Measuring Service Quality of Internet Service Providing Firms in Bangladesh

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Abstract

This study integrates past research and proposes a framework for measuring service quality of internet service providing firms in Bangladesh. The paper highlights the overview of internet service providing firms and identifies some features that are considered by Bangladeshi consumers for using internet service with the help of simple arithmetic mean method. Attempts have been made in the paper to measure the service quality using Parasuraman?s SERVQUAL Model and determining the actual position of internet service providing firms depending upon five quality dimensions of different firms. The result reveals that consumers of Akij Online Ltd. are fairly satisfied on the empathy and responsiveness dimensions. On the other hand the consumers of Grameen Cyber Net Ltd. are fairly satisfied with the tangible and empathy dimensions. The study has also been done to prove that consumers of Link3 firm are fairly satisfied with the assurance and tangible dimensions.

Index terms— service quality, internet service providing firms, consumer perceptions.

1 Introduction

t the present time computer is very important in our everyday life and internet service is needed for globalization and for changing the environment, society and business. It helps us in the field of education, business, official function, telecommunication, recreation, space station and so on. The term "measuring service quality" is used to form attitude by long-term, overall evaluation of performance. This study is conducted to find out the service quality of internet service providing firms in Bangladesh which are influenced with total attributes and some quality dimensions of the product or service. Product or service quality is an important competitive weapon in the global market place. Although the concept has been reviewed extensively, various studies have examined the construct from different vantage points. For example, in the field of psychology product quality is seen as the innate excellence of an entity (Peterson and Tolibert 1976; Pincus and Waters 1975); economics has related it to profit minimization and information asymmetry (Akerlof 1970; **??**einkel 1981; **??**othschild and Stiglitz 1976); and service quality has looked at it with an attitude formed by a long-term overall, evaluation of performance. Mainly, consumers serve as the ultimate judge of quality in the marketplace. Even well decorated, freedom of service can fail if they do not fit consumers' perceptions of quality.

Consumers make decisions about the quality of products or services based on a systematic process of acquisitions, evaluation and integration of product or service quality dimensions. The quality dimensions are important from marketing perspective as they can have different important influences on attitudes of consumers toward a product or service. With the help of overall attitude toward the service, marketers can implement appropriate marketing strategies to achieve market share. Multiple researchers have found a relationship between service quality and customer satisfaction. However, at the present time internet service providing firms have been constantly expanding their service by providing multiple services together in one offering for the consumer. Besides, different competitors are available in Bangladeshi markets. As people of the third world country, consumers are very much price conscious but simultaneously they consider the quality of the product or service.

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44   The quality of the service can increase with maintaining some quality dimensions. Consumers' basically expect
45   desired service from the internet service providing organizations of Bangladesh.
46   The study has tried to measure service quality of internet service providing firms in Bangladesh on the basis of
47   some quality dimensions. Those dimensions have also been analyzed in this study clearly. The paper is organized
48   as follows: Section 1 focuses on introductory issues, Section 2 analyzes the objectives of the study, Sections 3
49   reviews the literature relevant to quality perception and competitiveness in the market, Section 4 discusses the
50   methodology of the study, Section 5 discusses the service quality measurement procedure, Section 6 depicts the
51   findings of the study and Section 7 concludes and recommends. Finally, limitations of the study and future
52   research directions are discussed in Sections 8.

2   Ob jectives of the Study

54   The purpose of the study is to measure service quality of internet service providing firms in Bangladesh. The
55   specific objectives of the study are stated below:
56   ? to identify the factors that exert influence on forming positive attitude of Bangladeshi consumers to internet
57   service; ? to examine the service quality of internet service providing organizations based on SERVQUAL model;
58   ? to determine the different attributes which are considered by Bangladeshi consumers while using internet
59   service.

