Customer Satisfaction of Telecom Industry in Khulna City, Bangladesh

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Abstract
Customers are the hearts of any industry. Telecommunication being a service-oriented industry always puts priority to find ways of making customers happy and satisfied. Sensing this importance, this study was conducted to determine what makes customers of Telecommunication Industry satisfied. Researchers confined the study within Khulna City, a divisional city of Bangladesh. A structured questionnaire developed based on previous works was distributed among 300 customers of Grameen Phone, Teletalk, Rabi who were selected conveniently for the study. Only 288 competed questionnaire properly thus used for analysis. A customer satisfaction model was developed including variables taken from the extensive review of previous literature. Those variables are customer service, personal and market factors, perceived quality, perceived value, technological advancement and company image. Model was tested using STATA, statistical software package, and found personal and market factor, perceived quality, perceived value and company image statistically significant.

Keywords: Telecommunication Industry, Customer Satisfaction, Competition

1. Introduction:
This is the era of globalization-age of competition. Not only for the success but for the existence, companies are always struggling here. In this battle for survival, companies are now more concerned about their customers than the shareholders. Moreover, rather than getting new customers, retaining old one satisfied and with the company for long time has been a much greater challenge. On the other hand, competition is not same in all industries. There are only a few industries like telecom industry that is recently undergoing such a fierce competition all over the world. Everyday more and more people are using telecom services in diverse ways but number of service providers are also growing and they are coming up with innovative ideas to make the competition even bitter (Malik et al., 2012).

Telecom industry is now of a paramount importance in developing countries with emerging markets (Arokiasamy & Abdullah, 2013). Bangladesh is such a lucrative market for telecom service providers. Though Bangladesh is still a poor country with very low level of purchasing power, lower per capita income and poor standard of living, this country is very rapidly progressing in the adoption of telecom services. Today there are more than 100 million users of telecom services of the total 150 million population of Bangladesh. They are not using mobiles just to make calls rather to use it for multiple value added services like messaging, video-calling, entertainment, financial services, healthcare services, e-commerce and internet browsing. Telecom industry is hugely influencing the growth prospect of Bangladesh and the government of this country is also encouraging the augmentation of this industry. Mobile is not a device of luxury to the people of Bangladesh today, it is a necessity. Therefore, it has become very challenging but opportunistic for the operators of this industry to acquire and retain customers.

It is well known fact that success of a service provider depends on the long term relationship with customers which is determined by customer satisfaction and loyalty (Mosahab, et al., 2010). It is also well established by worldwide researches that higher service quality results in customer’s satisfaction and loyalty, greater willingness to recommend to someone else, reduction in complaints and improved customer retention rates (Danaker, 1997, Magi and Julander, 1996 & Levesque and McDongall, 1996 cited in Dhandabani, 2010). It in turn results increase in sales, profit and market share, enhancement of corporate image and thereby leads the organization toward superior performance and sustainable competitive advantages (Mosahab, et al., 2010).

Therefore, customer satisfaction has gained considerable attention and interest and has achieved the centrality in marketing activities. Companies are developing different strategies in order to establish long term profitable relationship with customers by ensuring customer satisfaction. Being on the flames of rivalry telecom service providers are also trying to employ their best strategies to attract, satisfy and retain the customers to survive in long run (Hanif et al., 2010 & Nimako, 2012). This study is intended to investigate the level of customer satisfaction in the telecom industry of Bangladesh.

2. Background of Telecom Industry in Bangladesh:
The extraordinary and almost exponential growth in the telecommunication sector in Bangladesh has brought
this industry to the line with Readymade Garments and Remittances in terms of transformative impact on the economy with respect to aggregate investment or Foreign Direct Investment. Besides being one of the largest contributors to FDI and tax revenue of Bangladesh government, rapid mobile penetration is significantly contributing to the development of standard of living of the people of this country. Since the formation of Bangladesh Telegraph and Telecommunication Board in 1971, three telecom licenses were issued including one mobile license in 1989. But competition in this sector became meaningful in 1996 after the allocation of three more licenses. Growth in telecom market of Bangladesh was 53.8% during 2005-2009 though the year to year growth rate has slowed recently. However, the overall growth in the total number of Mobile Phone subscribers has been magnificent from only 4 million in 2004 to 65.1 million in 2010 to 115.982 million at the end of February 2014.

