An Empirical Investigation of the Various Antecedents of the Customer Satisfaction in Case of Mobile Services — A Comprehensive Study of Haryana Province in India

Vishal Garg

Department of Management, Thapar University, Patiala, Punjab 147004 India

contactvishalgarg@gmail.com

Abstract — **Mobile platform is heralded as the next frontier for modern business creating entirely new paradigms for interactive marketing initiatives in developing countries like India. The telecom sector industry is characterized by stiff competition and alternative service providers with the implementation of Mobile Number Portability, consumers have the freedom to choose from among the available alternatives. The research had two objectives. First, it sought to identify factors that influence individual consumer's choice of a mobile phone service provider in the mobile telephone industry. Second, it sought to assess the relative importance of the pertinent factors. In undertaking the study, individual users of mobile telephone services within Haryana were targeted. Primary data was collected using a semi – structured questionnaire. The survey instrument was administered directly to the respondents by the researcher within the selected areas. Out of the targeted 125 respondents, the researcher managed to obtain a response rate of 88%. The results of the study showed that 30% of the respondents found costs of the services offered to be the most important factor while 85% stated that countrywide network coverage was the most important factor. Many Statistical tools (SPSS 20) were used to determine the factors and examining their relationship of those factors towards the consumer's perception in selecting an operator's services. From the result, it is revealed Network Quality is the most important factor followed by Call Price, service availability and promotion.**

Keywords: Mobile Telecom Service Provider, Consumer Perception, Service Quality, Promotion, Customer Retention, Customer Loyalty, Service Quality, Customer Satisfaction, Telecom Sector

I. INTRODUCTION

MOBILE phone service is viewed as a commodity by customers all over the world. The telecommunications sector is changing radically in this competitive era. The changes are driven by a combination of market, competitors, business and various technological forces. There are many factors that influence the Telecom Sector like Globalization, Customer Awareness, Quality, Pricing and Government Policies. Customers are always important for any business be it manufacturing or service industry. With the high rate of competition in every market, it is critical to retain the customer and convert them into loyal customers.

With the increase in the availability of options and information to the customers today, it has become a cumbersome job to get the customers back to you in the telecom sector. Quality service is becoming very important in customer retention in the mobile telephony industry. Now-a-days, customers are willing to shell out extra money for good service quality. So customer satisfaction plays a vital role for any manufacturing or service sector industry. With the ingress of more and more mobile service providers it has become very complex in making of decision as regard which service or product to use.

Customer satisfaction is one of the most important factors for increasing the organization customer base, goodwill, repurchases likelihood and profits. It clearly states that the mobile service providers should satisfy their customers so that they become loyal and remain with operators. The main outcome of customer satisfaction is the customer loyalty, and a company having large share of loyal customers, then there is increase in repurchase rate, greater cross buying potential, higher price tolerance, positive recommendation behaviour and lower switching tendencies. Old and satisfied customers are sometimes less sensitive to the price and are loyal to the service provider. A retained customer will always show resistance to competitors' enticement and offers and will be able to give both solicited and unsolicited referral.

Indian telecommunication industry contributes significantly towards the country's development and plays an integral part in the lives of many. Tele-communication contributes significantly to the GDP, a contribution of 400 billion US Dollars was made in the year 2014. There has been an unprecedented upsurge in the penetration rate within the mobile telecommunication industry. Penetration rate in India was standing at 78.73 in 2014 which was regarded among the highest rate in the world. A but obvious truth in the business world is that competitors always look to steal others' customers and many customers are in constant search for a better deal as they are not so loyal to the mobile service provider. Customer attrition rates range from seven percent annually in some industries with high exit barriers, like banking and insurance, to nearly 40 percent in the mobile phone industry.