3   III.

61   Relevant Literature Review **??**heatley and Chiu (1977) conducted a study to examine the influence of price, store,
62   product and respondent characteristics on perceptions of quality. Carpet was chosen for evaluation. Two price
63   levels, three colours, two levels of stores, and respondents were classified based on income and education levels.
64   Regression analysis was performed to test hypothesis. The results support that high quality was associated with
65   a high price, high prestige store, and a dark colour. There are obviously many voids in present knowledge of
66   how buyers form quality judgments. Not enough is known about what leads to the assessment of quality of some
67   products on the basis of different cues. **??**odds and Monroc (1985), in their work entitled "the influence of price
68   and brand information on subjective product evaluations" used the headset player college students as sample
69   units.
70   MANOVA was conducted to analyze perceived quality and perceived value and ANOVA was conducted to
71   analyze willingness to buy. Perceived quality of a product increases if/as price increase is confirmed. Odd and
72   even prices are not perceived by subjects differently is also confirmed. Perceived value showed the hypothesized
73   effect in the low price level but failed to act consistently for indicators in the medium and high price treatments.
74   The study (Arone & Grace, 2004) was investigated brand dimensions specifically attributed to branded services
75   and explore issues related to how the dimensions are used in decision making for consumers, and the, extent of
76   relationships between brand associations, brand attitude usage intentions. Findings indicate that there are
77   distinct dimensions that are relevant to consumers' minds when considering decisions regarding service brands.
78   It is also shown the brand attitudes do relate positively to consumers intention to use (purchase) specific brands
79   over others.
80   After the review of mentioned literatures it is clear that all the articles discussed are about different branded
81   products and their attention toward service items. We know that products have their physical evidence but
82   services have their no physical evidence. Services are intangible. So, to measure the service quality of internet
83   service providing firms this remains an unexplored field. Besides these literatures considered some attributes;
84   but still there are some quality dimensions which serve to measure service quality of internet service providing
85   firms yet to be explored. Moreover, in our country no depth research is conducted so far in this regards. So this
86   study tries to fill up this gap by using some quality dimensions for measuring service quality of some selected
87   internet service providing firms.
88   IV.

4   Methodology of the Study a) Firms Selection

90   At present, there are many internet service providing firms in Bangladesh. Among these, the firms having 30% or
91   above response out of total respondents have been selected for the convenience of the study. This information has
92   been collected from 160 respondents where approximately 70% are students and the rest 30% are professionals.
93   Table 1 reveals the names of internet service providing firms that are considered by the consumers. When the
94   respondents were asked about the different internet service providing firms the names of 9 firms came to their
95   mind at that moment. From table 1, it is found that Akij online Ltd. Grameen Cyber Net Ltd. and Link3 have
96   got the highest importance. Since sampling frame of the respondent is unavailable, probability sampling method
97   for the research purpose is not appropriate. So for time and budget constraints, the data have been collected on
98   the basis of convenience sampling method with 250 desired sample sizes. Total 250 respondents who have directly
99   or indirectly influenced for receiving internet service are used as sample respondents in this study. Among 250
100 ear department of Marketing; University of Rajshahi, who have been taken into consideration for the convenience
101 of the study. Rests of the data have been taken from 50 different professionals such as: IT offi\cers, Teacher at
102 various positions of the University of Rajshahi, Bangladesh and from some business users of University area.

5 c) Types of Data

In order to achieve the specific objectives of the study, primary and secondary sources of data are used. The relevant primary data have been collected from the respondents directly through a set of structured questionnaires. The majority of the secondary data have been collected from unpublished thesis paper (Neger, M., 2009) of the researcher, various publications, newspapers and published books etc.

6 d) Data Collection Method and Procedures

Data have been collected from students and professionals through a set of structured questionnaires. In the surface page of the questionnaire, the purpose of the study is well described, after the surface page of the questionnaire, the respondents are asked to turn the page including information regarding the quality dimensions (Appendix A) of individual internet service providing firms those are usually providing the internet service in Bangladesh. Here, it has been used Sevenpoint scale ranging from 1 to 7, 7 indicates "Absolutely Essential" and 1 indicates "Not at all Essential" for measuring consumers' expectations about service quality of internet service providing firms. The researchers have also used Seven-point scale ranging from 1 to 7, 7 indicating "Strongly Agree" and 1 indicating "Strongly Disagree" for measuring consumers' perceptions regarding five service quality dimensions. e) Data Analysis Procedures Simple statistical tools have been used to analyze the data. Statistical tools including simple arithmetic means, percentages method have been used. The SERVQUAL model has also been used as an instrument to measure service quality of internet service providing firms in Bangladesh.