This rapid growth in the mobile telecom industry in Bangladesh has been facilitated and enhanced by the deregulation of the country’s telecom sector. At present there are six mobile telecom operators in Bangladesh. Those are: Teletalk (state-owned), Grameen Phone, Banglalink, Citycell, Robi and Airtel. Among all these mobile operators, Grameen Phone with much greater number of subscribers is leading the industry despite the best commercial efforts of its five competitors. On the other hand, Airtel and Robi had seen rapid growth in their respective mobile subscriber bases during 2012. In the following figure, there are the numbers of subscribers in million and market share by percentage of the six operators:

![Subscribers 2014](image)

In Bangladesh, present voice penetration rate is said to be 65%, but the actual penetration is 38-40% as a huge number of people are using multiple SIMs. Therefore, there is still room for the operators to grow (The Daily Star, 2013). Among the six operators, only Citycell is using CDMA (Code Division Multiple Access) method while the others are using GSM (Global Systems for Mobile Communications) method. These are the only two methods used by the operators to provide their services (Hossain & Suchy, 2013). However, in spite of a progressive and helpful regulatory regime, this country is still much slower to move forward with 3G mobile services that many other countries. Currently four private operators – Grameen Phone, Banglalink, Robi and Airtel and the only state-owned operator Teletalk have the 3G operating license. Though Teletalk was the first one to launch 3G in late 2012, the other operators have acquired 3G license just in late 2013 (Evans, 2013).

This sector currently contributes 8.9 percent to the national funds. But this industry is also subjected to huge tax burden in compare to other countries. Again, Average Revenue Per User (ARPs) is continuously declining. Moreover, rural subscribers who are more price sensitive that those of urban ones are the next phase of mobile subscriber addition. In addition to that, subscribers now have a greater propensity to hold multiple SIMs and engage in career switching for the best rates which in turn leads to lower marginal spending and lower revenue for operators. Therefore, this industry is facing a major challenge to maintain the growth in their revenue.

3. Literature Review:
Over the time, in different research, it has been found that there is a significant positive relationship between customer satisfaction and customer loyalty or retention (Kheng et al., 2010). In fact, customer satisfaction has been perceived as a key determinant behind the customer’s decision to leave or stay with an organization (Thakur, 2011). By definition, customer satisfaction is the “customer’s fulfillment response” (Rust and Oliver, 1994). It is a personal feeling of either pleasure or disappointment resulting from the evaluation as well as an emotion-based response to a service (Dhandabani, 2010 & Loke et al., 2011). This evaluation comes from the
comparison of expected services with the services actually received by the customer (Oliver, 1980; Leisen and Vance, 2001 cited in Loke et al., 2011).

One of the mostly important and targeted outcomes of marketing activities of any service provider is customer satisfaction (Siddiqi, 2011). Companies place higher priority on customer satisfaction, because it influences customer’s desires for future purchase (Mittal & Kamakura, 2001) and their tendency to say affirmative or negative words about the service to others. Satisfied customers are expected to make repeat purchases, to pay frequent visits, to participate in positive word of mouth advertising and display less switching tendency or to show ultimate loyalty (Mosahab et al., 2010). On the other hand, dissatisfied customers will show up with the opposite actions like complaining, switching and also spreading negative experience with the service providing company. Therefore, keeping customers satisfied has become prerequisite to not only customer retention but also to protect the company image. Customer satisfaction can be conceptualized as either transaction-specific satisfaction or cumulative satisfaction (Boulding, et al., 1993). Again, satisfaction can be related to attribute-specific and overall performance (Nimako, 2012).

In the competitive telecommunication industry, customer satisfaction is considered as the key to success (Siddiqi, 2011) However, customer satisfaction is not static in nature. Companies can’t feel safe with their presently “appeared to be satisfied customers”. Rather companies need to know how to keep their customers consistently satisfied because satisfied customers may look for better services elsewhere. Again, some customers may not switch because of the unavailability of better service to other service providers but actually they are not those of the satisfied customers (Thakur, 2011). Generally, level of satisfaction increases when customers receive maximum usage and profit for minimum price paid (Jamal and Kamal, 2002 cited in Afsar et al., 2010).

