

The Mediating Role of Customer Satisfaction in the Relationship between ATM Service Quality and Customer Behavioral Intention (Case Study: City Bank)

Mohammad Birjandi*

MA in Business Management, Islamic Azad University, Electronic Branch, Tehran, Iran

*Corresponding Author Email: birjandi1991@yahoo.com

Abstract: This research aims to investigate the mediating role of customer satisfaction in the relationship between ATM service quality and customer behavioral intention regarding the case study of City Bank. For this purpose, a survey study was conducted in which statistical population includes all customers who have used ATM services of City Bank at least once during the research period. According to Cochran formula, the sample size is 385. Data were collected using the standard 27-item questionnaire developed by Iqbal et al (2018). Findings based on structural equation tests show that quality of ATM services affects customer behavioral intention and customer satisfaction. Also, customer satisfaction plays a mediating role in the impact of ATM service quality on customer behavioral intention.

Keywords: ATM Service Quality, Customer Behavioral Intention, Customer Satisfaction, City Bank.

Statement of the problem

Offering high quality and affordable services and products at a high level continually creates a competitive advantage for organizations; among these advantages are creating competitive barriers, increasing customer loyalty, producing and offering distinctive services and products, reducing marketing costs and higher pricing (Palmer, 2005). On the other hand, satisfied and loyal customer is a good source for company advertising; in other words, marketing knowledge experts consider many benefits to loyalty; some of the most prominent ones are: reducing costs of attracting new customers, reducing customer sensitivity to changes and prices, benefits resulted from customer lifetime value, positive performance through increased predictive power and increased barriers to entrance of new competitors (Gee et al., 2008).

Currently, there are various types of ATM services in Iran such as bank ATMs, cash recycler system (CRS), electronic banking, mobile banking, automatic checkers in places such as airports, online shopping systems, online bill pay systems, and etc., and different and many banks are offering them. Despite the diversity of services as well as the large number of banks offering these services that are actually competing with each other, no study has been conducted on the impact of the quality of these services on customer behavioral intention to a particular banking brand as well as on the status and role of customer satisfaction in this regard both in the practical and theoretical aspects; although in the last three years, for example, various researchers such as Iqbal et al (2018), Tsou and Hsu

(2017) and Oh et al (2016) have emphasized on the necessity of attention to each of these variables in regard with ATM services by their providers and investigation of possible relationships among these variables. The importance of this category is doubled in regard with City Bank as this bank has invested heavily on ATM services in recent years, and VTM service as one of the various types of these services is currently provided to customers throughout the city.

Due to the lack of research in this regard, in addition to assessing status of each variable of ATM service quality, customer satisfaction and behavioral intention, this research investigates the relationship among these variables in regard with City Bank. The research hypotheses are as follows:

- ATM services quality affects customer behavioral intentions in City Bank.
- ATM services quality affects customer satisfaction in City Bank.
- ATM services quality affects customer behavioral intentions through job satisfaction in City Bank

Theoretical framework

Customer satisfaction

Today, manufacturing or service organizations consider customer satisfaction as an important factor in measuring their service quality, and this trend continues to increase (Oliver, 1997). The importance of customer and his satisfaction is category that refers to competition globally. Customer satisfaction is a cumulative experience of buying and using a commercial customer. Customer satisfaction is affected by two factors of service expectations and performance experienced (Yi & Gong, 2008). Regarding the specific economic conditions in which companies are involved, it is more appropriate to pay attention to customer demands and requirements and to provide opportunities to improve products quality in accordance with economic conditions. Customer satisfaction will have a profound impact on the present and future life of an organization. A satisfied customer acts as a company's advertising speaker that attracts everyone to company's products and services (Shen et al., 2000). Oliver (1980) believes that customer satisfaction or dissatisfaction results from the difference between customer expectations and the quality that he has received.

Service quality

Customers remain loyal to a company, not because of their sales and marketing development programs, but because of the value they receive. This value results from complete arrangement of aspects such as product quality, after-sales services and their availability (Crosby, 1984). Service quality encompasses three physical, situational and behavioral dimensions. In other words, Coles believes that service quality is the focus on what is delivered to the customer, a situation in which the service is delivered and how the service is delivered (Ross & Jowaheer, 2003). Matching with characteristics is typically used to evaluate the quality of products and goods, and meeting customer expectations is typically used to evaluate service quality (Kotler, & Armstrong, 2010). Understanding the evolutionary path of these two dominant concepts is a prerequisite for understanding why the components of both concepts should be considered to define an organization's output. The American Society of Quality Control has defined "quality" as follows: a set of features and characteristics of a product or service that can meet implicit and explicit needs of a buyer. Obviously, this definition is customer-oriented, and it indicates that if a company be able to provide goods and services that meet customer needs, demands and expectations, it will enjoy the necessary quality. A company that most often meets most of its customers' needs will have the higher quality (Crosby, 1984). Parasuraman et al (1985) consider quality as consistent compatibility with customer expectations and understanding customer expectations of specific services.

Service quality as an introduction to customer satisfaction

Customer perceptions, expectations and preferences are among determinants of customer satisfaction; in other words, satisfaction or dissatisfaction is formed by difference between customer expectations and perception of reality (Gronroos, 2000). Today, in order to create customer satisfaction, companies must offer highly quality and attractive products in addition to eliminating causes of dissatisfaction and complaints to ensure customer happiness. Therefore, research on customer satisfaction is closely linked to the evaluation of quality of services provided by companies (Cronin & Taylor, 1994).