V.

7 Service Quality Measurement Procedure

The Parasuraman's SERVQUAL model has been established as the most influential tool for measuring the service quality of a service providing organization. According to its developers, SERVQUAL is a diagnostic tool that uncovers a firm's broad weaknesses and strengths in the area of service quality. The SERVQUAL instrument is based on five service quality dimensions that are tangibility, reliability, responsiveness, assurance and empathy. The SERVQUAL instrument consists of two sections: a-22 items section that records customer expectations of excellent firms in the specific service industry and a second 22-items section that records customer perceptions of a particular company in that service industry **??**Parasuraman, 1988). Then by identifying the gaps between customers' expectations of the service to be rendered and their perceptions of the actual performance of the service is treated as service quality level of different service providing firms **??**Parasuraman, 1988). That means, SERVQUAL Score = Expectation Score ? Perception Score . After all, as was the case with satisfaction measures, SERVQUAL is most valuable when compared with a firm's own past service quality trends and when compared with measures of competitive service quality performance.

8 VI.

Findings and their Analysis a) Results of Consumers' Positive Attitude Based on Some Influential Factors When a service receiver wants to receive the internet service, he/she also depends on service quality of the internet service providing firms. Another sense, the service quality also depends on some factors. Table 2 reveals that 24% respondents show their positive attitude to the internet service only for that "freedom of service". The other factors for which the respondents show their positive attitude towards internet service are "reasonable service change", "technical excellence", "un-compromised security", "round the clock help line", as opined by 22%, 20%, 18%, 16% respondents respectively. 03 provides a set of evaluation scores, perception scores and SERVQUAL scores of Akij online limited, Grammen Cyber Net Ltd. and Link3 firms. The table suggests that the main quality dimensions on which the consumers of Akij online Ltd. Grameen Cyber Net Ltd. and link3 firms are generally satisfied. As far as the perception scores are concerned, the consumers of Akij online Ltd. are fairly satisfied on the empathy and responsiveness dimensions. Incorporating expectations into the SERVQUAL score indicates that improving the assurance, reliability and tangible dimensions respectively should be the top priority of Akij online Ltd.

On the other hand, the table suggests that the main quality dimensions on which the consumers of Grameen Cyber Net Ltd. are fairly satisfied with the tangible and empathy dimensions. Incorporating expectations into the SERVQUAL score indicated that improving the reliability, responsiveness and assurance dimensions respectively should be the top priority of Grameen Cyber Net Ltd.

After that the table also suggests that the main quality dimensions on which the consumers of links firm are fairly satisfied with the assurance and tangible dimensions. Incorporating expectations into the SERVQUAL score indicates that improving the empathy, reliability, and responsiveness dimensions respectively should be the top priority of Link3 firm. 4 reveals that all the respondents consider five attributes which affect consumer mind for using internet service of the five attributes; "reasonable service charge" has got the highest importance, weighted average, being 4.26 for it. The other important attributes are (i) easy access and technical excellence (weighted average being 4.04); (ii) corporate image (weighted average being 2.72); (iii) guaranty/ warranty (weighted average being 2.66). The last attribute guaranty/warranty falls below weighted average of 2.66; hence, it is not important to the respondent.

9 Concluding Remarks

This study is conducted empirically to measure service quality of internet service providing firms based on Parasuraman's SERVQUAL Model. Internet service is considered as sophisticated service item in our country. The consumers have more or less knowledge about the different quality dimensions of internet service that lead the service quality of individual internet service providing firm. Parasuraman's SERVQUAL model has been applied for three internet service providing firms which are widely providing the internet service in Bangladesh. Five dimensions have been selected as determinants of firm choice. The findings highlight the need to gain an understanding of the impact of quality dimensions and their contribution to the service providing firms' preference individually.

