
Drivers of Customer Equity for Cellular Operators in India

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Abstract

The research focuses on the customer equity for cellular operators in India by understanding what drives each one and to what degree. This can be used as a tool for decision making for allocation of available company resources for different marketing campaigns. Knowing the drivers and their relative weights helps managers to predict the impact of specific brand building actions on the customer equity. The focus of this research is the Customer Equity, i.e. sum of the lifetime values of the firm's customers. But as proved by many researches that the customer lifetime value is driven by consumer choices and these choices depend on certain considerations. This empirical research has focused on finding these considerations for cellular operators in India. The results will help managers to understand how consumer's perceptions are affected by these drivers and in turn can be linked to the tendency of consumers to change the cellular operators.

Introduction

For the past few years, the cellular service sector in India has been experiencing the highest growth rate in terms of subscribers and revenue. The cellular mobile sector has become competitive with the entry of new players. Despite this, most of the cellular mobile service providers in India are primarily focusing on increasing their customer base and tend to overlook its capability to retain its customers and make them loyal. According to a recent Mobile Consumer Insights study conducted by The Nielsen Company in 2009 to gauge consumer attitudes and behavior towards mobile operators in India, "It seems that close to one in five (18%) Indian mobile phone subscribers would change their mobile operator if Mobile Number Portability is introduced into the market."

In general, the longer a customer stays with a company, the more the customer is worth. But without

doing the arithmetic that shows just how much a loyal customer is worth over the whole course of the customer life cycle, and without calculating the net present value of the company's present customer base, most CEOs gauge company performance on the basis of cash flow and profit. They rarely study information that reflects how much real value the company is creating (Reichheld 1996). Brand equity is still the most commonly used measure of success for brands and companies alike. The fact that managers can measure brand equity (although the components of the measure differ across companies) may be one of the reasons companies focus on brand building and other product-centered programs while merely paying lip-service to being customer-centered.

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Yet if the goal truly is customer-centrism, both marketing efforts and marketing standards should reflect this goal.

Need and Importance of study

The Customer Equity is defined as the sum of the lifetime values of the firm's customers. As shown in different researches, the customer's lifetime value is driven by choices made by the customers. The first challenge is to determine the drivers of the customer equity. The second challenge is to determine the relative importance of these drivers as they can vary from category to category and even from product to product. Role of branding can be very crucial in industries like facial tissue category. But in industries like air travel and rental cars where value delivered can be of importance. But the loyalty programmes and relationship building can also contribute in deciding retention rates for the existing customers. The outcome of the study contributes to valuable learning about the field of mobile services to the broader academic knowledge base. This research may prove useful to cellular operators and researchers. This study is useful as it contributes previously unavailable data to the field of customer equity for cellular operators in India. The study is easy to replicate and can be scaled up by including other regions and towns of the country.

Literature Review

"Equity value" for a financial audience is demonstrated by the ability of an asset to earn more than its cost of capital, thus contributing to the excess value of the assets of the business over its liabilities. There is a need for greater linkage between financial and marketing terms and concepts (Srivastava et al., 1998). Literature review traces how firms are moving for merely building brand to development of the brand equity as a marketing strategy and then from there the concept of the Customer equity value is developed for long term marketing strategy and profitability.

The brand equity has emerged as a notion in the marketing in the 1980s only. Building a strong brand provides a host of possible benefits to a firm, including greater customer loyalty and less vulnerability to competitive marketing actions and marketing crises, larger margins as well as more favorable customer

response to price changes, greater trade or intermediary cooperation and support, increased marketing communication effectiveness, and licensing and brand extension opportunities (Keller 2001).

The payback of building strong brand and brand equity for consumers is that it helps in the assessment and purchasing of products and hence provides a value to the consumer. For organizations, it normally provides a source of competitive advantage and hence adds to the financial gains for the company (Keller, 2003).

The most commonly used model was derived by Aaker (1996), which is explained on the basis of five major asset categories for brand equity namely :

1. Brand name awareness
2. Brand loyalty
3. Perceived Quality
4. Brand associations
5. channel relationships and patents that are attached to the brand which can build competitive advantage.

Second the most popular model is Keller 's model (1998) which focuses on the customer based brand equity (CBBE) where the power of the brand lies in what resides in the minds of customers as a result of their experiences over time.

The brand Equity is treated as a market based intangible asset. It is identified as a major contributor to the market value of organizations and consequently a driver of shareholder value. It is a key metric on a marketing dashboard to monitor the effectiveness of marketing programme areas and provide a complete solution to the challenges facing firms today.

The term *customer equity* was proposed by Blattberg and Deighton (1996), who defined it as the total of the discounted lifetime values summed over all of the firm's customers.