Reducing the customer "churn" rate by even one percent will add millions of rupees to any mobile service provider. As it is more expensive to acquire customers than to retain them, an effective customer retention strategy is crucial to a company's success and increases loyalty among the customers. Customer retention is considered important when loyalty among the customer is decreasing and sales cycles are aggravating the business environment. Under these conditions, losing customers to a competitor would impact organization's profitability and growth in a negative approach. Preventing current customers from switching to other service providers is a very hard task.
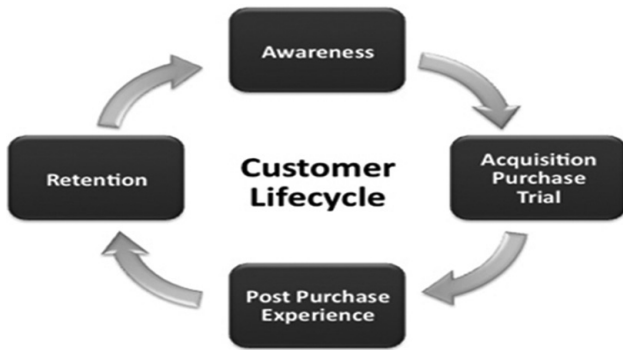

Figure 1. Customer Life Cycle.

During lifetime of the service, customers have many opportunities to switch to different mobile service providers (competitor offers, sales promotions, etc.), and many events within the established relationship are likely to cause service relationship deterioration and dissolution. Mobile Service switching is mainly due to critical incidents, such as strategies by competitors, inappropriate employee responses to service failures, pricing concerns, core service failures, service encounter failures, unethical practices, lack of convenience, or changes in the consumer's or service provider's situation. Effective CRM strategies can be used to enhance retention among subscribers. If customer satisfaction is considered as the primary driver of retention, then a firm should improve product or service quality or offer better prices or provide some useful and innovative services. Otherwise, if affective or calculative commitment is treated as more important, then a firm should build direct relationships with customers.

II. LITERATURE REVIEW

As per (Johnson and Fornell 1991), Customer satisfaction is defined as a customer's overall evaluation of the performance of an offering to date The overall satisfaction always have a strong and positive effect on customer loyalty intentions covering a wide range of product and service categories, including telecommunications services (Fornell 1992; Fornell *et al.* 1996). Customer Satisfaction also contains a high level of significant affective component, which is created through repeated service usage (Oliver 1999). Customer satisfaction has as overall evaluation of prior performance may become

less relevant to the prediction of subscribers' retention. Bolton (1998) found that there exists a considerable positive effect of overall customer satisfaction of mobile service subscriber on the duration of the relationship. The concept of measuring the customer satisfaction will serve the same purpose of determining the customer perception regarding their mobile service provider. Different researchers are of the view that the customers are created and maintained through marketing strategies. So, the marketing team is the real face of the organization in every service industry. As per (Karjaluoto *et al.* 2005), price, brand, word of mouth communication, and quality tends to have the most influential factors affecting the actual choice regarding mobile service providers. Some researchers have put forward (Eric and Bright 2008) that the first and the most important factor is reliable quality of the mobile service provider.

M. Satish, K.J Naveen, V. Jeevananthan, (2011) identified different factors that influence the consumers to switch the different mobile service providers. Their research concluded that there is a relation between switching the service provider based on the factors like poor network coverage, frequent network issues, call rates, influence from family and friends and word of mouth communication.

Figure 2. Customer Retention Process

Customer retention is the most discussed topic in this competitive scenario. Every company is luring the customers of other service providers by various offers, promotional strategies, referrals schemes, discounts. The issue of customer retention in telecommunication industry in Sri Lanka was studied by Silva, K.A (2009). The author found that the most important factor in continuing an existing service provider was the ability of the service provider to give value to the customer. This was followed by assurance and responsiveness.

