AN ANALYTICAL STUDY OF MARKETING MIX ELEMENTS CAUSES CUSTOMER ACQUISITION FOR TELECOMMUNICATION SERVICE PROVIDERS: USING FACTOR ANALYSIS

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Abstract:

The present study investigates and evaluates 'marketing mix elements' which affects acquisition of customers for telecom service providers. A questionnaire was developed and distributed to telecom customers in and around Pune city, using convenience sampling technique. The total sample consists of 596 respondents. Data was analyzed by using factor analysis in SPSS version 17.0. The study provides evidence and an insight on various variables used for analysis and reveals Credibility of Service Provider, Service Affordability, Variety of Offerings, Value for Money and Advertising Efforts have given more significance by customers.

Key Words: Telecommunication, Marketing Mix Elements, Customer Acquisition, competition

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Introduction

Indian telecom industry has experienced exponential growth over the past decades and has been an important contributor to economic growth. However, the cut-throat competition and intense tariff wars have a negative impact on the revenue of players. Regardless of the challenges, the Indian telecom industry will flourish because of the immense potential in terms of new users. India is one of the mostattractive telecom markets as it is still one of the lowest penetrated marketplaces. The government is intense on developing rural telecom infrastructure and is also set to roll out next generation or 3G services in India. Telecom operators are on intense expansion mode and are investing heavily on infrastructure. In addition, foreign telecom companies are acquiring significant stakes in Indian companies. Indeed, rapidly increasing middle class and increasing spending power; the government's thrust on increasing rural telecom coverage; favorable investment climate and positive reforms are ensuring India's high potential of telecom growth.

The Indian telecom industry has come a long way since its liberalization era. In the last few years the industry has observed exponential growth, especially in the wireless segment. The plethora of telecom services evolved over the years, ranging from basic telephony to voice, video and data services. Even though the Indian sector has revealed promising growth, the teledensity still remains at a very low level compared with international standards and thus providing tremendous opportunity for future growth. In the medium-term, the industry is expected to continue to record good subscriber growth as a result of low penetration levels and heightened competition. The Indian telecom sector offers exceptional opportunities in various areas, such as rural telephony, 3G, virtual private network, value-added services, etc. Nonetheless, the lack of telecom infrastructure of telecom service providers could inhibit the future growth of the industry.

Major worry that has come to the forefront in the recent past has been heightened competitive intensity in the telecom industry that has correspondingly fuelled the price war between industry players. The Indian wireless telecom market is one of the world's most competitive markets, with 12 operators across 23 wireless 'circles' and 6 to 8 competing operators in each circle. Going forward, the auction of 3G licenses and the introduction of mobile number portability are expected to heat up competition in the industry.

Evidently, with the entry of new players the competition in the telecom industry is expected to intensify further. With the competitive intensity of the industry already at such high levels new operators might find it difficult to gather significant share in Indian telecom market. The new entrant may benefit from a faster network rollout through tower sharing. However, they may face challenges in terms of high subscriber acquisition costs and lower average-revenue-per-user.

Customer Acquisition

Customer acquisition refers to gaining new consumers. Acquiring new customers involves persuading consumers to purchase a company's products.Customer acquisition management refers to the set of methodologies and systems for managing customer prospects and inquiries that are generated by a variety of marketing techniques. Some successful customer acquisition strategies include customer referrals, customer loyalty programs, and the like. Customer acquisition management is to consider it the link between advertising and customer relationship management, as it is the critical connection that facilitates the acquisition of targeted customers in an effective way.Using appropriate customer acquisition strategies helps companies to grow, and targeted customer acquisition programs help companies acquire the right customers in a cost effective way.The acquisition benefits also need to be fully quantified in order for companies to accurately gauge the relative value of their customer acquisition process. For established companies to grow most effectively, they should find ways to attract, satisfy, and retain customers.

Review of Literature

Sebastian Maldonadoa, et al (2015), authors in their study mentioned that the customer churn prediction is one of the important applications of customer classification models which can help to identify those customers which are most likely to attrite from the company based on their respective socio-demographic characteristics and behavioral variables included in the system. In this research study the authors proposed a profit-driven approach useful for the classifier construction and the variable selection based on support vector machines. When the authors conducted the experiment using the classifier construction process, the results showed that the models outperformed over the conventional techniques for feature selection to achieve better performance resulting in business related goals.

