERP.
- Measurement and evaluation of overall ERP system.
- To check the effectiveness of existing ERP.
- To identify the area of additional improvement for ERP

Research Methodology

Since the aim of the study was to obtain complete and accurate information, survey method was used. Primary data was collected from respondents working in a major E-Commerce company in Bangalore. The techniques used were simple random sampling through a structured questionnaire. The sample size was fifty-two respondents working in that organization. The questionnaire was constructed in such a way so that the objectives are met and is clear for the respondents to understand.

Major findings and discussions

It is found that all employees are aware about new ERP system. Most of the respondents believe that ERP is user friendly, and has decreased lot of paper work. Maximum respondents agreed that ERP will improve operational efficiency leading higher productivity by reducing the time spent on communicating information within the organization. It is found that 21 % respondents out of 52 are still not able to access the daily attendance as well apply leave & Comp-Off through ERP. Most of respondent's preferr PDF, PPT and spreadsheet format to see the reports, and would appreciate that they can declare Income tax saving online. ERP should have Awards & Recognitions, newsletter, birthday information and event information to motivate the employees.

Suggestions

The following suggestions can be looked into for successful implementation of the ERP. There should be an option for online declaration of income tax saving. This can help the employees to save their precious time and perform other tasks. Employee Birthday information as well birthday wishes should be done through ERP without the manual intervention of the HR Department. There should be an effective earning and success story sharing, which can act as morale booster to the other employees. A monthly newsletter can be published in the organization to update the employees about the round-up of events Every employee should be given the Employee Handbook to be aware of the policies and procedures and procedures.

Conclusion

Human resources are an important asset for any organization as it is the only face where if an organization lacks they have to recompense in form of their competitiveness. By implementing ERP, organizations can have ball in their feet. It helps the organizations in planning their human resources both quantitatively and qualitatively. Being an information system of human resources, it can store voluminous data about the employees, that not only helps in identifying the occupied and unoccupied positions but also whether the person at particular position is fit for the job or not. ERP exert outstanding strategic activities by HR managers. These activities include training and development management, succession planning (identification of key positions and their requirements), applicant tracking in recruitment and selection and manpower planning, personnel information and identification (attendance tracking, etc), salary planning, absenteeism analysis, turnover analysis and work scheduling. ERP also helps in tracking the attendance of the employees to know their regularity and devotion for the organization. This not only helps in salary planning but performance management also. It gives a bird's- eye view of effectiveness and benefits of ERP system Integration. It will give platform for integration of data furthermore, different parts of the system can 'talk to each other" allowing more meaningful reporting and analysis capabilities include internal evaluations and audits and preparation of data for outsiders in form of Reports. It will also help the organization to host such material as employee handbooks, procedure and guidelines as well. In gist, it is concluded that ERP is an excellent tool for HR as well as for employees.

Annexures

Questionnaire

Bibliographhy

Questionnaire on HR ERP System

Section 1: Awareness

S. No.	Questions		
1.	I would appreciate that I can access the information in a single click.	☐ Yes	☐ No
2.	I am aware about Enterprises Resources Planning (Quicker Work) which recently Human Resource has launched.	☐ Yes	☐ No

Section 2: Enterprises Resources Planning

S. No.	Questions		
3.	ERP is very easy to access.	☐ Yes	☐ No
4.	ERP has decreased paperwork.	☐ Yes	☐ No
5.	ERP has improved the data input process.	☐ Yes	☐ No
6.	I am able to access my daily attendance as well apply leave & C-Off through ERP.	☐ Yes	☐ No

Indicator:
1 Strongly agree, 2 Agree, 3 Neutral, 4 Disagree, 5 Strongly disagree

S.No.	Questions	1 (Strongly Agree)	2 (Agree)	3 (Neutral)	4 (Disagree)	5(Strongly disagree)
7.	Online Admin Processes such as requisition of Business Card, travel request make work easier.					

S.No.	Questions		
8.	ERP Has online Appraisal System	☐ Yes	☐ No
9.	I would appreciate if I can declare Income tax Saving online.	☐ Yes	☐ No

Section 3: Data reporting and uses.

S.No.	Questions				
10.	We have a standard set of data or set of Report on ERP.	☐ Yes		☐ No	
11.	My preference to see the Reports.	☐ PDF	☐ PPT	☐ Spreadsheet	Other please specify:
12.	ERP has Provision to give concern, suggestion and feedback to Management.	☐ Yes		☐ No	

Indicator:
1 Strongly agree, 2 Agree, 3 Neutral, 4 Disagree, 5 Strongly disagree

S.No.	Questions	1 (Strongly Agree)	2 (Agree)	3 (Neutral)	4 (Disagree)	5(Strongly disagree)
13.	The Data Reporting is being used for Practical decision making (Such as Leave Management, Payroll, designing program, improvements or influencing Policies).					

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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Section 4: Impact Assessment.

Indicator:
1 Strongly agree, 2 Agree, 3 Neutral, 4 Disagree, 5 strongly disagree

S.No.	Questions	1 (Strongly Agree)	2 (Agree)	3 (Neutral)	4 (Disagree)	5(Strongly disagree)
14.	ERP implementation will improve operational efficiency leading higher productivity.					
15.	ERP has decreased the time spent on communicating information within the Organization.					

Indicator:
1 Highly Satisfied, 2 Satisfied, 3 Neutral, 4 Dissatisfied, 5 Highly Dissatisfied

S.No.	Questions	1 (Highly Satisfied)	2 (Satisfied)	3 (Neutral)	4 (Dissatisfied)	5(Highly dissatisfied)
16.	Overall I am satisfied with prevailing ERP system.					

Indicator:
1 Excellent, 2 Very Good, 3 Good, 4 Poor, 5 Very Poor

S.No.	Questions	1 (Excellent)	2 (Very Good)	3 (Good)	4 (Poor)	5(Very Poor)
17.	My Rating towards Existing ERP would be					

18. Additional changes recommended:

Demographic:-
Name: ....
Gender: ☐ Male ☐ Female
Age: ☐ 19-25 ☐ 26-30 ☐ 31-40 ☐ 40-45
Department: ....
Work experience at PA: ☐ 0-3.0 ☐ 3.01-6.0 ☐ 6.01-8.0 ☐ 8.01-10
Designation: ....
Thanks for your valuable feedback.

International Journal of Management, IT & Engineering
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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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MAKE IN INDIA: "Impact of Make in India Campaign"

Priya Rana*

Abstract

In this paper, "make in India "which was started on September 2014 Prime Minister's challenging effort was analysed and its impact was shown through a collection of secondary data. However this concept of making in India was not new but only due to strong determination of PM Modi it came into effect although this campaign will make India self-reliant and boost its economy. This paper will shows us that how India has outshone its efforts in various fields

Introduction

The Make in India devised to transform India into a global design and manufacturing hub, Make in India was a timely response to a critical situation: Make in India is an initiative of the Government of India, to encourage companies to manufacture their products in India. To achieve a manufacturing led transformation, India would need to undertake a structured and planned approach in review manufacturing, gain global competitive advantage and gain global leadership. In order to succeed in this campaign, it was important to be open to capital and expertise from all over the globe and implementation of GST will make India one market and strengthen overall programme. Doing business in India today is much more difficult than elsewhere, but the government wants to change this. Several pressing issues prompted the launch of this campaign Initiatives for the success of Make in India.

Objective of the study

1. This paper will help us in knowing the impact of make in India campaign after its implementation.
2. This paper will describe various developments in sectors through this campaign.
3. This paper will focus on key objectives of Make in India and its causes in upbringing our economy.

Literature review

1. K. Kalaivani (2015) the article entitled "A Study on the Impact of Make in India on HRM Practices - An overview
2. Dr. K. V. Ramana (2015) the article entitled "Make in India Illusion or Possible Reality Project?"
3. S. Soundhariya (2015) the article entitled "Make in India - Scheme for transforming India"
4. Seema Sangwan (2015) the article entitled "Making Make in India realism: role of FDI".

Research methodology

The study involves the data collected from the secondary sources. The secondary data has been collected from journals, Research paper, Newspapers, Literature review, Websites. An Exploratory research was chosen in order to develop a profound understanding of the research topic and obtain in depth data about the research objectives.

Explanation

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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FOUR PILLARS OF MAKE IN INDIA Manufacturing in India is the main vision of the government and leads to national development. The initiative is built on four pillars which are as follows:

New Processes: The government is introducing several reforms to create possibilities for getting Foreign Direct Investment (FDI) and foster business partnerships. Some initiatives have already been undertaken to alleviate the business environment from outdated policies and regulations. This reform is also aligned with parameters of World Bank's 'Ease of Doing Business' index to improve India's ranking on it.

New Infrastructure: Infrastructure is integral to the growth of any industry. The government intends to develop industrial corridors and build smart cities with state-of-the-art technology and high-speed communication. Innovation and research activities are supported by a fast-paced registration system and improved infrastructure for Intellectual Property Rights (IPR) registrations. Along with the development of infrastructure, the training for the skilled workforce for the sectors is also being addressed.

New Sectors: 'Make in India' has identified 25 sectors to promote with the detailed information being shared through an interactive web-portal. The Government has allowed 100% FDI in Railway and removed restrictions in Construction. It has also recently increased the cap of FDI to 100% in Defence and Pharmaceutical.

New Mindset: Government in India has always been seen as a regulator and not a facilitator. This initiative intends to change this by bringing a paradigm shift in the way Government interacts with various industries. It will focus on acting as a partner in the economic development of the country alongside the corporate sector.

25 Focus sectors have been identified for growth under the initiative:

Automobiles	Food Processing	Renewable Energy
Automobile Components	IT and BPM	Roads and highways
Aviation	Leather	Space
Biotechnology	Media and Entertainment	Textiles and garments
Chemicals	Mining	Thermal Power
Construction	Oil and Gas	Tourism and Hospitality
Defence manufacturing	Pharmaceuticals	Wellness
Electrical Machinery	Ports	
Electronic Systems	Railways	

Opportunities of make in India

- Aiming to make in India as its export hub, home appliances manufacturer Bosch and Siemens today announced company's first manufacturing plant in the country.
- The South East Asian region is expected to start operations by the second half of 2014.
- Japan's largest consumer electronics exporter is now seriously evaluating to come and make in India opportunity.

- The Make in India campaign seems to have come at perfect time. Many giant foreign companies have already expressed their interest in setting up manufacturing facility in India.
- Switzerland based chocolate maker Barry Callebaut is looking at setting up a manufacturing unit in India as part of its global expansion plans to cash in on the 3,000crore domestic market. Barry Callebaunt currently has only commercial operations in the country.
- The economic impact of manufacturing in India will go beyond direct employment. It will create jobs in the services sector and allied services.
- Improving logistics infrastructure such as port-to- inland connectivity, cargo airports etc.
- KPMG and CII recently completed a report which identified nine key action items to make in India conducive for large scale manufacturing.

Impact

The main focus of Make in India Campaign is mainly on 25 sectors. Almost every sector is capital-intensive and demands a lot of skill. So, with the more and more investment in these sectors, the main focus will be on increasing employment and the use of advanced technology.

Make in India initiative is a good move and it will boost up the economy of our nation and help in sharing the burden of deficit financing. As India is very rich in resources both natural and human. The problem being faced in India is the direction and financial investment in different areas, because of which our economic growth is very slow and restricts us to compete with the developed nations. But, before getting the fruitful results of 'Make in India' we have to take following initiatives:

- We can make use of all the resources to the best possible extent
- We can stop youngsters running abroad
- Their talents can be best utilized and can increase production in the country
- We can also increase exports
- Our foreign exchange reserves will increase
- We can have better position in international market
- All this is possible only when
- If Good number of talented youngsters come forward to take initiative in setting up enterprises
- For this the govt. should identify their talents give them scholarships extend all financial support
- The govt. Can also fix some time bound targets
- Encourage healthy competition among the youngsters

Findings

✓ India has shown a tremendous growth through this campaign and many more to come in coming years .some sectors have shown largest growth like manufacturing sector.

✓ Make in India will bring a drastic change in the fields like automobiles, aviation, biotechnology, defence, media, thermal power, oil and gas and manufacturing sector.

✓ The job opportunities are multiples and opened the doors without any limitations.

✓ Through continuous foreign investments, the progress of the Indian economy can be made sustained.

- ✓ The challenges and threats for the human resource sector will be refined in the sectors of the economy.
- ✓ This initiative creates great awareness about the growing technology.

Suggestions

- ❖ The extra impetus by the government on initiatives like skill development has been proposed to provide essential support to make in India to thrive.
- ❖ We should manufacture goods in such a way that they carry zero defects and goods with zero effect that they should not have a negative impact on the environment.
- ❖ Reforms like bringing more sectors under the automatic route, increasing the FDI cap and simplifying the procedural delays has to be initiated.
- ❖ India should consciously work towards attracting greater FDI into Research and Development.

Conclusion

Manufacturing has emerged as one of the high growth sectors in India. The Make in India campaign helps to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. India's ranking among the world's 10 largest manufacturing countries has improved by three places to sixth position in the coming years. The proposal of making in India will boost manufacturing the electronic manufacturing market in the country. This in turn will focus on electronic manufacturing and plans to set up electronic clusters across various towns and cities. The large investment in manufacturing will bring in more capacity creation in the country. The tax reliefs given to start ups and MSME's will boost sustainable employment and the quality of start-ups in the design led manufacturing sector. Make in India mission is one such long term initiative which will realize the dream of transforming India into manufacturing hub. Make in India campaign also focuses on producing products with zero defects and zero effects on environment. Come Make in India, Come Manufacture in India, Sell in any country of the world but manufacture here. We have got skill, talent, discipline and determination to do something.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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To Analyse the Economic and Environmental Dimensions of Domestic Water Supply To Rural Households in Cuddalore District

PARTHIBAN *
Dr.A.PRADHIP BABU **

Abstract
Drinking water, a renewable natural resource with no substitute, is a basic human necessity. In Cuddalore district, demand for water usage is increasing with its population and economic growth, but, due to lack of infrastructure, the water supply shortage is becoming acute. Further, over-reliance on groundwater is lowering the groundwater level and leading to the higher content of fluorine, arsenic, and other toxic substances. Despite the efforts of the Centre and the states, at least one-fifth of the rural population is still deprived of this facility. Even where it is provided, the socio-economic and environmental issues still persist. This paper attempts to take stock of the economic and environmental status of domestic water supply in the Cuddalore district Tamil Nadu. It emphasises the need to take cognisance of economic and environmental considerations at primary data will be collected to analyse.
Key words: Drinking Water, Demand for Water, Human Necessity, Environmental Status of Water Supply

Introduction

Safe drinking water supply and basic sanitation are vital human needs for health and efficiency. Water needs are complexly linked with the daily life, especially of the poor communities. Through its widespread linkages, water plays an important role in the welfare societies. We may list at least three such linkages. First, the availability of water is essential for production and income generation. Second, water for domestic purpose and sanitation improves the quality of life and finally, water should be sufficient for sustainable environmental management. As a „basic need", water has a two-fold role: in its availability and is accessible to all sections of people in an equitable manner. Although consumption of water varies across different sections of the society, water may not be a mere consumption good in the case of the poor, but a key source of their livelihood. Hence, water policy has assumed priority in the political agenda of our nation in recent years. But, as long as water is available in abundance, people do not have any concern over its consumption of conservation. The last few decades of development have caused serious depletion of water resources around the world. Increasing population and intensifying development activities have made water a scarce commodity thereby assuming an economic value as well. In addition, pollution of the available water resources has aggravated the problem of lowering the water quality. Growing demand for a limited supply of water in the last few decades has led to inter-state and international friction and competition among different sectors

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Drinking water

Water is a direct multi-purpose resource. Among its numerous multitudes of uses, the requirement of safe and protected water drinking purpose figures high on the national agenda of every country. Article 21 Constitution of India, Access to clean and protected drinking water has been treated as a fundamental right of all the people (Ramachandraiah, 2001). United Nations contends that "All people, whatever their stage of development and their social and economic conditions have the right to have access to drinking water in quantities and of a quality equal to their basic needs" (United Nations, 1997). Percent of population with access to safe drinking water during the decade of 1990 and 2000, global coverage rose from 77 percent to 82 percent. This means that nearly 1 billion more people gained access to improved drinking water sources during the 1990s. Coverage remains low, especially in poor rural areas of Africa and in informal peri-urban settlements. Water quality problems have grown more severe, as dangerous levels of arsenic in groundwater have emerged in several Asian countries during the decade. Access to safe drinking water refers to "the percentage of people with reasonable access to an adequate amount of safe drinking water in a dwelling or within a convenient distance of their dwelling" (The World Bank, 1998). After the concerted efforts in India during the UN International Drinking water Decade, 1980-1990, 18 percent of the country's rural population is deprived of access to safe drinking water. Nearly 1.1 billion people in South Asian countries do not have access to safe drinking water (U.G. Sha, 2004). According to Census 2011 data, 27.06 percent of households in India lacks access to safe drinking water sources, like tap, hand pump, and tube well. The coverage based on village/habitation as the unit, however, tell us another story. The Rajiv Gandhi National Drinking Water Mission has conducted a census in all the States and Union Territories with habitation as the unit. The results of the Census indicate that about 50 percent of the population and 45 percent of the habitations in India do not have access to safe drinking water (Pushpangathan, 1996). Health hazards that would accompany a situation of drinking water shortage are beyond quantification. According to World Health Organization, 80 percent of all diseases in developing countries in some way or another are related to water and sanitation. Over a million Asian children die every year from water-borne or water-related diseases (United Nations, 1991).

Background of the study

Access to safe drinking water means meeting basic human needs. In Cuddalore district, demand for water usage is increasing with its population and economic growth, but, due to lack of infrastructure, the water supply shortage is becoming acute. Further, over-reliance on groundwater is lowering the groundwater level and leading to higher content of fluorine, arsenic, and other toxic substances. Also, with a sudden population influx in the rural areas along with urbanisation, overexploitation, groundwater pumping ,the public health and living environment of local residents. People are heavily relying on groundwater due to a lack of surface water supply, groundwater quality is rapidly deteriorating as seawater permeates the underground water, and therefore development of surface water resources is urgently required. In Cuddalore district one of the backward districts in Tamilnadu. Domestic water supply of Cuddalore district was villages depended on piped water supply as the main source of water for domestic purposes. Cuddalore district is endowed with (12) rivers tanks and wells, backwaters, innumerable rivulets and streams, highest rainfall, yet there is problem related to water throughout the district. The annual yield of water in Cuddalore district in normal year is around 7030 crore CUM. The groundwater resource available in Cuddalore district is estimated at 7048 MCM. The total requirement is 4970 crore CUM. Based on this figures, Cuddalore is being a water surplus District. But at the same time exhibits a paradoxical situation. The district all households in have access to safe drinking water. The efforts of the State government and district administration in highly commendable in this regard. Piped drinking water supply would reduce the water - borne diseases. There are, however, six blocks (Panruti, Kurinjipadi, Melbhuvanagiri, Mangalore, Virudhachalam and Annagramam) where the performance is marginally below the level of the district's performance. The household water consumption pattern in Cuddalore district, population growth and economic development has increased the level of demand and scarcity. (DHDR 2017). There is a big Veeranam tank in Cuddalore district that supplies drinking water to Chennai city but people here suffer from water shortage this is one of the main problems of water scarcity in the district. All this water shortage is because of maladministration, Cuddalore district faces a drought-like situation with water shortage during summer and floods in monsoon season Due to lack of water storage facility and damaged irrigation canals, the water that caused huge damage in November and December last year could not be stored, with all that excess water being let goes to the sea not for water storage in the district and this also one of the main issues of water scarcity problems in Cuddalore district Tamilnadu.

Statement of the Problem

The availability of potable drinking water in India has remained a challenge. There have been several programmes and policies of the government exclusively dealing with providing safe drinking water to the people. But over a period of time, it has been seen that the same problem persists even after implementation of different plans and programmes in the State. Even if the State's allocation on water sector has increased enormously, but simultaneously it is found that a large segment of the population in the country is deprived of their basic right to drinking water. Census 2011 data indicate that all India level, the coverage of safe drinking water in the rural areas is around 82.02 percent only. Safe drinking water includes the sources of the tap (piped water), hand pump, tube well, well, tank/pond/lake, river and canal, spring and any other source. National Family Health Survey (NFHS) recommendation is that only water from the sources like pipes, hand pumps, covered well or tanker-track can be considered as safe for drinking purposes.

Objectives

1. To analyze the demand for water for domestic purposes in the study area.
2. Analyze the cost aspects, and the problems, confronting rural households in procuring water at the household level.
3. To Identify physical, chemical, bacteriological pollutants in water tanks, and public and domestic taps.

Methodology

According to realize the setup objectives of Cuddalore district in the state of Tamilnadu is selected it comprises of 7 taluks 13 blocks, 683 village panchayats. According to TWAD (Tamilnadu water supply and drainage board) availability of groundwater level are classified under the following categories viz., overexploitation, critical, semi-critical, and safe from each category of talk one village is totally selected the stratified random sampling method will be adopted from each village 10 present sample household will select, the total 284 sample household will be selected.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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Method of Sample Selection

The present study has used multistage sampling methods namely, stratified random sampling methods to select the sample villages. To identify the study area lots of inputs has been used. The variables including water level, Rainfall, Litre Per Capita per Day (LPCD), Water quality, these areas can be divided according to the nature of soil persistence, groundwater availability and the produce. Totally four villages were selected and grouped under four categories namely overexploitation, critical, semi-critical, safe. Of the total households, in the four selected villages, 10 percent of the sample households were chosen proportionately

Data source

Secondary information on the status of drinking water provision in Cuddalore District, the district chosen for study, in 1941 habitations was collected from the Tamil Nadu Water supply and Drainage (TWAD) Board. These habitations are spread across 813 village Panchayats, 13 blocks (Panchayat union), and 7 taluks. A broad profile with the available information is attempted with the help of secondary information. The rural water supply distribution system is analyzed to check the reliability and validate the secondary information availed from the TWAD board with the help of primary data.

Analyse the Domestic Water Supply in the study area

Table-1: Sources for Drinking and Cooking Water

Area	**Sources for drinking and cooking water**					**Total**
	HSC	**Stand Post (Own)**	**OHT (on Spot)**	**Borewell**	**Own Agriculture Well**	
Safe	27 (30.77)	7 (65.93)	4 (4.40)	3 (3.30)	3 (3.30	44 (100.0)
Critical	23 (26.32)	39 (45.61)	6 (6.68)	2 (2.20)	3 (3.30	73 (100.0)
Semi-critical	24 (19.61)	42 (64.71)	6 (8.69)	6 (7.61)	6 (4.39)	84 (100.0)
Overexploitation	48 (26.32)	25 (45.61)	4 (4.40)	4 (15.69)	5 (4.39)	86 (100.0)
Total	**122 (52.81)**	**113 (48.05)**	**27 (7.89)**	**15 (6.23)**	**17 (7.86)**	**287 (100.0)**

Table 1.1: Principal Source for Drinking and Cooking

Area	**Percentage of Modern Source**	**Percentage of Traditional Source**	**Total**
Safe &critical	52.60	2.3	55.9
Semi-critical & overexploitation	29.15	7.01	36.06

Source: Primary Survey 2017

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Fig: 1: Sources for Drinking and Cooking Water

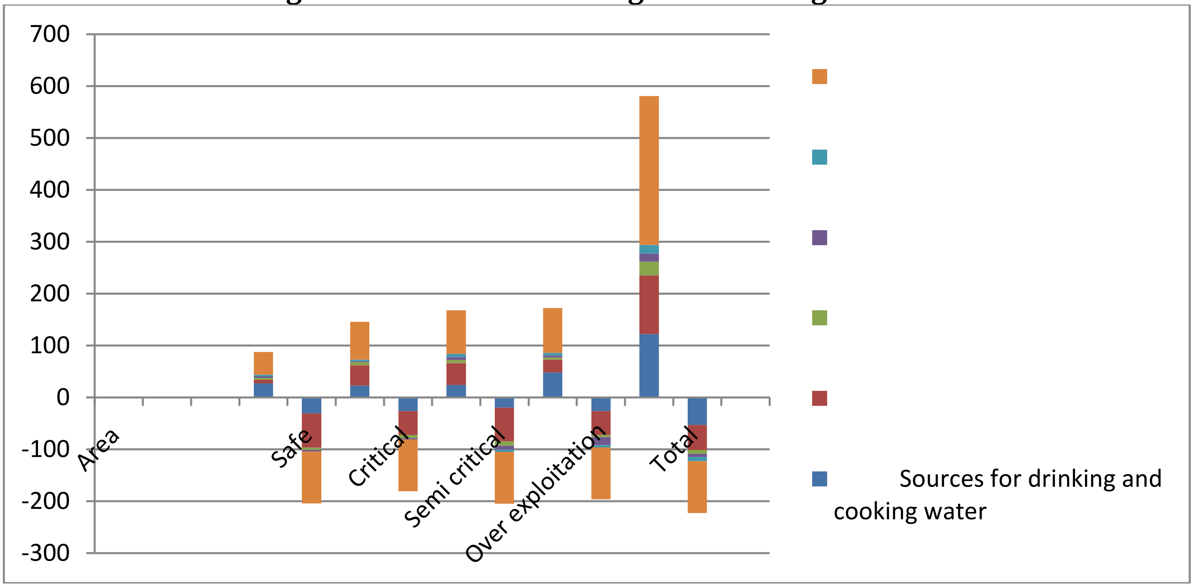
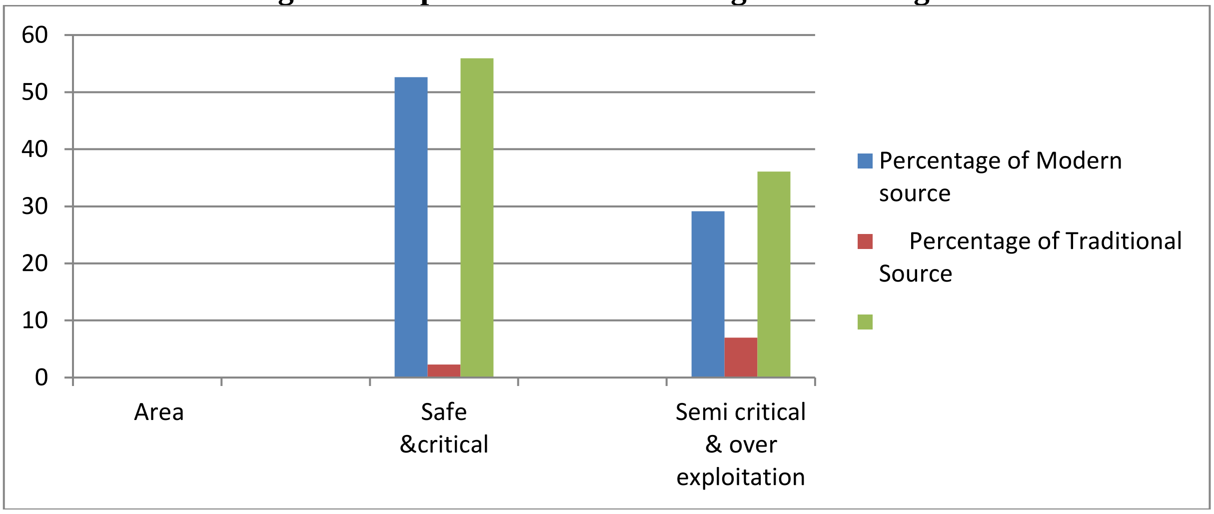


Fig 2: Principal Source for Drinking and Cooking



The table-1.1 brought about the source of water supply for drinking and cooking with the available information for domestic use before the introduction of modern sources of water supply traditional sources such as open well and irrigation open well, canal and ponds were the dominant supply sources. This tendency changed slowly and the households had started to use modern sources for cooking, drinking, washing, bathing and livestock maintenance. For the Panchayat as a whole own and government sources such as hand pumps, power pumps, over head tank, stand post and house service (HSC) connection exists in the village. For the sample households in the safe area stand post and HSC are the principal sources for both drinking and cooking purposes. About 52 per cent of the sample respondents depend on stand post and 38 per cent of the respondents depend on HSC. Only 3 per cent of the respondents depend on own agriculture well. About the source of water in the sample village before 15 years, they fetch water from an open well for all the domestic use. But the tendency changed slowly because of the introduction of modern sources such as power pump (HP), overhead tank, and HSC and stand a post. For the past 15 years government supplied water for domestic use through stand post and HSC. The majority of the sample households in the village are using bore water for washing clothes. In addition to this, for the past 15 years veteran lake, OHT water is being provided to the village people after completion of the purification process only for drinking and cooking. Simultaneously the government providing both CWSS bore well water and water through separate pipeline connection for drinking and other purposes.

In the critical area, the principal source of water for both drinking and cooking in the sample village are standing post, HSC and OHT (on the spot). About the 36 percent of the sample, respondent households depend on stand post and 27 percent depends on HSC and 28 percent depends on OHT (on the spot). Only 4 percent of the sample respondent households depends on own agricultural well. There is a regular supply of pure water to the sample village other than drinking and cooking purpose and supply of HSC, bore well water and OHT for drinking and cooking in the critical area area, about 52 percent of the sample households depend on stand post and 27 percent of the respondents depend on HSC for their need. Only 10 percent of the sample respondent households depends on own agricultural well. In addition to this person fetching water from the nearest agriculture well for their insufficiency of water during summer, the insufficiency of water is more because of the scarcity of groundwater level. People using drinking water for other domestic purposes because of lack of bore water supply.

On over exploitation area, about 45 percent of the respondents depend on the HSC there is none another water source in the sample village and 19 percent of the people depending on OHT stand post. In winter, the people consuming gravity water and in summer the gravity water get critical and they have to depend on OHT stand post water for all their needs. Given the fact that both traditional and modern sources are plenty in the villages, the current demand of the residents in both over semi-critical and critical is for modern source rather than traditional that is about 55 percent. While in the semi-critical and overexploitation area, there is demand for both modern and traditional sources but, greater percentages exist on a modern source that is about 24.15 percent compared with the traditional source. It concludes that modern source as a principal source for both drinking and cooking purposes such as stand post, house service connection and overhead tank. With regards to safety, critical, semi-critical and, overexploitation area of the sample villages the major sources of water are getting from OHT, HSC stand post for drinking and cooking purposes.

Table-2: Source wise Litre Per Capita per Day (LPCD)

Area	**Statistics**	**HSC**	**SP**	**OHT**	**OWA**	**SPRING**
Safe	Sum	2440.48	4572.30	58.74	283.00	0.00
	Mean	83.59	76.87	13.00	94.33	0.00
Critical	Sum	2440.06	3587.84	1853.62	443.48	0.00
	Mean	82.34	69.92	71.36	88.70	0.00
Semi critical	Sum	1274.70	1882.33	1.78	1359.17	0.00
	Mean	59.74	29.04	0.45	84.95	0.00
Over exploitation	sum	174.70	174.70	58.74	84.95	1359.17
	Mean	28.74	29.74	14.00	12,00	84.95
Total	Sum	6155.25	11342.47	1953.62	2185.66	1359.17
	Mean	79.35	59.10	72.36	86.90	84.95

Source: Primary Survey 2017

International Journal of Management, IT & Engineering
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ISSN: 2249-0558 Impact Factor: 7.119
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Fig. 3: Source wise Litre Per Capita per Day (LPCD)

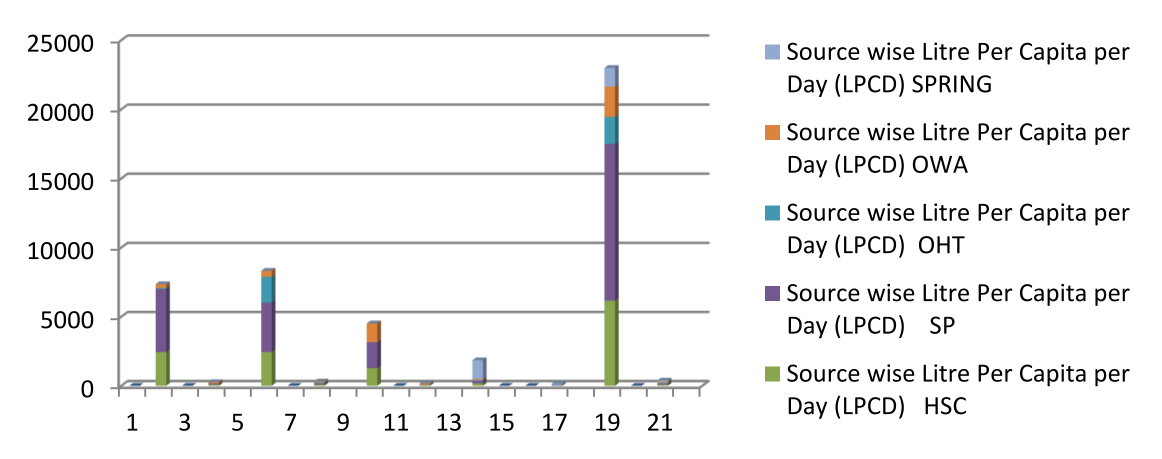

Fig 4: Area wise Source wise Litre Per Capita per Day (LPCD)

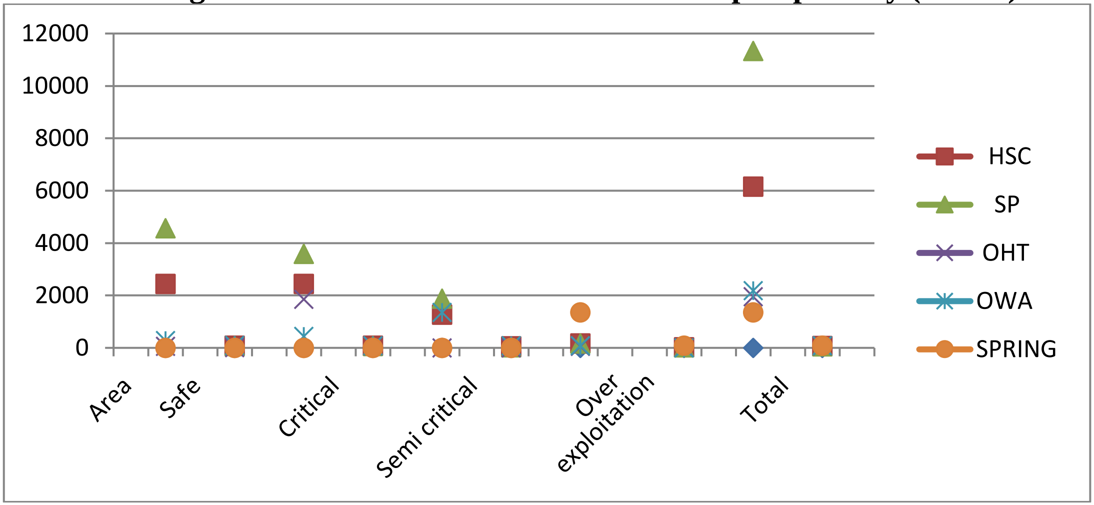

Table 2.1 clearly shows that source wise LPCD. In a safe area, through House Service Connection per household consume 81.59 liters for their water needs. Consumption of domestic water through stand post was 76.87 liters per household per day. In the semi-critical area, the households consume 80.34 and 70.92 liters of water through both house service connection and stand post per day. Likewise, in a critical area through HSC & SP the household respondents consume 57.74 liters and 30.04 liters respectively. In general fact, the critical area sample respondents stored water in their tank inside house and they make use of with that tank water for regular use on the other hand, the respondents do not avail HSC are largely suffered from water scarcity problem. They fully depend on stand post and HSC. In case of water shortage, there is no other way to avail water for their needs. This is the major problem in the overcritical village. In the overexploitation region, their major source of water is spring water OHT, HSC. More than 91 litres of water are being consumed and utilized by the overexploited area household respondents. By concluding it, the Panchayat should come forward and make supervise the water supply through house service connection. Because most of the households pump and store the water with the help of a motor and a greater quantity of water is being consumed.