Silva and Yapa (2009) conducted an explanatory study to identify the attributes corporate customers consider relevant in deciding whether to retain with the current service provider or to migrate or switch completely. The research found that the common belief of price or the low cost being the most important factor that determines the customer loyalty did not work here, rather the most important factor for all the groups was value addition to the customer. It was also found that the relative importance of the determinants was different to different user groups.

Almossawi (2012) conducted a study to investigate the importance, determinants, and consequences of customer satisfaction in the mobile telecom industry in Bahrain. The study found insignificant association between customer satisfaction and loyalty as 88% of the mobile users declared that they would switch if they get a better offer which indicates lack of loyalty. Again the study also revealed trivial relationship of customer retention and loyalty because 86% of who claimed that they will remain with their current providers said that they would switch for a better offer.

Khan and Afsheen (2012) believe that most unhappy customers are the greatest source of learning and attempted to investigate mostly crucial factors that can influence customer satisfaction in Telecom industry of Pakistan. The study found that many factors have impact on customer satisfaction, but price fairness (mostly important), coverage (secondly important) and customer services (thirdly important) were three major factors which can highly affect the customer satisfaction.

Kim et al. (2004) conducted a study to determine the effects of customer satisfaction and the switching barrier on customer loyalty and the structural relationship between these factors in the Korean mobile telecommunication services industry. The study found that higher levels of call quality, value-added services, and customer support were associated with higher levels of customer satisfaction while higher level of the pricing structure, mobile device and convenience in procedures didn’t affect customer satisfaction

Nimako (2012) examined the effects of service quality on customer satisfaction and behavioral intention in mobile telecommunication industry applying structured equation modeling techniques. This study identified that Tangibles, Customer Relations, Real Network Quality and Image quality aspects of service quality positively affect customer satisfaction, which in turn affects behavior intention in Ghana’s mobile telecom industry. The findings further show a strong relationship between service quality, satisfaction and behavior intention and that service quality and satisfaction.

Oyeniyi and Joachim (2012) worked on the mobile phone users in Nigeria to identify relationships of customer service on customer retention. They investigated intention from various point of views like customer service, satisfaction, value and behavioral intention. This study had shown a strong relationship between customers’ perceived quality level and customer satisfaction. It is also revealed from the study that customers’ retention is ensured when customers believe that they are offered effective and high quality services.

Al-Zoubi (2013) investigated the effect of SERVQUAL model on customer loyalty among Jordanian telecommunication sector. They assessed the effect of this model based on the application of regression model. The study found a strong and positive correlation between SERVQUAL model and customer loyalty in telecommunication industry. They concluded that this model has significant impact on the customer loyalty.

Haridasan and Venkatesh (2011) intended to analyze the extent to which Indian telecom companies are
practicing customer relationship management (CRM) effectively and its impact on service quality of the practicing companies and therefore on customer loyalty. The study found that two providers were fully efficient and other service providers need to analyze the input and output parameters of the efficient frontiers to identify their weaker areas and take appropriate steps to correct those areas so that they can improve their performance and reach the efficient frontier.

Loke et al. (2011) attempted to highlight the service quality and customer satisfaction of a telecommunication service provider in Malaysia. They examined the impacts of reliability, responsiveness, assurance, empathy and tangible aspects on customer satisfaction. This study found that reliability, responsiveness, assurance and empathy significantly positively influenced customer attitudes in terms of satisfaction and loyalty. Moreover, a significant gap between the perceived satisfaction and importance on all of the service quality dimensions was also found.

Kabir et al. (2009) looked for the factors determining the customer satisfaction and loyalty of mobile telecommunication industry in Bangladesh. They strived to identify the relationship between service quality and customer satisfaction along with service quality, switching cost and trust with customer loyalty collecting data about the perceptions of 300 pre-paid mobile subscribers of Grameen Phone, Banglalink and Aktel. The study found the existence of significant linear relationship between service quality and customer satisfaction. It has also identified that service quality, switching cost, and trust are significant predictors of customer loyalty. Among other factors, trust has been found to be the most significant predictor of customer loyalty.

Malik et al. (2012) analyzed the impact of brand image, service quality and price on customer satisfaction in Pakistan telecommunication sector. This study found brand image, service quality and price to be correlated to customer satisfaction. Among these, there was negative correlation of customer satisfaction with price but positive correlation with brand image and service quality.

Ojo (2010) investigated the relationship between service quality and customer satisfaction in the Nigerian telecommunication industry. The study revealed a positive relationship between service quality and customer satisfaction. It also recommended that organizations should focus more attention on service quality.