According to researcher, (Leisen and Vance 2001) better and reliable service quality always helps to create the necessary competitive advantage in a short span of time by being an effective differentiating factor. Service quality was initiated

in the 1980s as the worldwide trend in various service and manufacturing firms. The marketers realized that only a quality product could not be guaranteed to maintain competitive advantage (Wal *et al.*, 2002). As per the research conducted by Johnson and Sirikit 2002, service delivery systems in case of mobile services have the ability to allow managers of company to identify the real and correct customer feedback and satisfaction on their telecommunication service so as to retain the customers. The impact of perceived quality on the attitude of the service consumers toward the extension is unambiguously positive. To add to it, both researchers (Omotayo and Joachim 2008) concluded that the relationship between customers' services on customer retention in telecommunication industry in Nigeria is highly positive. Many researchers put forward that the respondents have a positive impression towards their telecom company's ability to meet their changing needs.

Consumer choice of mobile service provider is mainly considered to be influenced by different factors like economic condition, convenience of purchasing, efficiency in the operation, and dependability of service or use (Solomon *et al.* 2003); reference group, life style and social class of the consumer (Turckwell 2004); and attitudes, personality and opinion leadership (Shapiro, 1996). As per the research done by, Kotler and Armstrong 2001 the consumer always perceives price as the total sum of all values that a consumers receives for using the product or service.

Pricing of the services plays a vital role in telecommunication scenario especially for the mobile service providers (Kollmann, 2000). In this era of information age, price competition has become cutthroat in mobile telecommunication industry. Quality mainly reflects the level to which a product or service meets or exceeds customers' expectations (Wal *et al.* 2002).

So, the success of mobile sector in the competitive market place significantly depends on product quality and availability of the services. As per Alvarez and Casielles 2005, promotion is a complete set of stimuli which are offered sporadically, and it always reinforces publicity actions so as to promote the purchasing of a certain product or services. This helps the marketers to roll out different promotional strategies to attract new and potential customers in case of any product or service.
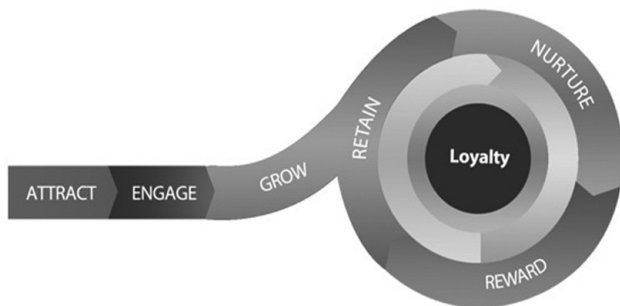

Figure 3. Customer Loyalty Process.

Customer retention is directly related to profit making and for that purpose service preference which provides guidelines for service quality and upgradation is important to be considered to maximize service level (Laukkanen, 2007). The most important point for investing in customer retention strategies is that the cost of acquiring new customers compared with the cost of retaining the existing customers. International research by Coopers & Lybrand has shown that it can be at least five times as hard to acquire new customers than to keep existing customers (and sometimes up to 25 times as hard). The objective of a customer retention strategy should be to nurture long-term relationships with customers through trust, responsiveness, customised services and reliability.

III. RESEARCH METHODOLOGY

The main aim of this research study is to figure out the customers' attitude and perception related to their mobile service provider in Haryana, India. For this, a complete self structured questionnaire was first developed and used to collect the primary data from the consumer of mobile services. The questionnaire consisted of 4 different categories; each section had relevant questions complying with the objective of the research. Both primary and the secondary data collection methods were employed during research. Secondary research was mainly used to study the work done by other fellow researches in the service sector to form the basis of this research.

Non probability convenience sampling technique was adopted to get the primary data from respondents. Likerts' 5-point scale was used to rate their perception related to various factors like quality of the service, pricing, availability of options, promotional programs, empathy and ethical practices.

A total of 125 sample size was used in the study. Out of this 110 questionnaire were completely and systematically filled and considered for the analysis. Descriptive statistics were also used to compute frequencies and mean scores for the respondents' profiles or for the other constructs. Factor analysis was used in the research to do analysis of the primary data.