Finally, the measurement of service quality of internet service and managerial implementation of internet service providing firms have become top priority marketing issues in the recent years, according to the growing literature on the subject. Based on the findings we put forward the following recommendations: i) The managers can take various strategies such as, maintaining and developing new quality dimensions, operating effective promotion etc. for gaining the competitive advantage on the basis of service differentiation. ii) Employees of those firms should participate in scheduled training courses and we should note that behavior of employees is often instrumental in bringing a desired outcome. iii) The firms should try to identify customers' needs and work to satisfy them. It means that managers need to redefine goals and policies, modify the organizational structure, reengineer job and design necessary specifications, likewise training, and monitoring, rewarding and punishing employees.

10 VIII. Limitations and Future Research

There are some limitations of this study that future research should continue to test and refine. The study reveals that five quality dimensions are considered for measuring service quality of some selected internet service providing firms, which have five quality dimensions that always may not be true. There might be more dimensions, which could influence the consumers for receiving internet service like model variation, availability, home service etc. Therefore, further research may be conducted to assess service benefits and risks of each quality dimension of internet service considering more dimensions including exogenous variables. Besides, the major limitation of this study is that the study attempts to consider only three internet service providing firms. It would have been more representative if the total number of internet service providing firms of Bangladesh could have been taken under this study. constraints. It is the responsibility of the future researchers to overcome these shortcomings. Moreover, we used only Parasuraman's SERVQUAL model for measuring service quality in this field, so other researchers have the options to measure the service quality of internet service providing firms and can also use the other techniques in sampling and in measuring service quality. 1. When excellent companies promise to do something by a certain time, they will do so. 2. When customers have a problem, excellent companies will show genuine interest in solving it. 3. Excellent companies will perform the service right the first time. 4. Excellent companies will provide their services at the time they promise to do so 5. Excellent companies will insist on error-free records. Dimension 3-Responsiveness (4 items) 1. Employees of excellent companies will tell customers exactly when services will be performed. 2. Employees of companies give prompt service. 3. Employees of companies are always willing to help the service receivers. 4. Employees of companies are never too busy to respond to consumers' requests.

11 Global

Dimension 4-Assurance (4 items)

1. The behavior of employees of excellent companies will instill confidence in customers. 2. Customers of excellent companies will feel safe in their transactions. 3. Employees of excellent companies will be consistently courteous to customers 4. Employees of excellent companies will have the knowledge to answer questions.

Dimension 5-Empathy (5 items)

1. Excellent companies will give customers individual attention 2. Excellent companies will have operating hours convenient to all their customers. 3. Excellent companies will have employees who give customers personal attention. 4. Excellent companies will have the customer's best interest at heart. 5. The employees of excellent companies will understand the specific needs of their customers.

12 Dependent Variables

Service quality of internet service providing firms (3 items) 1. Overall the customers are very satisfied with other facilities in internet service providing firms. 2. We would recommend the service patterns of internet service providing firms are fairly satisfied. 3. The main quality dimensions on which the consumers of some selected internet service providing firms are generally satisfied.

4. Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent company. [1]

Figure 1:

1

service providing firms which are available in
Bangladesh market

No.	Firms' Name	T R	TRD	%
1.	Akij online ltd.	160	150	93.75
2.	Grammen Cyber Net Ltd.	160	145	90.62
3.	Link3	160	90	56.25
4.	Librabd.Net	160	45	28.12
5.	BTTB	160	42	26.25
6.	Ranks IT	160	40	25.00
7.	Khulna Vision	160	39	24.38
8.	ISN	160	35	21.88
9.	Raj ISP	160	32	20.00

Source: Field Investigation, December 2009

Where, TR = Total Respondents, TRD= Total
Respondents' Response

b) Sample Respondents

Figure 2: Table 1 :

2

attitude of Bangladeshi consumers towards internet

Sl. No.	Factors	service Number of Re-spon-dents	% of Re-spon-dents
1.	Freedom of service	60	24
2.	Reasonable service charge	55	22
3.	Technical excellence	50	20
4.	Un-compromised security	45	18
5.	Round the clock help line	40	16

