

Maintenance-Service-Quality and its Relationship with Satisfaction: A Study of Real Estate Industry in Bangladesh

Dr. Mohammed Javed Hossain¹

Rashed Ahmed²

¹Associate Professor, Department of Marketing Studies & International Marketing, Chittagong University, Chittagong, Bangladesh

²Assistant Professor & Chairman, Dept. of Business Administration, Green University of Bangladesh

Abstract: *The real estate sector is one of the fastest growing sectors in Bangladesh. In keeping with rapid population growth in metropolitan cities of the country, the real estate business has stretched itself to cover new boundaries and respond effectively to long-term needs of the mammoth city populace. The costumers of real estate properties (apartments) expect some facilities in exchange of their money. This research has measured the level of customer perception of apartment maintenance-service-quality offered by the real estate companies of Chittagong metropolitan only and the relationship between the two constructs- perception of apartment maintenance-service-quality and user satisfaction. Some recommendations have also been suggested for the apartment builders and developers for improvement of their maintenance-service-quality to ensure better customer satisfaction.*

Keywords: *Apartment maintenance-service-quality, customer perception, satisfaction.*

1 Introduction

The dream for a cozy and comfortable living is universal for everyone. For an urbanized city-dweller of today, this dream is coupled with a necessity of having a home in a safe and congenial neighborhood with ease of access to urban facilities. Not many of the city dwellers have the time and energy to undertake construction of such homes by themselves. With a mission to building the dream-home of such city dwellers, real estate concept has emerged all over the world. So is the case in Bangladesh as well. Most of the people in our country are suffering from the lack of comfort living due to their inability to build their own houses following the shortage of land and huge capital. The real estate companies, in this regard, are coming forward to resolving the situation. Since a good number of real estate companies emerged over the last two decades, the competition among them to attract and convince customers has gone very high in recent years. As a result of that, many firms are offering stimulating packages to attract customers to buy their company's products – i.e. apartments. Though such competition prevails among the rival companies, the actual quality of apartments and maintenance-services provided by these companies haven't improved much. It is because, most of the

developers and real estate builders are more engaged in making profit through sales. They are not listening to their customers. As a result, customers are not getting what they are expecting. There remains a gap in what they expect and what they get; and the condition is even worsening day by day.

In view of this above fact, this paper aimed at finding out whether the real estate companies are providing quality maintenance-services to the apartment dwellers with satisfactions. The quality of service is considered critical in service industry and even more important in real estate sector – which deals with a very basic human need of the society – shelter & living. The emphasis was on ‘service quality’ simply because of the fact that in this intensely competitive market only the quality service can be used strategically to ensure the long-term sustainability of the real estate business. Moreover, quality calls for reducing business costs in the long-run. On the other hand, perception of quality might differ from person to person and from situation to situation. Even differences might exist among customers regarding the service quality of the same service provider. Thus, the present study was interested in identifying the level of customer perception of maintenance-service-quality of apartments in the context of Bangladesh.

2 Literature Review

2.1 Service

The concept of service comes from business literature. Today’s economies are increasingly driven by service enterprises. Many scholars have offered various definitions of service. For example, Ramaswamy (1996, p.3) described service as “the business transactions that take place between a donor (service provider) and receiver (customer) in order to produce an outcome that satisfies the customer”. Zeithaml and Bitner (1996, p.5) defined service as involving three elements including deeds, processes, and performances. According to Gronroos (1990, p.27), “a service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between the customer and service employees and /or systems of the service provider, which are provided as solutions to customer problems”.

2.2 Perception of Service quality

Service quality is a concept that has generated considerable interest and debate in the research literature. Till to date, there prevails strong controversy in defining it and as such no specific technique has been accepted unanimously for its measurement as well. Yet, the most common one defines service quality as the extent to which a service meets customers’ needs or expectations (Asubonteng, McCleary, and Swan, 1996). Parasuraman, Zeithaml, and Berry (1985, 1988) defined service quality as the difference between customers' expectations of service provider’s performance and their evaluation of the services they received. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman et al., 1985). Perceived service quality is accepted as a form of overall evaluation, a global judgment, or an attitude toward purchasing products or services (Olshavsky, 1985). From the perspective of a customer, perceived service quality is a highly subjective and relativistic phenomenon that differs based on who judges the product or service (Holbrook and Corfman, 1985).