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Summary of Findings and Conclusion

The drinking water sector in India has also witnessed the emergence of different institutions in the provision of safe and adequate drinking water. In India, despite concerted efforts made by the government over the last five decades, the goal of providing safe and adequate drinking water to all people in all types of localities has not been achieved. The governments of the central and state level have been making efforts to develop the responsibility of water supply provisioning to the Panchayat Raj Institutions, Non-governmental organizations and community-based organizations (CBOs).

In the foregoing chapters, the objectives set out in the introductory part, have been realized both with the help of secondary and primary household survey as well. This chapter intends to make a thematic presentation of the actual outcomes that have forth come into the study. Thematically this study is fourfold. Firstly the macro picture of the nation as a whole, and the district profile arrived with the help of the secondary source of information, formed the basis of the subsequent exercises carried out in the study. Secondly, the actual behavior of household, with respect to water for domestic uses as captured through household surveys, represented the demand aspect of the question in the hand. Thirdly, the environmental implications of water provision from the points of view of groundwater depletion, water quality, health and environmental conflicts, remained a crucial facet of the study. The study made on the rural water supply in Cuddalore district has come out with the following observations and findings.

For the purpose of the present study, only the rural areas have been considered. The logic is simple; more than 69 percent of the households live in the villages of the country. It is imperative that they should have the access to safe drinking water. In spite of all-out measures by the National Government and the State Governments, there is rural-urban divide and discrimination against the marginalized sections of the society. For birding the gap in accessibility, Tenth Five Year Plan reiterated that "it should be ensured that scheduled caste/ scheduled tribe population and other poor and weaker sections are covered fully on a priority basis".

In the process of preparing a profile of rural water supply in the district at the habitation level based on the primary survey (2017) information collected by the TWAD Board, the analysis of the data showed the modern sources provided include hand pumps and power pumps (OHT, public fountain, and house service connection). Thirty-six percent of the source has power pumps in all habitations. Thirty-three percent of a source covered in all habitation is hand pumps. In all habitations, hand pumps are not working because of groundwater depletion and maintenance problem. Only 10.23 per cent of Combined Water Supply scheme is covered in all habitations.

About 50 percent of the sample respondents depend on stand post and 38 percent of the respondents depend on HSC. Only 3 percent of the respondents depend on own agriculture well. About the source of water in the sample village before 15 years, they fetch water from an open well for all the domestic use. But the tendency changed slowly because of the introduction of modern sources such as power pump (HP), overhead tank, and HSC and stand a post. For the past 15 years government supplied water for domestic use through stand post and HSC. The majority of the sample households in the village are using bore water for washing clothes. In addition to this, for the past 15 years veteran lake, OHT water is being provided to the village people after completion of the purification process

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only for drinking and cooking. Simultaneously the government providing both CWSS bore well water and water through separate pipeline connection for drinking and other purposes.
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Recreating Value Proposition with Changing Customer Demands

Mrs. Lovepreet Chaudhrey*

Abstract

A customer always focuses on the value the product would provide. With the repeated use the demand for value proposition also increases. A compelling value proposition is designed to convey how the brand stands apart from its competition, and why your target audience should choose it over the rest. Creating a value proposition is a part of business strategy. The value proposition is to differentiate the brand from competitors. Once businesses determine what makes this item or service so exceptional compared to competitors, it can begin to guide a business more clearly. Companies should develop new product development design and strategies which would benefit the customer and will be profitable to organizations in the long run.

Keywords: Customer value; Business strategy; Innovation; Design.

1. Introduction

The customer value proposition is arguably the most important tool in the product marketer's toolset. It is the foundation for understanding how the product will realistically be valued by the target user. Unlike a benefits statement, a customer value proposition is more balanced. The customer value proposition is the keystone for effective product marketing activities. It brings together customer intelligence, competitive insight, and product valuation. It delivers a concise, supportable statement of the product's value. It quantifies how that value is realized based on all of the target user's likely product experiences. The customer value proposition provides a focused approach to understanding the target user in the context of your product.

A value proposition is a promise of value to be delivered, communicated, and acknowledged. It is a belief from the customer about how value (benefit) will be delivered, experienced and acquired. A value proposition can apply to an entire organization, or parts thereof, or customer accounts, or products or services. Creating a value proposition is a part of business strategy.

The value proposition is to differentiate the brand from competitors. Once businesses determine what makes this item or service so exceptional compared to competitors, it can begin to guide a business more clearly. This can lead to marketing concepts and ideas. The value proposition helps the business understand what their primary focus and goals are within the business and help to understand the consumer's needs.

Literature review

1. Krishnan and Prabhu (1999) discusses about the importance of creating new products to survive in the competitive market. It has become a challenge in Indian industry as there is a huge increase in demand among young masses. They have revolved their study around two wheeler industries to increase product line for its survival.

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2. Maria (2012) has researched whether MNC should localize their offerings for local masse or standardize the product. They are also planning for adaption strategies which in turn are beneficial in long run. The author has taken a case study on McDonalds and discussed how they have localized their offerings for Indian masses. It varies among various countries.
3. Madhavan and George in their book Monetizing Innovation (2016) focus on how smart companies focus on design their product to be around price. They have also analyzed why most companies fail. The ratio of failure to success is high which the area of concern is.

2. Need for Recreation

Innovation is the profitable exploitation of new ideas. It's a tangible process and the need for an innovate work environment is widely recognised as being one of the key success factors in gaining competitive advantage in the global market place. Innovation is the main pillar of success for any organization. The fundamental aspect is creativity. The organization that cater to creativity in designing new products are successful in long run .Innovation is important in organization as it gives them a competitive edge over others, can make them proactive in their area and connect with consumers instantly. Every organization needs to innovate themselves to survive in the long run. They innovate so that it is beneficial and provides value to customer in terms of convenience and incomes spend. Companies and marketers have to ensure that they approach the marketing of their product in a systematic and effective manner. As a result, company's methodologies today, are now based in customer-centric research and are tailored to suit specific needs. Innovation has emerged as a key ingredient in ensuring marketing strategies,

1. Changing customers needs
2. Existing competitors
3. Consumer diversity

3. Some recent examples of value proposition

3.1 UBER: Uber provides taxi service at affordable and economical prices; it targets the maket with the people who need low-cost and on-demand transportation. It simply eliminates the frustrations of travel. The value proposition focuses on the needs of the customer.

3.2 WALMART: **Walmart** is a marketplace which provides products such as wellness, household, grocery items, and electronics etc. targeting low and middle class shoppers. Its primary focus is on selling products at low prices to get higher-volume sales with a lower profit margin. It simply eliminates the frustrations of travel. Its value proposition is to sell the products, without the heavy price tag.

3.3 EVERNOTE: Evernote is an integrated application that helps to organize and plan the tasks. It creates to-do lists, add images, scan documents, take handwritten notes, and make sketches and many more. It edits, share and collaborate notes automatically with the phone, tablet, and computer. The value proposition is to organize notes at all in one place.

3.4 SKILLSHARE: Skillshare provides online classes and lessons; it targets upcoming Entrepreneurs and creative minds. **Its primary benefit is** to learn via bite-sized lessons. The value proposition focuses on quick and on-demand learning.

3.5 LADDERS: LADDERS is a recruitment website that provides career advice, job posting and recruitment services. The main target people are highly ambitious and motivated professionals. The value proposition of LADDERS emphasises on career growth, versus simply finding a job.

3.6 DOMINOS: Dominos is a pizza restaurant that delivers speedy and good quality pizzas to the pizza lovers. The value proposition of Dominos is to provide wide range of mouth watering pizzas, delivered hot and fresh in thirty minutes of ordering.

4. Benefits of value proposition

There are benefits and advantages that should be considered during the process of discovering, articulating and realizing the value proposition.

1. **Provides direction:** A value proposition provides direction by defining the ideal target audience right up-front, then identifying and understanding the core needs. A clear value proposition thereby helps avoid wasting time, money, and effort by offering products or services that aren't relevant or attractive to the target customers.
2. **Creates focus :** A robust value proposition gives team focus by identifying the fundamental initiatives, activities and aspects of the business; this will have an impact on meeting the defined target audience's needs. Value proposition assists in focusing on the whom, why and how the business will be delivering value. It outlines what you must deliver to meet the defined audience's needs and create an overall remarkable experience.
3. **Boosts confidence:** Good value proposition gives the team and stakeholders clarity so that progress can be made without questioning thus boosting confidence.
4. **Improves customer cohesiveness:** Value proposition gives a basis to engage with the customers in a compelling and resonant manner by understanding how they view the products. The value proposition determines the factors that not only make a difference to the audience, but do so in aspects or ways that is meaningful to them.
5. **Increases effectiveness of marketing:** Value proposition directs marketing efforts to concentrate on those activities that will generate the best results. By truly understanding desired customers needs businesses will effectively communicate the benefits and advantages of the solution.

4. Conclusion

Every organization needs to innovate themselves to survive in the long run. They innovate so that it is beneficial and provides value to customer in terms of convenience and incomes spend. Consumers prefer products which add value to their use and are easily accessible by them. Many companies which focus on these strategies have been able to sustain in the long run where others vanished. Companies should develop new product development design and strategies which would benefit the customer and will be profitable to organizations in the long run.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Video Based Human Action Recognition and Prediction Using MATLAB

Amit Kumar*
Dr. Pankaj Sharma**

Abstract
Recognizing human actions in video sequences has been a challenging problem in the last few years due to its real-world applications. A lot of action representation approaches have been proposed to improve the action recognition performance. Despite the popularity of local features-based approaches together with ''Bag-of-Words'' model for action representation, it fails to capture adequate spatial or temporal relationships. In an attempt to overcome this problem, a trajectory-based local representation approaches have been proposed to capture the temporal information.
This paper introduces an improvement of trajectory-based human action recognition approaches to capture discriminative temporal relationships. In our approach, we extract trajectories by tracking the detected spatio-temporal interest points named ''cuboid features'' with matching it's SIFT descriptors over the consecutive frames. We, also, propose a linking and exploring method to obtain efficient trajectories for motion representation in realistic conditions. Then the volumes around the trajectories' points are described to represent human actions based on the Bag-of-Words (BOW) model. Finally, a support vector machine is used to classify human actions.
The effectiveness of the proposed approach was evaluated on three popular datasets (KTH, Weizmann and UCF sports). Experimental results showed that the proposed approach yields considerable performance improvement over the state-of-the-art approaches.
Keywords: Human Actions, Spatio-Temporal, KTH, Weizmann

1. Introduction

Human action recognition has gained a lot of interest during the past decade. From visual surveillance to human computer interaction systems, understanding what the people are doing is a necessary thread. However, making these thread fast and reliable still remains as an open research problem for the computer vision community.
In order to achieve fast and reliable human action recognition, we should first search for the answer of the question "What is the best and minimal representation for actions?". While there isn't a current "best" solution to this problem, there are many efforts. Recent approaches extract "global" or "local" features, either on the spatial or on temporal domain, or both. Gavrila present an extensive survey over this subject in [6]. The approaches in genereal tend to fall into three categories. First one includes explicit authoring of the temporal relations, whereas the second one uses explicit dynamical models. Such models can be constructed as hidden markov models ([3]), CRFs [1], or finite state models [7].

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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In this paper, we show how we can make use of a new shape descriptor together with a dense representation of optical flow and global temporal information for robust human action recognition. Our representation involves a very compact form, reducing the amount of classification time to a great extent. In this study, we use rbf kernel SVMs in the classification step, and present successful results over the state-of-art KTH dataset [2].

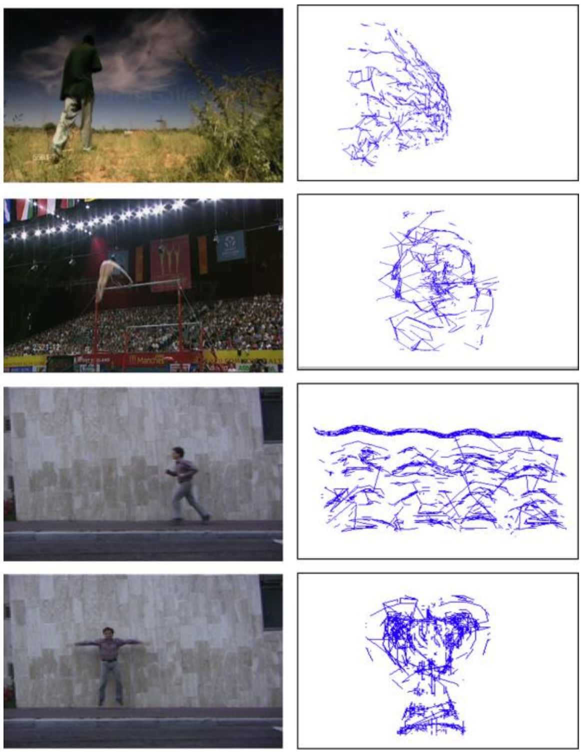

Figure 1: Examples of generated trajectories for four actions. The first row is for walking action, the second row is for swinging bar sport, the third row is for running action and the fourth is for jacking action.

The major challenges and issues in HAR are as follows:
(1) Occlusion;
(2) Variation in human appearance, shape, and clothes;
(3) cluttered backgrounds;
(4) Stationary or moving cameras;
(5) Different illumination conditions; and
(6) Viewpoint variations.

Among these challenges, viewpoint variation is one of the major problems in HAR since most of the approaches for human activity classification are view-dependent and can recognize the activity from one fixed view captured by a single camera. These approaches are supposed to have the same camera view during training and testing. This condition cannot be maintained in real world application scenarios. Moreover, if this condition is not met, their accuracy decreases drastically because the same actions look quite different when captured from different viewpoints [3]. A single camera-based approach also fails to recognize the action when an actor is occluded by an object or when some parts of the action are hidden due to unavoidable self-occlusion. To avoid these issues and get the complete picture of an action, more than one camera is used to capture the action—this is known as action recognition from multiple views or view-invariant action recognition [4].

II. Relatedworks

Recent works [1-5] show good results for action recognition in which the local spatio-temporal volumes are determined by using the trajectories of the interest points through video sequences. These trajectory-based approaches leverage the motion information extracted from the spatio-temporal volumes and utilize different methods for representation.

Messing et al. [6] allowed a bag-of-features model to capture a significant amount of non-local structure by tracking Harris3D interest points [3] with the Pyramid Lucas–Kanad e–Tomasi (KLT) tracker [7]. For action classification, Trajectories are represented by computing quantized velocities over time which called ''velocity history''. Matikainen et al. [8] introduced a trajectory-based motion features which called ''trajectons''. Trajectories are produced using a standard KLT tracker. For trajectories representation, clustering trajectories is performed using K-means and then an affine transformation matrix is computed for each cluster center. Sun et al. [15] generated their trajectories by matching SIFT descriptors between consecutive frames based on a unique-match constraint that yields good motion trajectories. Actions are then described in a hierarchical way where three levels of context information are exploited. Sun et al. [9] also extracted long-duration trajectories by combining both KLT tracker and SIFT descriptor matching. Moreover, random points are sampled for tracking within the region of existing trajectories to capture more salient image structures. For action representation, spatio-temporal statistics of the trajectories are used. Raptis and Soatto [10] proposed spatio-temporal feature descriptors that capture the local structure of the image around trajectories.

This section presents state-of-the-art methods for multiview action recognition based on a 2D approach. These methods extract features from 2D image frames of all available views and combine these features for action recognition. Then, classifier is trained using all these viewpoints.

After training the classifier, some methods use all viewpoints for classification [10], while others use a single viewpoint for classification of a query action [12]. In both cases, the query view is part of the training data. However, if the query view is different than the learned views, this is known as cross-view action recognition. This is even more challenging than the multiview action recognition [9].

Different types of features—such as motion features, shape features, or combination of motionand shape-based features—have been used for multiview action recognition. In [8], silhouette-based features were acquired from five synchronized and calibrated cameras. The action recognition from multiple views was performed by computing the R transform of the silhouette surfaces and manifold learning. In [2], contour points of the human silhouette were used for pose representation, and multiview action recognition was achieved by the arrangements of multiview key poses. Another silhouette-based method was proposed in [10] for action recognition from multiple views; this method used contour points of the silhouette and radial scheme for pose representation. Then, model fusion of multiple camera streams was used to build the bag of key poses, which worked as a dictionary for known poses and helped to convert training sequences into key poses for a sequence-matching algorithm. In [11], a view-invariant recognition method was proposed,

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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which extracted the uniform rotation-invariant local binary patterns (LBP) and contour-based pose features from the silhouette.
The classification was performed using a multiclass support vector machine. In [4], scale-invariant features were extracted from the silhouette and clustered to build the key poses. Finally, classification was done using a weighted voting scheme.
An optical flow and silhouette-based features were used for view-invariant action recognition in [6], and principal component analysis (PCA) was used for reducing the dimensionality of the data. In [3], coarse silhouette features, radial grid-based features and motion features were used for multiview action recognition. Another method for viewpoint changes and occlusion-handling was proposed in [2]. This method used histogram of oriented gradients (HOG) features with local partitioning, and obtained the final results by fusing the results of the local classifiers. A novel motion descriptor based on motion direction and histogram of motion intensity was proposed in [7] for multiview action recognition followed by a support vector machine used as a classifier. Another method based on 2D motion templates, motion history images, and histogram of oriented gradients was proposed in [8]. A hybrid CNN–HMM model which combines convolution neural networks (CNN) with hidden Markov model (HMM) was used for action classification [7]. In this method, the CNN was used to learn the effective and robust features directly from the raw data, and HMM was used to learn the statistical dependencies over the contiguous subactions and conclude the action sequences.

III. Our Approach

3.1. Line-based shape features

It is a common sense that each human action has a similar style of moving arms, legs or other body parts. For instance, when one man is running, it is natural to swing his arms, and everyone swings his arms in a similar style. This property contributes a possibility of modeling each action by the general shape of all the moving parts. Based on this perspective, we use the shape context description method to represent each action's 'shape' structure. Firstly we extract certain number of spatial temporal interest points that have the strongest motion from each sequence, and these interest points constitute a point cluster that can be treated as a discriminative representation of one certain sequence.
Secondly, we apply our modified shape context on these point clusters and build a model from all training sequences. Finally in the matching phase, each test sequence is compared with the action model and gives the correct action category it belongs to.
Shape is an important cue for recognizing the ongoing activity. In this study, we propose to use a compact shape representation based on lines. We extract this representation as follows: First, given a video sequence, we compute the probability of boundaries (Pb features [7]) based on canny edges in each frame. We use these Pb features rather than simple edge detection, because Pb features delineate the boundaries of objects more strongly and eliminate the effect of noise caused by shorter edge segments in cluttered backgrounds to a certain degree. Example images and their corresponding boundaries are shown in Fig 2(a) and Fig 2(b).
After finding the boundaries, we localize the human figure by using the densest area of high response Pb features. We then fit straight lines to these boundaries using Hough transform. We do this in two-fold; first, we extract shorter lines (Fig 2(c)) to capture fine details of the human pose. Second, we extract relatively longer lines (Fig 1(d)) to capture the coarser shape information.

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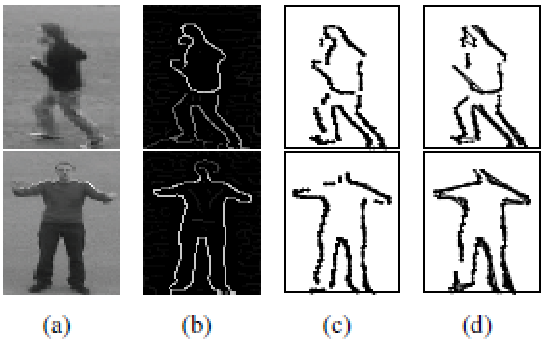

Figure 2. Extraction of line-based features

We then histogram the union of short and long line sets based on their orientations and spatial locations. The lines are histogrammed over 15◦ orientations, resulting in 12 circular bins. In order to incorporate spatial information of the human body, we evaluate these orientations within a N ×N grid placed over the whole body. Our experiments show that N = 3 gives the best results (in accordance with [8]). This process is shown in Fig 2. Resulting shape feature vector is the concatenation of all bins, having a length |Q| = 108 where Q is the set of all features.

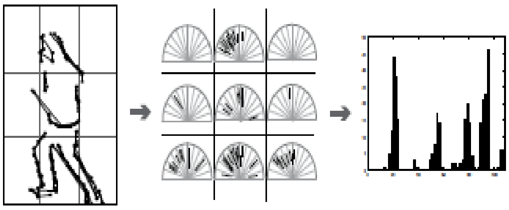

Figure 3. Forming line histograms

3.2. Feature Selection

In our experiments, we observed that, even a feature size of |Q| = 108 is a sparse representation for shape. That is, based on the nature of the actions, some of the dimensions of this feature vector are hardly used.

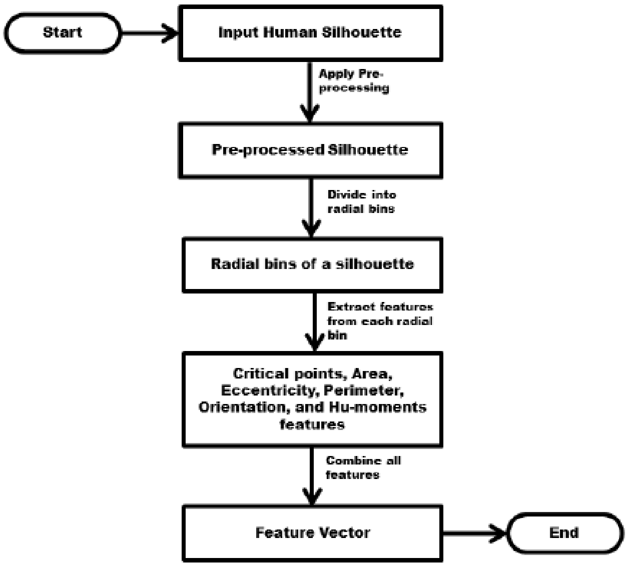

Figure 4. Overview of feature extraction process

To have a more dense and compact representation and to reduce the processing time in classification step, we make use of an entropy-based feature selection approach. By selecting features with high entropy, we are able to detect regions of interest in which most of the change, i.e motion occurs.

We calculate the entropy of the features as follows: Let fj(t) represent the feature vector of frame at time t in video j and let |Vj | denote the length of the video. The entropy H(fnj) of each feature n over the temporal domain is

$$H(f_j^n) = -\sum_{t=1}^{|V_j|} \hat{f}_j^n(t) log(\hat{f}_j^n(t)) \qquad (1)$$

where ˆ f is the normalized feature over time such that

$$\hat{f}_j^n = \frac{f_j^n(t)}{\sum_{t=1}^{|V_j|} f_j^n(t)} \qquad (2)$$

This entropy H(fnj) is a quantative measure of energy in a single feature dimension n. A low H(fnj) means that the nth feature is stable during the action and higher H(fnj) means the nth feature is changing rapidly in the presence of action. We expect that the high entropy features will be different for different action classes. Based on this observation, we compute the entropies of each feature in all training videos separately for each action. More formally, our reduced feature set Q_ is

$$Q' = \{f^n | H(f_j^n) > \tau , \forall j \in \{1,..,M\}, n \in \{1,..,|Q|\}\} \qquad (3)$$

where τ is the entropy threshold, M is the total number of videos in training set and Q is the original set of features. After this feature reduction step, our shape feature vector's length reduces to ∼ 30. Note that for each action, we now have a separate set of features.

3.3. Motion features

Using pure optical flow (OF) templates increase the size of the feature vector to a great extent. Instead, we present a compact OF representation for efficient action recognition. With this intention, we first extract dense block-based OF of each frame, by matching it to the previous frame. We then form orientation histograms of these OF values. This is similar to motion descriptors of Efros et al. [5], however we use spatial and directional binning. For each ith spatial bin where i ∈ {1, ..,N × N} and direction θ ∈ {0, 90, 180, 270}, we define optical flow histogram hi(θ) such that

$$h_i(\theta) = \sum_{j \in B_i} \psi(\tilde{\mathbf{u}}_\theta \cdot \mathbf{F}_j) \qquad (4)$$

where Fj represents the flow value in each pixel j, Bi is the set of pixels in the spatial bin i, **u**˜θ is the unit vector in θ direction and ψ function is defined as

$$\psi(x) = \left\{ \begin{array}{ll} 0 & \text{if } x \leq 0 \\ x & \text{if } x > 0 \end{array} \right\} \qquad (5)$$

This process is depicted in Fig 5.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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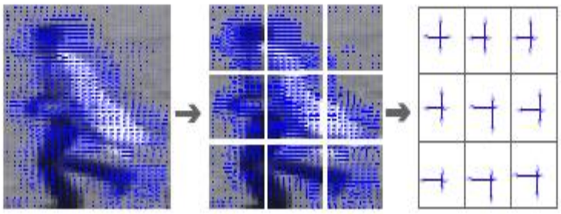

Figure 5. Forming of histograms

Iv. Conclusion and Future Work

4.1 Conclusion

A new motion description method named Shape Features-ME has been proposed to reduce the influence of environment variations for human activity recognition. Shape Features-ME is based on Shape Features features and inherits its advantages such as invariant to environment variations noise, illumination, and camera view angles. Thus, Shape Features -ME can be used as a robust method for motion description of activity recognition in the field of computer vision and pattern recognition. Shape Features -ME features are successfully utilized for describing and recognizing human actions in videos.

The experiment shows that Shape Features -ME outperforms optical flow, 3D Shape Features, and 2D Shape Features features for human activity recognition. Besides, some additional experiments are done to find the relations of recognition result with different GMM components. Shape Features features have the highest recognition rate with lowest GMM components which demonstrate that it is a better action description. On the other hand, compare Shape Features -ME and Shape Features translation, Shape Features -ME outperforms almost 3% accuracy, which means rotation information is also important for activity recognition. Shape Features -ME is another evolution step which improves Shape Features to interpret 2D transformation using a three dimensional vector.

4.2 Future Work

In the future, more research will be done with Shape Features -ME features for querying videos to detect a predefined set of actions such as walking, running, etc. This can be easily achieved by comparing patterns of action. Shape Features -ME is a good feature representation for motion, as long as finding similar motion patterns with queried one, the best match can be achieved and video retrieval can be realized. Shape Features -ME can be improved by using a better matching algorithm as well as incorporating 3D translation and rotation by considering multiple cameras.

As Shape Features -ME is an extension of Shape Features features to represent motion, it does not conflict with Shape Features feature. As well known that Shape Features can be used for object recognition with promising result, so there is possibility to combine Shape Features and Shape Features -ME to do object based activity recognition: recognition activity through the objects people interact with. For example, pick up a gun and pick up an apple are different actions in detail and results in different handling response actions to other people. Recognize activities through objects will extend the application of activity recognition in many fields and increase the capacity of activity recognition.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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'Study of E- Waste awareness among the Commerce Degree College Students in Navi Mumbai'

Dr. Seema Somani*

Abstract
'Study of E- Waste awareness among the Commerce Degree College Students in Navi Mumbai'
The study first introduced the topic that what is e-waste and origin of the problem. It covered conceptual framework giving a glimpse of the terms used in the study. Then it included Need and Objectives of the study, Limitations of the study, Scope for further research.
Research Methodology which includes research design adopted in the present study, area, scope and period covered under this study, samples and sample size and determinant procedures, sources of data collection. Primary data Collection of data through questionnaire the researcher designed a comprehensive questionnaire, covering awareness of e-waste management among commerce degree college students. Determining sample size Out of 4000 students Navi Mumbai commerce colleges under University of Mumbai 250 students were selected as the sample respondents for the present study. The primary data collected was processed, classified, tabulated and analyzed with the help of tables, graphs, frequency and then finally logical conclusions were drawn. The study further included Demographic profile of respondents followed by Testing of hypothesis. One sample t- test and Pearson's Correlation were the statistically tests used to test the hypothesis. Finally the study dwells on Findings of the Study and Suggestions**.**
Key words: E- waste, Navi Mumbai, Electronic gadgets, Commerce degree college students, Mobile phone.

1.1 Introduction

The electronics industry is the world's largest and fastest growing manufacturing industry. Recent policy changes in India have led to an inflow of leading multinational companies to set up their electronics manufacturing facilities. This has helped the Indian economy to grow by leaps and bounds which has led to increase in the consumption rate of electronics products. Along with the economic growth and availability of electronics goods in the market has increased temptation of consumers to replace their household electronics items with newer models for various reasons. The net effect is a higher rate of obsolescence, which is leading to growing piles of e-waste.

1.2 Conceptual framework for the study

- Study: A detailed investigation and analysis of a subject or situation.
- E-Waste: It is the term used to describe old, end-of-life or discarded appliances using electricity. It includes mobiles Phones, computers, consumer electronics, fridges etc. which have been disposed of by their original users.
- According to Sinha- Khetriwal, "E-Waste can be classified as any electrical powered appliance that has reached its end-of-life"

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- Commerce Degree College: Students studying 10+2+3 at graduation level obtaining Bachelor of Commerce (B.Com) and Masters in Commerce (M.Com).

1.3 Need and Objectives of the study

The main objectives of the present study are as under:

1. To study the awareness of the commerce degree students in Navi Mumbai on e-waste.
2. To identify the need of education on e-waste to commerce degree students in Navi Mumbai.
3. To give suggestions for the solving the issues pertaining to study.

1.4 Rationale of the study

There is increase in the amount of e-waste generation mainly due to increase in demand of electronics products like Cell Phone, PC, TV, and telephones in last five years. Hence the commerce degree college students are also the reflection of the society and important stakeholders. This study would provide an insight to the students who are the citizens of tomorrow's India to become more sensitive towards the problems of e waste and its impact.

1.5 Limitations of the study

1. Out of 7 districts only 1 district would be considered for the study purpose and therefore study may be applicable to Navi Mumbai only.
2. The sample respondents are commerce degree college students only.

1.6 Scope for further research

1. The study can be applied for other disciplines.
2. The study can be extended to other regions.

2. Research Methodology

This includes research design adopted in the present study, area, scope and period covered under this study, samples and sample size and determinant procedures, sources of data collection.

2.1 Research design employed in the present study

This study seeks to explore and investigate the responses of commerce degree students of Navi Mumbai towards e- waste management. For this purpose, a pilot survey would be conducted and then questionnaire would be utilized. The sample would be drawn using the simple random sampling technique.

2.2 Area, scope and period of the study

The University caters to the students spread across 7 districts of the Maharashtra state; namely Mumbai city, Mumbai suburbs, Thane, Navi Mumbai, Raigad, Ratnagiri and Sindhudurg. Out of 7 districts, colleges in Navi Mumbai are selected as the study area and colleges situated in Navi Mumbai would be selected for the study purpose in the present study. Commerce colleges are situated in Mumbai city 38, Mumbai suburbs 97, Thane 88, 15 Navi Mumbai, 24Raigad, 33, Ratnagiri and 18 Sindhudurg district respectively. Out of these 15 degree commerce colleges from Navi Mumbai districts are selected and would be covered in this study. Here in the present study commerce degree colleges mean the conventional commerce education colleges doesn't includes self- financing commerce courses.

2.3 Sources of data collection

This study is based on both – primary and secondary data sources. The secondary data was collected through books, Journals, internet, websites, UGC, University, Government-reports on e-waste management, circulars and notifications etc. Researcher would visit to

University of Mumbai library, S.N.D.T Women's University, Tata institute of Social Sciences library etc. for collecting the desired data.

2.3.1 Primary data

The primary data was collected through questionnaire, observations, discussions and interviews technique. A survey was carried out by the researcher by personally visiting to various sample colleges. The questionnaire was administered in 15 Commerce degree colleges in Navi Mumbai.

2.3.2 Collection of data through questionnaire

The researcher designed a comprehensive questionnaire, covering awareness e-waste management among commerce degree college students; assess the impact of e-waste management among commerce degree college students and socio- economic profile of the respondents etc. A pilot survey was undertaken after preparing initial survey questionnaire and the questionnaire was distributed to 15 commerce degree colleges. Discussions were conducted with the students, environmentalist, activist etc. A five degree Likert Scale was employed for designing the questionnaire.

2.4 Sample and sample size of the study

2.4.1 Sample

Degree college commerce students of Navi Mumbai are the sample of the study. There are 15 Colleges were there are more than 4000 students which is the Universe of the study. Navi Mumbai commerce colleges under University of Mumbai are the study area and unique sample.

2.4.2 Determining sample size:

Out of 4000 students Navi Mumbai commerce colleges under University of Mumbai 250 students were selected as the sample respondents for the present study.

2.4.2.1 Statistical tools and techniques

After completion of data collection, questionnaire was sorted properly to make them ready for data entry. Data entry was done with the help of Micro soft excel. The master table was prepared to incorporate all the information available in the questionnaires and for analysis of the data SPSS package was applied.

2.4.2.2 Data analysis and interpretation

The research study is based on primary and secondary data. Secondary data which was collected from various published and unpublished sources including the reports of Government for e- waste, PhD thesis, Dissertation, Annual reports of University of Mumbai. The primary data collected was processed, classified, tabulated and analyzed with the help of tables, graphs, frequency, Percent, average and then finally logical conclusions were drawn.

One sample t test was used to test the Hypothesis I and Pearson's Correlation was employed for testing Hypothesis II.

2.4.2.2.1 Demographic profile of respondents

Table 1: Demographic Profile of the Respondents

Demographic Profile	Options	Frequency (n)	Percentage (%)
Gender	Male	94	37.60
	Female	156	62.40
Total		**250**	**100.00**
Age	20-25 years	244	97.60
	26 years and above	06	2.40
Total		**250**	**100.00**
Level of Study	F.Y.B.Com.	06	2.40
	S.Y.B.Com.	66	26.40
	T.Y.B.Com.	144	57.60
	M.Com.	34	13.60
Total		**250**	**100.00**
Employment Status	Yes	46	18.40
	No	204	81.60
Total		**250**	**100.00**
Monthly Salary (in Rs.)	Less than 15,000	38	82.61
	16,000 – 25,000	08	17.39
	26,000 and Above	00	-
Total		**46**	**100.00**

Source: Compiled from primary data

Out of 250 respondents for the study covered 94 were male and 156 were female students. 97% of the respondents belonged to 20-25 years of Age. 57% of the total respondents were from TYBCOM, 13% from MCOM and remaining from SYBCOM and FYBCOM respectively. Out of the total respondents 82% were not employed.