Source: Field Survey, December 2009

b) Result of SERVQUAL Model and Evaluation Profile

Customers' of internet service respond differently based on service quality. From the SERVQUAL model, it is clear that there are five dimensional stimuli that would help to measure the service quality of different service providing firms. Finally

Figure 3: Table 2 :

3

Dimensi on	Akij online Ltd.			Grameen cyber Net Ltd.			Link3		
	Expectati on Scores	Perceptio n Scores	SERVQUAL Scores (Ex.-Pe.)	Expectatio n Scores	Perceptio n Scores	SERVQUAL Scores (Ex.-Pe.)	Expectatio n Scores	Perceptio n Scores	SERVQUAL Scores (Ex.-Pe.)
Tangible s	4.60	4.51	0.09	4.75	4.95	-0.2	4.56	4.79	-0.23
Reliabilit y	4.99	4.74	0.25	4.69	4.50	0.19	4.92	4.55	0.37
Respons iv-eness	5.41	5.48	-0.07	4.93	4.65	0.28	4.71	4.31	0.4
Assuran ce	5.22	4.18	1.04	5.11	4.95	0.16	4.79	5.10	-0.31
Empathy	5.16	5.26	-0.1	5.21	5.80	-0.59	4.70	4.66	0.04

Source: Field Investigation, December 2009

c) Results Of Consumers' Consideration Based On Intrinsic And Extrinsic Attributes For Using Internet Service

Table

Figure 4: Table 3 :

4

Attributes	Responses					weighted average
	Not important(1)	Below important(2)	Average important(3)	Above Average important (4)	very important(5)	
Easy Access	0	20	50	80	100	1010/2 = 4.04
Corporate Image	60	50	55	70	115	680/25 2.72
Technical Excellence	0	20	50	80	100	1010/2 4.04
Guaranty/ warranty	75	45	40	70	20	665/25 2.66
Reasonable service Charge	0	10	45	80	115	1050/2 4.2

Source: Field Survey, December 2009

Not e: Weighted average is calculated given weight 1for "Not important" to 5 for "Very important"

Figure 5: Table 4 :

217 [Akerlof (1970)] G A Akerlof . *The Market for 'Lemons': Quality Uncertainty and the Market Mechanism*, 1970.
218   August. 84 p. .

219 [Firn et al. ()] 'An Evaluation of the SERVQUAL Scales a Retailing Setting'. W Firn , Lamb W David , Charles
220   . *Advances in consumer Research* 1991. 18 p. .

221 [Md and Rabiul ()] 'Consumer subjective Rist Valuation: The Role of Corporate Image and Warranty Quality'.
222   Islam Md , Rabiul . *Rajshhi university studies*, 2004. 12 p. .

223 [Dodds et al. ()] 'Effects of price, brand and store information on buyers' products evaluation'. W B Dodds , K
224   Moroe , D Grewal . *Journal of marketing Research* 1985. 28 p. .

225 [Wheatley ()] 'Examine the influence of price, store, product and respondent characteristics or perceptions of
226   quality'. Chiu Wheatley . *Journal of marketing* 1987. 10 (4) p. .

227 [Aron et al. ()] 'Exploring consumer experiences with a service brand'. O' Aron , Debra Cass , Grance . *Journal
228   of product & Brand Management* 2004. 13 (4) p. .

229 [Neger ()] 'Measuring consumers'. M Neger . *Attitude towards Internet Service: A Study on Selected Firms in
230   Bangladesh*, 2009. (Phil Thesis) (unpublished)

231 [Perry and Perry ()] 'Service Contact Compared to Warranty as a Means to Reduce Consumer Risk'. Michael
232   Perry , Amon Perry . *Journal of Retailing* 1976. 52 p. .

233 [Parusamran and Berry ()] 'ServQUAL a Multiple item scale for measuring consumer perceptions of service
234   quality'. A Parusamran , L Berry , V . *Journal of Retailing* 1998. 64 p. .

235 [The physical facilities at excellent companies will be visually appealing] *The physical facilities at excellent com-
236   panies will be visually appealing*,