ABSTRACT

The dynamic change in present techno-savvy environment has brought wide opportunities in front of the customers; in such a situation satisfying the customer itself is a great task. But the prevailing competitive market ensures organizations to retain their customers as they account for profitability. Though various studies have been carried out in studying the customer satisfaction relationship to customer loyalty, this study is considered as vital because it tries to give a picture of how far the satisfied customers are loyal in particular to the broadband service offered by the incumbent wire line operator in Puducherry. It has been found that customer satisfaction account for a major proportion of customer loyalty, but still the percentage of impressed customers are very low.

Keywords: Broadband, Incumbent, Impressed, Loyalty, Satisfaction

INTRODUCTION

Earlier in traditional marketing customers were marketed what was produced, but the transition in marketing enabled firms to offer what customer requires/demands. In simple, it could be stated that the focus of marketing strategy has evolved towards customer-centric market where the customers are the king of the market. In the technology era, in specific to the communication sector the emergence of broadband service has not only created an intensive environment but has also out-thrown wide opportunities to the customers. In such a situation the service providers are enforced to focus not only on customer satisfaction but also to establish customer loyalty as they are considered as the most valuable assets of the firm. Though there exist wide studies stating significant relationship between customer satisfaction and customer loyalty. This study in specific initially aims to analyze the relationship between customer satisfaction and customer loyalty of DSL service offered by wire line incumbent operator in Puducherry and also aims to depict how far customer satisfaction leads to loyalty through customer satisfaction and customer loyalty matrix.

Telecommunication Sector in India

Even though telecommunication was invented in 19th century, it was considered as one of the basic amenities like water and electricity only by 1980’s. As a result a wide wired
infrastructure was established in each country across the globe. Due to huge investment, there was not much competition which signified a monopoly status for the wire line service providers across the globe. This situation drastically changed after liberalization and globalization, i.e after a period of two to three decades, the private operators made their entry in promotion of various other telecom services and created a competitive environment in the telecom sector. This scenario accounted for decline in revenue of the wire line services, but it was the emergence of high speed internet (broadband) by end of 1990’s which exemplified as a boosting factor to overcome such a challenging situation. In earlier circumstances the competition prevailed only within the sector, but the emergence of multi-technology (broadband) service created a tough competition for wire line service providers both within the sector and also from various other sectors such as cable, fiber, satellite etc., as a result there exist more than 100 ISPs (Internet Service Providers) in each country across the globe.

The same kind of situation prevails in India, i.e as any innovative country; India also recognized the need for always-on broadband connection and took initiatives towards its promotion. Though VSNL was the initial ISP, the emergence of always-on connection provided an opportunity for more than 100 ISPs as of 2005. Among these the top ten ISPs accounted for more than 90% of broadband market (TRAI, 2013). The public service providers alone accounted for more than 70% of share in the broadband market. The major reason for this is the establishment of wide wired infrastructure across the length and breadth of the country. Despite huge investment, the revenue generation is very less, so the service providers are in forced situation to hold on their market share by satisfying their customers and establishing the loyal customer base in the fixed broadband market which generates revenue for both the broadband and wire line.

REVIEW OF LITERATURE

The emergence in Information and Communication Technology (ICT) in particular the broadband service has created a wide digital gap within the country and across the countries, in particular between the developing and developed countries. The World Bank report 2009 has specifically signified for the developing countries that the public sectors should include market restructuring and target incentive in promoting their broadband service. Oupami (2009) has explicitly stated that the cut-throat competition in the broadband market has necessitated every ISP to include market oriented strategies in order to increase their performance. In a market perspective, the firms could achieve performance only by satisfying their customers (Aydin & Ozer, 2005). But in prevailing condition where the innovation in technology has out-thrown wide opportunities to the customers, satisfying the customers itself is a great challenge for the organizations, as it is recognized as an important goal of any business organization (Angelova & Zekiri, 2011). Thus firms recognized the need for marketing like activities such as offering satisfied products and services as it leads to their success in high edgy competitive world of business (Alam & Salim, 2012). In particular, in the
telecommunication sector literature (wireless), satisfaction has emerged as a strong predictor of loyalty (Gerpott et al., 2001). The major reason is that once the customer experiences a high level of satisfaction they tend to remain with the same service provider and continue their subscription (Kim et al., 2004), because the satisfied customer of the telecom sector have the extent of usage and repurchase in the future (Henkel et al., 2006).