3. Testing of hypotheses

Hypothesis I

H_0: There is no awareness regarding e-waste generation due to usage of electronics products.

H_1: There is high awareness regarding e-waste generation due to usage of electronics products.

Hypothesis II

H_0: There is no need to educate on the usage of the electronics products on e-waste generation to the commerce degree college students in Navi Mumbai.

H_1: There is a strong need to educate on the usage of the electronics products on e-waste generation to the commerce degree college students in Navi Mumbai.

Hypothesis I

H_0: There is no awareness regarding e-waste generation due to usage of electronics products.

H_1: There is high awareness regarding e-waste generation due to usage of electronics products.

Methodology used

One sample t-test was used to evaluate the (one-tailed) hypothesis of awareness regarding e-waste generation due to usage of electronic products. Level of awareness was calculated by taking the average score of each respondent on 4 dichotomous questions – Q.9, Q.11, Q.12 and Q.13 (No=0, Yes=1) asked in the questionnaire. The average level of awareness of all the respondents taken together is 0.79. The hypothesized mean value is kept at 0.5 thereby indicating that level of awareness will be high if the average awareness level is higher than 0.5. The average level of awareness is 0.79 which indicates high level of awareness (i.e. roughly 79% of respondents were aware of e-waste generation due to usage of electronic products). Thus to assess whether this difference between the two mean values are statistically significant, a one sample t-test is used.

Results

Summary Values		
	n	250
	$\sum X$	197.5
	$\sum X^2$	173.25
	SS	17.225
	variance (inferential)	0.0692
	standard deviation (inferential)	0.263
	standard error	0.0166
	sample mean	0.79
	hypothetical population mean	0.5
	difference	0.29
	t	17.4699
	df	249
P	one-tailed	<.0001
	two-tailed	<.0001

Source: Single sample t-test calculator available on http://vassarstats.net/t_single.html

The t statistic is 17.4699. The p-value is < 0.0001. The result is significant at $p < 0.05$. Thus the difference between the sample mean (0.79) and the hypothesized mean (0.5) is statistically significant.

Thus, **H_0 is rejected**, i.e. **there is high awareness regarding e-waste generation due to usage of electronics products among commerce degree college students of Navi Mumbai.**

Hypothesis Testing – II

H_0: There is no need to educate on the usage of the electronics products on e-waste generation to the commerce degree college students in Navi Mumbai.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

H_1: There is a strong need to educate on the usage of the electronics products on e-waste generation to the commerce degree college students in Navi Mumbai.

Methodology used

To prove this hypothesis, the researcher examined the co-relation between level of awareness and level of education of respondents towards e-waste generation due to usage of electronic products. Level of awareness was calculated by taking the average score of each respondent on 4 dichotomous questions – Q.9, Q.11, Q.12 and Q.13 (No=0, Yes=1) asked in the questionnaire. Level of education of respondents was calculated by taking average of 5 dichotomous questions – Q.14, Q.15, Q.16, Q.17 and Q.18 (No=0, Yes=1) asked in the questionnaire.

Pearson correlation was used to find the correlation among the variables (awareness and level of education). The entire calculations were done using CORREL function in MS Excel.

Results

A Pearson's correlation was run to assess the relationship between level of awareness and level of education of respondents under the study (commerce degree college students of Navi Mumbai). The magnitude of the Pearson correlation coefficient determines the strength of the correlation. Although there are no hard-and-fast rules for assigning strength of association to particular values, some general guidelines are provided by Cohen (1988):

Coefficient Value	Strength of Association
$0.1 < \lvert r \rvert < .3$	Small/weak correlation
$0.3 < \lvert r \rvert < .5$	medium/moderate correlation
$\lvert r \rvert > .5$	large/strong correlation

There was a weak positive correlation between level of awareness and level of education, $r = 0.228716$, $p < 0.0005$.

Pearson correlation co-efficient	p-value (α=0.05)	Remark
0.228716	< 0.0005	Positive, Weak

The relationship is positive, i.e. increase in level of education will lead to increase in level of awareness and vice versa. However the relationship is weak.

Hence it is justified to say that there is a need of education to further strengthen the level of awareness among respondents on e-waste generation due to usage of electronic products.

Thus, **H_0 is rejected**, i.e. **there is a strong need to educate on the usage of the electronics products on e-waste generation to the commerce degree college students in Navi Mumbai.**

4. Findings of the Study

1. In Navi Mumbai region, field investigations reveal that e-waste is transported to Mumbai from where it is supplied to other parts of India. Some part of the e-waste is again sent to Delhi for further processing and dumping to the land fill site.
2. 62.4% of the respondents were females covered for the study.
3. 97.6% of the respondents were belonging to the age group between 20-25 years.
4. 96.4% of the respondents were using cell phones as the major electronic gadget.
5. It was followed by head phone which stood at 63.2%.
6. It was clear that majority (82%) of respondents took decision of changing their devices only when those devices became completely unusable.

7. Keeping pace with the latest technology, with an aggregate agreement rate of 44.80%, was the most important (preferred) reason for changing devices among respondents.

5. Suggestions

1. If you're not going to use your device anymore, pass it on to a family member or friend who needs it.
2. Instead of recycling, sell your device on Quickr or eBay.
3. Encourage your company to donate old hardware to schools and reuse programs. Make sure they go on to a second life.
4. Need for a scientifically designed dismantling facility with proven technology in the state.
5. Maharashtra Pollution Control Board (MPCB) should initiate and formulate an institutional mechanism for tracking and monitoring WEEE/ E-waste inventory, generation, collection and transportation in association with stakeholders like Municipal Corporation of the region.
6. Students of NSS should take up this cause and create awareness of its ill effects so that creation of e-waste can be avoided.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

A STUDY ON PROFITABILITY AND ITS DETERMINANTS

DR.K.Aparna*

Abstract

Profit is the indicator of the efficiency of every business unit. The higher the profit, the more will be the efficiency of the business unit. Profits indicate the efficiency with which a business unit utilizes its funds. In addition to appropriate usage of investment, profit is affected by number of variables. An attempt is made in the present study to identify and analyze determinants of profitability of Steel Authority of India. The variables selected for the present study are size, growth, liquidity, leverage and productivity**.** The data is analyzed by using correlation and regression techniques through SPSS. It is found that the size, leverage and productivity have shown a negative correlation with profitability and the variables growth and liquidity have shown a positive correlation with profitability. The regression analysis shows that productivity and size are the prominent variables in explaining the profitability of SAIL. However the significance of size is negative. Finally, 98.1 per cent (R^2 value) of variation is caused in the profits of SAIL by these five independent variables.

Keywords: Profitability, Determinants of Profitability, SAIL, Correlation and Regression.

I. Introduction

The primary objective of a business unit is to achieve maximum profit in addition to secondary objectives like increase in sales, assets, market share and the like. Profit is the indicator of the efficiency of a business unit. The higher the profit, the more will be the efficiency of the business unit. Profits indicate the efficiency with which a business unit utilizes its funds. It should be more than the risk free rate of return. In addition to appropriate use of investment, Profit is affected by number of variables such as proportion of debt which affects the expenses of the firm in terms of interest payment, the liquidity position of the firm, growth rate of sales, employee productivity, capacity utilization in case of manufacturing units and the operating expenses. It is the task of the firm's management to take appropriate policies from time to time taking into account external and internal factors which affect the profits of the firm.

Steel Authority of India Limited (SAIL) is a Maharatna Central Public Sector Enterprise in the steel sector which was incorporated in the year 1073 with 85.82 percent of shareholding by the Government of India. SAIL is India's largest producer of iron ore. To be a leader in Indian steel business in quality, productivity, profitability and customer satisfaction is the vision of SAIL. SAIL produces Iron and Steel and other by products through its nine plants in different parts of India. During the year 2013-14, the capacity utilization of SAIL is 116 percent with a production of saleable steel of 12.90 million tonnes[1].

II.Objectives of the Study

The main objective of this study is to identify and analyze the determinants of profitability of SAIL.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

III.Review of Literature

Farah Margaretha and Nina Supartika (2015) took the data for six years from 2007 to 2012 for 22 SMEs listed in Indonesian Stock Market and analyzed the data with the help of multiple regression analysis to examine the relationship between the profitability and the independent variables which influenced the profitability in their article. They have found that the explanatory or independent variables like size, growth, lagged profitability, productivity and industry affiliation significantly affected the profitability. Among them the variables size, growth and lagged profitability showed a negative effect on profitability and remaining variables have showed the positive effect on profitability.

Sorana Vatavu (2014) in the article entitled 'The determinants of profitability in companies listed on the Bucharest stock market' examined by taking 126 Romanian companies data for a period of ten years from 2003 to 2012 the variables which affect the profitability of the companies. The author observed that the debt, size, liquidity, taxation, inflation, crisis and asset tangibility are the variables which have a significant impact on the profitability using cross sectional regression technique for analyzing the data. Further a negative relationship between profitability and tangibility, business risk and level of taxation is observed.

Sivathaasan.N et.al(2013) investigated whether factors like capital structure, working capital, firm size, non-debt tax shield and growth rate have any impact on profitability of manufacturing companies in their paper 'Factors determining Profitability: A study of selected Manufacturing Companies listed on Colombo Stock Exchange in Sri Lanka'. They took data for five years from 2008 to 2012 and a sample of 287 companies. They found that all independent variables combindly explained 76.6 percent and 84.7 per cent of the variance in ROA and ROE, with an overall impact on profitability at the rate of 80.5 per cent.

IV.Methodology

Taking into account the literature on the determinants of profitability, independent variables are selected. The variables selected for the present study are size, growth, leverage, liquidity and productivity which will have impact on profitability. Determinants of profitability are analyzed using the technique of multiple regressions. Correlation between the profitability and its determinants is also calculated. The hypotheses set for the study are:

There is negative relationship between leverage and profitability. This is mainly because the more the debt the higher will be the interest payment and the subsequent reduced profits.

The liquidity is positively correlated with profitability. This is because the amount and composition of current assets and current liabilities involves a tradeoff between liquidity and profitability. A ratio slight more than the standard ratio of 2:1 is always better.

Profitability is positively related to growth rate of sales. This is because the growth in sales directly contributes to increased profits.

There is a positive relationship between profitability and productivity and size as economies of scale will be available to a certain level of capacity utilization. There after dis-economies of scale will be in operation.

Data for a period of ten years from 2005-06 to 2014-15 is collected from the annual reports of SAIL. For the purpose of applying multiple regressions, the dependent variable identified is Return on Assets which is a ratio of Profit before Tax to Total Assets. The

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Vol. 8 Issue 5(1), May 2018,
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independent factors identified are Size which is Log of Total Assets, Growth which is year over year growth rate in sales, Productivity which is a ratio between turnover to total number of employees, liquidity which is a ratio of Current Assets to Current liabilities and the ratio of Debt to Equity which indicates the leverage.

Correlation and Multiple Regression is used to analyse the data. The model developed is:

P= a+b_1 Leverage +b_2 Liquidity + b_3 Growth +b_4 Productivity + b_5 Size+ e

Where

P indicates profitability

b_1, b_s, b_3 , b_4 and b_5 are coefficient of regression

'a' is constant, and 'e' is the error term

V.Analysis and Inferences

From the results of correlation presented in table 1, it can be observed that the liquidity and productivity are positively correlated with profitability. Leverage, growth and size are negatively correlated with profitability.

TABLE-1: CORRELATION BETWEEN PROFITABILITY AND DETERMINANTS OF PROFITABILITY

PROFITABILITY	Correlation
LEVERAGE	-0.91
LIQUIDITY	0.57
GROWTH	-0.94
PRODUCTIVITY	0.63
SIZE	-0.88

Source: Author's Calculations

The value of coefficient of leverage is negative. A firm with high leverage ratio indicates a greater financial risk and thus results in negative relationship with profitability. However as per quantitative terms, leverage effect is not very strong. The second independent variable is current ratio indicating a very low impact on profitability with a coefficient of 0.039. The variable growth is having a positive impact on profitability, with its regression coefficient of 0.164. If seen in quantitative terms, the growth rate of sales effect is not very strong.

TABLE-2: DETERMINANTS OF PROFITABILITY OF SAIL

Dependent variable: Profit before Tax to Total Assets

Variable	Coefficient	Standard error	t-value
CONSTANT	2.868	1.564	1.834
LEVERAGE	-0.116	0.210	-0.552
LIQUIDITY	.039	0.028	1.355
GROWTH	0.164	0.296	0.555
PRODUCTIVITY	0.709	1.111	0.638
SIZE	-0.640	0.425	-1.506
R^2	0.981		
ADJ R^2	0.963		
Over all F ratio	20.615		
Significance of F ratio	0.006		

Source: Author's Calculations

It is apparent from the results that the strongest structural determinant of profitability appears to be productivity. The coefficients shows that an increase of one per cent in productivity results in 0.709 per cent increase in profitability. The size of the firm is indicating a strong negative impact on profitability with a coefficient of 0.64.
The overall explanatory power of the regression of independent variables appears to be high. It is apparent from the coefficient of determination R^2 is very high at 98.1 per cent. R^2 is a measure of the extent of movement in the dependent variable that will be explained by the independent variables. The adjusted R^2 is 96.3 per cent which is highly significant.

VI.Conclusion

To conclude, the regression analysis shows that productivity and size are the prominent variables in explaining the profitability of SAIL. However the significance of size is negative. Finally, 98.1 per cent of variation is caused in the profits of SAIL by these five independent variables. The company should concentrate on its human resources and reduce its debt-equity ratio which will result in increased profitability.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Impact of Online Advertising on Purchase Behavior of Engineering Students: A Study on Engineering Colleges of Jodhpur

Deepika Vyas*

Abstract
In the current scenario the technology is developing at a very fast pace and in the same ratio users of the internet is also increasing, this is because of the reason that today most of us are having 24 x 7 access to the internet in one or the other way, i.e. computer, laptops, mobile phones and even smart watches. This wide coverage of internet has enabled the users to access all kinds of material, including advertisements of the respective companies and on the other hand, providing an opportunity to the companies to promote their product on this media. In this regard the researcher assumed that the number of internet users is also increasing in the city of Jodhpur. The researcher has conducted this present study to analyze the impact of online advertising on the purchase behavior of an engineering student. The researcher has taken the engineering students as a sample because they are the most versatile buyers starting from technical gadgets to fashion wears. Primary data were used to carry the study and the total sample of 200 was chosen from different engineering colleges of Jodhpur.
Keywords: advertising, online Ads, consumer behavior.

Introduction

The decade of 90s' had brought a turnaround in the economy of the world. Doing business with other countries was now termed as globalization, where a number of restrictions have been pulled over and the whole world has become a global village. A major boost in the global economy was the internet. Later it was used as a new mode of marketing for the new and existing businesses, they found a new mode where they can showcase and sell their products. Earlier this was a kind of way out from the cut throat competition and looking for new avenues. Later in the early twenties this has become the talk of the town and every second company start using it, at the first stage it was for advertising only and at the second stage eCommerce came in. According to Kotler (2012), the real competition does not lie within the production lines, i.e. the number of units produced rather the real competition lies with the related attributes like promotion, packaging, distribution and other related aspects which are able to draw the attention of the customers.

Lee (2007) stated that advertising is one of important components that persuade the customer to buy the products of respective companies and this also establishes the brand image of the company, this also stands true for the service providers. Jefkinns (2001) defines an advertisement as a message that persuades the customers to make a sale on a particular price so this enables the company to seize the interest of the customer and make a repeat sale to the same customer.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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As a matter of fact advertising is an integral part of the promotion mix of any company and are in the form of a campaign, these campaigns are developed to establish the brand image of the company in the minds of the customers, sometimes this also changes the respective image of the company. On the other hand, this advertising also plays an important role to establish new products in the market, though at this stage company's use to spend heavily. Stoner (2004), states that advertising is the only way of communicating with the prospective customer i.e. no customer will come to know about the new product or service offered in the market.

It is very important for the companies to get the real purpose of advertising, so that the same message can be conveyed clearly to the customers who may result in final sale of the product or service. SIH (2010). Stated that any of the given advertisement is not only for the purpose of information but this also creates a positive/negative image in the minds of the customers. Advertising can be done through a variety of media, like print media, electronic media and the latest media of internet. In this present study, the researcher will try to present all the related avenues of online media and the impact of the same on the minds of the customers.

The origin and development of online advertising is not very old, it has shown the highest level of developments in the last two decades only. This is one of the direct approaches to reach the customer, this is true in the sense that today most of the people are having direct access to the internet and are liable to view all the communication from the side of the advertisers. Online advertising is in both the forms, i.e. informative and making a sale, as making an online purchase is just a click away, thanks to eCommerce. Taylor (2007) stated that with the increase in the number of internet users the reach of online advertising is also increasing, online advertising allows the prospective customer to gain all the required information in just a few clicks and even make the physical purchase. Kleinsteurber (2002) states that the source of the internet is capable of showcasing the products and services of all types of big, small and medium companies, this medium also enables the purchase of the products in just a few clicks. This is one medium which is free from the boundaries of time and space, this is the reason it is becoming popular among all types of companies.

Online advertisements require a webpage to showcase the respective products or services of the companies, generally the online ads are in the form of banners, sponsorships, pop-ups, in-stream ads, webcasting, and a link is available at edge, top, bottom, or that suddenly appear on web pages. Morisan (2010)

Literature Review

Lichterman (2015) conducted a research study on homepages by creating two fictional news sites that carried 20 news stories selected from actual publications and designed in different formats. The researchers conducted three different studies that involved 2671 participants. It was found from the research that people engage 90 percent more with modern looking sites than the traditional looking sites. Consumers are able to engage and recall more than 50% content of the news sites that are image heavy and modular looking in design as compared to sites with more staid, newspaper-inspired designs.

Vihonen (2013) conducted a research to study the online behavior of consumers towards local webpage of ikea.fi in comparison to national webpage. In this research, both qualitative and quantitative approaches were decided to be used by the researcher. The methodology used for data collection was web analytics data and face to face interviews. The data were further analyzed by using a tool called Omniture Site Catalyst. The period of

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the study was three months starting from September 2012 i.e. beginning of the IKEA Catalogue year in November 2012. It was found that web pages displaying clean structure, easy usability and wide options are the strength of the webpage and local pages were found to be boring by customers. Hence, the potential of local store web pages still remains unexplored. It was found that only 10% of the visitors leave the page after entering the front page.

Behboudi (2012) did a research on the working of ad agencies in internet world. The study was conducted through survey where questionnaire was used as a tool to collect the response on internal and external variables like relationship management, clean homepages, account manager, creativity, sponsored ads, direct email and lead generation affecting the advertising agencies. To internalize these variables in Iran, t-test was applied on the data collected. Creativity was found to be the most influential variable considered by the advertising agencies, whereas the other core variables affecting the activities of advertising agencies include internal variables like relationship management, account manager, creativity, uncluttered homepage and external variables like direct email and sponsored ads.

Bakshi (2013) in a research to study online advertising and its impact on consumer purchasing behavior adopted content analysis as a method to study the factors responsible for the affecting the consumer purchasing decision and those contributing towards the effectiveness of online advertisements. The study concluded that web world is providing business ad world lucrative services of ad formats, interactive platform and vast reach, thus making web world as popular and standardized format for advertisements. Therefore, every caution should be taken by the marketers to strategize as per consumer needs and gain maximum profits.

Bany Mohammed & Alkubise (2012) In order to empirically analyze the effect of internet advertisement on buying intention of consumer, the data was collected from 339 students and evaluated on fire dimensions theoretical model. The result of the study showed that the key factors affecting the effectiveness of online advertisement are income, internet skills, use of internet per day, content of advertisement and location of advertisement as noticed by the consumer. The study concluded two major findings: language is an important factor for ad effectiveness and the opinions of other users also effect the perceptions of the consumers towards online advertisements.

Objective of the Study

1. To study the effectiveness of the online-advertising for products and services as well.
2. To study the effectiveness of the online-advertisement on viewers representing different demographical attributes.

Hypothesis of the Study

Hypothesis 1

H_0: Preference to a particular type of advertisement is dependent on the Demographic factors.

H_1: Preference to a particular type of advertisement is not dependent on the Demographic factors.

Hypothesis 2

H_0: There is a high degree of association between perception and recall value of the online ads.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

H1: There is a low degree of association between perception and recall value of the online ads.

Research Methodology

Sampling

Stratified sampling method is being used in this study; the total sample size of the study was 200 respondents belonging to different engineering institutes of Jodhpur, Rajashtan.

Data collection

In order to test the inclination and attitude of engineering students towards online advertising, the data were collected by using a structured questionnaire comprising questions on a Likert Scale. This questionnaire was exercised personally with the selected respondents and the results were analyzed thereof.

Measures

All the data collected and analyzed using ANOVA.

Data Analysis and Interpretation

Hypothesis Testing

Hypothesis 1

H0: Preference to a particular type of advertisement is dependent on the Demographic factors.

H1: Preference to a particular type of advertisement is not dependent on the Demographic factors.

Table 1: Summary of ANOVA Results H3

On the Basis of Age	F	Sign
Preferred kind of Ads on internet	7.056	8.252
Ads. Offering products on EMI Attract you	**2.923**	**2.834**
Marketing persuasion attracts you easily	**1.705**	**1.865**
Always prefer Ads. From trusted websites only	10.697	9.887
Discuss the Ad. With your reference groups	**2.371**	**2.770**
Look for Ads. On social sites	**2.459**	**2.662**
Click on all the Ads coming in your way	**.173**	**.215**
On the Basis of Education		
Preferred kind of Ads on internet	3.445	3.017
Ads. Offering products on EMI Attract you	1.360	.000
Marketing persuasion attracts you easily	3.352	4.019
Always prefer Ads. From trusted websites only	4.508	3.004
Discuss the Ad. With your reference groups	**.510**	**.676**
Look for Ads. On social sites	20.677	.000
Click on all the Ads coming in your way	2.199	.087
On the Basis of reference groups		
Preferred kind of Ads on internet	.155	**.926**
Ads. Offering products on EMI Attract you	.688	.559
Marketing persuasion attracts you easily	.660	.577
Always prefer Ads. From trusted websites only	.365	**.778**
Discuss the Ad. With your reference groups	.889	.446
Look for Ads. On social sites	3.098	.016
Click on all the Ads coming in your way	.534	**.711**
On the Basis of Gender		
Preferred kind of Ads on internet	.983	.417
Ads. Offering products on EMI Attract you	1.885	.112
Marketing persuasion attracts you easily	1.117	.348
Always prefer Ads. From trusted websites only	1.443	.219
Discuss the Ad. With your reference groups	.209	**.890**
Look for Ads. On social sites	.579	**.629**
Click on all the Ads coming in your way	.993	.396

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Interpretation

Demographic factors use to play an important role towards the preference of a particular type of online advertisements. The above table shows the level of variation on the basis of different demographic factors. In the first case age is considered as a factor, the level of variation considering age, is comparatively low which states that age is not the deciding factor for the preference of a particular type of online advertising. Then on the basis of education, there is a certain amount of variation in case of preferences against accessing of websites and recalling of advertisements at different point of times. Then reference groups use to play an important role, the amount of variation is high in the case of accessing websites likings for the particular type of advertisement. The above analysis shows that the engineering students are interested in accessing the different websites at different times and their preference towards different types of advertisements. They access various types of advertisements for their different needs irrespective of the source of information, they use to compare and discuss about all kinds of ads they use to come across and make their purchase decisions.

Hypothesis 2

H_0: There is a high degree of association between perception and recall value of the online ads.

H_1: There is a low degree of association between perception and recall value of the online ads.

Table 2: Summary of ANOVA Results *H3*

On the Basis of Age	F	Sign
Recall ads seen in last 24 hrs	7.056	8.021
Animation and graphics of the Ad attract you	**2.923**	**2.834**
Seen the same Ad. On different sites	**1.705**	**1.865**
Recall the specifications shown in the Ad. At the time of purchase	10.697	8.658
Compare the Ads. Shown on different websites	**2.371**	**2.770**
Find all the Ads. Same for related products	**2.459**	**2.662**
Comparing Ads. Can give better purchase options	**.173**	**.215**
On the Basis of Education		
Recall ads seen in last 24 hrs	3.445	3.017
Animation and graphics of the Ad attract you	1.360	.000
Seen the same Ad. On different sites	3.352	4.019
Recall the specifications shown in the Ad. At the time of purchase	4.508	3.004
Compare the Ads. Shown on different websites	**.510**	**.676**
Find all the Ads. Same for related products	20.677	.000
Comparing Ads. Can give better purchase options	2.199	.087
Recall ads seen in last 24 hrs	7.056	.000
Animation and graphics of the Ad attract you	**2.923**	**2.034**
On the Basis of Reference Groups		
Recall ads seen in last 24 hrs	.155	**.926**
Animation and graphics of the Ad attract you	.688	.559
Seen the same Ad. On different sites	.660	.577

Recall the specifications shown in the Ad. At the time of purchase	.365	**.778**
Compare the Ads. Shown on different websites	.889	.446
Find all the Ads. Same for related products	3.098	.016
Comparing Ads. Can give better purchase options	.534	**.711**
Recall ads seen in last 24 hrs	3.445	.017
Animation and graphics of the Ad attract you	14.360	.000
On the Basis of Gender		
Recall ads seen in last 24 hrs	.983	.417
Animation and graphics of the Ad attract you	1.885	.112
Seen the same Ad. On different sites	1.117	.348
Recall the specifications shown in the Ad. At the time of purchase	1.443	.219
Compare the Ads. Shown on different websites	.209	**.890**
Find all the Ads. Same for related products	.579	**.629**
Comparing Ads. Can give better purchase options	.993	.396
Recall ads seen in last 24 hrs	3.352	.019
Animation and graphics of the Ad attract you	4.508	.004
Recall ads seen in last 24 hrs	3.352	.019
Animation and graphics of the Ad attract you	4.508	.004

Interpretation

Perception against any object plays an important role towards the recall value of the same. This stands true in case of online advertisements also. As far as engineering students are concerned, they have a technical acumen and are keen to try every new gadget or product they come across. As the analysis in the table 2 shows, as against the age of the respondents, all the respondents were of the same age group the difference in the age is from 2 to 4 years. They were able to recall all the advertisements they came across in the last 24 hours. Then on the basis of education there is a certain amount of variation in case of preferences against accessing of websites and recalling of advertisements at different point of times. Then reference groups use to play an important role, the amount of variation is high in the case of accessing websites liking for the particular type of advertisement. The above analysis shows that the engineering students are interested in accessing the different websites at different times and their preference towards different types of advertisements. They access various types of advertisements for their different needs irrespective of the source of information, they use to compare and discuss about all kinds of ads they use to come across and make their purchase decisions.

Result of Hypothesis Testing

On the basis of analysis we can say that the amount of variation is less and both the null hypothesis are subject to acceptance and the alternate hypothesis can be rejected.

Conclusion

By the introduction of online mode of advertising, the perception of the customers and the viewer has changed a lot. Earlier there was a less scope for the customers to compare the products and services, even it was time taking and at times even costlier. Even the companies are having an opportunity to showcase their products and services in the best possible manner. At present it doesn't take time to frame a positive/negative perception

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about the respective products and services. As far as the impact of online advertising is concerned, the behavior of the consumer is also changing, nevertheless the consumer behavior is already versatile, but by the advent of online media it has become even more dynamic. Though it takes time to frame the attitude of the customers against a particular product or service, online media has made this process even faster, where in a matter of days a particular product or service can be trolled on the social media in a positive or negative manner and change the attitude of the customer for the same. This present study finds that there are certain factors which are responsible to frame the attitude of the customers for a certain product or service, these factors are age, income, reference groups, education, etc. more or less these factors frame the attitude of the customers. The Interest shown by the customer in the online ads is viewed as positive and negative perception and even this can be calculated in quantitative form by the way of ad per click and other methods.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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The Impact of Training and Development on Employees Performance and Productivity: a case study of Bank Employees in Jaipur, Rajasthan

Himanshu Bagdi*
Latika Sharma**

Abstract
This is a well known fact that for any given organization, the employees of the same are the greatest assets. Other than all the processes and systems available in the organization the contribution of the employees cannot be sidelined, hence it becomes the responsibility of the respective organization to make their employees efficient enough by the way of structured training and develop them as the earning asset of the organization. There are many benefits of the same, i.e. risk of error is minimized, job performance is increased, employee feel motivated and many others. A structured training program can make the employees capable enough to compete in the present cut throat competition.
Present study evaluates the effects of training and development on the performance of the employees in the industry in Jaipur, Rajasthan. In the lieu of the same the researcher had tried to examine to factors of offered training programs, methods adopted for training, need of the training and finally the effects of training and development program on the performance of the employee. The study is based on the employees of AU Small Finance Bank. This study is based on the primary data and the data is collected with the tools of questionnaire. This questionnaire is exercised on 200 bank employees working in public sector banks of Jaipur, Rajasthan.
The findings will be useful for the HR Personnel, policy makers and even for the academicians.
Key words: Training, Development, Banking Industry, Effect.

Introduction
Training has been recognized as a vital promoter in raising productivity and dispensing management process. Management training has gained enough recognition in the Industrial and economic areas. At the same time there is a growing need for imparting training in order to improve the administrative and management skills, while on the other side there is ample evidence to prove that dissatisfaction and frustration continue to subsist even at the higher levels of management.
Training increases the workers' aptitude and skill and makes them fully productive within the given minimum time. So, Training is the systematic approach to create an environment in an organization which helps to improve the individual's capacity to deal with a work situation. Training also has to form an essential ingredient in any safety program.
Man power development motivates development and improvement in the behavior of an employee towards other employees and his employer. Training is the most essential aspect

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in man power development. The concept of training is to impart rich and experienced knowledge to the trainee. There is a clear difference between learning and training. Training is a process in which something is done to the trainee. Learning is when the trainee does something to himself. When we set out to train people, we hope that this process of training is going to be a simultaneous one because if nothing is learned, the trainer is wasting time and effort.

Training

Training is a process in which learning opportunities are structured in a planned manner, so as to develop knowledge, skills and attitude, necessary for effective performance of work for achieving organizational aims and objectives, considering the cost-effectiveness of the means. Thus the basic theme of training function is to achieve 'effective performance' by the employees towards attainment of organizational goals. In an organization the manager's primary purpose is to ensure that the objective of the organization is achieved. This greatly lies on the manager's ability to manage the "Performance of his staff".

Formal control systems will in any case be there, but invariably managerial and Organizational success is based not on the Operation of systems but on the interpersonal skills of the individual manager and his ability to get effective performance from his subordinates. The logical conclusion therefore is that managers, being responsible for effective performance by their subordinates, are also responsible for their effective training. Therefore training has to be recognized as an integral part of the whole work system.

Development

Development is a systematic and planned effort that makes a multifold enhancement in the employee's skill set. Management Development provides the opportunity to develop a broad base of skills and competencies that can be applied to many jobs in the Organization. Managerial skills broadly cover technical skills that are concerned with knowledge and proficiency employed in methods, procedures and processes, Human skills are concerned with Human Relations Skills, Effective Working and Collaborative Skills and Conceptual Skills and are concerned with general management skills such as visioning, modeling, formulating strategic planning etc.

The six core skills that Managers require today:

1. Global Perspective
2. Leadership
3. Learning and learning transfer
4. Flexibility
5. Strategic Planning
6. Team building

Training and Development

In any of the given organization, training and development activities are related to the betterment of employees in different aspects, like performance, skills, thought process, team work, etc. the other names given to the activity of training and development are Learning and Development, Fork Force Development, etc. *(Harrison, 2005)*

As a matter of fact, training can also be viewed as an educational process also, as because people/employees use to learn new methods of doing their work, get acquainted with new information, ability to learn new processes and implement all these learning in the due course of their jobs. This improves their performance on both the personal and professional

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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level. And on the other hand the same effectiveness and efficiency may be transferred to other employees. *(Charnov, 2000)*

In many of the cases it has been observed that the process of training has changed the orientation of employees to 360^0 but these are the cases where training has been given on the job. (Robbins et al, 1998). So as to bring visible changes in the employees, organizations use to develop tailor made training programs that are customized either according to job requirements or to the employees as well. All the training programs are conducted in due consideration that the respective employee will stay in the organization for a longer period of time and implement the learning in their jobs.

Scenario of Training and Development in the Banking Sector

In the current scenario, banks are not merely the providers of financial services, they are the financial hubs and are willing to do anything to increase their service levels and increase the customer base. There are some of the basic services that all public and private sector banks are providing, like SMS banking, ATM, internet banking, priority banking, demat account personalized banking and many others. All these services are required to be offered with a highest level of accuracy hence the need of training is there. With the development of Indian economy, banks are looking overseas to expand their business and maintain international clientele.

This is a well known fact that banks are basically service providers who provide financial services to the public at large and whichever system is related to the service sector ought to become more proficient in its own sense. Here the role of training and development becomes more crucial because the staff of the bank is required to be trained in various fields like customer care, service process, data handling, operations and even documentation. In all the banks there is a continuous evaluation of the employees is done and on the basis of the same training needs are being identified, other than this trainings are also provided on any of the new system or process essential for the growth of the system. Generally public sector banks are more formal and less enthusiastic in offering training programs; they are more interested in offering the training which is extremely essential. On the other hand the private sector banks (having large area of operation) use to have a separate department for the same.

Other than the above mentioned areas, there are certain specialized services which are the internal matter of banking system like, recruiting, payroll, policy, safety, training and development, and performance management, all these activities are required to be conducted by the respective experts, which again requires a dynamic level of training to the respective professionals. These training programs are either done department wise or are conducted collectively, in both the cases the outcomes matter a lot. Many banks in India were trying to hire the professionals with higher packages even when the GDP of country was quite high as they were notable to find the ready available talent. Fe w banks have taken steps to build the talent and one among them is ICICI Bank. They have tried to build the available resources on supply side to billable resources on demand side.

Review of Literature

Umasankar M. and Ashok J (2012) discussed the employee perception towards HR practices and its effect on performance of employees working in commercial banks in selected district of Tamilnadu. The outcome of the study gives a result that is no direct connectivity or linkage between the human resource practices and the financial performance of banks, but there were lot more connectivity linkage between the employee perception on HR practices and individual productivity and performance.

Sekhar Dr. B. Muniraja et.al. (2014) studies a review of human resource management practices in the banking sector in India particularly in public sector bank with consideration of five important indicators of banking sector such as job analysis, recruitment and selection, training and development, performance appraisal and compensation and concluded that the success of banks largely depends on the intellectual development of the employees. Along with intellectual development of the knowledge worker, technical infrastructures of the bank must be ensured to enhance the effectiveness of the employee and the bank. He also suggested the public sector banks have to take initiation to modify in their HRM policies and practices, in order to complete the private/foreign banks in present scenario.