IV. DATA ANALYSIS AND DISCUSSION

The following research is conducted to figure out various factors which affect the consumer choice while purchasing or using mobile services. The outcomes are very useful for academicians and Mobile service Sector in order to retain the customers and attract the new one. The factors are self explanatory and relevant. The primary data was analyzed in terms of Standard Deviation and Mean Score. Standard deviations were used in order to assess the relative importance of the above discussed factors. The factors were categorized based on their extent of importance on the basis of output produced by Standard Deviation into small extent, moderate extent and high extent. The extent levels are defined as follows:

a) Small Extent is considered if the Standard Deviation value is (1 < SE < 2.5).
b) Medium Extent is considered if the Standard Deviation value is (2.6 < ME < 3.5)
c) Large Extent is considered if the Standard Deviation value is (3.6 < LE < 5.0)

From the table we conclude that the telecom customers of Haryana state give preference to the network quality or the network coverage, with the mean score value of 4.39: this factors gets the top ranking. Apart from it, the customer care is ranked by the respondents at second place with the mean score of 4.25. The comprehensive outcomes are shown in the table below,

TABLE 1 -- RESPONDENTS, PRIORITIES IN MOBILE SERVICE ATTRIBUTES

Factor	Mean score	St. Deviation	Rank
Network Coverage	4.39	0.84	1
Courteous customer service	4.25	4.38	2
Availability of Offers	4.21	0.97	3
Variety of tariffs	4.16	0.93	4
Low Data costs	4.13	2.18	5
Low calling costs	4.11	1.13	6
Decongested network	4.02	1.14	7
Fast Internet Speed	3.73	1.26	8
Price of SIM card	3.71	1.18	9
After sales technical support	3.56	1.24	10
Availability of customer care centres	3.46	1.21	11
Company Advertisement	3.41	1.34	12
Physical Attributes	3.38	1.23	13
Roaming Facility	3.28	1.53	14
Advertisement and promotions	3.23	1.35	15
Corporate Social Responsibility	3.19	1.34	16
Value for Money	3.16	1.27	17

It becomes very clear that the respondents need good and courteous customer care which can help them out in case they face any problem. Other important factors are the availability of good offer be it in terms of recharge, data plans or any other. Data plans *i.e.* internet plans and the data speed also considered as important aspect while choosing any mobile service provider by the respondents. Now more and more people are buying the smart phones so as to access the internet at very high speed. With the advent of social media and social messenger the demand of smart phones has multiplied many folds not only in urban areas but in rural areas too.

Reliability Coefficient: For any research the reliability is a major issue, and to address this issue Cronbach Alpha (α) is widely used. The value of the Cronbach alpha should range between 0 and 1. If the value of Cronbach Alpha is higher or near to 1 then the reliability is high and it is a good indicator for the better outcome of research.

TABLE 2 -- RELIABILITY ANALYSIS

	Mean	Std. Deviation
Service Quality (Alpha = 0.9542)		
Tangibles	3.32	1.02
Reliability	3.25	1.03
Responsiveness	3.32	1.04
Assurance	3.31	0.98
Empathy	3.33	1.02
Price (Alpha = 0.9102)		
Satisfactory Price Charge	3.62	1.34
Price does not has impact	3.24	1.32
Services are desirable than price	3.38	1.29
Price plays vital role	3.59	1.27
Product Quality and Availability (Alpha= 0.9320)		
Product outlets available	2.36	1.26
Product outlets are too far	2.48	1.41
Product offer best solution to need	2.36	1.29
Product offer best technology	2.48	1.36
Promotion (Alpha = 0.9141)		
Attractive promotional offer	3.57	1.21
Promotional offer does not attract	3.43	1.36
Real need than promotional offer	3.42	1.48

The outcome of the reliability test was positive as the values of the Cronbach alpha are ranging between 0.9102 and 0.9542. The value of the service quality construct is having maximum Cronbach alpha value *i.e.* 0.9542, and the minimum value of Cronbach 0.9102 that is of price construct. The values are very close to 1, so we can say that study is of considerable importance. All other values are listed above in the reliability analysis table. In the study all the constructs were carefully chosen by doing the pilot survey earlier in Haryana with 60 respondents. The reliability analysis was done with the help of the SPSS Software.