Customer satisfaction is recognized crucially important for firms, in terms of not only to differentiate their products but also to establish a strong relationship with the customers (Zaim et al., 2010) since it acts as a strong mediation between service quality and customer loyalty (Akbar & Parvez, 2009). Though customer satisfaction has emerged as key marketing strategy for customer-centered companies, in addition to it retaining them has emerged out as a greater challenge for the telecommunication service providers in particular. This has been accepted by the marketers across the globe who state that getting a customer is not enough but retaining them is the actual game, where customer loyalty plays a vital role in it (Akbar & Parvez, 2009). In recent years, customer loyalty has emerged as major focus of marketing strategy due to its key role in retaining the customers (Boora & Singh, 2011). Customer satisfaction the antecedent of customer loyalty plays a vital role in attracting and retaining the customers (Reichheld & Sasser, 1990), because it acts as noteworthy determinant of repeat sales, positive WOM (word of Mouth) and customer loyalty (Caruana & Calleya, 1998). Furthermore the satisfied customer has more propensities to continue with their service provider and also to recommend them to others. Researchers have stated that while a satisfied customer spreads only up to five, dissatisfied customers have a tendency of spreading it to eight to ten.

Though organizations take efforts to satisfy their customers, it is not possible to retain them as loyal customers because researchers have stated that it is not must that satisfied customers will be loyal. But a cursory look at ultimate goal of any organization will confirm that its’ profitability could be increased only by establishing a loyal customer base. It was supported by Blackton (1995) that loyal customers are very important since they are the valuable assets of a firm. Raza & Rehman (2012) have stated, the most important issue that sellers face in fierce competitive environment, is no longer limited just to provision of excellent good quality products or services but also to ascertain (establish) loyal customers who would contribute long-term profit to the organization. To be stated in simple as the loyal customers indulge in repeat purchase or favorable promotion of products/service, it accounts for generation of revenue for the firms. It has been further signified that once customers get connected to a telecommunication network of a particular operator, their long term relation shows a sign of success of the operator even in competitive markets compared to other sectors (Gerpott et al., 2001) which holds true for the incumbent wire line operators in promoting their broadband service.
While customer satisfaction gives an alarming signal for the organizations, customer loyalty represents the continual growth of firm in the future. Though various studies state that customer satisfaction has a direct influence on customer loyalty, with respect to ADSL service in Taiwan, it has been identified that more satisfied a customer then it leads them to be more loyal to the service provider (Tsou & Liao, 2010). Despite various studies which depict the relationship between customer satisfaction and customer loyalty, Bloomer and Kasper (1995) reveal that the satisfaction-loyalty relationship is not so simple and not a straightforward one. Gerpott et al., (2001) have also ascertained it with a two by two matrix which portrays the relationship between satisfaction and loyalty in terms of revealing the percentage of satisfied and loyal customers.

Hence, the service providers in particular in the telecommunication industry need to be innovative and do their best to achieve customer satisfaction (Zhang & Feng, 2009), since it makes the customer loyal towards one service provider (Hanif et al., 2010). Thus the study specifically tries to analyze the relationship between customer satisfaction and customer loyalty.

H01: Customer satisfaction has no significant influence on customer loyalty

**METHODOLOGY**

*Sampling Technique:* The study adopted survey method to collect data from the DSL customers residing in Puducherry. Questionnaire was used as data collection tool which was framed in two parts, the first part included the demographic profile of the customers and the second part included questionnaires related to customer satisfaction and customer loyalty which were adopted from previous studies i.e Customer satisfaction (3 items) were adopted from Kim, Park, & Jeong (2004) and Chen and Chang (2011), customer loyalty was measured using 5 items from Aydin and Ozer (2005), Kim et al., (2004) and Fornell (1992). Five point likert scale was used to rank the items where 5 stands for “Strongly Agree” and 1 stands for “Strongly Disagree”. The sample size 380 was determined based on the population source (Sekaran & Bougie, 2010) and purposive sampling technique was adopted to survey the sample.

**DATA ANALYSIS**

The study initially performed the reliability test in order to test the internal consistency of data. From Cronbach’s alpha test it was found both the constructs reliability were greater than the threshold value (0.70) (Nunally, 1978) (Table 1).