Akilandiswari P. and Jayalakshmi (2014) concluded that the training and development are continues process in improving the caliber of employee. It is a systematic process of altering the behavior of employees in a direction to achieve the organizational goals. This study also showed that the training and development programs help to achieve the customer satisfaction.

Objectives of the Study

- To trace out the perception of employees towards HR practices being implemented by public sector banks in Jaipur, Rajasthan.
- To find out problems faced by employer, employee of banks and others in implementation of training and Development programs.

Hypothesis of the Study

Hypothesis I

H_0: There is a significant impact of training programs on the productivity of employees in Public Sector Banks of Jaipur, Rajasthan.

H_1: There is no significant impact of training programs on the productivity of employees in Public Sector Banks of Jaipur, Rajasthan.

Hypothesis II

H_0: The satisfaction level of employees from training and development program in public sector banks in Jaipur, Rajasthan is high.

H_1: The satisfaction level of employees from training and development program in public sector banks in Jaipur, Rajasthan is not high.

Research Methodology

Sampling

Simple random sampling method is being used in this study; the total sample size of the study was 200 respondents belonging to five public sector banks in jaipur, Rajasthan i.e. State Bank of India, Central Bank of India, Bank of Baroda, Punjab and Sindh Bank and Bank of Maharashrtra. In this study, the employees from the above mentioned public sector banks in Jaipur, Rajasthan were included.

Data collection

In order to know the level of motivation and perception of employees a questionnaire was prepared and all the questions were based on the likert 5 point scale. The same has been exercised on selected 200 respondents, face to face.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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Sampling

In the present study all the employees from Class one, two and three were included, the fourth class employees like peons, etc. were excluded from the study. Approximately 20 employees from each bank are selected for the study.

Measures

Chi square test and one way ANOVA were used a tool to test the respective hypothesis.

Data Analysis and Interpretation

Data Analysis

Hypothesis 1

Summary of ANOVA Results

Type of Training	F	Sig.
In-House training by foreign trainers	.823	.050
In-House training by Local trainers	.083	3.023
External trainers	.097	2.768
On the Job training	.823	.050
Technical training	.800	.064
Learner's Reaction		
Value of Training	.599	.276
Application of training in Job	.875	.025
|Support received when applying learning while training	.808	.059
Personal innovation in the current training	.911	.012
Duration of Training	.427	.632
Training Methods		
Company organize frequent training	.996	.000
Training given by my company is related to my current requirement	.054	3.737
Training is given to maintain the company data in a proper manner	.853	.034
Rate your success of implementing on your actions/Job	.950	.875
I am able to satisfy the conflicting demand of various people above me	.996	.000
Adaptability to change/ Adjustment		
The Managerial skills have improved after training	.687	.163
Training improve the inter personal relation	.718	.130
Training achieve the Goal of the Management	.822	.051
Is the trainee aware of their change in behavior, knowledge, or skill level	.917	.011

Interpretation

The calculated value 'F' is more than the table value 'Sign.' Which means that our null hypothesis is accepted and in all the above cases we can conclude that respondents were getting benefitted from the different training programs conducted by the respective banks. As can be seen from the above table of ANOVA, maximum of the critical values i.e. Sig. Values are greater than the calculated value i.e. 'F' Value so we can conclude that as far as training is concerned employees are invariable in responding to the issues related to their learning from the different training programs and also have positive attitude towards their current supervision or the reporting authority. As can be seen from the above table of ANOVA, maximum of the critical values i.e. Sig. Values are greater than the calculated value i.e. 'F' Value so we can conclude that as far as type, kind and duration of the training program is concerned employees are invariable in responding to the issues related to their responses against improvement in their productivity.

Summary of ANOVA Results

After Training Performance	F	Sig.
As a result of the program, how would you rate you attitude towards your job	.050	.823
Behavior towards job has changed	3.023	.083
level of practical application have you been able to achieve	2.768	.097
noticed any changes in the behavior of peers	.050	.823
amount of effort made to improve relations with other departments	.064	.800
Form of Training		
Useful only for work with the current employer	1.439	.231
Useful only for work with employer in the same line of Business	.488	.485
Useful only for employers in many lines of Business	6.735	.010
Useful only for particular Department	.436	.509
Useful only for the learnt	.002	.963
Outcome of Training		
Able to improve job performance	3.248	.072
Able to reduce mistakes on the job	3.334	.068
Able to complete task on time	.377	.825
Able to carry out more work load than required	1.258	.286
Able to refresh existing knowledge and skills	.565	.688

Interpretation

As per the above results of the One-Way ANOVA the Null Hypothesis stands true that the productivity of the employees has improved with the respective training program.

Hypothesis 2

Summary of Chi square Results

Particulars	**Gender**		**Education**		**Income**	
	Table Value	Calculated Value	Table Value	Calculated Value	Table Value	Calculated Value
Duration	0.159	3.67	0.943	2.86	0.928	5.74
Content of Training	0.243	2.827	0.631	6.145	0.146	17.1
Trainer's experience	0.159	3.67	0.703	5.504	0.575	10.47
Technology used	0.063	5.537	0.936	2.981	0.928	5.74
Training materials	0.943	2.86	0.339	9.04	0.176	16.53
Mentoring	0.445	1.621	0.939	2.917	0.698	9.053
Knowledge sharing	0.2	1.643	0.56	6.781	0.603	10.14
On the Job training	0.053	5.878	0.687	5.641	0.658	9.51
Quality circle	0.146	3.851	0.779	4.795	0.902	6.26
Via social interaction	0.035	6.705	0.352	8.882	0.015	24.87
New joiners need training	1.962	0.375	0.897	3.528	0.781	8.05

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New joiners are depending upon training	6.436	0.04	0.635	6.113	0.938	5.53
Knowledge worker needs training	0.631	6.145	0.07	14.488	0.271	14.48
Training remains you the proper utilization of recourses in their	3.571	0.168	0.629	6.164	0.452	11.91
Training remains you the proper utilization of recourses in their	0.197	3.252	0.578	6.618	0.341	13.4
Procedures	0.177	3.46	0.146	3.85	0.779	8.882
Online training is very effective	0.159	3.67	0.703	9.04	0.176	16.53
Training increase the productivity	0.035	6.705	0.352	6.145	0.146	17.1

Interpretation

As far as the gender is concerned in most of the cases the table value is more that the calculated values, which proves that there is a minimum level of dissatisfaction among the employees or we can say that most of the employees are satisfied with the type and kind of training programs conducted in their respective banks. Gender differences are not the reason of any conflict, in most if the case it was found that conflict is the outcome of the distinct point of views between the employees of the different genders, at times the ego state of the employees from different learning status may be the reason. As far as the Educational Qualification is concerned most of the cases the table value is more that the calculated values, which proves that certainly there are more chances of the occurrence of positive attitude towards the level of the training programs. Basically we can quote that the impact of the education qualification is neutral as such, when it comes to the learning from the training programs overall situation can be considered as positive. As per the above results of the Chi square the Null Hypothesis stands true and the alternate hypothesis can be rejected.

Conclusion

This study contributes to the body of research on Training and Development in public sector banks of Jaipur, Rajasthan. Tons of research has been conducted on Training and Development, but these studies have mainly taken place in technological aspects. This study contributes to a small but developing research literature on the Training and Development in selected region. Findings of the study indicated that employees working in the public sector banks considered the Training and Development as a main factor of employees' performance and Productivity and were in favor of it. This study revealed that banks' administrations interested in their productivity and efficiency is liable to conduct the training, keeping in view the age, gender and qualification of the respective employee so that maximum output can be achieved out of the same.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Consumer Attitude towards Mobile Advertising A Case Study

Dr. S.R. Bakhale*

Abstract

Mobile marketing has been considered a new form of marketing and provided new opportunities for companies to do businesses. Marketing activities conducted via mobile devices enable advertisers to directly communicate with potential customers in a fast speed and regardless the geographical location. Mobile advertising has been recently referred as one of the best means to cut through the clutter and interact directly with the consumer. Hence, with the trend toward direct, one-to-one marketing, more attention is being paid to the use of the mobile channel as a means of effectively advertising to consumers. Indian mobile market is one of the fastest growing markets due to the increase in the number of middle-income consumers, and is forecasted to reach millions of users in the next decade. Thus, research on mobile advertising would impact greatly on the way business is done.

This study examines the attitudes of consumers in India toward mobile advertising applications which have been introduced or about to be launched in the near future when companies understand the importance of mobile advertising and invest more in developing and adopting mobile marketing applications.

To make it more precise, this study aims to explore the relationship between the attributes of customers who use mobile phone and their behavioural intentions. A total of 134 valid responses were received from a survey. The results revealed that there exists a positive relationship between the attributes of customers using mobile phones and their behavioural intentions.

***Keywords**:* Attributes of mobile customers, behavioral intention, mobile advertising

1. Introduction

Versatile promoting has been viewed as another type of advertising and gave new chances to organizations to do organizations. Showcasing exercises led through cell phones empower publicists to specifically speak with potential clients in a quick speed and in any case the geological area. Portable promoting has been as of late alluded as outstanding amongst other intends to slice through the messiness and associate specifically with the buyer. Henceforth, with the pattern toward immediate, one-to-one showcasing, more consideration is being paid to the utilization of the portable channel as methods for adequately publicizing to customers. Indian versatile market is one of the quickest developing markets because of the expansion in the quantity of center pay purchasers, and is guage to achieve a large number of clients in the following decade. Subsequently, inquire about on versatile promoting would affect significantly in transit business is finished.

To numerous individuals, a cell phone is viewed as one of only a handful few staying untouched individual spaces which they can use to impart and mingle and, at the same, they can in any case keep up the power over the utilization of their cell phones. In such manner, advertisers should consider purchasers' requirements for security and protection when outlining a showcasing plan. The advertisers ought to keep up a harmony between

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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drawing in buyers in their showcasing blend and accomplishing the goals of their promoting plan. Keeping in mind the end goal to accomplish this goal, the advertisers must comprehend the elements, for example, motivating forces and customer dispositions, which influence purchaser acknowledgment of promotions by means of cell phone.

As per Telecom Regulatory Authority of India, there were 858,370, 000 portable supporters in India starting at July 2011, and the versatile entrance rate is around 71% (Sanjay, 2011). The evaluated estimation of E-trade in India in 2011 was around US$10 billion. Of which about 67% of the income originated from cell phones alone.

These points of interest demonstrate that the income created from cell phone deals and utilization is gigantic, and subsequently it is imperative for portable organizations to lead explore on customer's use on cell phones and purchaser mentalities towards versatile publicizing.

This examination inspects the states of mind of customers in South Delhi (India) toward versatile promoting applications which have been acquainted or about with be propelled soon when organizations comprehend the significance of portable publicizing and put more in creating and receiving portable showcasing applications.

2. Rationale of the study

The fame of portable commercials is developing in India, and it is hence pertinent for advertisers to think about this new type of showcasing. This is a flow worry of statistical surveying of numerous organizations. Albeit many research thinks about have been led worldwide to look at purchaser mentalities towards an item or administration, there has been lacking exploration on client states of mind towards versatile publicizing, particularly in India. This exploration considers goes for investigating the conduct expectations of purchasers towards versatile commercials in the city of Coimbatore, India. This is noteworthy as there has relatively few comparative examinations on this documented of advertising. The discoveries give better bits of knowledge to organizations on the best way to utilize cell phones as one of the intense instruments to advertise their items.

Since versatile showcasing can achieve singular purchasers in a more close to home and intuitive way than other conventional advertising frames, numerous organizations have been put resources into creating portable promoting applications. Such applications, specifically portable showcasing stages and global remote frameworks, enable organizations to interface with buyers quicker with more customized and modified promotions (Altuna and Konuk, 2009).

3. Literature survey

There are numerous meanings of the ideas of remote showcasing or versatile promoting. As indicated by Altuna and Konuk (2009), Plavini and Durgesh (2011), portable showcasing is alluded to as the utilization of remote innovation to give a coordinated substance in regards to an item or a support of the proposed clients in an immediate way. Carter (2008) characterized versatile promoting in an unexpected way, i.e. "the deliberate arranging, executing and control of a blend of business exercises planned to unite purchasers and dealers for the commonly beneficial trade or exchange of items" (p. 62). For this situation, the key contact point with the proposed customers is their cell phones.

In an article about the ramifications of portable innovation on versatile business (m-trade), Balasubramanian, Peterson and Jarvenpaa (2002) depicted that m-business is a type of correspondence which includes "it is possible that restricted or intuitive, between at least two people, between a human (or people) and at least one lifeless things or between at least two lifeless things (e.g., between gadgets)" (p. 350). These creators utilized the ideas relating time and space to talk about a conceptualized structure of versatile innovation and m-trade. They clarified that purchasing items and administrations from a physical retail shop may demoralize a client who does not know the area of the shop and additionally who can't move around effortlessly because of the topographical separation, time limitations, and different hindrances. Be that as it may, it is more adaptable and advantageous for a client to get data about an item or an administration, and to make a buy of such item or administration by means of his/her versatile, gave that the vender provides such portable applications telephone (Balasubramanian et al., 2002; Altuna and Konuk, 2009). Albeit some advertising exercises are not accessible by means of versatile innovations, space and time are considered requirements to shoppers living in a world without portable advances.

Aside from diminishing the hole caused by time, separate, comfort, costless transportation and intuitive channel of correspondence, redid data is another uncommon element which makes portable advertising (m-showcasing) rise as an essential and inventive promoting apparatus (Friedrich et al. 2009).. As indicated by an overview led Airwide Solutions (an organization gave portable framework and applications administrations), numerous promoters are prepared to put resources into m-showcasing. This overview has been led among 50 worldwide brands, and the discoveries uncovered that the quantity of brands hoping to spend a more noteworthy extent of their advertising spending plan on versatile crusades later on has been expanded. Around 71% of respondents would spend up to 10% of their financial plan on m-promoting (Thurner, 2008; Altuna and Konuk, 2009).

Research has demonstrated that m-advertising can be coordinated with conventional showcasing instruments to advance items and administrations of brands, and consequently such mix of promoting devices will have the capacity to enhance the adequacy and proficiency of the aggregate advertising plan. Cell phones have been viewed as one of the ideal alternatives for conveying promoting data for the accompanying reason. Aside from being financially savvy and giving simple access to the objective division of purchasers the vast majority of clients convey their cell phones almost 24 hours out of every day (Thurner, 2008; Altuna and Konuk, 2009).

Mobile advertising

As per Ayanwale, Alimi and Ayanbimipe (2005), and Chowdhury et al. (2006), portable promoting has been perceived as a standout amongst the most widely recognized instruments of versatile showcasing. Conventional publicizing is normally created for the mass, i.e. it is non-individual and pertinent just through broad communications, for example, on the daily papers, radio, TV, and so on. Actually, versatile publicizing is more intuitive and passes on a more close to home contacted message when illuminating and influencing potential clients to purchase an item or an administration

The absolute most well known portable promoting applications incorporate ads in versatile radio, ads on portable Internet locales, short messages on cell phones, content informing alarms and mixed media informing (Hanley and Becker, 2008).

As rivalry in the market has turned out to be more escalated given new devices of showcasing, getting a greater piece of the pie and hold existing clients and in addition pulling in new clients have dependably been a fundamental issue to the survival of brands. Purchaser dealing power has turned out to be more grounded over the time as choices and substitutes of comparative items/benefits in the market have been altogether expanded. Organizations have been hunting down new methods and instruments to make their center skills to separate themselves from contenders. Channels of correspondence with clients have likewise expanded in number. In this manner, picking the correct time and the correct instrument to send the correct message to clients absolutely causes brands to increase upper hand. For this situation, modified ads are more important and turning into an intense advertising apparatus in this versatile time (Altuna and Konuk, 2009).

Mentalities towards portable promoting

Mentalities towards a notice are characterized as "a scholarly inclination to react in a reliably good or troublesome way toward promoting as a rule" (Mehta and Purvis, 1996, p. 1). For this situation, it is fundamental to take note of that dispositions towards promoting by means of cell phones allude to buyers' states of mind towards this method of publicizing when all is said in done. It doesn't allude to buyers' dispositions towards a specific ad. When all is said in done, dispositions are mental states utilized by singular purchasers to shape the manner in which they see the outer condition, and such attitude manages the manner in which they react to it (Aaker, Kumar and Day, 1995). Bauer and Greyser (1968) and Altuna and Konuk (2009) saw that there was a solid relationship between's clients' general dispositions towards portable promoting and clients' reactions to particular ads. For instance, a few promotions were irritated, while others were agreeable and charming. In this manner, our exploration think about has concentrated on the forerunners of customer states of mind towards promoting by means of cell phones when all is said in done. In this examination, client demeanors towards promoting through cell phones have been estimated utilizing different measurements. Figure 1 shows the different parts of the system for promote discourse, with "state of mind toward publicizing by means of cell phones" as the needy variable.

4. Objectives of the Study

This study aims:

- To determine the attitude of the people towards mobile advertisements;
- To determine the behavior intention of people towards mobile advertisements;
- To find out the relation between the attitudes among mobile advertisements;
- To find out the relation between the customer attitudes and behavior intentions;
- To offers suggestions to the practitioner.

5. Research Method Research Design

The research is basically focused on the understanding of the consumer attitudes among mobile ads and their behavioral intentions. This research is a quantitative research and it is normally conducted with a questionnaire, and it has emphasis on testing and verification. The quantitative data is based on meaning derived from the collected data and analysis is performed through the use of diagram and statistics. It is completely contrast to the qualitative data which completely emphasizes understanding and conceptualization.

The research is based upon primary data as the secondary data alone could not help to achieve the research objectives. Therefore, this study can be considered as a questionnaire-based cross sectional study

Data collection

The data collected for the study include both primary data and secondary data. The secondary data collected include the review of literature regarding studies made on the same topic from various countries, consumer attributes about advertisements, and their behavior towards its advertisements. The primary data have been collected via a survey

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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with the designed questionnaire contained information about the demographics, attributes and behavior intentions of the respondents.

The data collection method is a structured survey includes (i) designing the survey tool (questionnaire), and (ii) distributing the questionnaire to potential respondents via electronic media (through Facebook) and in person. A pilot study has been conducted with 20 respondents. The collected data have been entered to the excel file and then kept confidentially for data analysis. A total of 189 valid responses have been collected from the survey.

Sampling

Convenient samples have been used to select the samples, based on accessibility and availability of the respondents. Both male and female participants have been selected to avoid gender imbalance. One of the requirements to participate in this survey was that the participant must have a mobile from and reside in the area of South Delhi.

Data analysis

The tools used for the analysis of the study include SPSS (Statistical package for social studies) and Visual PLS. SPSS has been used to analyse quantitative data asked in demographic questions, behavior related questions, attitude related questions. Visual PLS has been used for finding the correlation analysis.

6. Findings and discussion

This study was aimed at reveal not only about consumer attitudes about mobile ads but also about their behavioural intentions.

The consequence of the Structural Equation Model examination uncovers that there is a huge positive connection between buyer states of mind and conduct goals for the example. It implies the more the shoppers' states of mind are sure toward the portable notices, the more certifiable are their conduct expectations. The responses to the exploration questions are as per the following:

a. The client ascribes have a tendency to be sure for all the eight elements. Henceforth, we can state that the buyer dispositions towards portable promotions are sure.

b. Customer conduct expectations have a tendency to be certain. Consequently, it is translated that the conduct expectation of individuals towards versatile promotions is certain, i.e. the more the respondents get the commercials, the more their conduct goal has a tendency to be sure.

c. There exists a blended reaction among the client qualities towards various versatile commercials. There exists a positive relationship among the happiness and enlightening substance. Be that as it may, there exists a negative connection among believability and aggravation.

d. Regarding the connection between client states of mind and conduct goals, there is a positive relationship among properties on versatile promotions on purchaser mentalities and their social aims. The more the credits have a tendency to be certain, the more the conduct expectations of the respondents have a tendency to be sure.

The accompanying area expects to react to the last goal. The general mentalities of the respondents in South Delhi are certain towards portable commercials. They considered in development to be the most noteworthy factor while accepting versatile commercials. In this way, organizations ought to put resources into creating applications which can enable them to promote their items and administrations in better route through portable to achieve the buyers in South Delhi. Since in development is the most huge determinants of a

versatile ad, promoters should give or feature the data part of their ad keeping in mind the end goal to be fruitful in their advertising effort. Since the conduct goal is by all accounts on the positive side, organizations need to ensure that their versatile promotions don't redirect clients' aim. At long last, the publicists should ensure that present and potential clients don't get aggravated because of getting such a significant number of portable promotions, and they ought to guarantee that the notice is outlined in an educational way.
Of course before leading the exploration venture, there is an immediate co-connection between client states of mind and their conduct expectations with respect to versatile promotions. This positive relationship may give a novel way to assemble center abilities and accomplish an upper hand for those organizations which put resources into versatile applications to upgrade the inspirational states of mind of clients towards portable ads. This should be possible by means of sending inventive, instructive and engaging substance to expected clients. In the meantime, organizations should figure out how to lessen the level of disturbance and bothering because of the recurrence and the substance of portable promotions.

7. Limitation

The principle issue in this examination is that this exploration venture just centered around the dispositions towards versatile notices all in all. It did exclude particular item classes as one of the factors which may influence the mentalities of clients towards such items and portable promotions.
The information is gathered based on accommodation inspecting so the outcome can be upgraded by including more example from the city. In the event that the scale for estimating the states of mind is, i.e.is solely created for examining the demeanors towards versatile promotions sooner rather than later, the outcomes might be summed up to the entire populace in the city.

8. Conclusion

This paper has talked about an examination on the buyer states of mind towards portable commercials. For the most part, the demeanor of the respondents in South Delhi towards portable promotions is certain. In development has been observed to be the hugest factor in portable publicizing. As per the discoveries, different factors can be considered as some key pointers of the advertising blend designs. M-showcasing and portable notices can likewise be considered as some better advertising blend parts. This finding has sign cant suggestions for organizations as far as promoting their items and administrations. Since South Delhi is a creating city, the rate of innovation headway is high, as is the acknowledgment of new mechanical applications. Consequently, this city would appear to be a promising business sector with respect to versatile applications to numerous organizations. In any case, the outcomes demonstrate that the respondents' states of mind are related with the mechanical framework as well as with other social factors. Promote headings of research should center on an assortment of information accumulation techniques, for example, center gatherings and meetings.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Consumer Behavior Towards Online Shopping (An Empirical Study With Reference To Jaipur City, Rajasthan)

Harshit Sharma*

Abstract
In the current scenario Internet has gained popularity as a medium of marketing tool, by the extensive use and open availability of internet the field of communication and shopping has been redefined, online shopping has emerged as one of the prominent dimensions in the field of marketing. The main reasons of gaining such popularity are the time effectiveness, reduction in costs as compared to manual shopping, less consumption of energy, no queues, etc. Internet shopping for businesses and consumers are being accepted as an alternative shop mode rather than visiting the stores. But on the other hand it is still a challenging job to convince the customer for shopping online.
This present study is focused on the identification of the factors that are supposed to influence the consumer behavior in the Indian scenario. There are certain variables which are considered for the study, like appearance, validity, promotion, attractiveness and originality.
Keywords: Online Shopping, Consumers, Behavior.

Introduction
In the current scenario the use of internet has changed the face of communication and information exchange, the basic benefits of this facility of the internet are the vocal communication, sending text and electronic mails, search for specific topics and areas, play online and offline games and even do the shopping online is the latest development. As far as the internet shopping is concerned, the number of users of the same are increasing in multifold and is becoming a necessary part of life for the urban population. The drive of online shopping is gaining pace every now and then **(Bourlakis et al., 2008)**. Though the platform of online shopping is available to the public at large, but still there are certain people who are not comfortable with online shopping. The basic reason for the same can be the absence of trust on online format of shopping and the traditional practice to feel and touch the physical product and collect it with proper bargaining which may not be possible in case of online shopping.
Then again the behavior of the consumer plays an important role in giving preferences to certain products or services. As a matter of fact the behavior of the consumer also gets affected by a number of factors like the internal reference groups and external effect of advertisements and fellow consumers. These factors are used to influence the final decision of the consumer to buy and use a particular product or service **(Rahul, 2014).**
In the last ten years the market of online shopping has increased to the level of half a trillion and still rising by leaps and bounds. The change of the millennium has brought about a drastic change in the traits of the customer, the number of online shoppers are increasing like anything and even these buyers are called as '*E generation*' where the

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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customers are more inclined towards the online sector of the market. This has brought about a major change in the structure of the market place and the market is converting in a global village. As far as India is concerned, by the mid of 2017 it stood at the second place with around 460 million internet users. By 2021, there will be approximately 635 million internet users in India **(Vijayasarathy et al., 2012)**. This online trade is becoming so popular that it has become the topic of research for number researchers at international fronts. With all the developments, there is again a scope for further development, and in case of India the scope is even wider. Still in India regular research is being done to identify the traits of the online shoppers and creating a favorable atmosphere for them to shop more. (**Aque et al., 2010)**. The attitude of the customer is one of the major concerns of the researchers as well as the online marketers. **(Shwu-Ing, 2003)**. The analysis of the attitude of the customer towards online shopping will make the online marketing companies to understand the behavioral inclination towards the same and also they can plan for the future expansion of their respective business.

The researcher had tried to consider all the dimensions related to online shopping but due to the shortage of time and spatial variations some of the dimensions are not being covered. The first ever model which was used for the analysis of consumer behavior towards online shopping was used in the year 1989 by J.W. Davis in North America region. The results of this study encouraged the other researchers use the same model in their respective studies. TAM is very useful in identification of the behavioral dimensions of online shoppers and also their respective inclinations towards the type and kind of products. **(Rust et al., 2000).** The Technology Acceptance Model includes the perception and expectation of the customer towards online products, i.e. it refers to the differences in the perceived usefulness and expectations from the external variables of the same.

In this present study, the researcher had considered the primary data for the purpose of analysis, a detailed questionnaire based on the five point scale was given to the respondents and the filled questionnaires are being collected from the same. The reason behind the use of Likert scale is that the behavior and liking of the respondents can easily be identified by the way of scaling and even it receives the answers to the questions which remain unanswered if they are asked directly to the respondents. Further the collected data are being analyzed using ANOVA (One Way), as this is one of the most appropriate methods to assess the behavioral aspects of the respondents and if data are collected on the scales. Here variations in the responses are analyzed.

Literature Review

Archana Shrivastava & Ujwal Lanjewar (2011) as a matter of fact, online shopping is catching up gradually in the Indian Scenario, but then again, there is a vast difference between the direct buyers and the passive buyers. The gap existed because the number of direct users is more than the passive buyers. The maximum growth of online shopping has been experienced in the last 10 to 15 years. The main components analyzed were the attitude of the customers and the motivation level of the online shoppers.

Mohammad Hossein Moshref (2012) the researcher had conducted a study on the factors responsible for the actual purchasing by the customers online. The findings of the study stated that the online marketers should make their web portal more dynamic and easy for the shopper and focus on the delivery and logistics system. The study also indicated that the respective attitude of the customers is one of the most important factors that affect the actual purchase of the products available online.

International Journal of Management, IT & Engineering
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Abu Bashar & Mohammad Wasiq (2013) in the study E-satisfaction and E-loyalty of Consumers Shopping Online found out that there is a very strong association between emotional states and consumer e-satisfaction. A directional relationship has also been found between risks in online shopping and consumer e-satisfaction. E-loyalty is being affected significantly from emotional states and perceived risks in shopping online.

Anchal Aggarwal & Dr. Smita Mishra (2014) In the research paper Analysis of Risk Perception of Consumers in E-Commerce: found that the factors that affect online consumers’ purchasing intentions, one is perceived risk. It was difficult to understand and predict people’s reactions to risk posed by online hazards.

Dr. Renuka Sharma (2014) The researcher conducted a study on the topic “Understanding Online Shopping Behavior of Indian Shoppers”, and the respective findings of the study stated that even in case of online shopping the customers are looking forward to the ease and comfort of buying, the customers have become more selective and informed as the online sources of information are available to them. Further the researcher also revealed that still there is a large scope of expansion in the online market.

BMI Research (2014) Conducted research on ‘Facing market opportunities of online shopping industry’ find out key driven to online shopping are Easy / simple, Cheaper, Do not like to shop offline, Plenty of options and Good quality products.

PWC (2015) in the report “Future of India-The Winning Leap”, states that 6 out of every 10 adults, in the urban and semi urban areas are having smart phones or even having an access to the same, this has brought the whole world of brand and products in the hands of a customer. Again, this is a kind of social change and having its (positive/negative) impact on the social values of the society as such. Along with the expansion of online market this can be challenging for the society to main the trends of such social changes.

Asmatara & Chadrnahauns (2016) in the research paper: Factors affecting online shopper’s behavior for electronic goods purchasing in Mumbai: An empirical study analyzes factors affecting on online shopping behavior of consumers that might be one of the most important issues of e-commerce and marketing field.

Objectives of the Study

1. This present study will analyze the demographic profile of the customers and the effect of this profile on their online shopping behavior.

2. This study will also try to identify the factors that are responsible for the formation of customer perception towards online shopping.

Hypothesis of the Study

Hypothesis 1

H_0: There is a significant relationship between the perception and associated risk involved in online shopping.

H_a: There is no significant relationship between the perception and associated risk involved in online shopping.

Hypothesis 2

H_0: Comparative product usage and attitude of the customer towards the same are significantly related.

H_a: Comparative product usage and attitude of the customer towards the same are significantly not related.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Research Methodology

Sampling

Convenience sampling method is being used in this study; the total sample size of the study was 200 respondents belonging to different demographic characteristics. In this study, the respondents from the different localities of the jaipur city were included.

Data collection

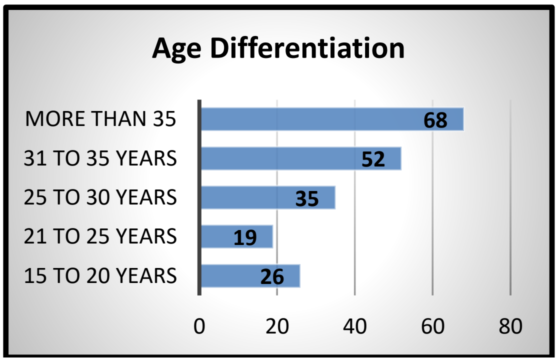
Both the primary and secondary sources of data are being used in the study, secondary data was used to prepare the base of the study and the primary data was collected directly from the respondents using a detailed questionnaire, as given in the above description, it includes the questions type like, open ended, closed ended, dichotomous, scale based, etc.

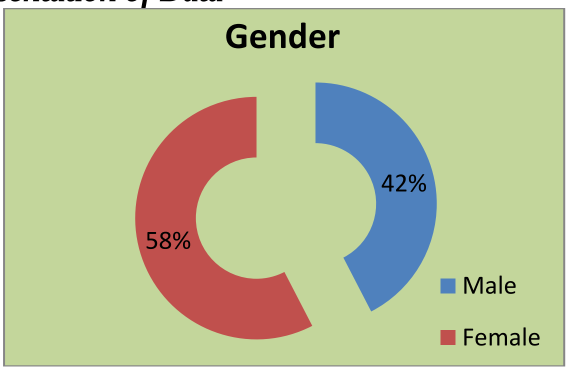
Measures

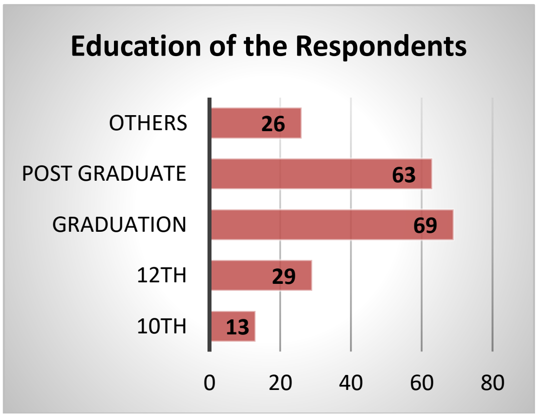
Scales were used for measuring customer responses. Each scale was a 5-point scale with '1 = not at all true' to '5 = very much true'.

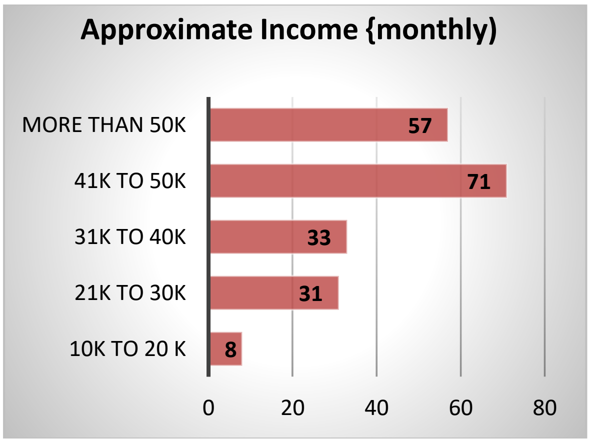
Data Analysis and Interpretation

Diagrammatic Presentation of Data









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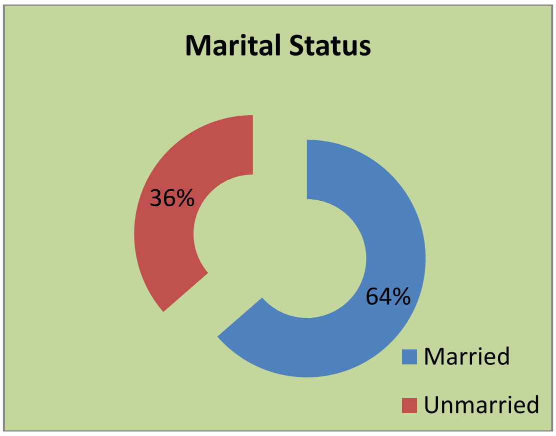

Results of ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
The Quality Of The Product Purchased may not be good	Between Groups	.254	3	.085	.109	.955
	Within Groups	383.938	198	.774		
	Total	384.192	200			
I Feel That My Credit Card Details May Be Misused If I Shop Online	Between Groups	2.481	3	.827	.453	.460
	Within Groups	475.637	198	.959		
	Total	478.118	200			
I Might Not Get What I Order Through Online Shopping	Between Groups	.468	3	.156	.151	.929
	Within Groups	512.420	198	1.033		
	Total	512.888	200			
I Shall Have Fun While Purchasing Products Over Internet.	Between Groups	5.934	3	1.978	3.046	.028
	Within Groups	322.104	198	.649		
	Total	328.038	200			
Using The Internet To Purchase A Product Would Provide Me A Lot Of Excitement	Between Groups	1.950	3	.650	.834	.475
	Within Groups	386.488	198	.779		
	Total	388.438	200			
It Would Be Easy	Between Groups	2.081	3	.694	.861	.461

For Me To Become Skillful For Using The Internet To Buy A Product	Within Groups	399.791	198	.806		
	Total	401.872	200			
Online Ordering Layout Is Easy And Convenient	Between Groups	1.501	3	.500	.474	.700
	Within Groups	523.049	198	1.055		
	Total	524.550	200			
The Internet Will Make It Easier To Search For And Purchase Products.	Between Groups	5.328	3	1.776	1.851	.137
	Within Groups	475.872	198	.959		
	Total	481.200	200			
Using Internet To Purchase A Product Would Allow Me To Do My Shopping More Quickly.	Between Groups	1.002	3	.334	.470	.704
	Within Groups	352.796	198	.711		
	Total	353.798	200			
The Internet Will Increase My Productivity While Searching For And Purchasing Products	Between Groups	.133	3	.044	.040	.989
	Within Groups	542.667	198	1.094		
	Total	542.800	200			

Interpretation of ANOVA Results

As the above table states that, risk is a common type of component in case of online shopping and significant at times, but not always. We can see in the above that 'F' value is less than the 'sign.' Value which shows that the respondents approve that there are chances of poor quality of the product purchased, delayed delivery and security issues with online payment. On this note our first null hypothesis is that 'There is a significant relationship between the perception and associated risk involved in online shopping' is being accepted.
As far as the case of usefulness is concerned, it can be seen from the above results that the amount of variation in the responses is not much in most of the cases, hence it can be concluded that most of the respondents find the channel of online shopping useful and enjoy the same, here the second null hypothesis 'Comparative product usage and attitude of the customer towards the same are significantly related' is accepted.