2.3 Customer Satisfaction

The key concept of customer satisfaction is based on the expectancy- disconfirmation theory proposed by Lewin (1938). This theory posits that customer satisfaction judgment is the comparison between the expectation and the perceived performance of a product or service (Cardozo, 1965). Therefore, satisfaction is

the customer's overall judgment of the service provider (McDougall & Levesque, 2000). Oliver (1997) stated that satisfaction is determined by disconfirmation- which is the gap between customers' expectations and perception of the service. If the performance falls short of customer expectation, quality is perceived to be low resulting in negative disconfirmation or dissatisfaction; and vice-versa (Bitner, 1990; Kandampully, Mok, & Sparks, 2001). Satisfied customers ensure a regular cash flow for the business in the future (Berne, Mugica, and Yague, 1996). Researchers and practitioners are highly interested in understanding what customer satisfaction is and what drives customer satisfaction, simply because customer satisfaction is an antecedent of increased market share, profitability, positive word of mouth, and customer retention (Anderson, Fornell, Lehmann, 1994).

2.4 Relationship between Customer Satisfaction and Perceived Service Quality

Though service quality and customer satisfaction seem to be similar, many have questioned if they are identical (Dabholkar, 1993; Iacobucci, Grayson, and Ostrom, 1994). In fact, some empirical studies show that the two constructs are conceptually distinct (Bitner, Booms, and Tetreault, 1990; Boulding, Kalra, Staelin, & Zeithaml, 1993). A customer has to make a purchase to determine satisfaction, though making a purchase is not necessary to evaluate service quality (Oliver, 1997). Customer satisfaction depends on price, which is generally not the case for service quality (Anderson et al., 1994). Moreover, service quality is related to cognitive judgment and customer satisfaction is to affective judgment (Iacobucci et al., 1994).

The idea of linking service quality with customer satisfaction has existed for a long time. Both the constructs have positive impact on repurchase intention and favorable word of mouth communication (Beeho and Prentice, 1997). Satisfaction has a positive impact on post-purchase behavior (Oliver, 1980) and service quality directly and indirectly exerts influence on repurchase intention through its influence on satisfaction (Boulding et al., 1993; Keaveney, 1995). Bojanic (1996) affirmed that a high service quality results in customer satisfaction and repeat purchase intention, with perceived service quality's being an antecedent to satisfaction – which (satisfaction) leads to repurchase and loyalty over time.

It is an abstract and elusive construct because of three features unique to services: intangibility, heterogeneity and inseparability of production and consumption (Parasuraman, Zeithaml and Berry 1985). Definition of service quality revolved around the idea that it is the result of comparison that customers make between their expectations about a service and their perception of the way the service has been performed (Lehtinen & Lehtinen, 1982; Gronroos, 1984; Parasuraman et al, 1985, 1988, 1991, 1994).

3 Objectives of the Study

The following objectives were determined to achieve from the study:

- Explore the customer perception regarding the quality of apartment-maintenance- services.
- Identify the level of customer satisfaction with the quality of apartment-maintenance- services.
- Explore the relationship between perception of apartment maintenance-service-quality and satisfaction.

4 Methodology of the Study

The study was geographically confined to Chittagong metropolitan city where the apartment owners who bought apartments from different real estate builders were initially included in the sampling frame of the

study. However, the total number of apartment owners was unknown. As a result of that, the sample size for the study was calculated by the use of Cochran's (1963) formula. On the basis of the formula, at 90% confidence level and 10% precision level with maximum degree of variability ($p=.5$, $q=.5$), the sample size arrived at 67. After collecting data from the expected 67 respondents based on convenience sampling, 7 were found to be incomplete. Finally 60 questionnaires were used for the purpose of data analyses.