TABLE 3 -- KAISER-MEYER-OLKIN MEASURE OF SAMPLING ADEQUACY

		0.942
Bartlett's test of sphericity	Approx. chi-square	1063.963
	Df	397
	Sig	0

The constructs validity was tested applying Bartlett's Test of Sphericity and the Kaiser–Mayer–Olkin (KMO) measure of sampling adequacy analyzing the strength of association among variables. The KMO measure of sampling adequacy was first computed to determine the suitability of using factor analysis. It helps to predict whether data are suitable to perform factor analysis. KMO is used to assess which variables to drop from the model due to multi-collinearity problem.

The value of KMO varies from 0 to 1, and KMO overall should be 0.60 or higher to perform factor analysis. If this does not have achieved, then it is necessary to drop the variables with lowest anti image value until KMO overall rises above 0.60. Result of the Bartlett's test of sphericity and the KMO revealed that both were highly significant and eventually concluded that these variables was suitable.

Garrett's ranking technique was used to find out the most significant factor that influences the respondent (Consumers) while choosing their current telecom service provider. In order to calculate the ranking with the help of this Ranking technique, respondents have been asked to assign any suitable rank for all factors that were listed in the questionnaire and the outcome of such ranking were converted into the Mean score value with the help of the following formula:

Percent position = $100 (R_{ij} - 0.5)/ N_j$
where
R_{ij} = Rank given for the ith variable by jth respondents
N_j = Number of variable ranked by jth respondents

TABLE 4 -- REASON FOR CHOOSING CURRENT TELECOM OPERATOR

S. No.	Factors	GARRETT MEAN SCORE	Ranking
1	Continuous connectivity	49.12	1
2	Call charges	48.14	3
3	Seamless Network	47.28	4
4	Good Internet Speed	48.32	2
5	Provide good service	45.23	7
6	Customer Care	46.65	5
7	Friend Suggestion	45.87	6
8	Promotional Offers	44.66	8

From the Garrett Table, the Mean Score was calculated to know the respondents preference for choosing their current Service Provider. The factors having highest mean value is considered to be the most important factor. As per the respondents answers, it was concluded that the Connectivity plays a vital role in choosing their current service providers over competitors. It means that good connectivity is always the first preference of the mobile users. Here also, the Continuous connectivity

construct with a Mean Score of 49.12 was ranked on top over other valid factors. The consumers also give considerations to the Internet speed for choosing the mobile services of a telecom operator with the Mean Score of 48.32. In our research, call charges and the customer care were also listed in the top 5 rankings of the respondents for choosing a operator or staying with their current service provider. It means that various telecom service providers should take care of the above listed parameters on priority. Otherwise retention of consumers will be very difficult in the era of extreme competition.

TABLE 5 -- CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	434.149[a]	56	.000
Likelihood Ratio	411.241	56	.000
Linear-by-Linear Association	2.269	1	.132
Number of Valid Cases	208		

From the chi square test, it may be concluded that the satisfaction from the services of primary service provider is high. As the value of the pearson coefficient is much less than the 0.05 value and because of this, the hypotheses is accepted. As per the hypotheses, the subscribers feel satisfied with their primary service providers be it data provider or mobile service provider or both.

The quality of Service plays a vital role in the case of Telecom Sector. As more and more service providers are foraying into the Indian telecom Arena, this has increased competition level in the Telecom Industry. With the advent of various new smart phones at cheap rates, the telecom industry especially in data sector is providing a lot of data services. More youths are inclined to better data speed and data plans. That's why the companies are looking to lure the customers by providing them the experience of fast speed at their service points.