Conclusion

In the current scenario, the format of online shopping is '*talk of the town*' at the global level and on most the online shopping sites the number of actual customers is increasing by leaps and bounds. This present study tries to analyze the factors that may affect the attitude of consumers, in case of online shopping. The study was based on the responses of 200 versatile group of respondents contacted between March 2017 to May 2017. The collected data were analyzed with the help of statistical package for social science (SPSS 20). The factors like risk, ease of access and usefulness were tested. Out of three related factors, perception towards the associated risk while shopping online poses a high impact on the type and kind of products bought online. As a matter of fact, if any of such perceived risks become reality, then even the passive buyers also leave the respective portal or may shift to traditional markets. Another important factor is the usefulness of the product, i.e. the product bought is put in the respective use as prescribed.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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A Study on Risk Attitude of Investors in Making Investment Decisions

PROF.(Dr.) SUHAS DHANDE*

Abstract
Risk attitude talks about the behavioural finance which is related to type of investment decisions the investor will take according to the macro and micro factors .With the help of this paper would like to study the Risk attitude of investors in INDORE. The Behavioural Finance mainly focuses on micro and macro information to make investment decisions which directly affects the risk attitude of the investor. Investments and risk goes side by side. With the help of these studies would like to study the risk appetite of investors in making investment decisions. The study has tried to study the impact of socio-economic factors affects the risk appetite of investor. For this study total 100 investors from Indore city were selected for measuring the risk attitude in investment decisions.
Keywords: Risk-Appetite, Socio-economic, Behavioral finance, Investor, Investment

Introduction

Investment decisions always have risk factor, the more you take risk the more you gain. The rewards come later and include lots of uncertainty too. A big bunch of investment options are available in the market. The investors choose avenues, depending upon their specific need, risk appetite, and return expected. Basically every one of have different risk appetite. Because of the factors which include demographic factors, age, race and sex, education level, social and economic background; same is the situation with the investors. Investment decisions are full of challenges. The investigation of previous studies reveals the significance of various factors which affect their investment decision making behaviour. This paper aims an attempt to discuss the various factors affecting Risk attitude of investor in decision making.

We can also define Investments securing future financially from uncertainties in life .For the purpose of making any Investment decisions investor has to take Risk and invest in the market. Investment avenues can broadly be categorized into three spheres, namely,
General Investment, Real Investment and Financial Investment. Real investments, involve a tangible (physical) asset, such as land, machineries. Financial investments, on the other hand, involve investment in financial instruments like shares, Debentures, insurance policies, mutual fund units etc. Whereas General investments are the investments based on general expenses not related to returns on investments. **The types of risk associated with investors.**

Risk refers to the loss of principal amount of an investment. It is one of the major characteristics of an investment. Savings becomes investment because of the risk factor. Risk is an inherent part of any investment activity. Some of the risk associated with an investment can be –

A. Loss of capital
B. Delay in repayment of capital
C. Non payment of Interest

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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D. Variability of returns

Different investment products have different risk. Government securities, bank deposits have higher safety and negligible risk. Equity shares have higher risk on the other end. It can give high profit and at the same time has the potential to erode the capital. Risk and return are directly related. Higher the risk taken, higher can be the return, similarly low return comes with low risk.

The risk depends on the following factors:

- ✓ The investment maturity period is longer; in this case, investor will take larger risk.
- ✓ Government or Semi Government bodies are issuing securities which have less risk.
- ✓ In the case of the debt instrument or fixed deposit, the risk of above investment is less due to their secured and fixed interest payable on them. For Instance Debentures.
- ✓ In the case of ownership instrument like equity or preference shares, the risk is more due to their unsecured nature and variability of their return and ownership character
- ✓ The risk of degree of variability of returns is more in the case
- ✓ Of ownership capital compare to debt capital.
- ✓ The tax provisions would influence the return of risk.

Different avenues on basis of Risk

Safe/Low Risk Avenues: Savings Account, Bank Fixed Deposits, Public Provident fund, Government Securities, etc.

Moderate Risk Avenues: Mutual Funds, Life Insurance, Debentures, Bonds.

High Risk Avenues: Equity Share Market, Commodity Market, FOREX Market.

Traditional Avenues: Real Estate (property), Gold/Silver, Chit Funds.

Emerging Avenues: Virtual Real Estate, Hedge Funds/Private Equity Investments, Art and Passion

Risks in Investment Market

There are a few risks which exist in Global Investing. They are:

1. **Political Risk:** Most of the developing countries are worried due to political risk arising in the form of unbalanced growth and social unrest due to global investment. This can lead to an unexpected change in the policies of the government towards foreign investors.
2. **Higher Market Volatility:** Emerging markets are generally more volatile than developed markets. As a result, global investors have to face higher market volatility if they invest in developing country.
3. **Liquidity Risk:** In Global market, the trading is concentrated on a small proportion of listed securities. Other securities are not traded frequently and so they are somewhat less liquid.
4. **Currency Risk:** Global investors have to face currency risk because exchange rates change over time. For example, if an Indian investor invests in US equities, he has to bear the risk of dollar declining against rupee.
5. **Custody Risk:** In general, domestic investors are provided a certain degree of protection against frauds and bankruptcies. Such protection may not be available to foreign investors. Therefore, an investor must understand the investment protection norms in the country where he proposes to invest.

6. **Inflation Risk:** This type of risk refers to the loss of purchasing power or your money. In 2011, you invest Rs. 5 laky in debt. And get Rs. 10 lakh in 2020. But your Rs. 10 lakh is not able to buy your the item which was available for 4 lakh in 2011. This risk cannot be tamed by time.
7. **Reinvestment Risk:** If someone invested in a bond with a 9% yearly interest rate. If the interest rate falls to 7% in 1 year, the next year when you go back to reinvest your money, it will be invested at lower rate.
8. **Political risk or government risk or regulator risk**: Sudden change in the policy of in a particular sector where you are interested to invest in. This risk has been clearly seen in the sugar and oil & gas sectors.
9. **Credit Risk:** Credit risk is the change that a company may not have the capacity to pay back the principal or interest amount. There is a long list of companies which have defaulted, Including on repayment of the principal. Technically, the credit risk is close to zero in Government Bonds.
10. **Interest Rate Risk**: If interest rates increase, the price of a bond will go down and vice versa. This risk can be reduced if you hold bonds till their maturity. Interest rate risk also affects bank fixed deposits of investors.

Apart from the risk discussed above there are many more risk involved in investment decision like country risk, volatility risk, execution risk, business risk etc.

Review of Literature

Manoj Kumar Dash (2010) examined the effect of demographics in terms of age groups on the attitude of investors towards risk management. The study concluded that gender and age have greater effects on risk taking attitude as age increases the investors have gained more knowledge about the risk taking and also in regard of gender, female are more conscious about risk compared to male investors. The study concluded that these two predictor's age and gender decided the ability of investors for risk in various financial instruments.

Syed Tabassum Sultana (2010) explained the risk tolerance level among investors with regard to education and gender. This study explored the factors affecting risk on the basis of their education level. As education increases the intensity of taking risk tolerance level is also enhanced. This study suggested that policy makers should design their schemes and plans according to the needs of the investors and also studied different factors which may be affected by the demographics.

Philip. Et al (2010) in this study they discussed about the effect of Australia's Capital Gains Tax (CGT) on share prices and market activity. The study found that market volatility also exerts effect on the risk taking attitude. Today, investors are educated and their awareness level has also increased due to the emergence of IT in every arena so it is difficult to push them for those financial instruments which have greater risk.

Singh, S. (2009)in his study 'Investors' Behaviour at Indian Capital Markets Investment decisions made by the investors' argued about stability of the markets which dependent upon price movement . The study has resulted in such factors as age, sex, education, family, and the past performance of a company's securities as variables or attributes, having significant influence and impact on the investor's investment decision making process. Risk evasiveness was found to be the case with majority of investors', very much unlike the present day young investors' who happen to be comparatively skilled, informed with access to all kind of sources of information, and having more appetite for risk.

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Khurana, A.and Chaudhary, V. (2009) discussed about concept of 'Mutual Fund' is a new feature in Indian capital market but not to international capital markets. A mutual fund in the most suitable investment for the retail investors as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. At the retail level, investors are unique and are a highly heterogeneous group. A large number of investment options are available to investors. With this significance an attempt is made to study the attitude of mutual fund investors.

Mahabaleswara Bhatta H.S. (2009) made an attempt to throw light on the investors' biases that influence decision making process. The researcher opined that the studies on the unpredictable human behaviour would help the investors to critically inspect their investing decisions.

Objectives of the Study

- To measure the impact of risk factors on investor's behaviour
- To examine the future directions and suggest for the same.

Hypothesis of the Study

H_{01}:-There is no significant influence of Risk Attitude on behaviour of investors.

H_{01}:-There is a significant influence of Risk Attitude on behaviour of investors.

Research Methodology

Research Design: In this study descriptive approach has been applied to measure the variables of investor's behavior towards risk factors.

Universe: 100 Respondents have selected from Indore (Madhya Pradesh)

Sampling Technique: Purposive Sampling method has used for the data collection

Instrument Scale: Self-structured questionnaire was used containing 15 questions based on the objectives of the study ranging from strongly agree to strongly disagree. The scale is based on the Likert Scale. The reliability of the scale id found .71. Hence, it is considered for further analysis.

Data Collection: Data collected through questionnaire were tabulated using excels and SPSS software, Interpretation of data were based on tabulation and analysis. Statistical methods of correlation and regression were used for data analysis. The statistical conclusions thus drawn have been followed by logical interpretation. The hypothesis was tested with the help of statistical technique. The conclusions were drawn on the basis of data analysis.

H_{01}:-There is no significant influence of Risk Attitude on behaviour of investors.

H_{01}:-There is a significant influence of Risk Attitude on behaviour of investors.

Table 1 (a) Descriptive Statistics on Risk Attitude and Behaviour of Investors

	Mean	**Std. Deviation**	**N**
Investors' Behaviour	215.5400	26.45919	100
Risk Attitude	60.9953	7.75934	100

Table 2(b) Correlations on Risk Attitude and Behaviour of Investors

		Investors 'Behaviour	Risk Attitude
Investors' Behaviour	Pearson Correlation	1	.915**
	Sig. (1-tailed)		.000
	N	100	100
Risk Attitude	Pearson Correlation	.915**	1
	Sig. (1-tailed)	.000	
	N	100	100

**. Correlation is significant at the 0.05 level (1-tailed).

Above table shows the correlation .915 is significant at the p-value 0.000 which is less than 0.05 so null hypothesis is rejected and it can be concluded that there is a significant association between risk attitude investors' behaviour.Furthermore, since the value of correlation coefficient r suggests a positive correlation, we can use a regression analysis to obtain a relationship between variables.

Regression Analysis

Table 3 (c) : 1Model Summary on Risk Attitude and Behaviour of Investors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915[a]	.855	.853	10.56370

Predictors: (Constant), Risk Attitude

Table 4
(d) :ANOVA on Risk Attitude and Behaviour of Investors

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	175624.870	1	175624.870	2079.335	.000[a]
	Residual	33700.640	99	84.462		
	Total	209325.510	100			

a. Predictors: (Constant), Risk Attitude

b. Dependent Variable: Investors' Behaviour

Investors' behaviour is taken as a dependent variable and risk attitude is taken as an independent variable.Model summary shows the value of R2=.855 with standard error of estimate equal to10.56370. We can interpret this as 85.5% of the variation is explained by risk attitude. The value of coefficient of determination (R2) is significant and therefore the association can be considered as significant. Since p-value is less than 0.05 and is significant that leads to reject the null hypothesis.

The study is supported by the study of Kabra.G., Mishra.P.K., and Dash.M.K. (2010) who have studied the factors effecting investment behaviour and concluded that investors' age

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and gender are the main factors which decide the risk taking capacity of investors and that the modern investor is a mature and adequately groomed person. Inspite of the phenomenal growth in the security market and quality Initial Public Offerings (IPOs) in the market, the individual investors prefer investments according to their risk preference. Fore.g. Risk adverse peoples choose life insurance policies, fixed deposits with banks and post office, PPF and NSC. Occasions of blind investments are scarce, as a majority of investors are found to be using some source and reference groups for taking decisions. Though they are in the trap of some kind of cognitive illusions such as overconfidence and narrow framing, they consider multiple factors and seek diversified information before executing some kind of investment transaction.

Conclusion

Economic investments contribute to the net additions to the capital stock of a society. Financial investments, on the other hand, refer to investment in financial instruments like shares, debentures, insurance policies, mutual fund units etc. Financial investments help in creating the capital stock of the country. In the long term, investment is important for improving productivity and increasing the competitiveness of an economy. Without investment, an economy could enjoy high levels of consumption, but this creates an unbalanced economy. The states having more commitments to investment are more progressive. In India, few states have created a niche for economic development, the main reason being that they attracted large Investments. As investments have a 'multiplier' effect, they generate income and employment and create demand and consumption it can be concluded that there are numerous determinants that influence the individual investor's behavior in stock market. Some factors influence majorly while other have slight role in influencing the behavior of an individual investor.

The factors can be grouped into demographic, economic, social, and psychological in nature. The most common determinants that have a significant impact on the investors' behaviour are herding, over-reaction, cognitive bias, irrational thinking, confidence (over or under), gender, age, income, education, risk factor, dividends, influence of people's opinion (friends or family), past performance of the company, accounting information, ownership structure, bonus payments, expected corporate earnings, get rich quick. On the other hand there are several determinants which were found uncommon in various studies conducted across different countries. They are Stock marketability, expected losses in international financial markets, perceived ethics of the firm, diversification purpose, tax consequences of an investment, inflation, trading opportunity, publicity, composition of the board of directors of companies, brand perception, social responsibility, economic expectation and control orientation.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
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"A Study on Contemporary Advertising Trends in India With Reference To FMCG Sector"

Dr. Bharat Bhushan Singh*

Abstract

In this competitive, modern and capital-intensive world, advertising plays a very dominant role in the FMCG sector. Advertising is a way to showcase one's products or services and offer consumers a vast choice in terms of what they are offered and what they can choose to buy. For the consumers, advertising offers them a choice to get the best in the market at the best price. Today, it is unimaginable to expect people, especially in urban areas, to spend their money buying products of which they haven't heard a thing. But advertising has been not only a boon, but also a bane in many ways. Advertising relies on consumerism to succeed and consumer's judge by materialistic standards. Moreover, successful advertising means emerging triumphant in the face of tough competition, often without consideration of high standards or aesthetic tastes. Advertising being crass and opportunistic in its very basis, the overemphasis on advertising today is a bane. Advertisers tend to appeal to popular tastes to appeal to a larger section of the population.

This paper studies the phenomenon of contemporary advertisings in FMCG sectors and tries to find out the trend and practices emerging in FMCG markets.

Key Words: Contemporary Advertising, FMCG, Consumer market, Digital Market,

1.0 Introduction

Advertising is becoming the most essential tool to succeed for FMCG companies in India. Leading FMCG companies spend around 10% of their revenue for advertising. Constant product extension has led the path to greater advertising. FMCG may not be a capital intensive sector, like the manufacturing sector, but expenditure on advertising, promotion and branding is comparatively very high.

FMCG players also have to diversify into other sub-sectors to ensure continuous growth. For instance, leading companies are now expanding their presence in the bakery segment, enhancing their product portfolios by launching new brands.

1.2 Need for the Study

Fast Moving Consumer Goods (FMCG) are products that are required by all the users in their day to day life. Therefore, the advertisements for these products need more attention in terms of creating awareness and responsiveness among the consumers for their purchase decision. Hence, the present study intends to explain the contemporary advertising trends used by FMCG companies for creating responsiveness.

1.3 Objectives of the Study

- To understand the FMCG and Advertising Industry in India.
- To understand the different contemporary advertising trends in the FMCG Sector.
- To study the growth of contemporary advertising in India.
- To study the advertising trends with reference to FMCG sector in India.

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1.4 Methodology

The study on "contemporary advertising trends in India with reference to FMCG sector is studied during 2016-17, and it is an exploratory study. All the secondary sources have been used to study the phenomenon.

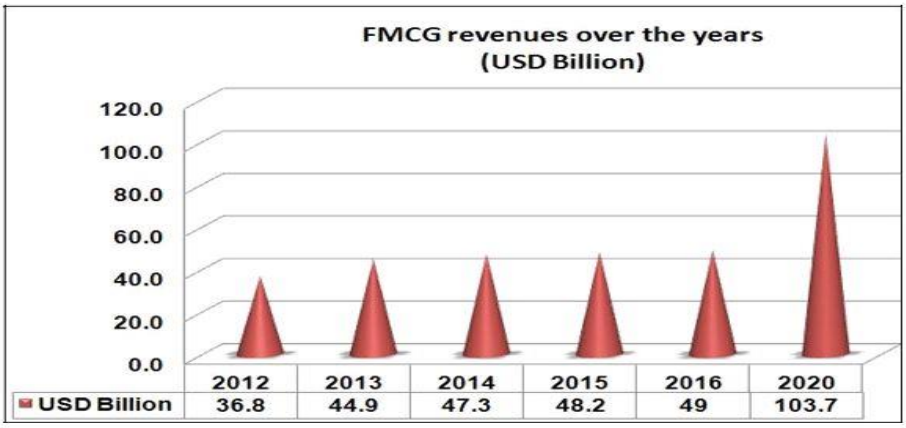
2.0 FMCG Goods

FMCG goods are popularly known as consumer packaged goods. Items in this category include all consumables (other than groceries) which people buy at regular intervals. The most common in the list are toilet soaps, detergents, shampoos, toothpaste, shaving products, shoe polish, packaged foodstuff, and household accessories and extends to certain electronic goods. These items are meant for frequent consumption and have a high return.

2.1 Indian FMCG Sector

In India, companies like ITC, H.U.L., Colgate, Cadbury and Nestle have been a dominant player in the FMCG sector supported by relatively less competition. These companies are, therefore, able to charge a premium for their products. With the gradual opening up of the economy over the last decade, FMCG companies have been forced to fight for a market share. The Fast Moving Consumer Goods (FMCG) segment is the fourth largest sector in the Indian economy. The market size of FMCG in India is estimated to grow from US$ 36 billion in 2012 to US$ 103 billion in 2020, (FMCG January 2016, Report)

Figure 1: Trends in FMCG revenue (USD Billion)



Source: http://www.india-opportunities.es/archivos/publicaciones/FMCG-January-2016.pdf

Food products are the leading segment, accounting for 43 per cent of the overall market. Personal care (22 per cent) and fabric care (12 per cent) come next in terms of market share. Growing awareness, easier access, and changing lifestyles have been the key growth drivers for the sector.

2.2 Rural Market: All Set to Rise

Rural areas expected to be the major driver for FMCG, as growth continues to be high in these regions. Rural areas saw a growth of 16 per cent, as against 12 per cent rise in urban areas. Most companies rushed to capitalise on this, as they quickly went about increasing direct distribution and providing better infrastructure to penetrate and capture rural market. Companies are also working towards creating specific products specially targeted for the rural market.

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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The Government of India has also been supporting the rural population with higher minimum support prices (MSPs), loan waivers, and disbursements through the National Rural Employment Guarantee Act (NREGA) programme. These measures have helped in reducing poverty in rural India and given a boost to rural purchasing power.
Hence rural demand is set to rise with rising incomes and greater awareness of various FMCG brands.

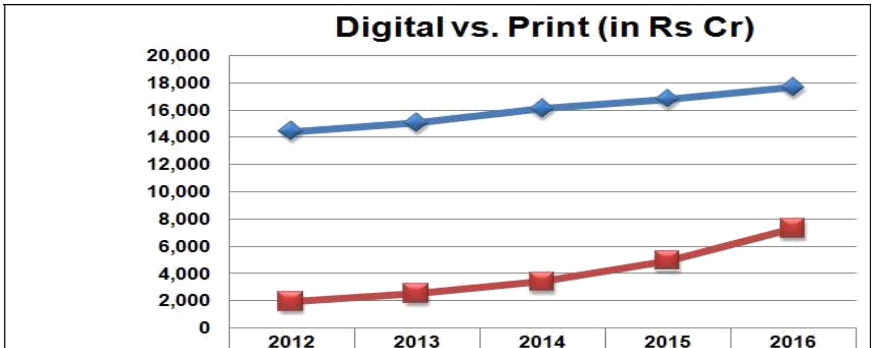
2.3 Urban Trends

With rise in disposable incomes, mid- and high-income consumers in urban areas have shifted their purchasing trend from essential to premium products. In response, firms have started enhancing their premium products portfolio. Indian and multinational FMCG players are leveraging India as a strategic sourcing hub for cost-competitive product development and manufacturing to cater to international markets.

2.4 Trends in Contemporary Advertising: Online Advertising

In the era of information explosion, it is difficult to ignore the growing popularity of online advertising and marketing.
Statistics reveal that search engines like Google, Yahoo, and MSN combined took a share of 80 – 90% of the total ad earnings and continue to dominate online market.
Newspapers have lost ad revenue to Internet in classified ads in categories like matrimony and jobs. Today Indian matrimony has gone online and a traditional society like India has accepted this technological revolution and searching brides and grooms through search engines.
Online advertising has outplayed newspapers and is generating good revenue.
Newspapers which were sceptical about online advertising have launched online editions and e-newspapers. Today newspapers have found one more source of ad revenue from online advertising. It has the potential to grow and generate ad revenue on par with print ads.

Figure 2: Digital vs. Print Advertising Expenditure (in Rs Cr)



	2012	2013	2014	2015	2016
Print (in Rs Cr)	14,442	15,068	16,108	16,800	17,674
Digital (in Rs Cr)	1,939	2,520	3,402	4,950	7,300

Source: GroupM estimates http://www.medianama.com/2016/01/223advertising-in-india-2016/

The average attention span of an Internet user is only 8 seconds; this is the reason why readers spend considerably more time reviewing information in newspapers, including advertising. Another advantage is that, from newspapers, readers can also remove and/or save information, including special events, features on family and friends, coupons, and more. Therefore this is why the above figure shows an increase spend on print advertising even during the digital era.

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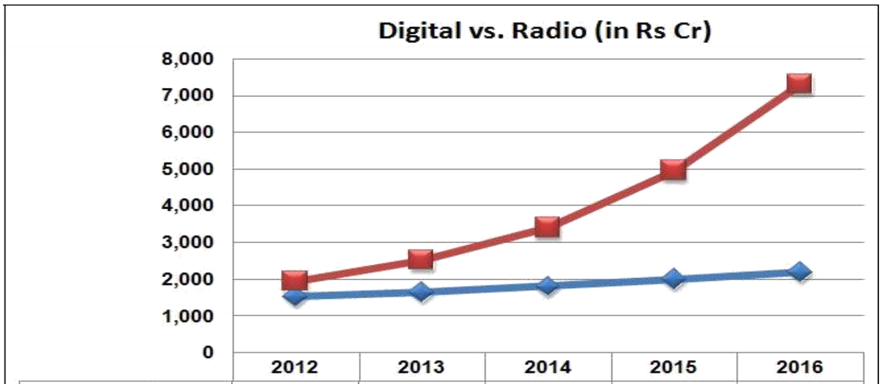
Figure 3: Digital Advertising vs. Radio Advertising (in Rs Cr)



	2012	2013	2014	2015	2016
Radio (in Rs Cr)	1,530	1,643	1,808	1,997	2,195
Digital (in Rs Cr)	1,939	2,520	3,402	4,950	7,300

Source: GroupM estimates http://www.medianama.com/2016/01/223-advertising-in-india-2016/

The major disadvantage of radio advertising is that radio ads are ephemeral (last for a short period of time), they are gone once you hear them. This is the reason why radio advertising shows a very slow growth, and on the other hand, digital advertising is growing at a rapid speed.

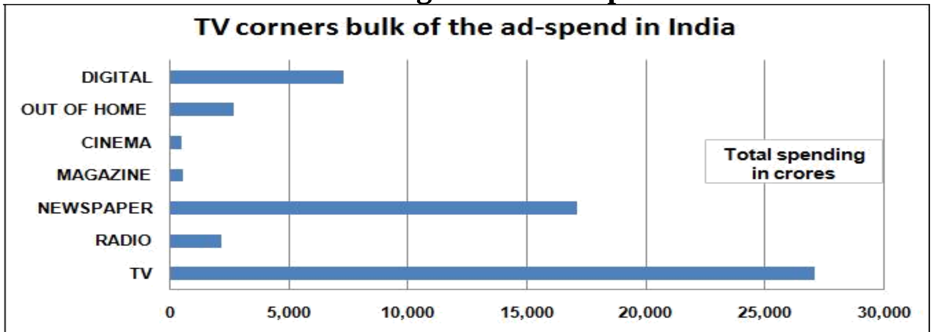
2.5 Growth of TV Advertising

It is considered as the "Money Machine" because advertising on television is very expensive, more expensive than newspaper advertising.

Studies have revealed that majority of consumers receive product information from television and it is also the greatest influence on buying decisions.

Therefore, TV still corners bulk of the ad-spend in India when compared with the other means of advertising.

Fig 4: TV Ad - spend in India



TV	RADIO	NEWSPAPER	MAGAZINE	CINEMA	OUT OF HOME	DIGITAL
27,074	2,195	17,099	575	510	2,732	7,300

Figure 5: Growth of TV Advertising

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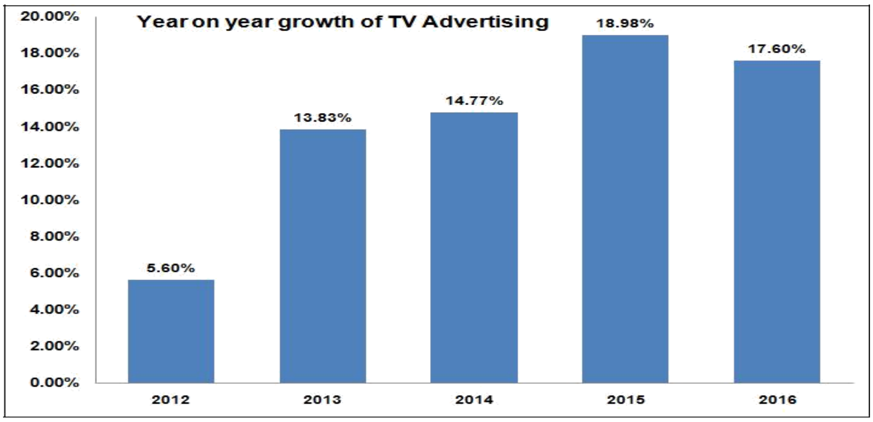


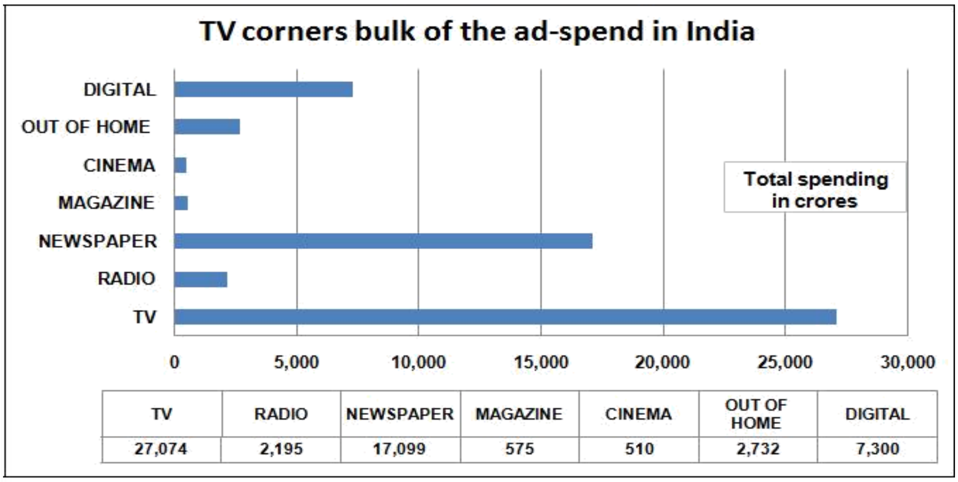
Source: GroupM estimates http://www.medianama.com/2016/01/223-advertising-in-india-2016/

2.6 Advertising Expenditure In India (2016)

Ad spending in India grew to 15.5% in 2016 and Rs. 57,486 crore spent on digital advertising and this is said to be expanding at the fastest pace of 47.5% **- report by media agency GroupM.**

Digital advertising accounts for 12.7% of all ads spending in 2016 and is up from 9.9% in 2015. Print media's share shrunk from 32.4% to 29.7% and TV remains the dominant medium with a 47.1% share, up from 46.3%. The growing ad spend in digital media reflects the fact that advertisers are beginning to target the growing number of internet users in India. Digital ads on mobiles are also getting popular. Here's a snapshot of the trend:

Figure 6: TV Ad – spend in India



Source: GroupM

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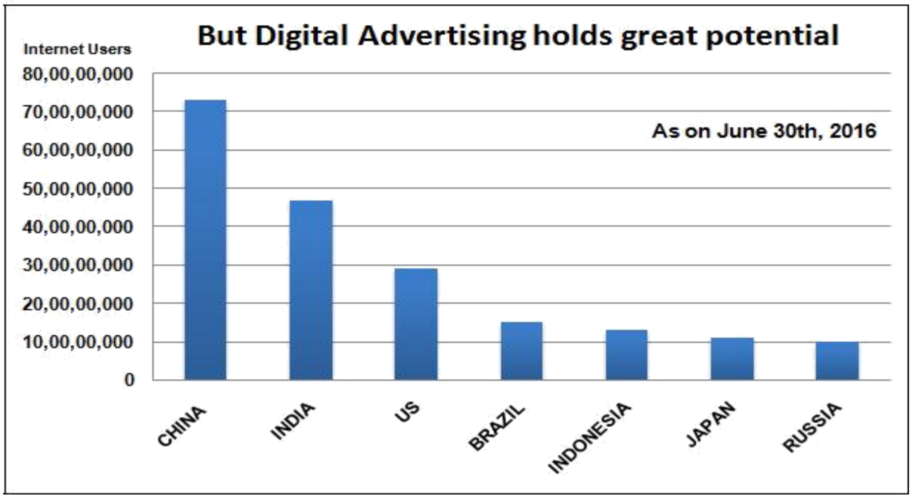
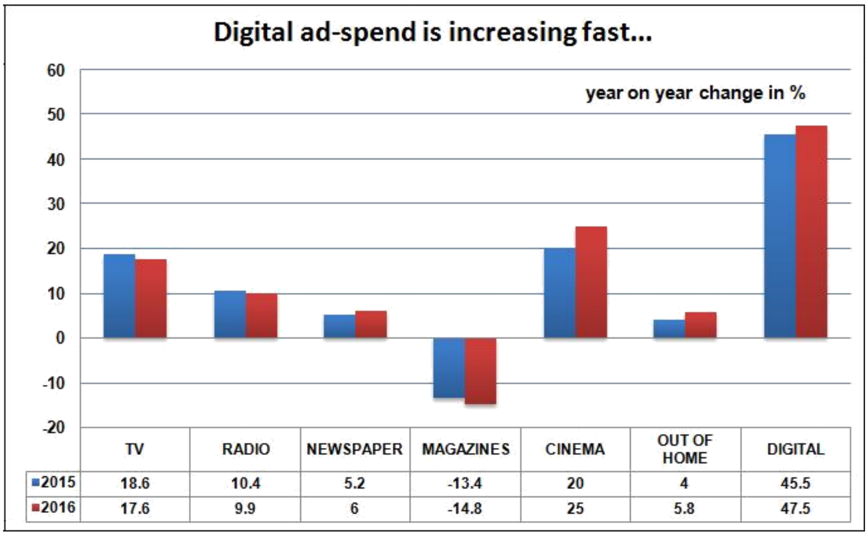
Figure 7: Potential of Digital Advertising



Source: GroupM

Figure 8: Year on year change in digital ad - spend



Source: GroupM

Digital advertising is taking over very fast. Statistics show that the offline advertising sources have dropped to 65% in the last year, 2016 from 91% in 2006. The companies receive more than one third of their profits from digital advertising. Also, the process of digital advertising is low cost unlike traditional advertising, and everything is measurable in this process, like real time result, market oriented, easy strategy, long time exposure, complete brand information.

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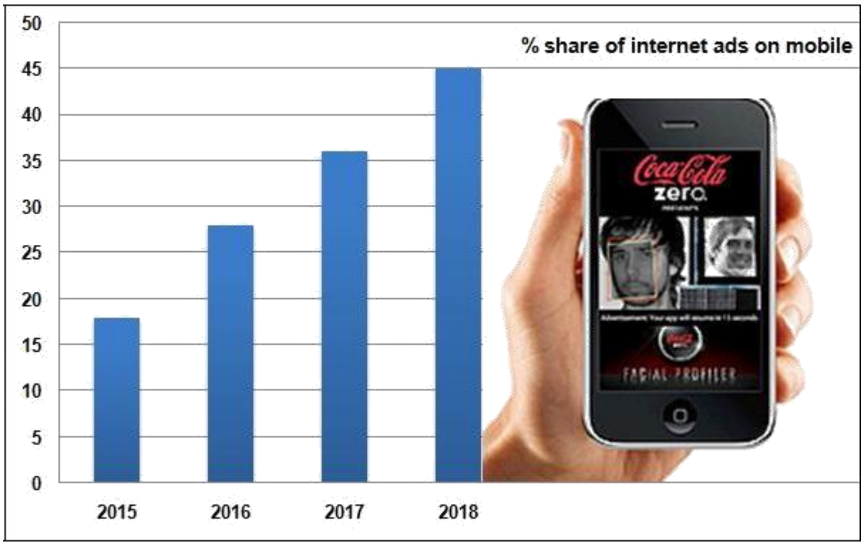
Figure 9: Percentage share of Internet ads on Mobile



Source: GroupM

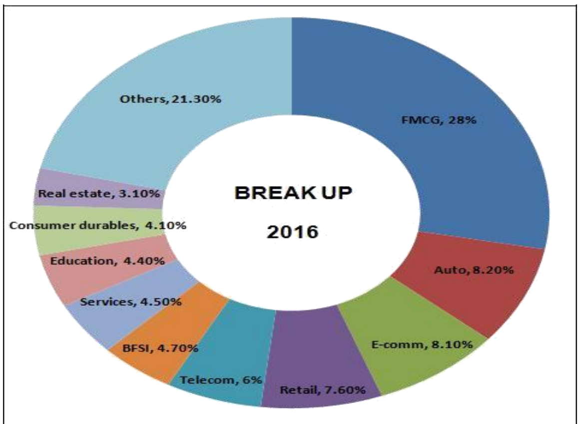
Most people use mobile phones and keep them handy throughout the day. Potential mobile customers keep their phones with them, and they keep them turned on. This means that time-sensitive messages, such as notifications of sales and special events, can reach customers with little or no delay. No other advertising medium offers this "always on" advantage.