The initial Blattberg and Deighton (1996) model showed the importance of understanding the value of a firm's customer base and using this understanding to determine optimal investments in customer acquisition and retention. Rust, Zeithaml, and Lemon (2000) developed a conceptual model of the antecedents of the customer equity and a decision

support system to allow firms to focus their marketing strategy and determine the financial impact of strategic investments on the firm's (and competitors') customer equity. In addition, Blattberg, Getz, and Thomas (2001) have developed a model that enables a firm to understand the extent to which acquisition, retention, and customer add-on selling contribute to the firm's overall customer equity that provides insights into how a firm can manage investments in each.

The pioneering groundwork on the Customer Equity was laid by Blattberg and Deighton (1996) who introduced the concept and proposed the first model. The initial model showed the importance of understanding the value of the organisation's customer base and using this to calculate optimal investments in customer acquisition and retention spending. An evaluation of the Blattberg & Deighton (1996) pioneering model shows that this model has certain shortcomings. Firstly, the components of marketing spend are not identified (i.e. Does a company use advertising, direct marketing or sales promotion to increase spend to the optimum). Secondly, it is very useful in the direct marketing field, where a particular marketing activity can be determined to directly influence the customer acquisition; it is difficult to apply in non direct marketing fields where customer responses are a result of a multitude of marketing activities over time. Lastly, it does not take into account add-on or cross selling. However, an evaluation of the Blattberg et al (2001a) model on the earlier one revealed certain improvements. It also does show that it has some limitations. For example it is difficult for an organization to allocate marketing spend between acquisitions, retention and add on selling components; many components benefit two or more aspects of customer equity. Ideally the model requires longitudinal consumer database (customer responses over time) which identify marketing efforts targeting each customer and the associated responses. This model requires data generation from internal analyses and ignores the input from the customer, who is the ultimate determinant of customer equity as well as the effects of competition.

To overcome the major shortcomings of the previous models i.e. not considering the inputs from the customer and the effects of competition, driver models of customer equity have been developed. Drivers are essentially key customer purchasing criteria which can

be actionable by management. Customers are influenced to the extent the key value drivers are satisfied. These value drivers may consist of price, quality, value for money or perceptions (Zeithaml, 1988). Anderson, Fornell and Lehmann (1994) proposed three drivers: customer acquisition, customer margin and customer retention. This was subsequently modified to customer acquisition, customer retention and customer expansion by Gupta and Lehmann (2005) in line with the Blattberg et al (2001a) model. Lapierre (2000) identified a set of 13 drivers, based on benefits and sacrifices that affect the purchasing decision. The key to managing customer equity is to determine the relationship between investing in perceived value drivers and the resulting increase in customer equity with the objective of maximizing this. The major driver model has been developed by Rust, Zeithaml and Lemon (2000, 2001, and 2002). Rust et al developed and refined conceptual model of the antecedents of customer equity to determine the financial impact of strategic investments on the organisation's customer equity. The model is based on understanding the drivers of customer equity: value equity, Brand Equity and Relational equity;

Objectives of the study

The aim of study is to objectively understand the behaviour of cellular services users in National Capital Region of India in particular. The specific aspects to be studied were:

- To determine the critical drivers of Customer Equity and the factors influencing these for a customer segment
- Identifying the most critical factor among the determined set of driver
- To provide guidelines to organisations to improve their customer equity

Methodology

The empirical research is based on a series of structured interviews and a few focus group discussions. The sample size of 290 for the survey was drawn from various categories of consumers, and thus appropriate representation of all market segments was ensured. The length of the survey questions was kept optimum. The literature review

identified three main actionable drivers and sub drivers influencing the Customer Equity. The administered questionnaire was designed to investigate most critical drivers of Customers Equity.

Sources of data and sample size

A sample size of 290 people was selected that comprised of Reliance, Airtel and Idea cellular and Vodafone phone users. The sampling size includes male and female users from different occupation, age, and income groups.

Sample design

Quota sampling was done keeping the target segment in mind.

Data collection method

A structured questionnaire, consisting of questions relating to various key issues of the respondent, was prepared and the requisite information was collected.

Hypotheses

To test the correlation between the developed customer equity measure and three theoretical drivers of customer equity, the following hypotheses were proposed

- H_1 : There is significant and positive relationship between three theoretical drivers of customer equity-value equity, brand equity, relational equity
- H_{2a} : There is significant and positive relationship between the value equity and Inertia
- H_{2b} : There is significant and positive relationship between the brand equity and inertia
- H_{2c} : There is significant and positive relationship between relationship the equity and inertia

Analyses and interpretation : Factor analysis

Factor analysis is used to identify underlying constructs on data, and to reduce the number of variables to a more manageable set (Aaker et. al 2004). Principal component analysis (PCA) is concerned only with establishing linear component within data. With regard to the critical assumptions underlying factor analysis, Hair et al. (1998) have stated that they are more conceptual than statistical. However, it is necessary to verify the existence of the underlying

structure call for in the examination of the data matrix. On the basis of SPSS (16.0) package, a performance response on PCA was carried out to determined the underlying factors.