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Alpha Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
<td>0.825</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>0.795</td>
</tr>
</tbody>
</table>

Table 1: Reliability
Though data is reliable, as the constructs were adopted from previous studies, CFA (Confirmatory Factor Analysis) was performed to establish convergent and discriminant validity. As the convergent validity of the constructs is determined by item loadings, AVE and item reliability, table 2 result implies that in addition to Cronbach’s alpha, the composite reliability of the two constructs (customer satisfaction 0.922; customer loyalty 0.908) were greater than the threshold value (0.707), the item loadings which ranged from 0.6 to 0.873 were greater than 0.5 and AVE (Average Variance Extracted) of two constructs (customer satisfaction 0.614; customer loyalty 0.524) were greater than the threshold value (0.5) which represents that the items explain a minimum of 50% of the construct (Table 2) and thus convergent validity exists.

### Table 2: Results of CFA Item Loadings, Composite Reliability and AVE

<table>
<thead>
<tr>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
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<tbody>
<tr>
<td>Interaction Pleasing</td>
<td>CS</td>
<td>0.810</td>
<td>0.052</td>
<td>78.223</td>
<td>0.922</td>
</tr>
<tr>
<td>Service Good</td>
<td>CS</td>
<td>0.873</td>
<td>0.051</td>
<td>77.536</td>
<td>0.908</td>
</tr>
<tr>
<td>Overall satisfied</td>
<td>CS</td>
<td>0.653</td>
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<td>72.337</td>
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</tr>
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Note: CS -> customer Satisfaction, Cl -> Customer Loyalty
*** Significant at 1% level

In addition to convergent validity, discriminant validity was analyzed by comparing the squared correlation of the constructs with AVE in order to establish that the items of the constructs do not get converged to other construct. It was examined by the squared correlation values of the construct with the AVE. Table 3 result implies that the squared correlation (0.529) is less than the AVE of the constructs represented in the diagonal of the matrix (Fornell & Larcker, 1981) (Table 3).

### Table 3: Discriminant Validity

<table>
<thead>
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<th>Customer Satisfaction</th>
<th>Customer Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction</td>
<td>0.614</td>
<td>0.52</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>0.52</td>
<td>0.52</td>
</tr>
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While measurement model (CFA) represents that the validity and reliability of the constructs exists, as a next step forward the structural model (SEM) was performed in order to analyze the influence of customer satisfaction on customer loyalty. SEM was used because both were observed as latent constructs. In order to assess the model, the model fit indices were considered. Despite various fit indices, some of the commonly used fit indices were considered for the study. Table 4, result implies though the
Normed chi-square is greater than 3 it is still lesser than 5 which is in the acceptable range. Further the CFI, RFI which were greater than 0.9 indicates a good fit for the model and the RMSEA value 0.089 also signifies model as good fit model (Hair et al., 2010).

<table>
<thead>
<tr>
<th>Model</th>
<th>chi-square Value</th>
<th>Df</th>
<th>Normed chi-square</th>
<th>p-value</th>
<th>CFI</th>
<th>RFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Model</td>
<td>75.991</td>
<td>19</td>
<td>4</td>
<td>0.000</td>
<td>.960</td>
<td>0.901</td>
<td>0.089</td>
</tr>
<tr>
<td>Recommended value</td>
<td>&lt; 3</td>
<td></td>
<td>&gt;0.05</td>
<td></td>
<td>0.8 - 0.9</td>
<td>0.8 – 0.9</td>
<td>&lt;.08</td>
</tr>
</tbody>
</table>

Though loyalty is influenced by various other factors such as commitment, trust, image etc., the study result implies that the customer satisfaction itself accounts for an explained variance of 75% of the endogenous variable with a standard weight of .868 which is significant at 1% level (Fig: 1).

![Fig 1: SEM Model](image)

While the above SEM model depicts that customer satisfaction has a greater influence towards customer loyalty, Gerpott et al., (2001) matrix representation of the above two constructs helps to identify the percentage of impressed customers (I quadrant), optimistic customers (Quadrant II), disappointed customers (Quadrant III) and pessimistic customers (Quadrant IV).