According to the GroupM report, consumer product makers remains the most dominant sector in terms of ad spending with a 28% share of the total expenditure. Many advertisers increased their ad spending to spur demand, which was possible by the buffer provided by low commodity prices, which have reduced their input costs.

2.7 Sector Wise Spending (AS ON 2016)

FMCG remains the most dominant sector with a 28% of the advertisement expenditure. Despite facing volume pressure, the sector is expected to continue ad investment aided by the softening of commodity prices.

Figure 10: Sector wise spending on advertisements



Source: http://www.livemint.com/Consumer/LjI3ZO4nYkN8DNdyMIlJlJ/Ad-spending-to-grow-at-155-in-2016-higher-than-2015s-14.html

Figure 11: FMCG Market in India (US$ billion)

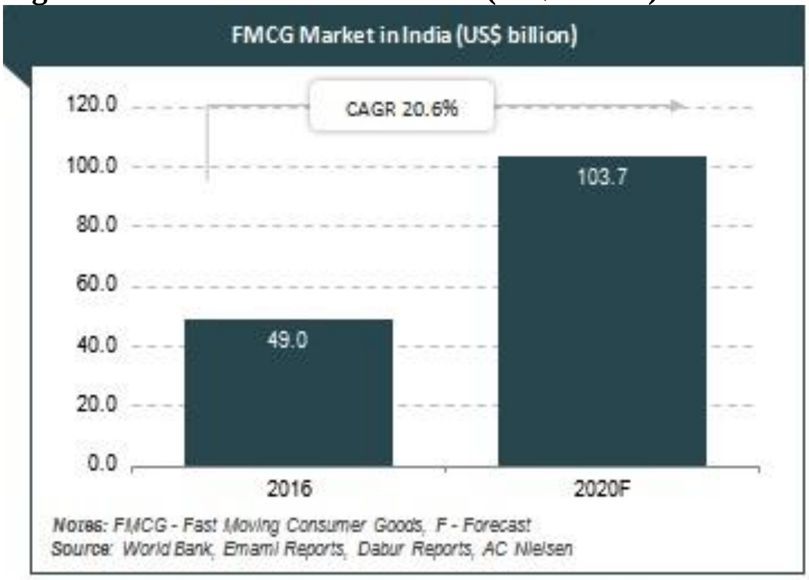
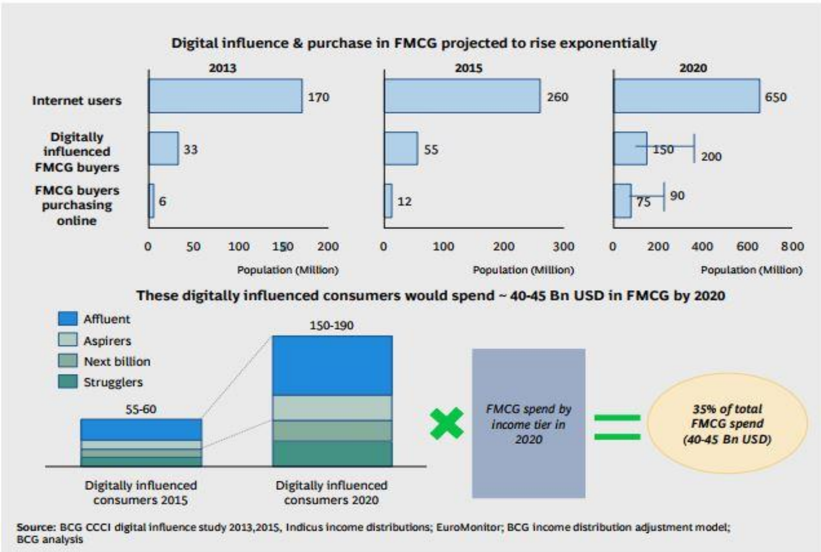


Figure 12: Digital to influence 40% of FMCG consumption by 2020



Source: Google-BCG report

Google India and BCG has released a report, **"Decoding Digital Impact: A $45B Opportunity in FMCG 2020"**. The report projects that **35**% of FMCG consumption in India will be driven digitally, translating to a value of **$40 - 45 billion by 2020.** The report finds that while time spent on digital is the same as TV in urban India, share of digital advertising spends by FMCG companies was only 10% in 2016. This is, however, expected to grow substantially to reach 25 -30% by 2020.

The report highlights that there will be 650M internet users by 2020, driven by increasing mobile penetration, with the highest growth coming from non-metros. Thereby reinforcing that digital in India is now a way to reach the masses, and not just a small, targeted opportunity. India's 28 million affluent and elite households will contribute to ~40% of overall online FMCG consumption by 2020, of which 60-65% will be digitally influenced.

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On the back of assortment, convenience and availability along with discounting, the ecommerce segment within FMCG is projected to grow to become a $6 billion market in 2020. Sharing vision on customer preferences across metro and non-metro cities, the report predicts while accessibility of options is critical for users in large cities, consumers from tier 2 and 3 markets care more about factors such as express delivery and easy returns.

3.0 Findings

- The Fast Moving Consumer Goods (FMCG) segment is the fourth largest sector in the Indian economy.
- The market size of FMCG in India is estimated to grow from US$ 36 billion in 2012 to US$ 103 billion in 2020, (FMCG January 2016, Report).
- Share of digital advertising in FMCG sector is 10 % in 2016.
- The share of digital advertising in FMCG sector is expected to grow from 10% to 25-30% by the 2020.
- FMCG remains the most dominant sector with a 28% of the advertisement expenditure.
- Digital advertising accounts for 12.7% of all ads spending in 2016 and is up from 9.9% in 2015. Print media's share shrunk from 32.4% to 29.7%.
- TV remains the dominant medium with a 47.1% share, up from 46.3%.
- Digital advertising is said to be expanding at the fastest pace of 47.5% **- report by media agency GroupM.**

4.0 Conclusion

In this modern world full of competition, capital intensive business, advertising is the most essential source of communication adapted by the people. The traditional way of advertising in print media is slowing down and the contemporary advertising channels like online advertising, mobile advertising has achieved a huge boom and are very rapidly growing. Online advertising has seen an increase in the capital expenditure over a decade. TV advertising is still leading due to its impact. In near future online advertising will be the pioneer in advertising platforms. As the highest contributing sector to advertising FMCG industry will try to have diversified approaches to reach out to its customers through online and offline advertising. Advertising to a certain extent is considered a success factor and a competitive edge of a business but going in depth and taking over emphasis will affect the business negatively. With Digital advertising on rise Indian FMCG companies are trying to allocate more of their budget to online sources and therefore reducing the percentage in offline advertising gradually.

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Evaluation of Public and Private Mass Transports System: With Special Reference to Bus Service in Kolkata

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Abstract
The problem of public transport is growing multifold in the cities having population over one million. It is not just the availability of public transport but also the congestion on the roads, this congestion is because of the increasing number of vehicles on the roads and weak infrastructure to support the same. as far as the city of Kolkata is concerned, due to high traffic congestion in peak hours and related issues people bound to use personal vehicles for their travelling needs. Though there are various means of transport available in the city in the form of Trams, Buses, Metro, Taxi, etc. but then again people are dwelling other sources for their travelling needs. This present study is related to the evaluation of bus service (Public and Private) and assessing the demand for the same. This study also accounts for the assessment of qualitative factors in the public transport system on the basis of travel time and number of stops. This present study can be taken for the future assessment of increasing traffic congestion, energy-consumption etc. this is a primary data based study and results are the outcome of inferential data analysis.
Keywords: Kolkata, Bus service, public transport.

Introduction

Among the various options of rail and road based public traffic modes, the core city passenger movement mainly depends on road based mass and Para-transit vehicles. But compared to Para transit modes, road based mass transport service, not only empowers the urban economy but also alleviates congestion, helps the city to breathe, increases accessibility, develops integrated urban transport systems, creates green urban transport culture, secures stable funding and investment schemes and delivers a sustainable urban lifestyle.

The transport system in the city of Kolkata is mostly dependent on the available system of mass transportation. This system of transportation includes the modes of transport like private and public buses, mini-buses, Tram service and other related sources of Metro service and taxi system.

It is not so that Kolkata is not efficient in catering the travelling needs of the passengers, as a matter of fact total 60% of the passengers are using the bus service and the number of such passengers is around 14 million, this is the total number of passengers in the normal weekdays. This data alone is sufficient to showcase the importance of bus transport in the city. In most of the cities having population and economic growth equivalent to Kolkata, bus transport is one of the major sources of local transportation, and there is high amount of privatization in the sector as well.

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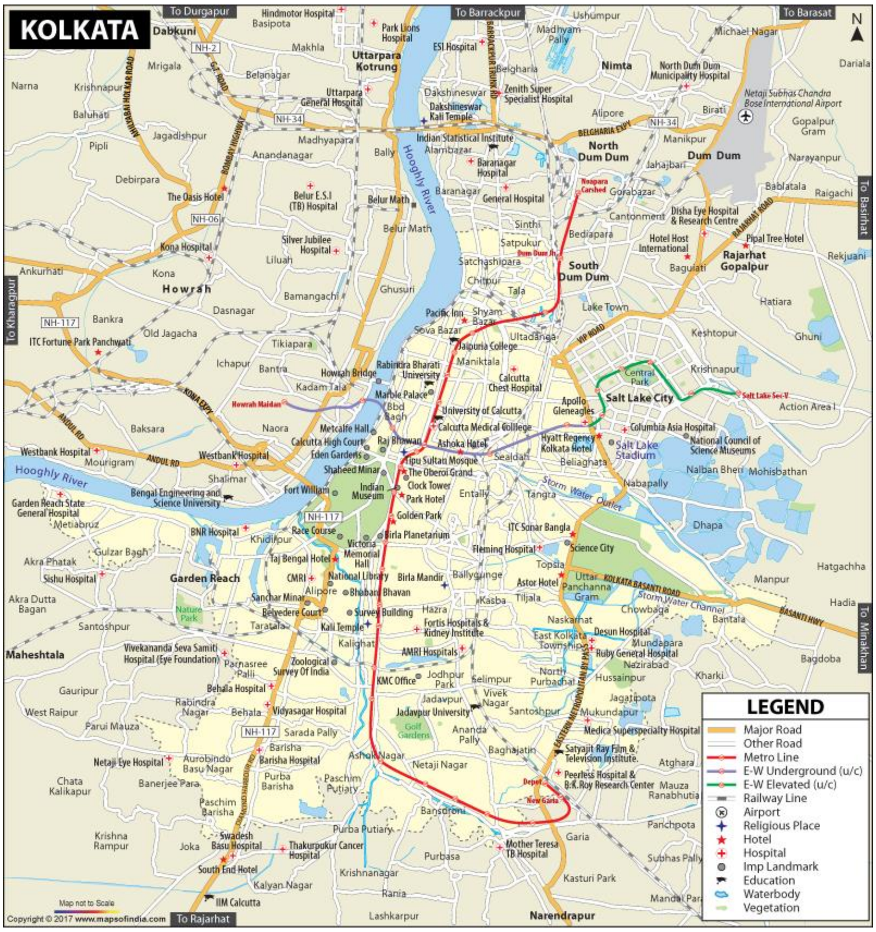

Source: www.mapsofindia.com

Figure 1: Major Travel Routes of Kolkata City

Transport Corporation (WBSTC) are the major State Transport Undertakings (STUs) owned by the state government in Kolkata with a total number of 1018 buses and 265 trams. The privately owned buses are of normal and small sizes and are popularly known as Private and Mini Buses respectively. In 2010, there were a total of 5002 privately owned buses in the city of Kolkata with 4249 private and 753 mini buses which represents a powerful dominance over the public buses (District Statistical Handbook of Kolkata, 2016).

In the present scenario, a gradual process of privatization can be experienced in the mass transport service of Kolkata and on the other hand the performance of State Transport Undertakings (STUs) in Kolkata is not up to the mark, as a matter of fact it is declining. This scenario is not good for the transportation sector and can be viewed as a threat for the same.

Evolution of Bus Service in Kolkata

The exact location and time of emergence of early form of buses i.e. the horse drawn carriages in India is difficult to identify due to paucity of source materials. But as far as the overall progress and development of bus services is concerned, it can be said that Calcutta was the first city where motor bus service was started for passenger movement purposes. The dependency on the public transport system for the mass movement purposes was boosted in Calcutta following the emergence of motor bus services in the early phases of

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twentieth century. The relative importance of the slow moving tram services slowly but surely vanished after competing with the fast moving, flexible motor buses. In due course tram services lost its spectrum and bus services acquired the limelight for the regular passenger movement purposes. The city itself experienced the rise and fall of different types of bus services within its traffic realm in different years. Therefore, the development of bus services in Calcutta can be discussed in detail by dividing the entire period into various respective phases depending on its dynamic features and major changes.

The first omnibus drawn by three horses11 plied briefly from Esplanade to Barrackpore on 22nd November, 1830. Such buses were gradually introduced more extensively in this city, although their commercial usage became successful only after 1864. Up to 1900, tramcars were virtually the only form of mass transport mode in Calcutta. The first public motor bus service was started in Calcutta by a Muslim person, known as A. Abdul Shovan in the year of 1918. Mainly for business purposes bus service was started from suburbs to the core city, up to the *Circular road,* but on an irregular basis. Initially the first two buses were merely trucks, fitted with benches, one running from *Metiaburuz* to *Khidirpur* and the other from *Beliaghata* to *Sealdah*. Ultimately the motor bus service gained momentum in 1920 mainly after a prolonged tram service. Eventually the motor buses plied regularly on the fixed routes to connect Calcutta with its suburbs.

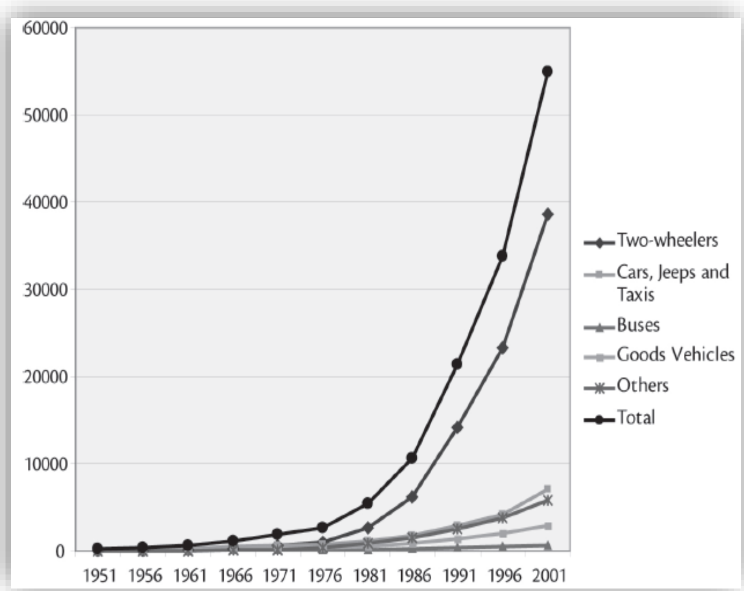
The huge passenger pressure compelled the then Police Commissioner to provide permission to the private organizations to continue their bus services. Even ticket system was initiated in the buses during this phase. Gradually the conditions of those buses were improved by providing stains or canopy on the open roof of the vehicles. The ultimate result showed a huge passenger demand due to increased comfort in the buses and huge profit for the organizations. Such conditions compelled the Police Commissioner to provide license to the private bus operators for passenger services. Gradually variety of private buses started plying on the roads of Calcutta with different names like – *Menaka, Kinnori, Urvasi, Maa, Pather Bondhu, Ami Jachchhi, Chole Esho* etc.

Another important inclusion in the early history of bus services in Calcutta was the emergence of *Walford Company* which first initiated the big red bus services on the roads of this city during 1922 with a considerable fleet strength. The bus depot was located on the eastern bank of *Bentinque Street* near the *Lalbazar more*. The first open roof double decker bus service was started in Calcutta by this company in 1926. The first route of the double decker bus was from *Shyambazar* to *Kalighat*, which later on extended up to *Golpark.* It also started first long distance bus services. The then bus terminus of Walford Company was situated in the present day *Hawker's market* near *Kalighat temple*. The most inevitable conclusion was that the strong competition provided by Walford Company weakened the monopoly business of the CTC bus services.

Related Issues

By the virtue of various reports and assessments the fact has been established that in the city of Kolkata the available infrastructure of public transport is not sufficient enough to cater all the needs of the passengers. There are certain cases observed that the buses and trams are overcrowded and are carrying passengers more than their respective capacity. This situation is far away from the said standards of the travelling manual of the state government. Moreover, some of the passengers were found hanging out of the exit or entry door at every route. This is a straight indication that the capacity of public transport is required to be increased.

Overcrowding in the public and private buses is not the only issue, the vehicle they are travelling in is at war with the other undesirable vehicles in the route like, animal driven vehicles, cabs, mini buses and a high level of congestion of private vehicles. This calls for a separate arrangement for the buses at different routes. This is required to be mentioned because the speed of the public and private buses is slowing down as because of these reasons and high level of passenger backlogging is developing for the remaining runs of the buses. This situation becomes even worse art the peak hours. These type of situations may call for a medical emergency like accidents, suffocation and other issues related to children and old age people.



Source: Ministry of Road Transport and Highways 2003

Figure 2: Growth of India's Motor Vehicle Fleet by Type of Vehicle 1950-2001 (in thousands of vehicles)

Another very important issue that has to be mentioned here is the loosing passenger strength in the buses, as because of the above mentioned issues the STU's and other private buses are loosing passengers. Due to the quantitative and qualitative issues the passengers are looking forward to the alternatives available to them in the form of private cabs, auto-rickshaw and even private vehicles for the part or whole journey. As a matter of fact this situation has not emerged in one day; this is the outcome of consistence deficiency in the public transport system.

As the result of above mentioned situations, people are relying on travelling in their own private cars, two wheelers etc. this ridership of the routine passengers is creating another problem of increasing vehicle on roads. This calls for finding the solution of another problem of increased traffic congestion on roads.

Literature Review

Kumar et al (2016) they have studied the existing literature to develop a robust research framework for the study and then selected five target city/city regions: Amritsar, Jaipur, Noida, Ahmedabad, Gandhi-nagar, and Sanand-Viramgam. The informal public transport modes in the five selected regions included high-capacity mini buses, medium-capacity Tata Magics, Mahindra Gios and other similar vehicles, low-capacity, three-wheeled,

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Vol. 8 Issue 5(1), May 2018,
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motorized auto-rickshaws, pedal-powered non-motorized cycle rickshaws, and other locally manufactured modes like Chakras and Kadukas.

Chakrabartty and Gupta, (2015) this could be partially attributed to the unique system of pre-determined routes and strong ties to formal, informal and semi-formal networks that create and regulate IPT systems in the city. The primary intended outcome of the project has been to delve deeper and provide a grounded understanding of the de-jure (regulatory) and de-facto (operational) aspects of this IPT system in Kolkata (India).

Chakrabartty & Gupta, (2014) Construction of new roads, highways etc. and introduction of new modes of transport lead to an increased mobility and development of new areas, which may include residential, shopping or industrial areas. This in turn increases the land value in these areas. This is how transport creates positive externalities. However increased transport which is the result of urbanization creates problems of congestion and pollution. These are negative externalities created by transport. More than a million people are either killed in road accidents or die due to harmful effects of air pollution in the world. Vehicular emissions are the major source of air pollution particularly in developing countries like India.

Cardia (2013) Research now shows clear evidence that the success of Public Transport systems is often dependent on the safety and perceived safety that it provides to commuters. Public transport safety needs to be guaranteed during the whole length of the trip: on the routes of access to stations or stops, during the waiting time and on vehicles. Old people and women are particularly sensitive to the problems of personal safety on public transport networks, and require special consideration in design. Communication and information, is an essential ingredient of a safe public transport system. It is necessary to offer as much information as possible and as clearly as possible so that public transport users are not disoriented or feel vulnerable in unknown areas. The reliability of the service is often seen as a key element in making for a secure experience of travelling.

Objective of the Study

1. To analyze the role of Public and private transport services as the life line of routine passengers in the city of Kolkata.

Hypothesis of the Study

H_0: There is a significant gap in the perception and expectation of the users of public and private bus transport system in Kolkata.

H_1: There is no significant gap in the perception and expectation of the users of public and private bus transport system in Kolkata.

Research Methodology

Sampling

Random sampling method is being used in this study; the total sample size of the study was 100 respondents belonging to different sections of the society and is in the process of using the public and private transport service in one or the other manner. As the study is concentrated in the Kolkata city of West Bengal, hence the respondents are also from the same.

Data collection

In order to test the perception and expectation of the respondents regarding the public transport service, a detailed questionnaire was prepared and exercised with the selected respondents.

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Measures

Inferential statistics is used to analyze the given data and ANOVA is used as a tool for testing the hypothesis.

Data Analysis and Interpretation

Hypothesis I

Summary of ANOVA Results *H 1*

	Private Bus Service		Public Bus Service	
On the Basis of Age	**F**	**Sign.**	**F**	**Sign.**
Ease of Access	7.056	7.040	.011	.917
Availability	7.369	6.920	3.412	1.065
Costly	2.923	2.034	6.003	4.015
Level of Comfort	1.705	1.165	3.584	4.059
Conduct of Staff	10.697	.000	2.024	1.155
Number of Staff	2.371	2.070	.115	.734
Way of Driving	2.459	2.062	1.769	1.184
Ample Routes	.173	.215	3.206	2.074
Stoppage Time	.779	.606	6.003	4.015
Fare	.646	.586	1.839	.176
On the Basis of Gender				
Ease of Access	.173	.215	1.662	.198
Availability	15.531	.000	3.025	.083
Costly	7.887	.000	6.003	.015
Level of Comfort	4.537	4.004	.130	.718
Conduct of Staff	.316	.414	2.952	.086
Number of Staff	17.921	.000	1.251	.264
Way of Driving	.676	.508	.268	.605
Ample Routes	2.168	2.091	.276	.599
Stoppage Time	4.166	.006	.225	.635
Fare	.468	.571	.276	.599
On the Basis of Income				
Ease of Access	3.445	.017	3.499	.062
Availability	14.360	.000	.010	.921
Costly	3.352	.019	1.839	.176
Level of Comfort	4.508	.004	3.737	.054
Conduct of Staff	.510	.676	.695	.405
Number of Staff	20.677	.000	.276	.599
Way of Driving	2.199	.087	.050	.823
Ample Routes	4.408	.005	3.023	.083
Stoppage Time	3.445	3.017	2.768	.097
Fare	14.360	.000	.050	.823
On the Basis of Travel Frequency				

Ease of Access	.051	.252	.064	.800
Availability	3.737	.054	.949	.331
Costly	3.412	2.065	1.645	.200
Level of Comfort	6.003	.015	1.439	.231
Conduct of Staff	1.588	.908	.488	.485
Number of Staff	1.551	1.214	6.735	.010
Way of Driving	3.499	2.062	.436	.509
Ample Routes	2.952	2.086	.002	.963
Stoppage Time	.010	.921	.010	.921
Fare	1.839	1.176	1.839	.176

Interpretation

For the above hypothesis all the components related to the public transport were tested against the component of age, income, and gender; and travel frequency of the respondents. The opinion of the respondents was taken for both the public and private bus operators.

In the above case the respondents were divided in four categories Under this criteria, as obvious case respondent with the maximum travel frequency were not satisfied with the private bus operators in many cases, like waiting time at particular stoppages, high fare, slow speed, misconduct of staff, etc. occasional travelers were not found much concerned with these issues. People belonging to the higher age groups were also not satisfied with the private bus operators, as these people are having more experience of travelling in the buses. They stated that may be the condition of the buses is not good as compared to the private bus operators but then again the frequency of operation, and route following is good enough even the waiting time is less in comparison of the private bus operators.

Then on the basis of gender the respondents use to differ in their responses i.e. many of the female respondents said that there is high availability of private buses, they are more comfortable, and easy to access. The same can be viewed from the above given table where the difference between the value of 'F' and 'Sign' is more.

Result

On the basis of the above interpretation it can be stated that *there is a significance difference between the functioning of public sector and private sector public transport operators* hence the null hypothesis is accepted and the alternate hypothesis can be rejected.

Conclusion

Like any other city having a fast life style, Kolkata is having a group of public transport vehicles and this multi-modal transport system includes public and private buses as well. Here it is important to mention that the most economical system of transport is the bus service and is being used by most of the routine passengers, as mentioned in the starting of this paper. Bus service in Kolkata is a mix of public and private agencies which are bound to follow the same rules, though there is a slight difference in the fares and other related amenities of the service, but then again the related infrastructure is not supporting the operation of the same. As a matter of fact the passengers are comparatively comfortable with the operation of private buses, as far as availability and number of stoppages are concerned. The level of comfort is even high in case of private sector buses. The respective STU's in West Bengal and especially in Kolkata are not profit making ventures and are running even in losses. Here the researcher would like to suggest that some changes should be made in the operating efficiency of the buses, number of stoppages, strength of passengers in a single route, etc. maybe a separate corridor be built to support the free travelling of the buses in the city. This may require an additional infrastructural cost but will pay in the near future.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

A Critical Evaluation of CRM (Customer Relationship Management) Practices and impact of the same on the Reaction of Customers

Dr. Lokesh Jindal*

Abstract

We are living in the age of information and today the flow of information is even faster than the flow of thoughts. All the information around the globe is just a few clicks away. Now this depends on the person that which source of information he/she wants to access. This situation is even fiercer for the organizations that are into manufacturing or service providing, and to deal with the scenario the companies are taking a number of steps and customer relationship management is one of them. The soul of CRM lies in the ability of the organization to communicate with the customer in the best possible manner. This paper tries to evaluate the effectiveness of the CRM practices prevailing in the industry of electronic appliances. The focus of the study is on service dimension i.e. customer service and marketing service. The study is carried out in the city of Jaipur, Rajasthan and is based on primary data.

Keywords: Customer relationship management; customer response.

Introduction

In new world, possibility of production is high and the allied services have increased the completion in the market, the pressure is on the suppliers of the goods. All the producers are under the pressure of satisfying the customers in all respects. Market and supply efforts are required to be in ratio of the demand and it is very important to maintain the equilibrium. Experiences showed that organization that pays more attention to customers, products, market, sell, buy, competition, advertisement, quality, would be able to maintain its customer base and gradually lead the market in true sense. We all know that there is cut-throat competition in the market and customer relationship management can be viewed as a panacea to the issue. (Tavalai, 2008)

Relationship marketing is related to the creating of relationship with targeted customers to motivate them to buy or making repeat purchase in the near future or even recommend to fellow customers. Value addition in the final product and communication of the same to the end customer is very important and if the customer finds the product or the service as mentioned in the initial communication then the end benefit of the customer is increased and high satisfaction occurs. Customers' relationship with management is based on giving more value to customer and achieving tangible and intangible benefits in this relationship every satisfied customer is like a new pearl in the chain. Today customers are well informed about the productions and services associated with the final products. Therefore, effective management in maintaining relationship with customers and creating values for them is the most important subject that is of apex importance for the researchers and organization's managers. From the customer's point of view, there is less differentiation between the similar products and switching brands is not much difficult for them or it can

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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also be said that the loyalty of the customer for a single brand has decreased in the current scenario.

Price competition lost its positions and market oriented organizations are focusing more on maintaining relation with the customers, this effort of the organizations will improve the customer base and may be the level of loyalty also increases.

Statement of problems

Today the customer is having access to lot of information on real time basis and that too on a very low cost. As a result of this access to the fast and cost effective information the loyalty of the customer is at stake and this situation may be very difficult for the organizations indulged in the marketing and selling of their respective products or services. So what should be the way out? Customer relationship management can be viewed as the remedy of this issue. Intact fleet of customers may result in elongated loyalty and this may result in increased profitability for the firm (Feizi, 2008). Many of the firms are making heavy investment in maintaining the base for CRM. Though the success rate is not too high i.e. it is only 30%. (Rigbee.et al, 2012) Indeed, the effect of customer relationship management in different areas especially in service dimension is inevitable and cannot be ignored because of its high risk. Since the importance of using customer's relationship management in public sector, which is the main competitive instrument and get permanent advance in competitions in most of countries, it is important to plan and edit mechanism to decrease risks and simplifies its management. As the researcher s concluded that of the main reason of the costumer relation management failure is the lack of appropriate instrument and criteria to evaluate relationship with customers (Kruter, 2003). Like the other concept, if this organizational concept can't be evaluated, it can't be managed, too. Therefore, it is important to have comprehensive instruments to systematically evaluate customer's relationship management (Leken, 2002). As the importance of customer- center in marketing, the main loss is lack of effective permanent relationship with customers. On the other hand, in past customers expected producers to deliver on time, high quality, cheap products and services .Commercial is relation –based .Distribution chains are powerful. As distributing of products was wide, the main competition was keeping services and developing products to customers and simplifying customers buying, instead of keeping the relationship with customers. But today, organizations are in complicated and dynamic environment and competition among organization is increased, products' life is decrease and organizations come to decline. In many cases produces productions have the same qualities and customers decide what to buy (Kotler & Armstrong 2011) costumer –cent r is reveal by prioritize allocation resources on providing the higher value and customers' 'satisfaction (Naroor&Slater ,1990).

Literature Review

Frow (2014) defined CRM as the process of technological and strategic development which is having the purpose of creating value for the customers and this can be done by the way of maintain long term relationship with the existing and new customers.

Parvatiyar and Sheth (2012) stated that CRM can be viewed as the detailed and inbound strategy for the purpose of acquiring the customers retaining them for a longer period of time. This will help the organization to create value for the customers. In the long term long term this may be the tool to handle the competition. Actually CRM is the process that can integrate the efforts of marketing, sales, supply chain, etc. this will improve the competitiveness of the organization in the market.

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Rababah et al (2011) conducted a research on the buying intention of the customers and their enrollment in the data base of the company. the outcomes of the study revealed that most prominent type of CRM is the mixture of vision of the organization, business strategy of the organization and technology used for production. If these three are maintained at a particular level and implemented phase wise then it will result in a profitable ratio for the respective organization.

Marshall and Johnston (2015) stated that the business strategy formulated considering the customer base and efficient use of technology is having the power to sustain the customers for a longer period of time, this is the phenomenon that may result in high sales and increased profit for the firm.

Objectives of the Study

The objectives of the study are as follows:

- To find the relationship between Customer Relationship Management practices and reaction of the customers on respective products.
- To analyze the company's effort to establish the respective product based on the drive of customer relationship management.

Hypothesis of the Study

Based on the above objectives following hypothesis were framed:

Hypothesis I

H_0: There is a significant relationship between the customer relationship management and customer's tendency toward price reaction.

H_1: There is no significant relationship between the customer relationship management and customer's tendency toward price reaction.

Hypothesis II

H_0: There is a significant relationship between customer's relationship management and customers buying intention.

H_1: There is no significant relationship between customer's relationship management and customers buying intention.

Research Methodology

- The nature of the research is mostly descriptive in nature, i.e. first hand data is being collected from the respondents using a detailed questionnaire.
- The theoretical background of the study and the objectives were established by the use of secondary data, like newspaper articles, papers published in research journals, etc.
- Inferential Statistics was used to analyzed and interpret the gathered data.
- The population of the study was the customers of electronic appliances in the city of Jaipur, Rajasthan.
- The sample is selected by the use of random sampling method (100 respondents).

Data Analysis and Interpretation

Hypothesis 1

Correlations			
		Reaction to price	**Customer Support Dimension**
Reaction to price	Pearson Correlation	1	.755**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	243453144550000.000	27696519147700.000
	Covariance	12813323397368.422	1457711534089.474
	N	100	100
Customer Support Dimension	Pearson Correlation	.755**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	27696519147700.000	5529777478959.800
	Covariance	1457711534089.474	291040919945.253
	N	20	20
**. Correlation is significant at the 0.05 level (2-tailed).			

Interpretation

There is a high degree of positive correlation between the support provided by the company to the customer and the reaction of the customers towards the price of the product. This is the general observation of the researcher that customer support is also viewed as the part and parcel of the product's M.R.P. by the customers. This is also found true in case of electronic appliances, where all the customers are looking after the better support from the side of the company and the company which serves better has the larger customer base.

Correlations			
		Reaction to Price	**Marketing Support Dimension**
Reaction to Price	Pearson Correlation	1	.872
	Sig. (2-tailed)		.528
	Sum of Squares and Cross-products	231512750000.000	49964701000.000
	Covariance	77170916666.667	16654900333.333
	N	100	100
Marketing Support Dimension	Pearson Correlation	.872	1
	Sig. (2-tailed)	.528	
	Sum of Squares and Cross-products	49964701000.000	48407614802.000
	Covariance	16654900333.333	16135871600.667
	N	4	4

Interpretation

There is a high degree of positive correlation between the marketing support provided by the company to the customer and the reaction of the customers towards the price of the product. Here the term marketing support refers to the presence of features and type of service in the final product as stated by the company in its marketing campaign. This is because of the reason that in the current scenario customer is having access to all the dimension of the desired product by the way of internet and ecommerce websites. This is also found true in case of electronic appliances, where all the customers use to compare products on the stated and present features of the respective products.

So, on the basis of the above correlation analysis we can say that the null hypothesis '*There is a significant relationship between the customer relationship management and customer's tendency toward price reaction*' can be accepted and the alternate hypothesis can be rejected.

Hypothesis 2

Correlations			
		Intention to Buy	**Customer Support Dimension**
Intention to Buy	Pearson Correlation	1	.763*
	Sig. (2-tailed)		.037
	Sum of Squares and Cross-products	1786899000000.000	-1265943296500.000
	Covariance	595633000000.000	-421981098833.333
	N	100	100
Customer Support Dimension	Pearson Correlation	.763*	1
	Sig. (2-tailed)	.037	
	Sum of Squares and Cross-products	-1265943296500.000	966409645904.750
	Covariance	-421981098833.333	322136548634.917
	N	4	4
*. Correlation is not significant at the 0.05 level (2-tailed).			