Ahn et al. (2006) searched for the determinants of customer churn in the Korean mobile telecommunications service market. Results have indicated that call quality-related factors and customer’s participation in membership card programs as the determinants. However, changes in customer’s status have found to explain the relationship between churn determinants and the probability of churn.

Ocloo & Tsetse (2013) has undertaken a study to find out the relationship between quality service and customer retention and between customer satisfaction and retention in Ghanaian mobile telecommunication industry. The study revealed a relationship between quality service and satisfaction while customer satisfaction has been found to influence customer retention in large extent.

Using SERVQUAL model, GAP analysis, regression and t-test, Arokiasamy & Abdullah (2013) studied on service quality and customer satisfaction in the cellular telecommunication service provider in Malaysia. From this study they found that all service quality dimensions of SERVQUAL model positively influenced customer satisfaction in terms of loyalty and attitudes, while there was a significant gap between the perceived satisfaction and expectation on all of these service quality dimensions.

Hossain & Suchy (2013) explored the influence of customer satisfaction on customer loyalty in the context telecommunication industry of Bangladesh. This study focused on six factors- communication, price structure, value-added service, convenience, sales-promotions and customer service and the result indicated that except for sales-promotion, all other five factors have positive correlations with customer loyalty.

Shafiq et al. (no date) evaluated the hotels’ service quality through customer satisfaction in Pakistan. Adopting SERVPERF tool this study found that among the five dimensions of SERVPERF, tangible and empathy dimensions are more influential in Pakistan and therefore needed to be focused more by the hotel service providers.

Turela and Serenko (2006) performed an empirical investigation of 210 young adult cellular subscribers in Canada to examine the antecedents of customer satisfaction and loyalty. Adapting the American Customer Satisfaction Model this study offered insights for service providers, policymakers and subscribers. Also it formed the foundation for future benchmarking of the performance of wireless network operators in terms of user satisfaction and loyalty.

4. Research question
This study has been designed to find answer of what determines customer satisfaction in telecommunication industry.

5. Methodology
This study was conducted based on the opinions of customers in Khulna city. All subscribers of mobile operators active in this city were the population of this study. A convenience sampling method was applied to select
intended number of respondents as sample from the population. Initially three hundred subscribers were targeted and interviewed with master level students with business background of Business Administration Discipline, Khulna University to ensure reliability of data collection. A total of 300 respondents were interviewed with structured questionnaires but 288 were found flawless thus used for data analysis. A structured questionnaire was generated based on previous study with five point likert scale. This study has tested a causal model with multiple regression technique to find the answer of research questions. The reliability of questionnaire was tested with cronbach alpha (α). Statistical software package STATA was used for data analysis.

6. Theoretical Setting of the Model
Variables selected in this study from the substantial review of the previous studies. The variables are customer service, personal & market factors, perceived quality, perceived value, technological advancement and company image. Hence, the equation of the model has taken the following form.

\[ OS = \alpha + \beta_1 \text{Cus} + \beta_2 \text{Market} + \beta_3 \text{PQ} + \beta_4 \text{PV} + \beta_5 \text{TA} + \beta_6 \text{CI} + \epsilon \]

Where \( OS \) = Overall Satisfaction, \( \text{Cus} \) = Customer Service, \( \text{Market} \) = Market & Personal Factor, \( \text{PQ} \) = Perceived Quality, \( \text{PV} \) = Perceived Value, \( \text{TA} \) = Technological Advancement, \( \text{CI} \) = Company Image, \( \epsilon \) = Error