William Y. Degbey (2015),mentioned that if the acquisition of customer performance is to be measured, then the most important indicator is the greater customer retention. The paper highlights that the main objective of serial acquirers' is retaining firms' customers per acquisition process that may increase the post-acquisition value.

J. Morenoa, A. Lorentea, C. Porcelb, H. Fujitac, E. Viedmaa (2015), authors in their study mentioned that it is critical for any firm to know its competitor firm's strengths and weaknesses in the areas they are operating.The authors explained thereal world situation from airline industry, two airports from Great Britain, to show the impact of quantification metrics on customer acquisition and retention.

HongjuLiua, Joseph Pancrasa, and Malcolm Houtzb (2015), explained the acquisition of new customers could be an opportunity as well as risk for the firms. Therefore it was suggested by the authors to the firms to predict and manage risk of acquisition of new customers.

In his book author mentioned definition of marketing as a process with which organization creates and deliver value for and thereby building strong customer relationship to capture value from customers in response to marketing activities (Kotler et al 2013: 5).

Every organization has their customer acquisition and retention strategies but still the organization need to develop strategies to acquire newer customers to replace and add the existing old customers. Many a times customers may find a particular company's products as obsolete after its use for a long time period and may replace with some other company's products, therefore the organization must always focus on formulating marketing strategies that will help the organization to acquire and retain new customers. Thus author concluded that the marketing process should always target to acquire new customers.

Mark D. Unclesa, Robert Eastb and Wendy Lomaxb (2013), in their study tried to find out answer to the question, whether the customers acquired through advertisement were most valuable or the customers recommended by the existing customers. Various factors included in the study were customer satisfaction, customer recommendation, customer acquisition and retention, customer value, and different modes of acquisition of customers.

JeroenD'Haen, and Dirk Van den Poel (2013), suggested a prediction of prospective customers for acquisition using iterative customer acquisition framework for business to business model. The authors mentioned that this model will help sales representatives of the firm to effectively separate the prospects from the list of leads and how to acquire the prospects as the business customers.

Philippe Baecke, and Dirk Van den Poel (2012), in their study found that in the customer relationship management (CRM), the customer acquisition model become most ineffective due to unavailability of quality data on potential customers, as the customer data obtained is mainly limited to variables related to socio-demographic and lifestyle obtained from external data vendors. The authors mentioned that in such situation the spatial correlation method is advantageous which can help to improve predictive performance of this model.

Julian Villanueva, ShijinYoo, and Dominique M. Hanssens (2008), authors in their study explains the two ways of customer acquisition by the companies, as faster but costly way of marketing investments or slower and low cost intensive word-of-mouth process.

The authors found that if the acquired customers contribute to customer equity, will lead to word of mouth resulting in more customer acquisition in long run. The authors proposed and tested an empirical model, showing how it captures this on long run. The authors explained the performance of their proposed model by taking an example of a Web hosting company which reveals that the long term value added by the customers acquired by word of mouth is as much as twice than the customers acquired by marketing activities induced.

Objective of Study

1. To understand the importance of Credibility of Service Provider, Service Affordability, Variety of Offerings, Brand Image, Assurance on Service Quality, Suitability to Needs, Value for Money, Advertising Efforts, Promotional Efforts, Celebrity Endorser, Word-Of-Mouth, Documentation Process, Ease of Payment, Buying Convenience for acquisition of customer for telecom services.

2. To understand the demographic details of customer.

Significance of the Study:

The subject of the present study is significant in various ways. Mobile service providers are undergoing a severe competition. It has become necessary for them to adopt different strategies to maintain competitive advantage leading to retention of the customers. Customer himself tries to seek the services of those providers who offer maximum benefits in a lesser cost. In such situation the mobile service providers need to be vigilant at all levels while facing the competitions. This study is expected to explore various marketing mix moves that will help them to create competitive advantage over their rivals.

Research Methodology

The research study is of descriptive nature and has used the quantitative research method. A convenience sample is employed for sampling method. The sample size has been consisting of 596 respondents. The close-ended questionnaire was developed from standard questions of relevant literature as a research instrument.