Interpretation

There is a high degree of positive correlation between the support provided by the company to the customer and the intension of the customer to buy the respective product. This is also found true in case of electronic appliances, where all the customers are looking after the better support from the side of the company and the company which serves better has the larger customer base.

Correlations			
		Intension to Buy	**Marketing Support Dimension**
Intension to Buy	Pearson Correlation	1	.690
	Sig. (2-tailed)		.810
	Sum of Squares and Cross-products	96731000000.000	17871417000.000
	Covariance	32243666666.667	5957139000.000
	N	100	100
Marketing Support Dimension	Pearson Correlation	.690	1
	Sig. (2-tailed)	.810	
	Sum of Squares and Cross-products	17871417000.000	91058699581.000
	Covariance	5957139000.000	30352899860.333
	N	4	4

Interpretation

There is a moderate degree of positive correlation between the marketing support provided by the company to the customer and the intension of the customer to buy the respective product. This is also found true in case of electronic appliances, where all the customers, whether they are first time purchasers or repeat purchasers, are in the process of comparing products on the basis of marketing support provided by the company.

Conclusion

The firms engaged in the manufacturing and selling the electronic appliances are having the opportunity to reduce the supporting price of their products and having the tools to record the reaction of the customers in a structured manner, this will result in the high level of sales and increased profit. Furthermore, lots of works can be done with Internet. New method and approaches in marketing can develop selling and companies marketing performance. It is required that marketing sales promotion can be played along the CRM efforts, this will create positive attitudes toward brands, organizations ,brand awareness and brand background image. Marketing reaction is suggested to increase the level of trust and affective commitment and customers' satisfaction. In this way, companies motivate customers to ask questions, express their complaints and comments, after getting service from them. Appropriate and useful advertisement can improve customers' attitude toward the organization, the brand, brand awareness, and brand background image to provide better price, quality and comfort for customers. Activities such as endurance in customers' mind by using visual elements such as Logo, will improve customers unconscious evaluation attitude toward the company's name. Improving and keeping positive attitude toward the company to differentiate the company's products and services from other companies increases special value of that brand. Customers briefing programs about the profitability and efficiency of that company's services can be effective. It's important that companies use brand and marketing professions to create a strong background in customers' mind.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

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International Journal of Management, IT & Engineering
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A Study on Nifty 50 Stock Performances–Risk Diversification by Portfolio Formation

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Abstract

From the beginning of 1900's for the individuals, corporate societies and all other institutions as have been using Equities, Bonds, Gold and other securities as their initial investment options but the main problem in those investments is Risk. So, the main objective for my research is to provide an investment option with equities by the formation of portfolio by risk diversification. By this process of investment an investor can expect more return and also with a minimum amount of risk which would really benefit any investor.

Before my approach to my study, I have studied by investing in single equity or in single sector which has more risk when compared to that of the investments in diversified portfolio. By this process we can lower the amount of risk in investments and can expect good returns at any period of time by continuous changes in portfolio according to the changes in the market. In my research paper I have shown the portfolio of eight companies which has been constructed by using Nifty50 companies by comparing the returns, Alpha, Beta and also Standard deviation. The data has been collected for five years and research has been done on it that is still the most recent data has been collected.

Introduction

Equity Investments

Money that is invested in a firm by its owner(s) or holder(s) of common stock (ordinary shares) but which is not returned in the normal course of the business. Investors recover it only when they sell their shareholdings to other investors, or when the assets of the firm are liquidated and proceeds distributed among them after satisfying the firm's obligations. A place where individuals are involved in any kind of financial transaction refers to financial market. Financial market is a platform where buyers and sellers are involved in sale and purchase of financial products like shares, mutual funds, bonds and so on.

A market where individuals invest for a longer duration that is more than a year is called as capital market. In a capital market various financial institutions raise money from individuals and invest it for a longer period. Primary Market is a form of capital market where various companies issue new stock, shares and bonds to investors in the form of IPO's (Initial Public Offering). Primary Market is a form of market where stocks and securities are issued for the first time by organizations. Secondary market is a form of capital market where stocks and securities which have been previously issued are bought and sold.

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
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A portfolio refers to a collection of investment tools such as stocks, shares, mutual funds, bonds, and cash and so on depending on the investor's income, budget and convenient time frame.
The Equity Portfolio Management refers to the planning and implementation of various philosophies, methodologies, and strategies for beating the equity market. The primary objective of all investment analysis is to take investment decisions or advise others for making their own investment decisions. Thus, there exists a strong correlation between equity portfolio management and science of equity analysis.
The art of selecting the right investment policy for the individuals in terms of minimum risk and maximum return is called as portfolio management.
Portfolio management refers to managing an individual's investments in the form of bonds, shares, cash, mutual funds etc. so that he earns the maximum profits within the stipulated time frame.

Need for Portfolio Management

- **a.** Portfolio management presents the best investment plan to the individuals as per their income, budget, age and ability to undertake risks.
- **b.** Portfolio management minimizes the risks involved in investing and also increases the chance of making profits.
- **c.** Portfolio managers understand the client's financial needs and suggest the best and unique investment policy for them with minimum risks involved.
- **d.** Portfolio management enables the portfolio managers to provide customized investment solutions to clients as per their needs and requirements.

Risk Management

A widely known stock market basic is that investing in the equity market has several risks. The stock exchanges have developed a comprehensive system for risk management. This system ensures the investors' interests and prevents fraudulent activities by the companies. They are Asset allocation, Diversification and Rebalancing. Equity investments and portfolio management generally deals with all kinds of investments in different equities and changing those portfolio's accordingly to the changes in market conditions with decreases the risk involved in it and simultaneously increases the return.

Investment companies/ Investment funds

They receive money from investors with the common objective of pooling the funds and then investing them in securities according to a stated set of investment objectives.
Two types of funds:
• Open-end funds (mutual funds): Open-end funds have no pre-determined amount of stocks outstanding and they can buy back or issue new shares at any point. Price of the share is not determined by demand, but by an estimate of the current market value of the fund's net assets per share (NAV) and a commission.
• Closed-end funds (trusts): Closed-end funds are publicly traded investment companies that have issued a specified number of shares and can only issue additional shares through a new public issue. Pricing of closed-end funds is different from the pricing of open-end funds: the market price can differ from the NAV.

Research Objectives

1. To study performance of Nifty 50 stocks.
2. To construct a portfolio based on the risk, return perspective for Nifty 50.

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Need of the Study

Portfolio modeling is a good way to apply analysis and evaluation of a key set of Stocks- those that the portfolio manager wants to own—to a set of portfolios in one group or style. Portfolio modeling is an efficient link between equity analysis and portfolio management. As the outlook for individual stocks improves or deteriorates over time, the portfolio manager only needs to change the weightings of those stocks in the portfolio model to optimize the return of all portfolios in the group or style.

As long as the individual portfolio accounts are traded efficiently, the group will perform as a homogeneous element.

Literature Review

Grewal S.S and **Navjot Grewall** (1984) revealed some basic investment rules and rules for selling shares. They warned the investors not to buy unlisted shares, as Stock Exchanges do not permit trading in unlisted shares. Another rule that they specify is not to buy inactive shares, i.e., shares in which transactions take place rarely. The main reason why shares are inactive is because there are no buyers for them. They are mostly shares of companies, which are not doing well.

A third rule according to them is not to buy shares in closely-held companies because these shares tend to be less active than those of widely held ones since they have a fewer number of shareholders. They caution not to hold the shares for a long period, expecting a high price, but to sell whenever one earns a reasonable reward. **Jack Clark Francis** (1986) revealed the importance of the rate of return in investments and reviewed the possibility of default and bankruptcy risk. He opined that in an uncertain world, investors cannot predict exactly what rate of return an investment will yield.

However he suggested that the investors can formulate a probability distribution of the possible rates of return. He also opined that an investor who purchases corporate securities must face the possibility of default and bankruptcy by the issuer. Financial analysts can foresee bankruptcy. He disclosed some easily observable warnings of a firm's failure, which could be noticed by the investors to avoid such a risk. **Sunil Damodar'o** (1993) evaluated the 'Derivatives' especially the 'futures' as a tool for short-term risk control. He opined that derivatives have become an indispensable tool for finance managers whose prime objective is to manage or reduce the risk inherent in their portfolios. He disclosed that the over-riding feature of 'financial futures' in risk management is that these instruments tend to be most valuable when risk control is needed for a short- term, ie, for a year or less.

They tend to be cheapest and easily available for protecting against or benefiting from short term price. Their low execution costs also make them very suitable for frequent and short term trading to manage risk, more effectively.

Aswath Damodaran (1996) reviewed the ingredients for a good risk and return model. According to him a good risk and return model should-

a. Come up with a measure for risk that is universal

b. Specify what types of risks are rewarded and what types are not.

c. Standardized risk measures, to enable analysis and comparison.

d. Translate the risk measure into an expected return.

R.Venkataramani (l994) disclosed the uses and dangers of derivatives. The derivative products can lead us to a dangerous position if its full implications are not clearly

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understood. Being off- balance sheet in nature, more and more derivative products are traded than the cash market products and they suffer heavily due to their sensitive nature.
He brought to the notice of the investors the 'Over the counter product' (OTC) which are traded across the counters of a bank. OTC products (e.g. Options and futures) are tailor made for the particular need of a customer and serve as a perfect hedge. He emphasized the use of futures as an instrument of hedge, for it is of low cost.

Research Design

A research design is the arrangement of the conditions for collecting , analysis of data in a manner that aim to combine relevance to the research process and economy in the same process in order to save the valuable time. It is the specification of the methods and procedures for acquiring the information needed.
In my project the Descriptive Research and Casual Research Design study was used to study the relationships in question. Descriptive research facilitates the study to obtain accurate and complete information regarding a concept or a situation or a practice. Therefore, survey method was followed for the study.
According to the research design, I have performed the following steps in project:

Technical Analysis

Technical analysis is a method of evaluating securities by analyzing the statistics generated by market activity, such as past prices and volume. Technical analysts do not attempt to measure a security’s intrinsic value, but instead use charts and other tools to identify patterns that can suggest future activity.
The field of technical analysis is based on three assumptions:
A). The Market Discounts Everything
B). Price Moves in Trends
C). History Tends To Repeat

Secondary Data

The present study is mainly based on secondary data.
The secondary sources of data consist of:

A) Money control

Stock movements have been studied through charts with the help of different indicators and Overlays such as EMA (Exponential moving average), SMA (Simple moving average), RSI (Relative strength index), and WILLAMS % R.

B) NSE india.com

By using this stock movements has been studied whether they are meeting there resistant points or not moving.

C) Yahoo finance india.com

All the data related to stocks price changes has been collected from 22/05/2013 to 22/05/2018 from Yahoo finances india.com for the calculation of individual stock returns, Variances, Standard deviation, Averages for monthly, quarterly and year has been calculated.

D) Annual reports

Checking company’s performances in Balances sheets, Fact sheets to know the company goodwill of the company has been used.
This all the data together used in creating a portfolio of equity investment which is diversified and used in mitigating the risk.

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Secondary data have been taken for the purpose of general understanding of portfolio management, its historical background, achievements in working of the previous year's etc. The secondary data were collected from the reports, fact sheets, bulletins, journals, official records, published articles, newspapers, magazines etc. maintained and/or published by the asset management companies and researchers. General techniques helped to collect both quantitative and qualitative data.
Secondary Data were collected from books, journals, magazines, reports and websites. For this purpose the library and internet were used.
In my project the secondary data has been mainly collected from the website Yahoo finances India for the last 5 years day to day traded values and these data has been analyzed for preparing the right portfolio to be chosen for gaining max returns and minimizing the risk.

Period of the Study

The period of the study broadly covers the period from 2013 to 2018 that is from 22/05/2013 to 22/05/2018. However, while reviewing the historical data for Equities in India, the previous and future related data of all the stocks is considered. For the purpose of in-depth study, various fund schemes of different fund houses are also covered in this study.

Analysis and Disscussions

Procedure for Data Analysis

Aim of the project is to create a portfolio which consists of eight companies from different sectors. Those eight sectors have been according to the performances of the sector and future expected growth of the companies.

1) All the information gathered has been segregated according to the sectors.
2) From each sector highly performing companies were selected which may be one or two.
3) From the selected companies if there are two companies from one sector, Company with higher growth or expected growth will be given priority over the other.

E.g.: From pharmaceutical sector two companies were selected which were DR.REDDY and CIPLA for these two companies the charts were observed in which Cipla is far better than DR Reddy in returns and also over all return for 5years is highest for cipla. So, finally the companies selected where

1. EICHER MOTORS-AUTOMOBILE
2. CIPLA-PHARMA
3. L&T- CONSTRUCTION
4. YES BANK- BANKING
5. BAJAJ FINANCE- FINANCE
6. INDIAN OIL CORPORATION-ENERGY
7. TATA CONSULTANCY SERVICES-IT
8. TITAN- CONSUMER GOODS.

The sectors such as Telecommunication, Zee entertainment, Cigarettes, Cements, Shipping and Agrochemicals where not selected in my portfolio.

Table 1: Analysis of Eicher motors

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.044%	2017-2018 78.543%	2017-2018 11%	2017-2018 0.0002186	2017-2018 1.48%
2016-2018 0.111%	2016-2017 100.141%	2016-2018 55%	2016-2018 0.0002791	2016-2018 1.67%
2015-2018 0.081%	2015-2016 5.310%	2015-2018 60%	2015-2018 0.0003342	2015-2018 1.83%
2014-2018 0.163%	2014-2015 46.576%	2014-2018 160%	2014-2018 0.0003855	2014-2018 1.96%
2013-2018 0.194%	2013-2014 8.305%	2013-2018 239%	2013-2018 0.0003933	2013-2018 1.98%

Interpretation

In automobile sector, Eicher motors has been performing far better when compared with other companies in that sector like Maruti Suzuki, Hero motor corp, Bajaj auto, Mahindra and Mahindra and Tata motors where could not deliver total annual return of above 200% Eicher motors stood first by beating the estimates with 239% whereas Tata motors stood last with only 32% of return for 5 years.

Table 2: Analysis of Bajaj Finance

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.231%	2017-2018 53.709%	2017-2018 57%	2017-2018 0.000346185	2017-2018 1.86%
2016-2018 0.227%	2016-2017 58.725%	2016-2018 112%	2016-2018 0.000470681	2016-2018 2.17%

2015-2018 0.239%	2015-2016 64.333%	2015-2018 177%	2015-2018 0.000449629	2015-2018 2.12%
2014-2018 0.287%	2014-2015 106.708%	2014-2018 283%	2014-2018 0.000482525	2014-2018 2.20%
2013-2018 0.264%	2013-2014 42.042%	2013-2018 325%	2013-2018 0.000494271	2013-2018 2.22%

Interpretation

In finance sector, Bajaj finance has been performing far better when compared with other companies in that sector like Bajaj Finserv and HDFC finance could not total annual return of above 325%

Bajaj finance stood first by beating the estimates with 325% whereas HDFC finance stood last with only 185% of return for 5 years.

Table 3: Analysis of Cipla

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 -0.016%	2017-2018 -4.398%	2017-2018 -4.071%	2017-2018 0.000279302	2017-2018 1.67%
2016-2018 0.018%	2016-2017 13.471%	2016-2018 9.072%	2016-2018 0.000234523	2016-2018 1.53%
2015-2018 -0.021%	2015-2016 -24.876%	2015-2018 -15.804%	2015-2018 0.000246139	2015-2018 1.57%
2014-2018 0.044%	2014-2015 59.309%	2014-2018 43.505%	2014-2018 0.000267368	2014-2018 1.64%
2013-2018 0.033%	2013-2014 -3.339%	2013-2018 40.167%	2013-2018 0.000256489	2013-2018 1.60%

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Interpretation

In Pharma sector, Cipla has been performing far better when compared with other companies in that sector like Dr Reddy, Sun pharma and Lupin where could not deliver a total annual return of above 40%

Cipla stood first by beating the estimates with 40% whereas Dr Reddy stood last with only 14% of return for 5 years.

Table 4: Analysis of Titan

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.287%	2017-2018 73.310%	2017-2018 71%	2017-2018 0.000539079	2017-2018 2.33%
2016-2018 0.208%	2016-2017 29.595%	2016-2018 103%	2016-2018 0.000447903	2016-2018 2.12%
2015-2018 0.143%	2015-2016 2.834%	2015-2018 106%	2015-2018 0.000414063	2015-2018 2.04%
2014-2018 0.133%	2014-2015 24.994%	2014-2018 131%	2014-2018 0.000417523	2014-2018 2.04%
2013-2018 0.123%	2013-2014 21.059%	2013-2018 152%	2013-2018 0.000464412	2013-2018 2.16%

Interpretation

In FMCG sector, Titan has been performing far better when compared with other companies in that others sector like Bharti airtel, Bharti Infrarel, Adani ports and Zee entertainment where could not get total annual return of above 150%.

Titan stood first by beating the estimates with 152% whereas Bharti airtel stood last with only 38% of return for 5 years.

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Table 5: Analysis of Yes Bank

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.102%	2017-2018 23.747%	2017-2018 25%	2017-2018 0.000328189	2017-2018 1.82%
2016-2018 0.143%	2016-2017 47.163%	2016-2018 71%	2016-2018 0.000330003	2016-2018 1.82%
2015-2018 0.121%	2015-2016 18.697%	2015-2018 90%	2015-2018 0.000386003	2015-2018 1.97%
2014-2018 0.158%	2014-2015 65.871%	2014-2018 155%	2014-2018 0.000400409	2014-2018 2.00%
2013-2018 0.150%	2013-2014 29.286%	2013-2018 185%	2013-2018 0.000629241	2013-2018 2.51%

Interpretation

In banking sector, Yes bank has been performing far better when compared with other companies in that sector like SBI, Axis bank, HDFC bank and ICCIC bank could not total annual return of above 185%

Yes bank stood first by beating the estimates with 185% whereas SBI stood last with only 73% of return for 5 years.

International Journal of Management, IT & Engineering
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Table 6: Analysis of Indian Oil Corporation

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 -0.045%	2017-2018 -13.444%	2017-2018 -11%	2017-2018 0.000308477	2017-2018 1.76%
2016-2018 0.166%	2016-2017 95.558%	2016-2018 82%	2016-2018 0.000338113	2016-2018 1.84%
2015-2018 0.156%	2015-2016 33.197%	2015-2018 115%	2015-2018 0.000344122	2015-2018 1.86%
2014-2018 0.135%	2014-2015 17.543%	2014-2018 133%	2014-2018 0.00038219	2014-2018 1.96%
2013-2018 0.137%	2013-2014 36.223%	2013-2018 169%	2013-2018 0.000422993	2013-2018 2.06%

Interpretation

In Energy sector, Indian Oil Corporation has been performing far better with annual return of over 169%.

IOC stood with 169% whereas NTPC stood last with only 39% of return for 5 years.

Table 7: Analysis of Tata Consultancy Services

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.155%	2017-2018 39.383%	2017-2018 38%	2017-2018 0.000201287	2017-2018 1.42%
2016-2018 0.087%	2016-2017 3.580%	2016-2018 43%	2016-2018 0.000206948	2016-2018 1.44%

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2015-2018 0.062%	2015-2016 2.720%	2015-2018 46%	2015-2018 0.000190481	2015-2018 1.38%
2014-2018 0.072%	2014-2015 24.802%	2014-2018 70%	2014-2018 0.000199785	2014-2018 1.41%
2013-2018 0.088%	2013-2014 38.243%	2013-2018 109%	2013-2018 0.000221728	2013-2018 1.49%

Interpretation

In Information technology sector, Tata consultancy services has been performing well when compared with other companies in that sector like Wipro, Infosys, Tech Mahindra, and HCL technologies where TCS stood with total annual return of over 109%

Tata consultancy services stood with 109% but do not stand in number one position but its future estimates helped me to choose in my portfolio and Wipro stands at last position with 32% of return.

Table 8: Analysis of Larsen & Toubro

AVERAGE YEARLY RETURNS	YEARLY RETURNS	ANNUAL RETURNS FOR 5 YEARS	ANNUAL VARIANCE	ANNUAL STANDARD DEVIATION
2017-2018 0.066%	2017-2018 17.965%	2017-2018 16%	2017-2018 0.000179721	2017-2018 1.34%
2016-2018 0.110%	2016-2017 36.646%	2016-2018 55%	2016-2018 0.000215952	2016-2018 1.47%
2015-2018 0.047%	2015-2016 -19.714%	2015-2018 35%	2015-2018 0.000250013	2015-2018 1.58%
2014-2018 0.052%	2014-2015 15.794%	2014-2018 51%	2014-2018 0.000267649	2014-2018 1.64%
2013-2018 0.079%	2013-2014 46.419%	2013-2018 97%	2013-2018 0.000312538	2013-2018 1.77%

Interpretation

In all sector with one company has in it combining shows differences Larsen and Tourbon has been performing far better when compared with other companies in those sectors like UPL, Asian paints, ITC and HUL where performing better but I choose L&T ahead of others with their financial statements.

L&T stood with 97%, UPL with 185% return and HUL with 121% whereas ITC stood last with only 51% of return for 5 years.

Findings and Conclusion

Findings

In all the sectors finance sector has been outperforming with an average of 49% of return yearly. This sector consists of four companies they are Bajaj finance, Bajaj finserv, India bulls finance and HDFC hosing finance. In all the sectors Pharmaceutical sector has been underperforming with an average of 16% of return yearly. This sector consists of four companies they are DR Reddy, Sun Pharma, Cipla and Lupin.

In automobile sector the Eicher motors is the best performer and Tata motors is the underperforming company. Where Eicher return has been increased 239% for last five years where as Tata return is 32%. The agrochemical company UPL has been performing with good returns that is 189% for 5 years but has not been included in the portfolio.

In banking sector, Yes bank tops with returns of 185% and ICICI with lower returns of 78% for 5 years. In finance sector, Bajaj finance with 325% of return where as HDFC finance with 94% of return.

In Information technology sector, Tech Mahindra with 139% of return where as TCS and Infosys with 109% of return for 5 years. In telecommunication sector, Bharti infra with 105% of return and Bharti airtel with 34% of return.

In energy sector, HPCL with 285% of return whereas ONGC with 26% of return for 5 years. In cement sector, Grasim with 102% of return whereas Ultra tech cement with 87% of return for 5 years. In all the nifty50 companies, Bajaj finance is the highest with 325% of return whereas sun Pharma with 13% of return for 5 years is the lowest.

Conclusion

The results from this study helps investor in selecting the right stock to the invested which will give maximum return by reducing risk. From this study the investor will come to know the benefits of portfolio construction with equities. From the study we found Bajaj finance stock gives 48% of average return yearly and overall return of 325% for 5 years. From the study we found Sun Pharma stock gives 8.88% of average return yearly and overall return of 13% for 5 years.

From the study we found top performing sector is Finance sector consisting of Bajaj finance, Bajaj, HDFC finance and India bulls housing finance with 30% of average yearly return.

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Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
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महर्शि अरविन्दः राजनैतिक विचार एक विष्लेशण

डा0 अरबिन्द
(पी0एच0डी0 दर्शनशास्त्र)
महात्मा ज्योतिबा फुलें रूहेलखण्ड विश्वविद्यालय, बरेली

श्री अरविन्द को एक श्रृशि, आदर्ष्वादी, अध्यात्मावादी दार्षनिक के रूप में स्मरण किया जाता है किन्तु इन सबके साथ–साथ श्री अरविन्द एक व्यावहारिक राजनीतिज्ञ थे। श्री अरविन्छ आध्यात्मिक राजनीति के प्रणेता थे। भारत–माता को परतन्त्रता की बेड़ियों से मुक्त कराना श्री अरविन्द के राजनीतिक जीवन का लक्ष्य था। इंग्लैड निवास के समय अरविन्द भारतीय राश्ट्रीय कांग्रेस से अत्यधिक प्रभावित थे किन्तु कालान्तर में अरविन्द को कांग्रेस का उद्देष्य का अस्पश्ट प्रतीत होने लगा तथा पद्धतिया अनुचित।

श्री अरविन्द ने अपने राजनीतिक आदर्षो की व्यावहारिक परिणति निम्न सिद्धान्तों के सन्दर्भो में किया जा सकता है–

1. निश्क्रिय प्रतिरोध सिद्धान्त
2. क्रान्तिकारी संगठनों द्वारा आतंक व्याप्त करना
3. बहिश्कार

श्री अरविन्द ने स्वतन्त्रता प्राप्ति के 3 उपाय बताये–

1. याचना
2. आत्मविकास और आत्म सहायता
3. सत्ता के विरूद्ध संगठित प्रतिरोध

राजनीतिक स्वतन्त्रता राश्ट्र की जीवनी षक्ति है।

महर्शि अरविन्द के अनुसार राश्ट्र अपने अस्तित्व की रक्षा हेतु तीन प्रकार से प्रतिरोध करते है–

1. संगठित सैनिक षक्ति की सहायता से विद्रोह
2. सक्रिय अथवा आक्रमणषील प्रतिरोध
3. निश्क्रिय प्रतिरोध

(पारनेल ने आयरलैड में करन अदा करने की नीति अपनायी)

स्वतन्त्रता राश्ट्र के जीवन की ष्वास है, जब प्राणों पर आक्रमण किया जाता है और ष्वास लेने के प्रत्येक प्रयास को दमन द्वारा दबा दिया जाता है तो आत्मरक्षा हेतु कोई भी उपाय अपनाना उचित एवं न्यायपूर्ण है। श्री अरविन्द कहते है कर न अदा करना निश्क्रिय प्रतिरोध सिद्धान्त का अंतिम एवं सषक्त रूप है। श्री अरविन्द एवं गांधी जी के विचारों में जो मूलभूत अंतर था वह था साधन का। श्री अरविन्द का कथन है हिंसा का उत्तर हिंसा से कोड़े का उत्तर रिवाल्वर से, कैद का उत्तर दंगा से तथा फांसी का उत्तर डायनामाइट बाम्ब से दो। श्री अरविन्द ने निश्क्रिय प्रतिरोध में परिवर्तित करते समय गीता से प्रेरणा ग्रहण करते है किन्तु गांधी जी इस विशय में टालस्टाय से प्रभावित थे।

वास्तव में सत्याग्रह और निश्क्रिय–प्रतिरोध दोनों ही पद्धतियां साधन और साध्य की नैतिकता पर बल देती है, थोड़ा अन्तर यह है कि निश्क्रिय–प्रतिरोध के लिए युद्ध एवं षांति की नैतिकता पृथक–पृथक है वही सत्याग्रही के लिए दोनो परिस्थितयों में नैतिकता की एक ही परिभाशा है। गोखले ने आध्यात्मिक निश्क्रिय–प्रतिरोध में प्रत्यपकार की कार्यवाही को कोई स्थान नही दिया किन्तु श्री अरविन्द का उदाहरण देकर प्रत्यकार की कार्यवाही का समर्थन करते है। गोखले का निश्क्रिय प्रतिरोध सुरक्षात्मक है मगर श्री अरविन्द का निश्क्रिय प्रतिरोध केवल तभी एक सुरक्षात्मक है जब तक इसके संचालन में प्रषासन हस्तक्षेप नही करता। श्री अरविन्द भारतीय स्वतन्त्रता संग्राम को यज्ञ की संज्ञा देते है। श्री अरविन्द ने राजनीतिक पद्धति पर जो धार्मिक आवरण डाला उसने गांधी के द्वारा साधन और साध्य के मध्य उठाये गये विवाद को समाप्त कर दिया। बंगाल के 'नेषनल कालेज' के प्राचार्य के रूप में श्री अरविन्द नै षैक्षिक बहिस्कार एवं राश्ट्रीय षिक्षा के आदर्ष का व्यावहारिक रूप देने का प्रयास किया। न्याय और धर्म की रक्षा के लिए योद्धा क तलवार की उतना ही आवष्यकता है जितनी एक साधु की प्रवित्रता। संत रामदास षिवाजी के बिना अधूरे है। सषक्त राश्ट्रीय चेतना एवं संघर्श तथा आत्मबलिदान के वातारण का पुनर्जीवन श्री अरविन्द की राजनीतिक पद्धति के प्रधान तत्व थे। श्री अरविन्द विभिन्न राजनीतिक पद्धतियों का प्रयोग करके पूर्ण स्वराज के लक्ष्य को प्राप्त करना चाहते थे। श्री अनविन्द प्रथम व्यक्ति थे जिन्होने पूर्ण स्वराज के आर्दष को भारजीय राश्ट्रीय आंदोलन का लक्ष्य माना। मालिक और आश्रित के सम्बन्ध से, श्रेश्ठ और हीन के सम्बंध में सन्तुश्ट होना मानव स्वभाव के विपरीत है।

अरस्तू की तरह ही श्री अरविन्द भी समानता की भुख को मानव प्रकृति का अनिवार्य अंग मानते है। यही समानता की भूख क्रान्ति की प्रेरक बन जाती है। श्री अरविन्द का पूर्ण स्वराज का लक्ष्य तिलक की अपेक्षा अधिक उग्र था। तिलक की अवधारणा पूर्णतया राजनीतिक थी अरविन्द की अध्यात्मिक। अरविन्द का राजनीतिक वेदान्तवाद धर्म और राजनीति को घनिश्ठ रू॰ से संबधित कर दिया। श्री अरविन्द षक्ति की अराधक को ही जापान की उन्नति का कारण मानते है। भारतीय वेदान्तवाद की आड़ मे श्री अरविन्द मैकियावेली के राजनीतिक सिद्धान्त का समर्थन कर रहे है। साधन गौण है।

श्री अरविन्द ने ब्रहमतेज को भी राजनीतिक पद्धति में स्थान दिया है। निश्क्रिय प्रतिरोध वेदान्त के ब्रहमतेज पर ही आधारित था। राजनीतिक वेदान्तवाद में गीता के स्वधर्म की झलक है।

श्री अरविन्द ने राज्य की प्रकृति और कार्य के विशय में कोई सुनिष्चित वियार प्रस्तुत नही किया है। अरविन्द के राज्य सिद्धान्त का अध्ययन निम्न षिर्शको में–

1. राज्य की उत्पत्ति

2. राज्य का विकास
3. राज्य की प्रकृति
4. राज्य के कार्य

राज्य के उत्पत्ति के सम्बन्ध मे श्री अरविन्द के विचार हाब्स, लौक, रूसों के समान प्राकृतिक अवस्था पर विचार करते है। अरविन्द ने अरस्तू के सिद्धान्त को स्वीकार करते हुये उसके विकास के सम्बंध में लाम्प्रैख्ट के प्रकार सिद्धान्त को भारत पर लागू किया। वैदिक युग को महर्शि अरविन्द ने प्रतिकात्मक युग कहा, अरविन्द व्यक्ति प्रधान, तर्क प्रधान युग के प्रतिनिधि के रूप में राज्य को स्वीकार किया और राज्य का आधार मानव की तर्क बुद्धि को माना। अरविन्द राज्य के स्वैच्छाचारिता के सिद्धान्त के स्थान पर यथोच्छाचारिता के सिद्धान्त का समथर्न किया।

अरविन्द ने दयानन्द व विवेकानन्द के सामान ही आध्यात्मिक राश्ट्रवाद के सिद्धान्त का प्रतिपादन किया। स्वेदेषाअभिमान की मानव भावना ही राश्ट्रवाद के रूप में व्यक्त होती है। श्री अरविन्द ने राश्ट्रवाद को धर्म के रूप में स्वीकार करके यह सिद्ध कर दिया कि चूकि धर्म का पालन प्रत्येक व्यक्ति का कर्तव्य है अतः राश्ट्रवादी होना भी प्रत्येक व्यक्ति का कर्तव्य है। अरविन्द के लिये भारतीय स्वतंत्रता का प्रष्न एक स्थानीय समस्या न होकर मानवीय समस्या थी। अरविन्द का राश्ट्रवाद मानवीय, अन्तरराश्ट्रीय एवं सार्वभोमिक था। श्री अरविन्द को लोकतंत्र की प्रतियोगितात्मक प्रवृत्ति से घर्णा थी। उनका विचार है कि यदि व्यक्तिवादी जनतंत्र में व्यक्ति की स्वन्त्रता का हनन होता है, तो समाजवादी जनतंत्र में लोकतंत्र के समस्त आदर्षो स्वन्त्रता, समानता, बन्धुत्व की इतिश्री हो जाती है।

अरविन्द ने स्वन्त्रता को व्यक्तवाद की अभिव्यक्ति माना, स्वन्त्रता के उपभोग हेतु अधिकारो की आवष्यकता अधिकारो के साथ–साथ कर्तव्य पालन की भी आवष्यकता है। उपयोगितावाद, पूंजीवाद, फार्सिवाद की अरविन्द ने घोर आलोचना किया है। अरविन्द प्राकृतिक कानून को अपने अपमानो अथवा लाक और रूसों की षान्त प्राकृतिक अवस्था में निवास करने वाले मानव के लिये उचित मान देते है। कानून पालन के सम्बंध में षक्ति का महत्व अनिवार्य है। कानून पालन बाध्यकारी तत्व को आवष्यक मानते है।

श्री अरविन्द के राजनैतिक विचारों के अध्ययन से स्पश्ट है कि धार्मिक एवं सामाजिक सुधार हेतु प्रयास जारी थे, श्री अरविन्द ने राजनीतिक स्वत्रंता को प्रधान लक्ष्य मान कर एक ओर निश्क्रिय प्रतिरोध, स्वदेषी, बहिश्कार जैसे उग्र साधनो का समर्थन किया तो दूसरी ओर भारतीय राश्ट्रीय आन्दोलन को दैव–निर्दिश्ट बताकर उग्र राश्ट्रवाद को आध्यात्मिक राश्ट्रवाद की दिषा में मोड़ दिया।

सन्दर्भ ग्रंथ सूची

1. वंन्दे मातरम् अर्ली पोलिटिकल राइटिंग्स पृष्ट 16।
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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

परम्परागत ज्ञान व्यवस्था – वेद उपनिशद पुराण स्मृतियों आदि में न्याय की अवधारणा

डॉ0 अमिय कुमार*

भारत भूमि पर पैदा हुऐ विद्वानो ने पूरी मानवता को अपने चरित्र की शिक्षा दी अर्थात समाज कल्याण की भावना आपूरित होकर पूरे विश्व को मानवता का संदेश दिया इसलिये अपनी पुस्तक '' भारत से हमें क्या सीख मिलती है '' में मैम्समूलर ने लिखा कि चाहे दर्शन हो साहित्य हो, इतिहास हो, संस्कृत हो,पुराण हो, काव्यशास्त्र हो, और मानव प्रकृति का मनोविज्ञान हो, सबकी अप्रतिम शान भारतीय साहित्य में निगुम्फित है। पाश्चात्य मनीषियों ने अपने भाष्य एवं टीकाओं से भारतीय साहित्य को समृद्ध किया है। सर ए वी कीथ , मैकडोनल्ड, मैक्समूलर, सिल्वा, लेवी, आदि न जाने कितने विद्वानों से अपनी लेखनी के माध्यम से भारतीय संस्कृति की व्याख्या करने में अपने को निमज्जित किया। भारतीय मनीषियों ने भी जन कल्याण से ओत प्रोत साहित्य की संरचना किया।