The Kruskal-Wallis H test (sometimes also called the "one-way ANOVA on ranks") is a rank-based nonparametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. As we can notice from the Kruskal Wallis Test that the Service plays a vital role in deciding the selection of the Service provider for telecom purpose. From the above figure, it can be concluded that for customers service quality is very important. The significance of all the factors of service quality (like good network, availability of vas, good knowledge of customer care, good coverage in terms of signals and roaming facility, data speed, availability of better data plans and call drops) is less than the prescribed limit of 0.05. it means all the above mentioned factors are of high significance for the customer point of view and from the service providers' point of view.

TABLE 6 -- KRUSKAL WALLIS TEST STATISTICS[A,B]

	Service_ Quality_Good_ Network	Service_ Quality_ Good_VAS	Service_ Quality_Good_ Knowledge	Service_Quality_ Good_Coverage_ Roaming	Service_ Quality_Data Speed_Plans	Service_Quality_ Success_Calls_ SMS_Recharges	Service_ Quality_No_ Call_Drops
Chi-Square	131.272	112.216	77.221	75.091	57.233	81.325	72.405
df	8	8	8	8	8	8	8
Asymp. Sig.	.040	.003	.004	.023	.025	.021	.031

a. Kruskal Wallis Test
b. Grouping Variable: Primary_Service_Provider

If there is lapse in the either of the service quality, then the customer will look for other options.

The construct good knowledge is having significance level as 0.004 which is much below the prescribed range of 0.05 so we can assume that the customers are highly influenced by the knowledge of customer care and the hypotheses is rejected that there exist no relationship between the knowledge of customer care and switching intentions. Same is the case of other factors of service quality. The value of Kruskal test for good network coverage is also within the prescribed limit so again we reject the hypotheses that there exist no relationship between the switching intentions and network coverage. It clearly specifies that the customers keep on searching for a good service provider in terms of network coverage. It becomes quite obvious that in case the telecom service provider fails to provide good services then the churning will increase drastically and ultimately the profits and revenue will be slashed down.

V. DISCUSSION AND CONCLUSION

This research shows that the most significant strategy to maintain customer loyalty and customer retention is the creation and maintenance of long lasting relationships between various telecom service providers and their customers. It was found that if there is a very close relationship with the customers and customer care than it generates a number of benefits including customer retention & customer loyalty. The significance of all the factors of service quality (like good network, availability of vas, good knowledge of customer care, good coverage in terms of signals and roaming facility, data speed, availability of better data plans and call drops) is very high as compared to other factors. In order to maintain a proper relationship, trust between service providers and their customers plays a great role. The service providers need to trust their valuable customers before their customers can feel trust towards them. Good relationship can create switching barriers among customers, which is a type of strategy for keeping customers retained and create loyal customer. This study explains that the satisfied customers always generate a positive word of mouth for their service providers. In order to build a good image and reputation for the service provider the customers must be satisfied fully. It is important for the companies to have good

customer care who can guide the customer whenever they face any sort of problem. Customer care should think about how to behave with the customers and how to treat them. One of the most important factors in the creation of customer satisfaction is that the service provider should provide personal service towards the high usage customers. In the end, the service provider should realize that it is less costly for them to work towards keeping customers loyal than to attract new customer.

VI. SCOPE FOR FUTURE RESEARCH

The study was concentrated mainly on customer retention and customer loyalty. During our study several different other topics that would be interesting to research came up. These are:

1. Research how companies attract new customers.
2. Investigate if customer satisfaction really helps in customer retention.
3. Conduct a study on the customer decision process.
4. Conduct a study on how the customer retention programs differ between large and small companies.
5. Conduct a study on brand loyalty and customer switching intentions to a specific brand
6. Compare customer retention to a specific product or service with others.