Ex-post facto in nature, the study followed 'survey approach' using a self-administered structured-non-disguised closed-end questionnaire. Both primary and secondary information were used in the study. Secondary data were collected from various published sources including books, online journals, newspapers, magazines, and reports. The questionnaire had three sections. The 1st section was comprised of 3 multiple-choice questions focusing on the demographic information of the respondents including their gender, age, and occupation. The second section containing 17 questions attempted to explore the apartment owners' perception of apartment maintenance-service-quality. Data were captured on a 5-point Likert scale ranging from strongly disagree with scale point 1 to strongly agree with scale point 5. And a 1-item third section of the questionnaire was dedicated to uncovering the level of apartment owners' satisfaction with the maintenance-service-quality of their respective apartments. The data were captured on a 5-point Likert scale with scale point 1 indicating highly dissatisfied to scale point 5 indicating highly satisfied.

Reliability analysis was conducted employing the Cronbach's Alpha (Cronbach, 1951) to measure the internal consistency of the scale items. The Cronbach alpha (α) for the 2nd section (17-item perception) and the 3rd section (1-item satisfaction) of the questionnaire came to 0.848 and 0.83 respectively. Since all the scales in the present study produced desirable Cronbach's alpha much beyond the minimum cut-off value of 0.60 (Churchill and Peter, 1984; Nunnally, 1978; 1988), the data reliability in this study can be considered highly satisfactory.

The assessment of maintenance-service-quality of apartments was assumed in the following direction: $1.00 \geq$ but ≤ 2.00 = Disagree, $2.01 \geq$ but ≤ 3.00 = Marginally Agree, $3.01 \geq$ but ≤ 4.00 = Moderately Agree, $4.01 \geq$ but ≤ 5.00 = Strongly Agree. Similarly, the assessment of satisfaction was assumed in the following direction: $1.00 \geq$ but ≤ 2.00 = Unsatisfactory, $2.01 \geq$ but ≤ 3.00 = Slightly Satisfactory, $3.01 \geq$ but ≤ 4.00 = Moderately Satisfactory, $4.01 \geq$ but ≤ 5.00 = Highly Satisfactory. All the data were collected at the residences of the respondents during the 1st and 2nd weeks of May 2011. Data were analyzed by both descriptive and inferential statistics. All the calculations were carried out with SPSS (version 12.0).

5 Findings of the Study

5.1 5.1 Demographic Profile of the Respondents

The following table shows the demographic profile of the respondents:

Table 1: Demographic profile of the respondents

Demographic Particulars	Frequency	Percentage
Gender		
Male	39	65
Female	21	35
Total	60	100
Age		
Below 30 years	07	11.7
More than 30 years	53	88.3
Total	60	100
Occupation		
Service	21	35
Business	15	25
Professional	24	40
	100	100

Source: Field Survey, May 2011

Table 1 show that out of 60 respondent apartment owners, 65 percent were male and the rest 35 percent were female. 11.7 percent respondents fell below the age group of 30 years and the remaining 88.3 percent composed the age group of above 30 years. Majority of the respondents' were professionals (40 percent) followed by service holders (35 percent) and businessmen (25 percent) respectively.

5.2 Mean Perception of Apartment Maintenance-Service-Quality

The following table shows the customer perception apartment maintenance-service-quality:

Table 2: Descriptive Statistics for Perception

	Mean	Std. Dev.
The water supply is adequate.	4.1167	.52373
The water supply is timely.	4.1000	.65613
The water supply is disruption-free.	3.6667	.83700
The generator backup is adequate.	3.7833	.71525
The generator back up is timely.	3.5500	.79030
There is no disruption in the generator back up Service.	3.1167	.86537
The lift service is adequate.	4.0500	.72311
There is no disruption in the lift service.	3.6333	.78041
There is allotted car parking lot.	3.4167	1.06232
The intercom is in all-time working condition.	4.1167	.92226