Table 1: Regression Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients (β)</th>
<th>Cronbach Alpha (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Service (CUS)</td>
<td>-0.15859</td>
<td>0.736</td>
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<tr>
<td></td>
<td>(0.0829)</td>
<td></td>
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<tr>
<td>Market &amp; Personal Factor (Market)</td>
<td>0.2229**</td>
<td>0.717</td>
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<tr>
<td></td>
<td>(0.0833)</td>
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<tr>
<td>Perceived Quality (PQ)</td>
<td>0.3473**</td>
<td>0.801</td>
</tr>
<tr>
<td></td>
<td>(0.0642)</td>
<td></td>
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<tr>
<td>Perceived Value (PV)</td>
<td>0.2495**</td>
<td>0.538</td>
</tr>
<tr>
<td></td>
<td>(0.0519)</td>
<td></td>
</tr>
<tr>
<td>Technological Advancement (TA)</td>
<td>0.1435</td>
<td>0.789</td>
</tr>
<tr>
<td></td>
<td>(0.0695)</td>
<td></td>
</tr>
<tr>
<td>Company Image (CI)</td>
<td>0.1535*</td>
<td>0.645</td>
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<tr>
<td></td>
<td>(0.0695)</td>
<td></td>
</tr>
<tr>
<td>R Square</td>
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</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.4235</td>
<td></td>
</tr>
<tr>
<td>F Value</td>
<td>36.14**</td>
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<tr>
<td>Variance Inflation Factor (VIF)</td>
<td>&lt;10</td>
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</tr>
<tr>
<td>Breusch-Godfrey LM</td>
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<tr>
<td>Breusch-Pagan (Chi 2 )</td>
<td>0.04</td>
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</tr>
</tbody>
</table>

** p<.01, * p<.05. Standard errors are in parenthesis.

7. Findings and Empirical Analysis
Regression statistics shows that 43.56% of dependent variables can be explained by independent variables. This signifies that 43.56% variation of customer satisfaction is explained by customer services, personal and market factor, perceived quality, perceived value, technological advantages and company image. All of these variables are found positively related with customer satisfaction except customer services. Personal and market factor, perceived quality, perceived value, and company image are found statistically significant. Customer satisfactions of Telecommunication Industry in Khulna City depend on personal and market factor, perceived quality, perceived value and company image.

Homogeneity of variance of residuals is one of the main assumptions of ordinary least square regression model. A model is said to be valid when variance of residuals is constant that means Homoscedasticity of residuals. Breusch-Pagan test was applied to check this status where the null hypothesis is variance is homogeneous. Evidence shows acceptance of null hypothesis (p >.05) so the residuals are homogeneous.

A model cannot estimate properly if its predictors are linearly related with one another. Multicollinearity problem appear when two or more predictors (independent variables) found perfectly linear. Variance Inflation Factor (VIF) is calculated to check the presence of this problem. Evidence show the model has no collinearity problem (vif<10).

Autocorrelation problem appears in model when errors are found correlated. A model must be free from this problem. Breusch –Godfrey LM test is applied to check this problem where the null hypothesis is no serial correlation. Evidence shows that the null hypothesis is accepted (p>.05). It signifies that model has not serial correlation problem.
8. Conclusion

Bangladesh is a poor developing country. But this country is rapidly progressing in adoption of different modern technologies. People of this country are continuously becoming more and more liberal and interested in testing something new coming into the market, particularly in case of technology. Telecommunication sector is one of the major participants of the modern technologies entering into Bangladesh. Though the inception of this industry in Bangladesh can be traced back to 1971 and 1989 in case of mobile telecom operators, hasty growth and fierce competition in this industry is a fairly recent phenomenon. This competition within telecom industry has acted as an impetus to this research. This study was designed to figure out what determine satisfactions of customers in Telecommunication Industry taking data from Khulna City, Bangladesh. A causal model was developed and implemented collecting data from the customers of Grameen Phone, Robi and Tele Talk for this purpose. This study has found variables are positively related with customer satisfaction except customer service. That means, in case of Bangladesh, market factors, perceived quality of the service provided by the company, perceived value addition to the customers and image of the telecom service provider are the factors that determine the satisfaction of the customers. On the other hand, customer services provided by the companies have found not to be that much influential to the customers. Findings of these aspects in this study have a great importance to the overall success of the telecom service providers in Bangladesh. It is because; by concentrating on the specific aspects that positively influence customer satisfaction, companies can attract new customers, retain the existing ones and make them loyal. Besides, they can save costs and efforts by not focusing much on less important one. As the research have found that market factors along with perceived quality have a great impact on customer satisfaction, companies should try to improve their service quality and develop new services to augment customer’s satisfaction. Moreover, companies should spot the light to the value addition to different customer segments in their marketing and advertising strategies. Moreover, the telecom service providers should be more concerned about their product’s or service’s image and the overall company image. Though this study is based on Khulna City only and has covered the users of Grameen Phone, Robi and Tele Talk, along with these companies, other telecom operators of this country can have an overall idea of the factors behind customer satisfaction and act accordingly.

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