For collecting data, researcher has conducted schedule interviews with the help of developed questionnaire. However, secondary data has been collected with the help of print media like books, magazines, research articles on Google scholars and such other websites, related company literature.Data analysis technique: The statistical Package for the Social Sciences Program (SPSS) version 17.0 was used in this study for all the statistical assessments. The data set was screened and examined for incorrect data entry, missing values, normality and outliers.

Data Analysis and Interpretation

Cronbach's Alpha reliability method was applied to check the reliability of all items in the questionnaire. The reliability coefficient value was highly significant i.e. 0.751 and depict high reliability of the questionnaire.The breakdown of the respondent's demographic characteristics is shown in table below:

Table 1: Demographic Characteristics of Respondents'

Characteristics	Category	Frequency	%	Cumulative %
Gender	Male	412	69.1	69.1
	Female	184	30.9	100.0
Age	Less than 30	126	21.1	35.7
	30 to 40	299	50.2	85.9
	More than 40	171	28.7	114.6
Marital Status	Single	28	4.7	4.7
	Married	542	90.9	95.6
	Widower and Divorcee	26	4.4	100.0
Occupation	Salaried	402	67.4	87.6
	Self Employed	120	20.1	20.1
	Others	74	12.4	100.0
Qualification	Undergraduate	347	58.2	58.2
	Graduate	117	19.6	77.9
	Postgraduate	132	22.1	100.0
Monthly Gross Family Income	Less than 20000	68	11.4	11.4
	20001 to 40000	74	12.4	23.8
	40001 to 60000	100	16.8	40.6
	60001 to 80000	129	21.6	62.2
	80001 and above	225	37.8	100.0

Kaiser – Meyer – Olkin Measures of Sampling Adequacy and Bartlett's Test of Sphericity:

The Kaiser – Meyer – Olkin Measures of Sampling Adequacy value was 0.765 indicating that the sample was adequate to consider the data as normally distributed. The Bartlett's Test of Sphericity tests the null hypothesis that the item-to-item correlation matrix was an identity matrix. The hypothesis was tested through Chi-square test; the value of Chi-square was found to be 1892.398, which is significant at 1% level of significance. Therefore, null hypothesis is rejected; indicating that the item-to-item correlation matrix is not an identity matrix and is therefore suitable for factor analysis.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	1892.398
	df	91
	Sig.	.000

The Table 3 shows the table of communalities before and after. The communalities in the column labelled Extraction reflect the common variance in the data structure. 43.3% of the variance associated with question 1 is common, or shared, variance.

Table 3: Communalities

|	Initial	Extraction
Credibility Of Service Provider	1.000	.433
Service Affordability	1.000	.673
Variety Of Offerings	1.000	.595
Brand Image	1.000	.615
Assurance On Service Quality	1.000	.654
Suitability To Needs	1.000	.705
Value For Money	1.000	.426
Advertising Efforts	1.000	.339
Promotional Efforts	1.000	.675
Celebrity Endorser	1.000	.650
Word-Of-Mouth	1.000	.214
Documentation Process	1.000	.580
Ease Of Payment	1.000	.759
Buying Convenience	1.000	.702

Extraction Method: Principal Component Analysis.

Table 4:Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.371	24.078	24.078	3.371	24.078	24.078	2.227	15.905	15.905
2	2.229	15.919	39.997	2.229	15.919	39.997	2.226	15.902	31.807
3	1.237	8.836	48.833	1.237	8.836	48.833	2.042	14.583	46.390
4	1.182	8.445	57.278	1.182	8.445	57.278	1.524	10.888	57.278
5	.931	6.651	63.930						
6	.798	5.703	69.632						
7	.712	5.086	74.718						
8	.640	4.568	79.286						
9	.604	4.316	83.603						
10	.593	4.235	87.837						
11	.513	3.662	91.499						
12	.495	3.538	95.037						
13	.386	2.754	97.791						
14	.309	2.209	100.000						

Extraction Method: Principal Component Analysis.