The community center is spacious enough for arranging family programs.	3.8500	1.02221
The apartment has adequate space for drying cloths.	3.7500	.89490
The apartment has adequate playing space for the kids.	2.2167	.90370
The apartment has proper fire rescue system (fire extinguisher, hosepipe)	3.3167	.99986
The apartment has emergency exit stairs.	3.3500	1.11728
The security service in the apartment is safe.	3.9500	.87188
Service charges of the flat are reasonable.	2.8167	1.17158
Overall Perception	3.5764	

Source: Field Survey, May 2011

Table 2 shows the mean perception of apartment maintenance-service-quality was moderate (M= 3.5764). The highest mean perceptions were found with four apartment services including ‘adequate water supply (M= 4.1167)’, ‘intercom (M= 4.1167)’, ‘timely water supply (M= 4.10)’, and ‘adequate life service (M= 4.0500)’. On the contrary, the respondents showed ‘marginal agreement’ to two services including ‘adequacy of playing space for kids (M= 2.2167)’ and ‘reasonability of service charges (M= 2.8167)’. Regarding all other services, the respondents showed ‘moderate agreement’ with mean perceptions ranging from 3.1167 to 3.95.

It was necessary to examine whether or not the mean perception of apartment maintenance-service-quality was moderate (M= 3.5764). One sample t-test was employed to examine the statistical significance of the finding, the result of which is exhibited in the following table:

Table 3: One Sample t-test for Overall Mean Perception

Test Value = 4.01		
<i>t</i>	df	Sig. (2-tailed)
3.5172	59	.001***

Note. *** $p < .01$

The result shows that the overall mean perception (M = 3.5764) was highly significant which was lower than the test value 4.01 with t value being 3.5172 and p value being less than .01. This result leads to claim that the level of perception with maintenance-service-quality was ‘moderate’.

5.3 Mean Satisfaction with Apartment Maintenance-Service-Quality

The following table shows the overall mean satisfaction of the respondents regarding their perception of apartment maintenance-service-quality:

Table 4: Descriptive Statistics for Satisfaction

	Mean	Std. Deviation
Overall services and facilities in the apartment are satisfactory.	3.5333	.72408

The above table shows that the overall level of satisfaction with the maintenance services of apartments was 3.5333, which was ‘moderate’. One sample t-test was run to investigate if the overall satisfaction of the customers was actually moderate or not. The result is shown below:

Table 5 One Sample t-test for Mean Satisfaction with Apartment Maintenance-Service-Quality

Test Value = 4.01		
<i>t</i>	df	Sig. (2-tailed)
-3.199	59	.001***

Note. *** $p < .01$

The result shows that the overall mean satisfaction ($M = 3.5333$) was highly significant which was lower than the test value 4.01 ($t = -3.199, p < .01$). This result leads to support the statement that the level of satisfaction was ‘not more than moderately satisfactory or not equal to highly satisfactory’. Otherwise said, the overall satisfaction ($M = 3.5333$) with apartment maintenance-service-quality was ‘moderately satisfactory’.

5.4 Relationship between Apartment Maintenance-Service-Quality and Satisfaction

To investigate the sort of relationship between the perceived service quality and overall satisfaction, multiple correlations was run which is shown in the table below:

Table 6: Correlation between overall perceived service quality and overall satisfaction

		Overall Satisfaction	Overall Perceived Service Quality
Overall Satisfaction	Pearson Correlation	1	.705(**)
	Sig. (2-tailed)	.	.000
	N	60	60
Overall Perceived Service Quality	Pearson Correlation	.705(**)	1
	Sig. (2-tailed)	.000	.
	N	60	60

Note. ** Correlation is significant at the 0.01 level (2-tailed).

The correlation table shows a very strong positive relationship ($r = .705$) between the predictor variables i.e. the perception of maintenance-service-quality and the single dependent variable i.e. the overall satisfaction. It can be affirmed that the perception of maintenance-service-quality has a strong and positive relationship with overall satisfaction.