![Fig: 2 Customer satisfaction & Customer loyalty Matrix](image)
From fig 2, it could be inferred that,

- Impressed customers represent the percentage of customers who are highly satisfied with service provided by the service provider and are also highly tending to be loyal. In the above fig 2 in the 1st quadrant (impressed customers) only 32% of the customers were highly satisfied and 40% of the customers were highly loyal towards their service provider. Though the satisfied customers are more than the loyal customers, it does not mean that all satisfied customers are required to be loyal.

- Optimistic customers are who have a positive opinion and confidence that the service provider will improve its service in the future. From the fig (2), in the II Quadrant, (optimistic customers) the percentage of loyal customers (68%) were greater than the satisfied customers (40%) which implies that even though the incumbent wire line service provider broadband customers were not satisfied much, they tend to be loyal with the consideration that it will improve its service in the near future.

- Disappointed customers are those who are less satisfied and are likely to be less loyal to their service providers. In the fig (2), with respect to disappointed customers (III Quadrant) both the percentage of loyal customers and satisfied customers were above 60%. It all symbolizes a warning/ alarming signal for the incumbent wire line service providers, because while a satisfied customer communicates with only 2 or 3 customers, it is the dissatisfied customers who deliberately spread the information to around 6 to 8 customers. So, the fixed broadband service provider (DSL) should ensure to reduce the percentage of disappointed customers.

- Pessimistic customers are those whose satisfaction is high and loyalty to the service provider is low. As loyalty relates to a long-term relationship, they have the opinion that service provider will get weakened in the near future. They also try to adapt to the competitors if better service is offered. From the fig (2) (Quadrant IV), the percentage of loyal customers (32%) represents only half of the satisfied customers (60%). The main cause for this kind of situation is mainly due to the entry of competitors with wide choice for bandwidth, speed at affordable cost.

**DISCUSSION**

The intense competitive environment has enforced all the organizations to retain their customer base especially the profitable ones. Gerpott et al., (2001) have stated if the customers are once attained and associated to the telecommunication network of a selective operator, their long-term relation with them emerges out as a great importance to the accomplishment of the company on competitive markets, compared to other
industry sector. With respect to mobile services, Chen and Chang (2011) have established that customer loyalty could be established by increasing customer satisfaction. Recognizing significant contribution of customer satisfaction towards loyalty, the study established just a one-one relationship between customer satisfaction and customer loyalty initially using SEM model. The model results stated that customer satisfaction accounted for major portion of explained variance of the endogenous variable and also had a greater influence towards it. This coincides with previous studies which state that customer satisfaction serve as major determinant of customer loyalty (Gerpott et al., 2001; Kim et al., 2004; Reichheld F. F., 1996). But studies have stated that all satisfied customers need not to be loyal, further retaining customers for a long term is not a simple task (Boora & Singh, 2011).

Though various studies have depicted the relationship between customer satisfaction and customer loyalty, the study adopted 2*2 matrix framed by Gerpott et al., (2001) with customer satisfaction on one axis and customer loyalty on other axis. The matrix result portrayed that the percentage of disappointed customers were double than the percentage of impressed customers (30%) which signifies that the incumbent wire line service provider in prevailing tough competitive environment are compelled to reduce the percentage of disappointed customers and increase the percentage of impressed customers. This could be attained only by undergoing frequent surveys with the customers that helps them to identify the dissatisfaction factors in promotion of fixed broadband service (DSL). Only if the service provider takes it as an immediate and serious action, it could satisfy and retain its customers, because every organization knows in order to thrive, it must acquire and retain customers, especially the profitable ones.

CONCLUSION

The upcoming technologies have created an intensive environment in the telecom sector where the survival of the incumbent wire line service provider is a greater challenge. In such a situation they are in forced situation to retain their customers, which could be attained only if the customers are satisfied. But the question rises whether satisfied customers are to be loyal, it depends, researchers have specified in specific to telecom sector if customers are satisfied they tend to be establishing a long-term relationship with their service providers. From the study it has been noted that though customer satisfaction leads to customer loyalty, the 2*2 matrix gives a clear picture of how far the satisfied customers are to be loyal. Thus the wire line service provider should incorporate stringent marketing practices in order to satisfy its fixed broadband customers who are to be loyal in the near future as they are the source for revenue generation. More over customer loyalty not only ensures the survival of the firm but also provides a competitive platform to its competitors.
REFERENCES

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