वेदों, उपनिषदों, वेदांगों, ब्राहमण ग्रन्थों, आरण्यकों तथा पुराणों में वर्णित लोक कल्याण की भावना आज तक अविरल गति से बह रही है। वर्तमान भारतीय समाज 26 जनवरी 1950 के संविधान द्वारा शासित है और संविधान निर्माताओं के उद्देश्यों के अनुसार संविधान में निरूपित विचारों के अनुसार ही देश का शासन चल रहा है। भारतीय समाज की जाति व्यवस्था व वर्ण व्यवस्था से विच्छिन्न हो रही अबाध गति को यथावत बनायें रखने के लिये आज भी सरकारों का प्रयत्न रहा है कि अपनी ऐतिहासिक धरोहर के अनुरूप मनुष्य समाज के गति संचालन के लिये कुछ वैधानिक व्यवस्थायें की जाय। इसी का नतीजा है कि शताब्दियों से दलित शोषित एवं पिछड़े वर्ग के लोंगों के लिये एक ओर राज्य का संरक्षण दिया गया है वही अभी हाल के दिनों में केन्द्रीय सरकार ने संविधान में संशोधन करके आर्थिक रूप से निर्धन लोगों को भी राज्य का संरक्षण प्रदान किया है। संवैधानिक प्रावधानों के आलोक में की गयी व्यवस्थायें लालीपॉप राजनीति का एक विकृत रूप है। यह कठिन ही नहीं असम्भव भी है कि पूरे समाज को एकरूपता में बांधकर भेड़ बकरी की तरह चराया जा सके इस देश में लोकतंत्र के बहाने राजनीति को विकृत करने वाले राजनीतिक दलों की बलिहारी हो। विपन्न लोंगों को सुविधायें मिलनी चाहियें लेकिन महात्मा गांधी जी के द्वारा 4 अगस्त 1932 को श्री एम आसिफ अली बार एट लॉ को लिखे गये पत्र को उद्धत करतें हुये कहा जा सकता है कि सामाजिक न्याय की स्थापना भ्रातत्व के बिना स्थापित नहीं की जा सकती है। गांधी जी ने लिखा कि भ्रातत्व एक दूर की आशा है यह सही आध्यात्मिकता का परीक्षण है। हमारी सभी प्रार्थनायें, सभी व्रत और तप तब तक खाली है जब तक हम सारे जीवों के साथ सभी प्राणियों के रक्त सम्बन्ध का भाव महसूस न करें किन्तु आज भी इस स्थिति में नहीं पंहुचे है। अतः सामाजिक न्याय की संकल्पना सही मायने में स्थापित नहीं की जा सकती। भारतीय प्रज्ञा में अनेक मनीषियों, विद्वानों, सन्तो, महात्माओं एवं आप्त पुरूषों की एक समृद्ध एवं अक्षय परम्परा रही है जिसने अक्षुण साहित्य उदभूत किया है। यह ज्ञान परम्परा वेदकाल से आज तक अजस्र रूप से अबाद गति के साथ अद्यावधि विद्मान है। प्रभूत साहित्य की इस परम्परा में केन्द्रीय विषय लोकमंगल ही रहा है। इसलिए साहित्य की संरचना में ''शिवेतर क्षतये'' को केन्द्र में रखा गया है। काव्यप्रकाश के रचयिता आचार्य मम्मट ने लिखा है कि काव्यमं यशसे, अर्थकृते व्यवहारविदे शिवेतर क्षतये अर्थात् साहित्य संरचना के उद्देश्य लोकमंगल ही है। इसी का अनुगमन करते हुए तुलसीदास जी ने लोक मंगल को ही काव्य का केन्द्रीय विषय बताया है।

हमारे साहित्य में पाश्चात्य साहित्य की तरह दुखान्त कथानकों को विषय नहीं बनाया गया है, अपितु आशावाद को केन्द्रीय विषय माना गया है, जहॉ आशावाद होगा वहॉं मनुष्य को सतत् संघर्ष जीवन की प्रेरणा मिलती रहेगी। हमारे प्राचीन ग्रन्थों में ऋषि मुनियों के कथन स्थायी सुक्ति बन गये है और ''अयं निजं परोवेति'' गणना लघु चेतसाम।'' उदार चरितानाम् कु वसुधैव कुटुम्बकमं।।

अर्थात् प्राचीनकाल से ही हमारे यहां सामाजिक कल्याण सामाजिक न्याय की भावना सर्वत्र व्याप्त रही है। ''सर्वे भवन्तु सुखिनः सर्वे सन्तु निरामयाः,सर्वे भद्राणि पश्यन्तु मा कश्चित् दुःख भाग्भवेत्।

अर्थात् सभी सुखी हो सभी निरोग हो किसी को कोई कष्ट क्लेश न हो इसी भावना को हृदय में रखकर परवर्ती युग के मनीषियों ऋषियों महात्माओं एवं साहित्यकारों ने भी अपनी बात को बुलन्द किया है। ''आत्मनः प्रतिकूलानि परेषां न समाचेरत'' अर्थात् अपने विपरीत आचरण को दूसरों के भी विपरीत मानिए अर्थात् जैसे – गाली आपको बुरी लगती है वैसे दूसरों को भी गाली बुरी लगेगी। इस भावना से संचालित होकर आचरण करने की सीख हमारी परम्परा में रही है और उसके प्रति हमें प्रतिबद्ध रहना चाहिए।

यह अलग बात है कि सैद्धान्तिक रूप से न्याय की अवधारणा पाश्चात्य् जगत के मनीषियों ने प्रतिपादित किया इसमें सबसे प्रमुख नाम यूनानी विचारक प्लेटो का है जिन्होंने न्याय की सार्वभौमिक अवधारणा को विकसित किया और

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International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

इससे नेक धर्मिता से जोड़ा, उन्होंने कहा कि स्वकर्तव्य निस्तारण में ही परम् लक्ष्य होना चाहिए और इसी में अपना समर्पण कर देना न्याय की पराकाष्ठा मानी जायेगी। उन्होंने अपने ग्रन्थ रिपब्लिक में काम ही पूजा है की अवधारणा को विकसित किया और गीता में भगवान कृष्ण के इस कथन की उसमें स्वीकारोक्ति झलकती है, क्योंकि भगवान ने कहा है कि ''स्व धर्मे निधनं श्रेयः परधर्मो भयावहः'' अर्थात् अपने कर्तव्य पालन में यदि मृत्यु भी हो जाय तो वह श्रेष्ठकर है, दूसरे के कार्य में हस्ताक्षेप करना भयंकर और आपदादायक है। अरस्तू ने भी अपनी पुस्तक राजनीति में वितरतणात्मक न्याय की अवधारणा को विकसित किया है इन दोनों मनोषियों के विचारों को भारतीय मनीषियों के विचारों से समीकृत करके देखा जा सकता है। चिर स्थायी कृति, वेदो, धर्मशास्त्रों, स्मृतियो, उपनिषदों, अरण्य ग्रन्थों एवं वाह्मण ग्रन्थों में भी मनुष्य के जीवन की कल्याणकारी एवं लोकोपकारी रूप की महत्ता का विवेचन किया गया है। स्मृतिकारों ने ''आन्विषकी त्रयी वार्ता दण्ड नीतिश्च'' पर जोर देते हुए राजाओं को इन विद्याओं को सीखना परम् आवश्यक बताया, चाहे मनुस्मृति की रचना करने वाले मनु हो चाहे कौटिलीय अर्थशास्त्र की रचना करने वाले कौटिल्य हो। उन सन्दर्भो में सामाजिक न्याय की स्थापना करने के लिए राजाओं को नसीहते दी है और कहा है कि प्रजारंजन ही राजा का प्रमुख कार्य है इसी ने आततायी राजाओं को हमारे शास्त्रों में हमेशा कुत्सित दृष्टि से देखा गया हैं। इतिहास के पन्नों में अनेकानेक ऐसे राजाओं को हेय दृष्टि से देखा गया है, जिन्होंने प्रजा को उत्पीड़ित एवं प्रताड़ित किया है। राज तन्त्र होते हुये भी राम के राज्यारोहण के समय महाराजा दशरथ ने आचार्य वशिष्ठ से कहा कि राजा को तिलक करने के पहले प्रजा की राय लेना जरूरी है, इसलिए उन्होंने कहा कि जो ''पाँचइ मत लागय नीका देहि हरस हिय रामहि टीका'' यदि पंचों की राय हो तो राम का राज्यारोहण किया जाय अर्थात् यह प्रजा की आदर की भावना प्रदर्शित करता है। यही कारण था कि लंका विजय के पहले समाज के निचले तपके के लोगों को लेकर भगवान राम ने लंका पर चढ़ाई की, उसके पहले मान मनौवल की सभी विधियों को अपना लिया। शास्त्रों में राजा द्वारा उन्हीं कार्यो की अनुमति दी गयी है जो ''प्रजारंजन'' के साथ–साथ सामाजिक न्याय की स्थापना कर सके।

न्याय की अवधारणा देश काल और परिस्थिति सापेक्ष नहीं है। वह शाश्वत सत्य की गवेषणा के मार्ग का अनुसरण करती है। इसलिये किसी भी देशकाल और परिस्थिति में मनीषियों, ऋषियों एवं आप्त पुरूषों के वचन एवं कथन सार्वभौमिक महत्व रखते है। मनुस्मृति की रचना करने वाले मनु ने लिखा है कि ''एतद्देश प्रसूतस्यः सकाशादग्रजन्मनः स्वं स्वं चरित्रं शिक्षरेन् पृथिव्या सर्वमानवाः

अर्थात भारत भूमि पर पैदा हुऐ विद्वानो ने पूरी मानवता को अपने चरित्र की शिक्षा दी अर्थात समाज कल्याण की भावना आपूरित होकर पूरे विश्व को मानवता का संदेश दिया इसलिये अपनी पुस्तक '' भारत से हमें क्या सीख मिलती है '' में मैम्समूलर ने लिखा कि चाहे दर्शन हो साहित्य हो, इतिहास हो, संस्कृत हो,पुराण हो, काव्यशास्त्र हो, और मानव प्रकृति का मनोविज्ञान हो, सबकी अप्रतिम ज्ञान भारतीय साहित्य में निगुम्फित है। पाश्चात्य मनीषियों ने अपने भाष्य एवं टीकाओं से भारतीय साहित्य को समृद्ध किया है। सर ए वी कीथ , मैकडोनल्ड, मैक्समूलर, सिल्वा, लेवी, आदि न जाने कितने विद्वानों से अपनी लेखनी के माध्यम से भारतीय संस्कृति की व्याख्या करने में अपने को निमज्जित किया। भारतीय मनीषियों ने भी जन कल्याण से ओत प्रोत साहित्य की संरचना किया। वेदों, उपनिषदों, वेदांगों, ब्राहमण ग्रन्थों, आरण्यकों तथा पुराणों में वर्णित लोक कल्याण की भावना आज तक अविरल गति से बह रही है। वर्तमान भारतीय समाज 26 जनवरी 1950 के संविधान द्वारा शासित है और संविधान निर्माताओं के उद्देश्यों के अनुसार संविधान में निरूपित विचारों के अनुसार ही देश का शासन चल रहा है। भारतीय समाज की जाति व्यवस्था व वर्ण व्यवस्था से विच्छिन्न हो रही अबाध गति को यथावत बनायें रखने के लिये आज भी सरकारों का प्रयत्न रहा है कि अपनी ऐतिहासिक धरोहर के अनुरूप मनुष्य समाज के गति संचालन के लिये कुछ वैधानिक व्यवस्थायें की जाय। इसी का नतीजा है कि शताब्दियों से दलित शोषित एवं पिछड़े वर्ग के लोंगों के लिये एक ओर राज्य का संरक्षण दिया गया है वही अभी हाल के दिनों में केन्द्रीय सरकार ने संविधान में संशोधन करके आर्थिक रूप से निर्धन लोगों को भी राज्य का संरक्षण प्रदान किया है। संवैधानिक प्रावधानों के आलोक में की गयी व्यवस्थायें लालीपॉप राजनीति का एक विकृत रूप है। यह कठिन ही नहीं असम्भव भी है कि पूरे समाज को एकरूपता में बांधकर भेड़ बकरी की तरह चराया जा सके इस देश में लोकतंत्र के बहाने राजनीति को विकृत करने वाले राजनीतिक दलों की बलिहारी हो। विपन्न लोंगों को सुविधायें मिलनी चाहियें लेकिन महात्मा गांधी जी के द्वारा 4 अगस्त 1932 को श्री एम आसिफ अली बार एट लॉ को लिखे गये पत्र को उद्धत करतें हुये कहा जा सकता है कि सामाजिक न्याय की स्थापना भ्रातत्व के बिना स्थापित नहीं की जा सकती है। गांधी जी ने लिखा कि भ्रातत्व एक दूर की आशा है यह सतही आध्यात्मिकता का परीक्षण है। हमारी सभी प्रार्थनायें, सभी व्रत और तप तब तक खाली है जब तक हम सारे जीवों के साथ सभी प्राणियों के रक्त सम्बन्ध का भाव महसूस न करें किन्तु आज भी इस स्थिति में नहीं पंहुचे है। अतः सामाजिक न्याय की संकल्पना सही मायने में स्थापित नहीं की जा सकती ।

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell’s Directories of Publishing Opportunities, U.S.A

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Indian Stock Market and International Stock Markets : A comparative Analysis

Dr. NILAM PANCHAL*

Abstract: *Since last few years activities at the Indian stock market have increased and so are the international activities. This report has been prepared with the intention of understanding the global trends and patterns and the simultaneously flow of the global stock market. For the purpose of the study, the stock markets and exchanges covered hereby are of USA, India, China, Hong Kong, Japan, Russia, South Korea, and UK during post global financial crisis period. All these stock markets have different history, trends and political and social background. For the purpose of analyzing the integration of the Indian Stock market with these International Stock exchanges, we've included data of the National Stock Exchange and the Bombay Stock Exchange. The Time Period taken here is from 30th September 2010 to 30th September 2018 based on daily closing prices of stock market indices for all the selected countries.*
Keywords: *Stock Market, Comparative Analysis, Descriptive Analysis, Correlation*

Introduction

Since 1990-91 (LPG Reforms), the Indian Stock Market and the International Stock Markets faced lots of changes. The purpose of the policies of LPG was to remove the trade barriers among the international stock markets thus widening the scope for the Indian Capital Market. LPG reforms have made the international market a local market for India. The main reasons of doing this study are to know the effect of the international financial crisis in the recent periods caused by localized crises such as the collapse of Russian bond market, the Asian financial crisis, and the recent US financial crisis. They all must follow the same parameters of the valuing the financial instruments and all participants should be treated equal in the market. There are number of barriers in the international stock market as taxes, tariffs, restrictions on trading in foreign assets, Information cost which hinders the free flow of capital from one market to another. So, with the integration of the Indian Stock Market, the foreign investors can invest in the domestic market and the domestic investors can invest in the foreign markets.

Literature Review

Srinivasa Rao Gangadharan& C.A Yoonus (2011) observed the impact of the global financial crisis on the level of financial integration between the Indian stock market (CNX S&P) and US (S&P 500) using daily returns from March 2005 to November 2010. The study reveals that there is no co-integration between the two indices.

Sarat Dhal (2009) used multivariate co-integration analysis of stock prices indices of global markets of the US, the UK and Japan, Hang Kang Singapore India over the period covers April 1993 to July 2009. The results show that these markets shared single co-integration relationship and Indian Stock market played the key role.

Shivi Khanna (2016) observed the price behavior of Indian stock market with UK and Japan stock market prior and post global financial crisis and concluded that during the pre-

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crisis period both japan and UK markets are integrated with Indian market, while in post crisis Indian markets were influenced by UK stock market ,but not by Japan market.

Aman Srivastava (2015) using the time series global indices data ranging from January 1992 to April 2014 using US , Japan , Singapore , Hong Kong and India and the study suggests the presence of strong long term integration but the absence of short term integration of Indian stock markets with global markets.

Research Methodology

The method of collecting the data used here is the secondary. The data is available on the various stock exchanges of the different countries. The methodology of the study primarily includes analyzing trend movements. To represent the Indian stock market, main indices BSE SENSEX and NIFTY; Hang Seng for Hong Kong; NYSE and NASDAQ for US; Shanghai for China; KOSPI for South Korea; Nikkei for Japan; LSE for UK; and IRTS for Russia.

The following methods are used for analysis.

1. Descriptive Analysis of Value of Stocks.
2. Graphical analysis of price indices.
3. Correlation between the different stock indices

Scope of Study

The following research is studying the stock markets and exchanges of India, Hong Kong, USA, China, South Korea, Japan, UK and Russia. The Time Period taken in this study is from 30th September 2010 to 30th September 2018. Basis of the study is daily closing prices of stock market indices for all the selected countries.

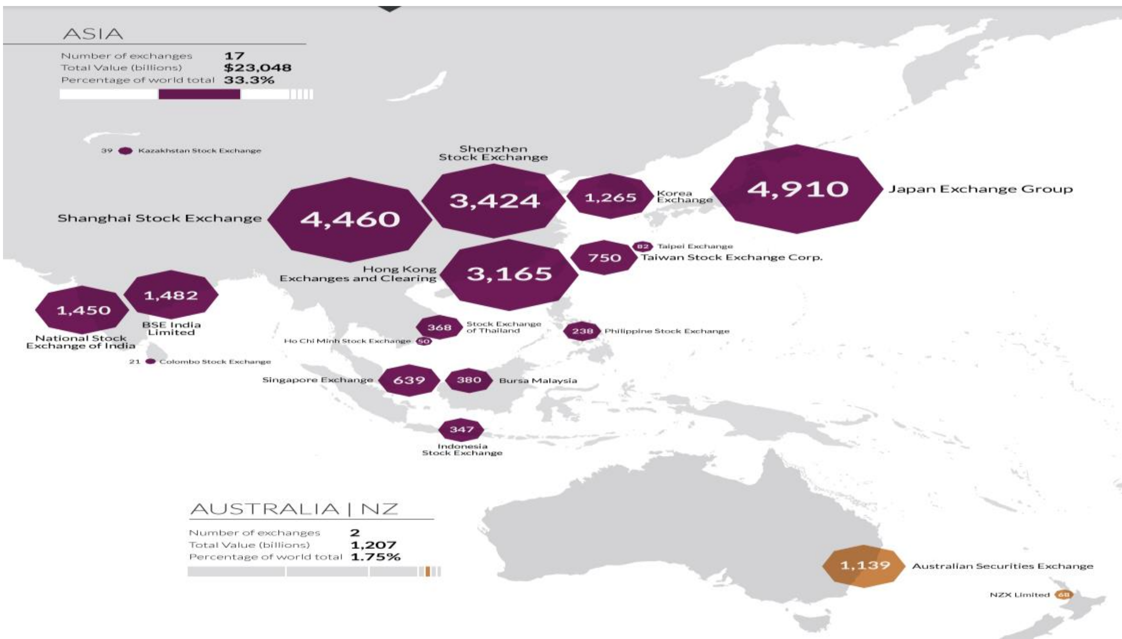
Objectives of the Study

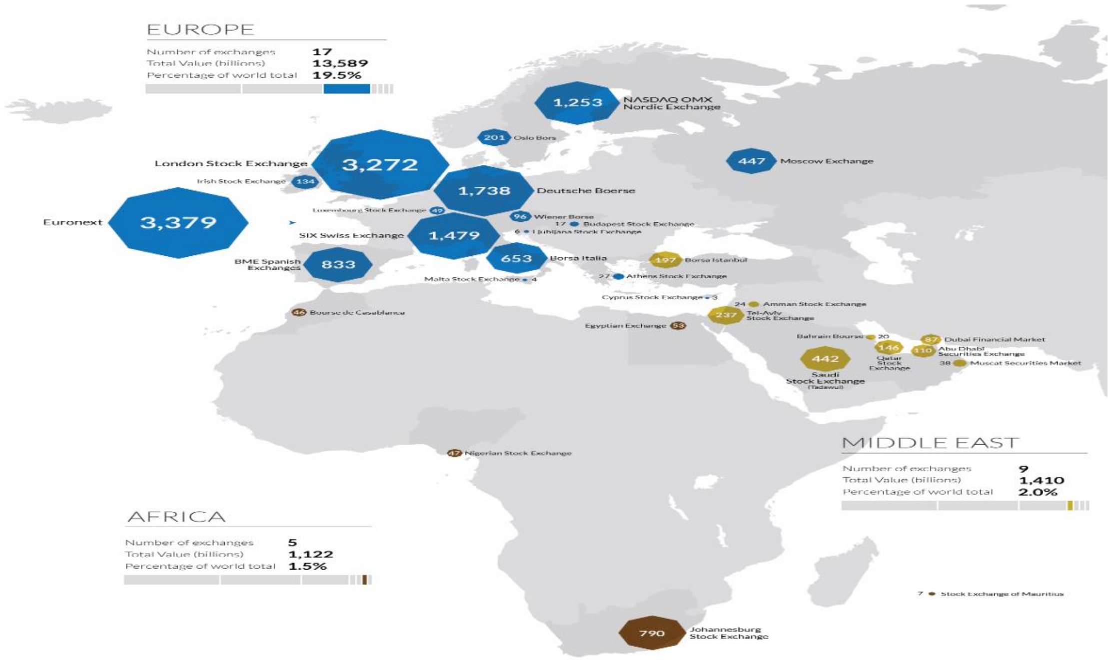
To understand the impact of the integration Indian stock market with that of major global stock market. The analysis of the impact is based on following:

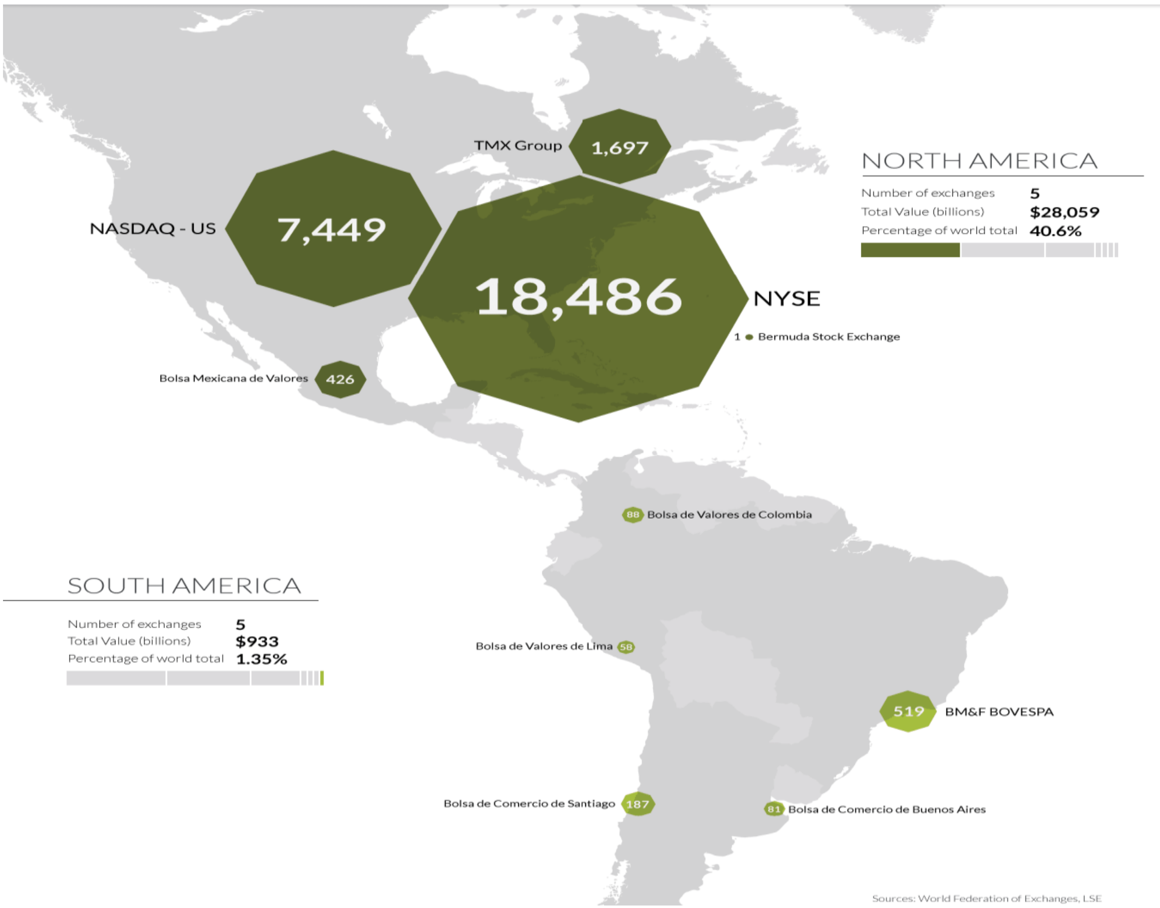
1. To study the trends in the International Stock Markets through their respective indices.
2. Analyzing the co-relation of the various selected countries' stock market.

Data Analysis and Findings

Data: World's Major Stock Exchanges







There are nineteen stock exchanges in the world that have a market capitalization of over US$1 trillioneach. They are sometimes referred to as the "$1 Trillion Club". These

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exchanges accounted for 87% of global market capitalization in 2015. Some exchanges do include companies from outside the country where the exchange is located.

Major stock exchanges:

Major stock exchanges groups (top 20 by market capitalization) of issued shares of listed companies, as of 30 April 2018.

(Source: https://en.wikipedia.org/wiki/List_of_stock_exchanges)

Rank	**Stock Exchange**	**Country**	**Market Cap. (USD bn.)**
1	New York Stock Exchange	United State	24220
2	NASDAQ	United State	11860
3	Japan Exchange Group	Japan	6288
4	Shanghai Stock Exchange	China	5023
5	Euronext	European Union	4649
6	London Stock Exchange Group	United Kingdom	4596
7	Hong Kong Stock Exchange	Hong Kong	4443
8	Shenzhen Stock Exchange	China	3547
9	Deutsche Borse	Germany	2339
10	Bombay Stock Exchange	India	2298
11	National Stock Exchange of Indian	India	2273
12	TMX Group	Canada	2246
13	Korea Exchange	South Korea	1841
14	SIX Swiss Exchange	Switzerland	1541
15	NASDAQ Nordic	Nordic Countries Baltic Countries and Armenia	1524
16	Australian Securities Exchange	Australia	1442
17	JSE Limited	South Africa	1165
18	Taiwan Stock Exchange	Taiwan	1077
19	B3	Brazil	1073
20	BME Spanish Exchanges	Spain	919

(Source: https://en.wikipedia.org/wiki/List_of_stock_exchanges)

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1. Descriptive Analysis

Table 1: The Indices of the Major Stock Exchange Markets

Stock Exchange	2010	2011	2012	2013	2014	2015	2016	2017	2018
S & P Nifty	6029.95	4943.25	5703.3	5735.3	7964.8	7948.9	8611.15	9788.6	10930.45
Sensex	20069.12	16453.76	18762.74	19379.77	26630.51	26154.83	27865.96	31283.72	36227.14
Hang Seng	22932.98	17592.41	20840.38	22859.86	22932.98	20846.3	23297.15	27554.3	27788.52
NYSE	7281.07	6791.65	8251	9621.25	10702.93	9799.69	10721.74	12209.16	13082.52
NASDAQ	2368.62	2415.4	3116.23	3771.48	4493.39	4620.16	5312	6495.96	8046.35
SSE	2655.66	2359.22	2086.17	2174.66	2363.87	3052.78	3004.7	3348.94	2821.35
KOSPI (KS11)	1872.81	1769.65	1996.21	1996.96	2020.09	1962.81	2043.63	2394.47	2343.07
Nikkei 225	9369.35	8700.29	8870.16	14455.8	16173.52	17388.15	16449.84	20356.28	24120.04
LSE	681	809.46	943	1415.8	1868	2419	2800	3830	4586
IRTS	1507.66	1341.09	1475.7	1123.72	789.73	990.88	1136.75	1192.04	1192.04

(Source: Investing.com)

Interpretation

The rate of growth of the Indices of Nikkei 225 Japan is more than all other StockExchangeIndices. The indices of the Nikkei in 2010 were 9369.35 and now in 2018 it is 24120.04. The indices of SSE and KOSPI shows comparatively less fluctuation since 2010. However, in current period,Bombay Stock Exchange is leading the world's top exchanges incase of Indices followed by HangSeng Exchange of Honk Kong. Korean based Stock Exchange KOSPI (KS11) is on last position in case ofIndices.

Table 3: Comparative Central Tendency of all the Stock Exchanges

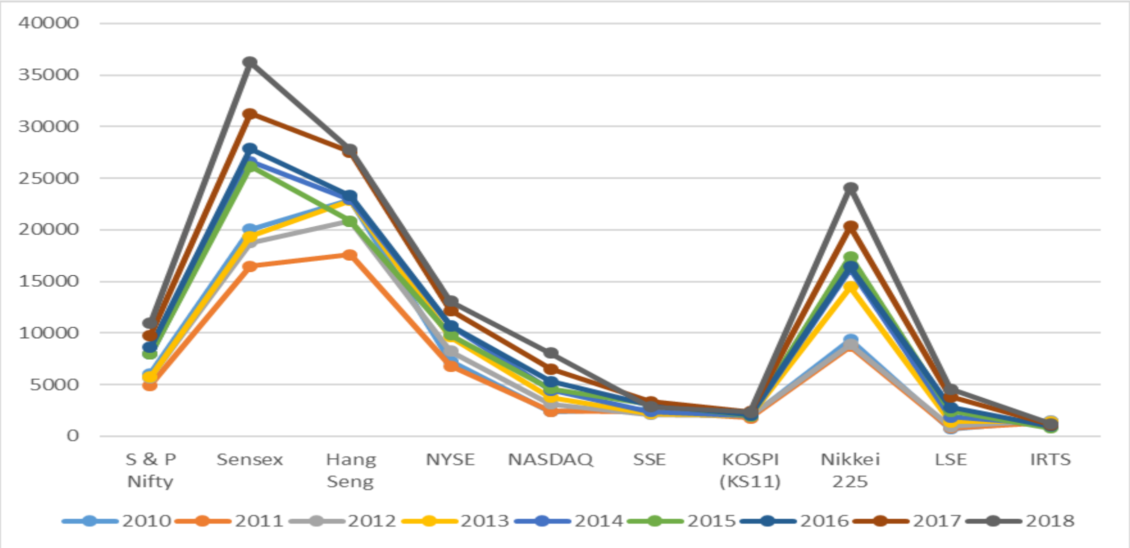
Stock Exchange	Mean	Median	Standard Deviation
S & P Nifty	7517.3	7948.9	2052.301
Sensex	24758.62	26154.83	6567.51
Hang Seng	22960.54	22932.98	3207.781
NYSE	9829.001	9799.69	2123.171
NASDAQ	4515.51	4493.39	1889.643
SSE	2651.928	2655.66	435.3441
KOSPI (KS11)	2044.411	1996.96	202.6403
Nikkei 225	15098.16	16173.52	5364.493
LSE	2150.251	1868	1382.108
IRTS	1220.007	1192.04	239.3758

Interpretation

The central tendency of the various Stock Exchanges’ Indices is measured in form of Mean, Median and Standard Deviation. It is again lead by Bombay Stock Exchange, followed by Hang Seng. The lowest Mean value is of IRTS of China.

2. Graphical Analysis

Figure 1: Co-movement of India’s Stock Indices with developed countries Stock Indices in the Period 2010 – 2018



Interpretation

The comparative analysis of the Stock Indices of the world’s top Stock Exchanges has been presented in the above graphical representation. The top position is of BSE, Hang Seng and Nikkei. The rate of growth of the Nikkei and Sensex is shown here which is higher than others. The current lowest position is of KOSPI (KS11), LSE and IRTS.

3. Correlation Analysis

International Journal of Management, IT & Engineering
Vol. 8 Issue 5(1), May 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Table 4: Showing the Correlation between India's Stock Prices with other Countries' Stock Prices.

	S & P Nifty	Sensex	Hang Seng	NYSE	NASDAQ	SSE	KOSPI (KS11)	Nikkei 225	LSE	IRTS
S & P Nifty	1	0.998044	0.84	0.938247	0.964357	0.729755	0.872241	0.943673	0.96794	-0.59238
Sensex	0.998044	1	0.838697	0.940956	0.965902	0.698662	0.862074	0.9508	0.96363	-0.58311
Hang Seng	0.84	0.838697	1	0.857512	0.836551	0.547606	0.924885	0.806794	0.817806	-0.14694
NYSE	0.938247	0.940956	0.857512	1	0.96901	0.558948	0.913159	0.965099	0.942338	-0.51932
NASDAQ	0.964357	0.965902	0.836551	0.96901	1	0.617119	0.909907	0.967852	0.990002	-0.51657
SSE	0.729755	0.698662	0.547606	0.558948	0.617119	1	0.56439	0.640144	0.710961	-0.67652
KOSPI (KS11)	0.872241	0.862074	0.924885	0.913159	0.909907	0.56439	1	0.850075	0.898639	-0.26911
Nikkei 225	0.943673	0.9508	0.806794	0.965099	0.967852	0.640144	0.850075	1	0.960698	-0.60681
LSE	0.96794	0.96363	0.817806	0.942338	0.990002	0.710961	0.898639	0.960698	1	-0.56208
IRTS	-0.59238	-0.58311	-0.14694	-0.51932	-0.51657	-0.67652	-0.26911	-0.60681	-0.56208	1

Interpretation

The correlation of Indian stock market is weak with Shanghai StockExchange, Korean Stock Market and with Russian Stock market; and strong correlation with London, Japan and New York Stock Markets (USA). However, no conclusion can be drawn on the basis of correlation analysis and thus, high significant correlation warrants a detailed study to find whether the phenomenon is short lived or is valid in the long run as well. The study of relationship between BSE Sensex and other selected indices indicates that there is a significant relationship between BSE Sensex and other world major indices. In all the cases correlation is significant at 1% level of significance, indicating that strong integration of Indian stock market with major world markets in the post global financial crisis.

Conclusion

The study reveals that, there is a poor integration of BSE- Sensex with Shanghai StockExchange, Korean Stock Market and with Russian Stock market. Indian stock market exhibited strong positive correlation and perfect price correlation with global stock markets i.e. London Stock Exchange, Nikkei225 and New York Stock Markets (USA). In results, this study indicates that there is a substantial integration between Indian and International financial markets. BSE-Sensex has witnessed a greater fluctuation which has been indicated by a very high Co-efficient of variation compared to other select indices. Sensex, the Indian benchmark index, has shown strong association with China and Japan Index. It has strong integration with world major stock markets and has strong correlation with all the select indices. The growth of the Indian economy has been noticed in recent years. The same thing has been witnessed in the Stock Market trends. The study conclude that Indian stock market which has linked with stock markets of all the countries is globally integrated over the next 10 to 15 years, need to move towards far greater integrated global financial world and policy makers in India need to rethink the frame work for such integration.

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