6 Conclusion, Limitations, and Future Research Agenda

The present study has exhibited that the apartment owners are only ‘moderately satisfied’ with apartment maintenance services. Otherwise told, the customers are ‘not highly satisfied’. However, for sustainable growth of this industry attaining high customer satisfaction is very important, because customers with high level of satisfaction tend to be more loyal to the service provider (Jones and Sasser, 1995). The study also reveals that maintenance service quality of apartments is a strong antecedent of satisfaction with apartment owners. To ensure greater customer satisfaction with apartment’s maintenance services in

Bangladesh, the real-estate marketers should give proper attention to the 'customer perception aspects' of the maintenance-service-quality. The growth and potential of apartment business would broadly lie in managing the quality of its maintenance services. As the study has revealed a strong and positive relationship between apartment maintenance-service-quality and customer satisfaction ($r = .705$), it would be wise on part of the developers to invest more in improvisation of maintenance-service-quality of their apartments. The entrepreneurs in this sector should also be careful in allocating their funds for improving the maintenance-service-quality in those areas where customer perception is comparatively poor. In this respect, the real-estate marketers should prioritize their service improvement job according to the rank of customer perception with the relevant service quality dimensions. For example, the generator back-up services have to be adequate and round-the-clock. As the electricity supply in Bangladesh is highly disruptive, apartment developers should take a good care of this generator back-up service to improve satisfaction of apartment dwellers. Moreover, apartment marketers should be concerned about installing adequate number of lifts. For example, two lifts for an apartment can do better job provided due to the failure of one lift, the remaining one can continue the lift services. In addition, apartment builders should also have provision for adequate car parking space, adequate space for kids play, and modern security measure including fire rescue system, emergency security exit, physical vigilance and tracking of guests' movement through close-circuit camera and the like.

The present study is not free from limitations. First, the study was conducted only in a metropolitan city of Bangladesh which doesn't necessarily represent the country. Second, the sample respondents of the study were chosen considering the convenience of the researchers. Third, results of the study were based on the information provided by only 60 respondents which might have led to sampling error. Fourth, since the study was non-disguised, the respondents might have become aware of the situation and provided biased answer that may have led to systematic bias in the research. Despite these imitations the researchers believe that the study will exhibit a partial picture, if not full, of the customers' perception regarding the quality of apartment maintenance services and the resulting satisfaction in the country.

The study could be replicated in some other service sectors of the country such as railway, airlines, educational institutions, automobiles, retail computer and IPS (instant power supply) markets and so on. The same study might be designed longitudinally so as to see if apartment owners' satisfaction with the quality of maintenance services varies with changes in time. Such study would help the marketers understand the long-held customer perceptions of apartment maintenance-service-quality. Segment studies could be an attractive area for future research as well since change in demography of different customer groups will lead to change in perception of maintenance services and as such marketers will have to shift their focus on areas of quality improvement in maintenance services.