Table : 1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy.	.796
Bartlett's Test of Sphericity	Approx. Chi-Square	2867.846
	df	351
	Sig.	.000

There are two ways to determine the factorability of an inter-correlation matrix: Bartlett's Test of Sphericity, and the Kaiser-Meyer-Olkin (KMO) Measuring Sampling Adequacy (Hair et al., 1998). The KMO value was 0.796, thus indicating that acceptable sampling adequacy had been achieved. Exploratory factor analysis with principal components extraction and Varimax rotation was conducted. Seven factors were selected that possessed an Eigen value higher than 1.0, the threshold value suggested by Hair et al. (1998). This factor solution accounted for 61.519 of the total variance, which is a satisfactory solution in social science research (Hair et al., 1998).

In the present analysis, the Bartlett's test of Sphericity yielded a value of 2867.846 and associated level of significance smaller than .000. Thus we can say that the correlation matrix is an identity matrix is rejected.

As all underlying elements are loaded on to at least one of the factors, this implies that the original constructs were completely identified by the prior research

Factor 1 has a high loading of all elements from the driver 'Brand'. It includes high ethical standard towards customers and employees, good corporate citizens, images fix personality well, positive feeling towards service provide.

Table 2: Factor Extraction Results

S. No.	Name of Dimension	Factor Loadings	Coefficient alpha (%)	KMO
Brand				
1.	High ethical standards towards customers and employees	.790	78	.78
2.	Good corporate citizen	.763		
3.	image fits personality well	.701		
4.	positive feelings towards service provider	.665		
Functional Value				
5.	value for money	.773	72.9	.730
6.	overall quality of service	.622		
7.	worth price paid	.570		
8.	advantageous to be customer	.559		
9.	choices of handsets	.537		
10.	network connectivity	.467		
11.	secured by knowing that products and services are good	.450		
Relationship				
12.	Treats customer as special.	.838	82.1	.712
13.	Recognizes respondent as special.	.806		
14.	keeps lot of information about respondent	.755		
Word of Mouth				
15.	Recommended by friends and family	.889	83.2	.703
16.	Defend when somebody says negative things	.827		
17.	People have good things to say about this operator	.808		
Responsiveness				
18.	transparency in levying charges	.897	68.1	.653
19.	timeliness of billing	.886		
20.	easy to find outlets	.473		
21.	ease of contact for complaint resolution	.457		
Inertia				
22.	friends and family members have connection	.822	73.2	.693
23.	importance of number	.753		
24.	inertia complication in changing	.712		
Social value				
25.	feel accepted by others	.730	74.1	.689
26.	gives pleasure			
27.	Helps in doing new things (experimentation)			

Factor two has a high loading of all the elements of value and is loaded with 'value for money', overall quality of service, worth price paid, advantageous to be customer choice of handsets network connectivity sense of security. This factor explains is much more near to *Functional value* which represents value derived from effective task fulfilment. Often, it relates to monetary value or superiority compared with the alternatives (Sheth et al., 1991).

Factor three constitutes of relationship constituting 'company treatment as special', 'recognizing respondent as special', 'keeping lot of information about respondent'

Factor four consists of word of mouth consisting of 'praising', 'defending for negative things being said' and 'saying good things'

Factor five constitutes of value elements again. But they have more inclination towards 'responsiveness' of SERVEPF. It includes transparency in levying charges, timeliness of billing ease of finding outlets, and ease of complaint resolution.

Factor six constitutes of inertia where respondent sticks to a service provider because of friends and

family members having connection from the same operator, importance of number, complication felt in changing of number.

Factor seven indicates 'Social Value' attached to using services of one cellular operator. It includes acceptance by others, pleasure associated with using services one and experimentation.

Social value relates to social approval and enhancement of self-image among other individuals (Bearden & Netemeyer, 1999). Sweeney and Soutar (2001 p. 211) define social value as "the utility derived from the product's ability to enhance social self-concept". These are elements that drive the initial decision of choosing service provider and remaining with it. Thus, social value is derived mostly from product or service use shared with others (Sheth et al., 1991). *Emotional value* is acquired when a product/service arouses feelings or affect (Sheth et al., 1991; Sweeney, 2001). Play or fun gained by using the service for its own sake is also related to emotional value (Holbrook, 1994). *Epistemic value* relates to experienced curiosity, novelty or gained knowledge (Sheth et al., 1991). Novelty and variety seeking have also been suggested to trigger product search (Hirschman, 1980).