Table 4, labeled Total Variance Explained lists the eigenvalues associated with each factor before extraction, after extraction and after rotation. Before extraction, it has identified 14 linear componetnts within the data set. The eigenvalues associated with each factor represent the variance explained by that particular linear component and the table also dispalys the eigenvalue in terms of the percentage of variance explained (factor 1 explains 24.07% of total variance). It should be clear that the first few factors explain relatively large amounts of variance (especially component 1) whereas subsequent factors explain only small amount of variance. The table extracts all factors with eigenvalues greater than 1, which leaves us with sevencomponents, where 57.278% of cummulative variance is displayed. In the final part of the table, the eigenvalues of the factors after ratation are displayed. Rotation has the effect of optimizing the factor structure and one concequence for these data is that the relative importance of the four factors is equalize. Before rotation, factor 1 accounted for considerably more variance than the remaining three (24.078% compared to 15.919, 8.836 and

8.445 respectively), however after extraction it accounts for only 15.905% of variance (compared to 15.902, 14.583 and 10.888respectively).
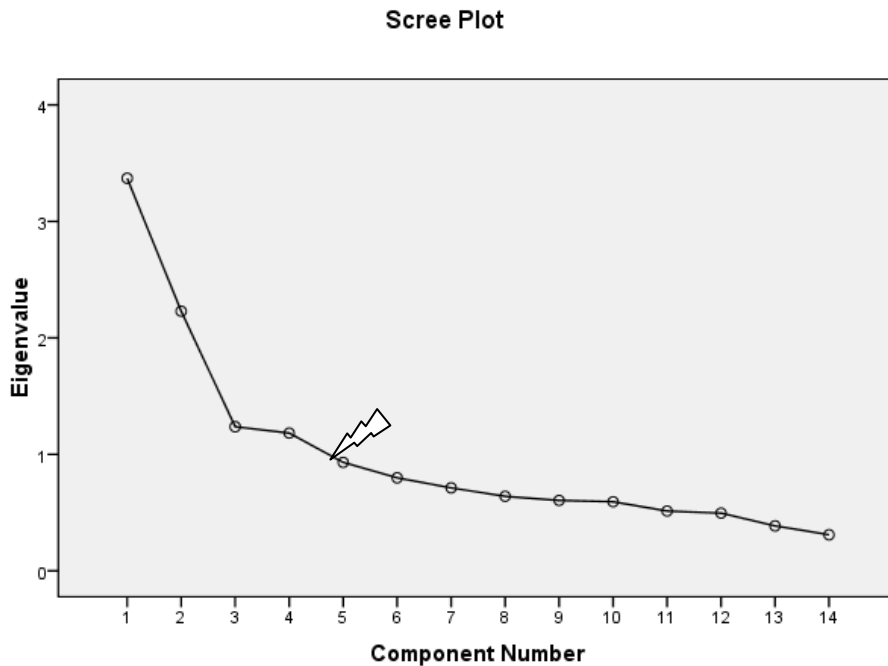
Scree Plot

The scree plot is shown above with a thunderbolt indicating the point of inflextion on the curve. This curve is not difficult to interprete as the curve begin to tail off after three factors, but there is another drop after five factors before a stable plateau is reached. Therefor, it is justified to retain five factors.

The Table 5 labeled shows the Component Matrix before rotation. This matrix contains the loading of each variable onto each factor. As calculated that all loading less than 0.4 be suppressed in the output and so there are blank spaces for many of the loadings.

Table 5: Component Matrix

	Component			
	1	2	3	4
Credibility Of Service Provider	.640			
Service Affordability	.495			.647
Variety Of Offerings	.633			.402
Brand Image	.555		-.475	
Assurance On Service Quality	.639			-.458
Suitability To Needs	.700			-.435
Value For Money	.634			
Advertising Efforts	.541			
Promotional Efforts			.706	
Celebrity Endorser	.512		.619	
Word-Of-Mouth		.443		
Documentation Process		.760		
Ease Of Payment		.869		
Buying Convenience		.828		

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

The Table 6 labeled Rotated Component Matrix contains the same information as the component matrix is calculated after rotation. Factor loadings less than 0.4 have not been displayed because researcher has asked these loading to be suppressed.

1. Component 1: The rotated matrix has revealed that respondents have perceived these factors to be the most important factors with the highest explained variance of 15.902%. Four out of fourteen variables load on significantly to this component, which includes Credibility of Service Provider, Service Affordability, Variety of Offerings, Value for Money and Advertising Efforts.