VII. REFERENCES

[1]. Stone, M., Woodcock, N. and Machtynger, L. (2000). *Customer Relationship Marketing.* London: Kogan Page ltd.

[2]. Baker, W., Hutchinson, J.W., Moore, D. and Nedungadi, P. Brand familiarity and advertising: Effects on the evoked set and brand preferences. *Advances in Consumer Research,* Volume 13, No.1, pp. 637-643, 1986.

[3]. Fornell, C.. A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing,* Volume 56, No.1, pp. 6-22, 1992.

[4]. Kumar, V. and Shah, D. Building and Sustaining Profitable Customer Loyalty for the 21st Century. *Journal of Retailing,* Volume 80, No. 4, pp. 317-331, 2004.

[5]. Marken, G.A.. It's Marketing Time: Do You Know Where Your Customers Are? *Public Relations*, Quarterly Volume 34, No. 4, pp. 23-26, 1990.

[6]. O´Malley, L. (1998). can loyalty schemes really build loyalty? *Marketing Intelligence and Planning,* Volume 16, No. 1, pp. 47-55.

[7]. Wirtz, J., & Mattila, A.S. (2003). The effects of consumer expertise on evoked set size and service loyalty. *Journal of Service Marketing,* Volume 17,. No. 7, pp. 649-665.

[8]. Maxam III, JG. & Netemeyer, RG. (2002), "Modeling customer perceptions of complaint handling over time: the effects of perceived justice on satisfaction and intent", *Journal of Retailing,* Volume 78, pp. 239-252

[9]. Rao, S. & Jain, D., "A Multi Variant Analysis of Loyalty Programs in Retail Store in Delhi", *Advances in Management,* Volume 2, No. 2, pp. 54-59, 2009.

[10]. Strauss, B., Schmidt, M. and Schoeler, A., "Customer frustration in loyalty programs", *International Journal of Service Industry Management,* Volume 16, No. 3, pp. 229-252, 2005.

[11]. Zeithaml, VA., Berry, LL. and Parasuraman, A., "The Behavioral Consequences of Service Quality", *Journal of Marketing,* Volume 60, No. 2, pp. 31-46, 1996.

[12]. Liu, Y., "The Long-Term Impact Of Loyalty Programs On Consumer Purchase Behavior And Loyalty", *Journal of Marketing,* Volume 71, No. 4, pp. 19-35, 2007.

[13]. Reinchheld, FF., The Loyalty Effect: The Hidden Force Behind Growth, Profits And Lasting Value, (pp. 909), Harvard Business School Press Books, Boston, 1996.

[14]. Turner, JJ. & Wilson, K., "Grocery loyalty: Tesco Clubcard and its Impact on Loyalty", *British Food Journal,* Volume 108, No. 11, pp. 958-964, 2006.

[15]. Jang, D. & Mattila, AS., "An Examination Of Restaurant Loyalty Programs: What Kinds Of Rewards Do Customers Prefer?" International Journal of Contemporary Hospitality Management, Volume 17, No. 5, pp. 402-408, 2005.

[16]. Boshoff, C., "RECOVSAT: An instrument to measure satisfaction with transaction specific service recovery", *Journal of Service Research*, Volume 1, No. 3, pp. 236-24,1999.

[17]. Duffy, DL. "Internal and External Factors which Affect Customer Loyalty", *Journal of Consumer Marketing,* Volume 20, No. 5, pp. 480-485, 2003.

[18]. Oliver, RL., "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research*, Volume 17, No. 4, pp. 460-469, 1980.

[19]. Noordhoff, C., Pauwels, P. and Oderkerken- Shroder, G., "The Effect of Customer Card Programs: A Comparative Study in Singapore and the Netherlands", *International Journal of Service Industry Management,* Volume 15, No. 4, pp. 351-364, 2004.

[20]. Mittal, V., Ross, W.T., & Baldasare, P.M. The Asymmetric Impact of Negative and Positive Attribute-Level Performance on Overall Satisfaction and Repurchase Intentions. *Journal of Marketing*, Volume 62, No.1, pp.33-47, 1998..