**Table 3:
One-Sample Test**

Test Value = 0						
95% Confidence Interval of the Difference						
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
brand	61.827	289	.000	3.21466	3.1123	3.3170
Functional value	87.648	289	.000	3.38818	3.3121	3.4643
relationship	52.498	289	.000	2.83678	2.7304	2.9431
wom	42.749	289	.000	2.53448	2.4178	2.6512
Responsiveness	70.853	289	.000	3.40086	3.3064	3.4953
Inertia	64.904	289	.000	3.55862	3.4507	3.6665
Social value	54.431	289	.000	3.10345	2.9912	3.2157

With the help of results of t- test we could reject our null hypothesis .Hence Conclude that all the three theoretical factors were significantly correlated. This

test also helped us to conclude that 'Functional value' still plays an important role for cellular operators. After that 'Responsiveness' and 'inertia' are crucial factors.

**Table 4:
One-Sample Test**

Test Value = 0						
95% Confidence Interval of the Difference						
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Value	87.648	289	.000	3.38818	3.3121	3.4643
Inertia	64.904	289	.000	3.55862	3.4507	3.6665

With the help of results of t- test we could reject our null hypothesis. Hence the paper concludes that all the three theoretical factors were significantly correlated. This test also helped us to conclude that 'Functional value' still plays an important role for

cellular operators. After that 'Responsiveness' and 'inertia' are crucial factors.

With the help of t- test we can reject the null hypothesis and conclude that both value equity and inertia are significantly correlated

**Table 5:
One-Sample Test**

Test Value = 0						
95% Confidence Interval of the Difference						
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Value	61.827	289	.000	3.21466	3.1123	3.3170
Inertia	64.904	289	.000	3.55862	3.4507	3.6665

With the help of results t- test we can conclude that

brand and inertia are significantly correlated and reject null hypothesis

**Table 6:
One-Sample Test**

Test Value = 0						
95% Confidence Interval of the Difference						
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Value	52.498	289	.000	3.55862	3.4507	3.6665
Inertia	64.904	289	.000	2.83678	2.7304	2.9431

For this hypothesis we can conclude that inertia and relationship equity are highly correlated

Occupation and user analysis

Table 7
Demographic characteristics of Respondents

No.	Respondent's Characteristics % of Respondent	
1.	Age Group	
	18-25years	30.7
	26-35 years	39.0
	36-45years	21.7
	more than 45 years	8.6
II	Gender	59.3
	Male	40.7
	Female	
III	Monthly Expenditure per month on cellular services	
	less than 300	16.6
	300-600	38.6
	601-900	27.9
	more than 900	16.9
III	Occupation	
	Student	17.9
	Professionals	50.0
	Self Employed	21.7
	Army	4.1
	Housewife	6.2
IV	Type of network used	
	GSM	71.7
	CDMA	28.3
V.	Current Service Provider	
	Airtel	24.1
	Reliance	27.2
	Idea	24.5
	Vodafone	24.1

VI	Tenure of current connection	
	1-6months	15.2
	7-12months	27.2
	1-2 years	25.9
	more than 2 years	31.7
VII	Prepaid or Post paid Connection	
	Prepaid	61.0
	Post paid	39.0

Discussions and Implication

The purpose of this study was to identify the drivers of customer equity in the telecommunication sector in India. The idea was to guide marketing efforts so that it helps build value for the company. This is consistent as the need for marketers is to become more accountable. The knowledge of seven dimensions that define customer equity can immediately assist cellular service providers to develop and execute the marketing programmes more effectively. Based on these specific marketing items, practitioners can develop practical marketing strategies using the measure. A review of literature showed that the earlier studies were more focused on modeling and measurement of customer perceived service quality and primarily focused on service delivery aspects along with technical quality. As the cellular market is maturing in India, and along with service quality, other aspects also need equal emphasis in terms of marketing campaigns. The emphasis can be relationship building with the customers as 'relationship' and 'word of mouth' along with 'functional value' were factors which have emerged as important factors in the customer equity value in this Industry. Surprisingly as Product differentiation is diminishing among the major players in terms of pricing, network quality etc. 'social value' has emerged as an important factor which focuses on hedonistic value attributes rather just functional value which is created by the cellular operators. According to the driver model given by Rust et al there are three customer equity drivers that can be build. Following conclusions can be drawn on the basis of this study.

Value Equity analyses the customer perceptions of value. This research has found that subscribers have differentiated between the functional value driven by actual quality, network quality, physical quality-handsets ,value for money and timeliness of bill , transparency in levying charges, ease of complaint resolution and hedonistic or social provided by the service provider by increasing acceptability, experimentation etc.

Brand Equity develops on the understanding or the subjective assessment of the brand and its perceived value. So sub drivers which are relevant to customer brand awareness are customer perception of brand ethics and using brand extensions to create positive attitudes and associations.

Retention Equity is very important so that the customer stays with the cellular operator for long period. So treating customers specially and learning from each interaction are very necessary.

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