References

- Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). Customer satisfaction and word of mouth. *Journal of Service Marketing*, 1(1), Pp. 5-17.
- Asubonteng, P., McCleary, K. J., & Swan, J. E. (1996). SERVQUAL revisited: a critical review of service quality. *The Journal of Services Marketing* 10(6), Pp. 62-81.
- Beeho, A. J., & Prentice, R. C. (1997). Conceptualizing the experiences of heritage tourists: A case study of New Lanark World Heritage Village. *Tourism Management*, 18(2), Pp. 75-87.
- Berne, C., Mugica, J. M., & Yague, M. J. (1996). La gestion estrategica y los conceptos de calidad percibida, satisfaccion del cliente y lealtad. *Economia Industrial*, 307, Pp. 63-74.
- Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), Pp. 69-82.
- Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosing favorable and unfavorable incidents. *Journal of Marketing*, 54(January), Pp. 71-84.
- Bojanic, D. C. (1996). Consumer perceptions of price, value, and satisfaction in the hotel industry: An exploratory study. *Journal of Hospitality and Leisure Marketing*, 4(1), Pp. 5-22.
- Boulding, W., Kalra, A., Staelin, R., Zeithaml, V. A. (1993). A dynamic process model of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*, 30(1), Pp. 7-27.
- Cardozo, R. N. (1965). An experimental study of customer effort, expectation, and satisfaction. *Journal of Marketing Research*, 2(3), Pp. 244-249.
- Churchill, G. A., & Peter, P. J. (1984). Research design effects on the reliability of rating scales: A meta-analysis. *Journal of Marketing Research*, 21(4), Pp. 360-375.
- Cochran, W. G. (1963). *Sampling techniques*. 2nd Ed., New York: John Wiley and Sons, Inc.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(4), Pp. 297-334.
- Dabholkar, P. A. (1993). Customer satisfaction and service quality: Two constructs or one? In D. W. Cravens & P. R. Dickson (Eds.), *Enhancing knowledge development in marketing*, Chicago: American Marketing Association, Pp. 10-18.
- Gronroos, C. (1984). A Service quality model and its marketing implications. *European Journal of Marketing*, 18, Pp. 36-44.
-

- Gronroos, C. (1990). *Service Management and Marketing: Managing the Moment of Truth in Service Competition*, Lexington, MASS: Lexington Books.
- Holbrook, M. B., & Corfman, K. P. (1985). Quality and value in the consumption experience: Phaldrus rides again. In J. Jacoby & J. Olson (Eds.), *Perceived quality* (pp. 31-57). Lexington, MA: Lexington Books.
- Iacobucci, D., Grayson, K. A., & Ostrom, A. L. (1994). The calculus of service quality and customer satisfaction: Theoretical and empirical differentiation and integration. In T. A. Swartz, D. E. Bowen, & S. W. Brown (Eds.), *Advances in services marketing and management*, 3 (pp. 1-67). Greenwich, CT: JAI.
- Jones, T. O., & Sasser, W. E. (1995). Why satisfied customers defect. *Harvard Business Review*, November-December, Pp. 88-89.
- Kandampully, J., Mok, C., & Sparks, B. (2001). *Service Quality Management in Hospitality, Tourism, and Leisure*. New York: The Haworth Hospitality Press.
- Keaveney, S. M. (1995). Customer switching behavior in service industries: An exploratory study. *Journal of Marketing*, 59(April), Pp. 71-82.
- Lehtinen, U., & Lehtinen, J. R. (1982). *Service quality: A study of quality dimensions*. Unpublished working paper, Service Management Institute, Helsinki.
- Lewin, K. (1938). *The conceptual representation and measurement of psychological forces*. Durham, NC: Duke University Press.
- McDougall, G. H., & Levesque, T. (2000). Customer satisfaction with services: Putting perceived valued into the equation. *Journal of Services Marketing*, 14(5), Pp. 392-410.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Nunnally, J. C. (1988). *Psychometric theory*. New York: McGraw-Hill.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(November), Pp. 460-469.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York, Irwin: McGraw-Hill.
- Olshavsky, R. W. (1985). Perceived quality in consumer decision making: An integrated theoretical perspective. In J. Jacoby & J. Olson (Eds.), *Perceived quality*, Lexington, MA: Lexington Books. Pp. 3-29.
-

- Parasuraman, A., Berry, L. L., & Zeithaml, V. A. (1994). Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *Journal of Retailing*, 70(3), Pp. 201-30.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(Fall), Pp. 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(Winter), Pp. 420-450.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(Spring), Pp. 12-40.
- Ramaswamy, R. (1996). *Design and Management of Service Processes: Keeping Customers for Life*, Reading, MA: Addison-Wesley Publishing Co.
- Zeithaml, V., Bitner, M. J., & Gremler, S. (1996). *Services Marketing*, 5th Ed., McGraw-Hill. Irwin Publication.