2. Component 2: The rotated matrix has revealed that respondents have perceived these factors to be the second most important factors with the highest explained variance of 15.905%. Five out of fourteen variables load on significantly to this component, which includes Word-Of-Mouth, Documentation Process, Ease of Payment and Buying Convenience.

3. Component 3: The rotated matrix has revealed that respondents have perceived these factors to be the third most important factors with the highest explained variance of 14.583 %. Three out of

fourteen variables load on significantly to this component, which includes Brand Image, Assurance on Service Quality and Suitability to Needs.

4. Component 4: The rotated matrix has revealed that respondents have perceived these factors to be the third most important factors with the highest explained variance of 10.888 %. Three out of fourteen variables load on significantly to this component, which includes Promotional Efforts and Celebrity Endorser.

Table 6: Rotated Component Matrix

	Component			
	1	2	3	4
Credibility Of Service Provider	.534			
Service Affordability	.814			
Variety Of Offerings	.744			
Brand Image			.732	
Assurance On Service Quality			.778	
Suitability To Needs			.790	
Value For Money	.539			
Advertising Efforts	.513			
Promotional Efforts				.817
Celebrity Endorser				.763
Word-Of-Mouth		.444		
Documentation Process		.761		
Ease Of Payment		.869		
Buying Convenience		.827		

Extraction Method: Principal Component Analysis.

 Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Following 'Component Plot in Rotated Space' diagram is representation of rotated component matrix.

Component Plot in Rotated Space
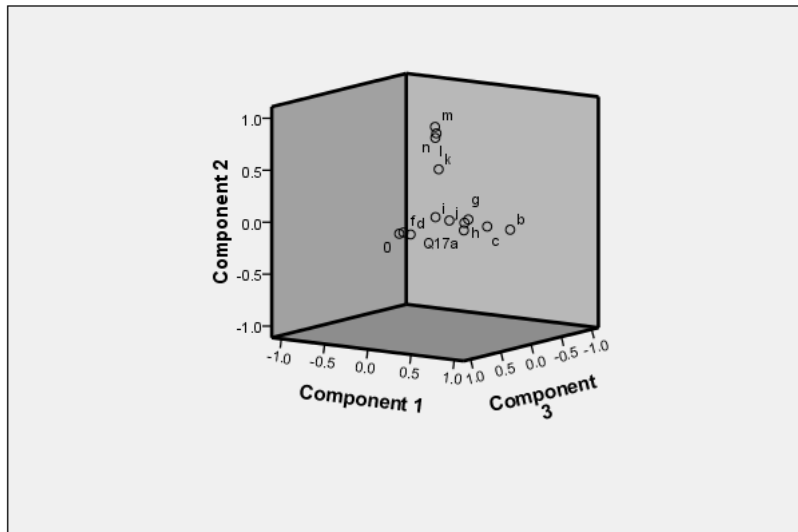
Findings of the Study

Indeed marketing mix strategies positivelyimpact customer acquisitions.Marketing mix elements which are more vital to acquire new customers for telecom services are Credibility of Service Provider, Service Affordability, Variety of Offerings, and Value for Money and Advertising Efforts. From the point of respondents, Word-Of-Mouth, Documentation Process, Ease of Payment and Buying Convenienceare marketing elements playing keen role in selection of telecom service provider. Since past few years, Indian mobile communication sector is experiencing a historical growth. Indian mobile communication sector is much diversified; holding customer is one of the most vital tactics accessible in Indian mobile communication market to remain competitive. It is important for service providers to focus on customer acquisition.

Scope and Limitations of the Study

The present study is limited to the concept of mobile communication services in India. Further the limitations of the study are its geographical constraints (Pune region), time-frame constraints, industry limitations, and data collection constraints, questionnaire for the respondents, conceptual limitations and statistical limitations.

The researcher would like to clarify specifically that the present study does not pervade the scope of any particular service provider, brands of mobile communication services, specific companies and/or their products/services. The present study also does not pervade the scope of levels of strategies like grand, business unit or functional other than mentioned in the analysis. A separate study can be suggested on the above areas which can further extent the depth of knowledge in this regard.

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