[21]. Ping, R.A., The Effects Of Satisfaction And Structural Constraints On Retailer Exiting, Voice, Loyalty, Opportunism, And Neglect. *Journal of Retailing,* Volume 69, No. 3, pp. 320-353, 1993.

[22]. Singh, J., and Sirdeshmukh, D. Agency and Trust Mechanisms in Customer Satisfaction and Loyalty Judgements. *Journal of the Academy of Marketing Science*, Volume 28, No. 1, pp. 150-156, 2000.

[23]. O'Malley, L., "Can Loyalty Schemes Really Build Loyalty?" *Marketing Intelligence & Planning*, Volume 16, No. 1, pp. 47-55, 1998.

[24]. Kim, B., Shi, M. and Srinivasan, K."Reward Programs and Tacit Collusion", *Marketing Science,* Volume 20, No. 2, pp. 99-120, 2001.

[25]. Gupta, Sunil and Lehmann, Donald. "Managing Customers as Investment, The Strategic Value of Customers in the Long Run." Wharton School of Publishing, 2005

[26]. Selden, Larry and Colvin, Geoffrey. "Angel Customers & Demon Customers, Discover Which Is Which and Turbo-Charge Your Stock." Portfolio, 2003.

[27]. Hughes, Arthur Middleton. "Customer Churn Reduction and Retention for Telecoms." Racom, 2008.

[28]. Chakraborty, S. (2005) Mobile Phones Bridging the Information Divide, Issues and Lessons from Africa. *JOMC 223: Global Impact of New Communication Technologies*. University of North Carolina at Chapel Hill

[29]. Cronbach, L.J. "Coefficient Alpha and the Internal Structure of Tests", Psychometrika, Vol. 16, No. 4, pp. 297 – 334, 1951.

[30]. de Silva, H. and Zainudeen, A. Poverty Reduction through Telecom Access at the Bottom of the Pyramid. *Centre for Poverty Analysis Annual Symposium on Poverty Research* in Sri Lanka, Colombo, December 6 -7, 2007.

[31]. Donner, J., The Use of Mobile Phones by Micro Entrepreneurs in Kigali, Rwanda: Changes to Social and Business Networks. *Information Technologies and International Development*, Volume 3, No.2, pp. 3-19, 2007.

[32]. Gerstheimer, O. and Lupp, C. Needs versus Technology – The Challenge to Design Third-Generation Mobile Applications. *Journal of Business Research*, No.12, pp.1409-1415, December 2004.

[33]. Hamel, G. and Prahalad, C.K. Corporate imagination and expeditionary marketing. *Harvard Business Review*, Volume 69, No.4, pp. 81-92, 1991.

[34]. Hansen, L. (2003). Service Layer Essential For Future Success. *Ericsson Mobility World, General article*, (June), available at: ttp://www.ericsson.com/mobilityworld/sub/articles/other_articles/nl03jun05

[35]. In-Starts/MDR (2002), 'The Worldwide PDA Market: The Next Generation Of Mobile Computing', *Research Report* (Accessed, January 15, 2015).

Vishal Garg is Research Scholar at Thapar University, Patiala on Consumer Behavior in Telecom Sector. He is working as an Assistant Professor in the Department of Management at Seth Jai Parkash Mukand Lal Institute of Engineering & Technology, Radaur. Teaches courses in Service Marketing, Consumer Behavior, Marketing Research, Marketing Management and Strategic Management. Presented and published several papers. Has good hand on SPSS software in Marketing Sector.

Presented seminars on Entrepreneurship Development Programs and authored books on Service Marketig, Economics and Principles of Management. His qualification includes B.Tech (Computer Science) and MBA (Marketing and Finance). Taught at Lovely Professional University, Jalandhar and Maharishi Markendeshwar University, Mullana.