Quality is the most important factor in purchasing decisions. In addition, quality plays a major role in increasing market share and rate of return on investment such as lower operating costs and productivity growth (Rezaei et al., 2005).

A service is qualitative which can meet customer demands and needs and it is consistent with levels of customer expectations. Customer expectations are related to what the customers want and what they feel that service

provider should offer. Therefore, quality is determined by customer; that is, if a service meets customer expectations or exceeds it, it will be considered of high quality, and if a service is below customer expectations, it will not necessarily mean that its quality is poor; however, it will cause customer dissatisfaction. Therefore, the quality of service is evaluated by what customer expects of the service received.

Being aware of the concept of quality of the service and making an attempt to improve it lead to services of good quality; hence, increased customer satisfaction can be expected. Then, service quality as a measure or factor of customer satisfaction is considered as an important factor (Oliver, 1999).

Methodology

This is a descriptive survey in terms of data collection, and it is applied in terms of purpose. Data were collected using 27-item Iqbal et al (2018) questionnaire. Statistical population included all customers who have used various ATM services of City Bank at least once during the research period. According to Cochran formula, the sample size is 385. Structural equation test was used to investigate hypotheses using Smart PLS.

Inferential statistics

Investigating normality of data distribution

Table 1. Investigating normality of data distribution.

Components	Statistic	Sig	Normal/abnormal
ATM service quality	1.427	0.034	abnormal
Customer satisfaction	2.332	0.000	abnormal
Customer behavioral intention	2.481	0.000	abnormal

The significance level of all variables is less than 5%, and regarding 95% confidence level, it means that first hypothesis suggesting that data are not normal is accepted.

Sample adequacy test

According to Table 2, considering the high value of KMO and significance of Bartlett test, sample size is adequate for factor analysis, and correlation between observations is appropriate.

Table 2. Bartlett test and KMO index for factor analysis.

Component	Value
KMO index	0.585
Bartlett test statistic	184.546
Significance level	0.000

Examining the general model

The basis of item significance is that the factor loading becomes higher than 0.4; finally, 27 items of the questionnaire were analyzed.

Table 3. Factor loading of questionnaire questions.

Question	Factor loading
SST service quality	
I can get services I need using SST services of City Bank in a short time.	0.64
The process of getting SST services of City Bank is quite clear to me.	0.86
The process of getting SST services of City Bank is easy to me.	0.71
SST services of City Bank are well integrated to meet banking needs.	0.83
The error rate in SST services of City Bank is very low.	0.75
SST services of City Bank are fascinating.	0.58

I am happy with using SST services of City Bank.	0.93
SST services of City Bank. Have interesting options.	0.88
SST services of City Bank provide banking information I need.	0.78
My banking transactions are safely conducted using SST services of City Bank.	0.68
When using SST services of City Bank, the bank's security policies are clear to me.	0.90
City Bank is known for providing SST services.	0.84
SST services of City Bank are well integrated.	0.82
SST services of City Bank are well designed.	0.91
City Bank has enjoyed modern technologies to provide SST services.	0.62
Interruption in SST services of City Bank is due to various reasons such as minor repairs.	0.64
SST services of City Bank are available everywhere.	0.77
SST services of City Bank are available every time.	0.72
SST services of City Bank are updated well in line with banking changes.	0.65
I enthusiastically consider SST services of City Bank as the best option for meeting my banking needs.	0.58
I can customize SST services of City Bank according to my needs.	0.40
Customer satisfaction	
In general, I am satisfied with SST services of City Bank.	0.42
SST services of City Bank meet all my expectations.	0.85
SST services of City Bank are in line with my ideals.	0.56
Customer behavioral intention	
I am very likely to use SST services of City Bank.	0.71
It is probable that I recommend using SST services of City Bank to my friends.	0.94
Probably, if I have to do it again, I will choose SST services of City Bank.	0.44

Index reliability

Cronbach's coefficient of reliability is acceptable in all factors, and it can be concluded that the research questionnaire has good reliability.

Table 4. Table of coefficients.

Components	Cronbach's alpha	Combined reliability
ATM services	0.756	0.781
Customer satisfaction	0.803	0.786
Customer behavioral intention	0.822	0.848

Convergent validity

The results of investigating convergent validity are shown in Table 6, convergent validity is observed in all dimensions.

Table 5. Convergent validity of model structure based on AVE.

Components	AVE
ATM services	0.595
Customer satisfaction	0.591
Customer behavioral intention	0.564

Divergent validity

The results of investigating divergent validity are shown in Table 7, convergent validity is confirmed in all dimensions.

Table 6. Results obtained from investigating divergent validity of the model based on Fornell-Lacker Matrix.

Item	ATM services	Customer satisfaction	Customer behavioral intention
ATM services	0.771		
Customer satisfaction	0.533	0.768	
Customer behavioral intention	0.505	0.422	0.727

T-value significance coefficient

If these values are higher than 1.96, this will indicate the validity of relationship between structures; hence, research hypotheses are confirmed at 95% confidence level.

Table 7. T-value and path coefficient in model relationships.

T	Path coefficients	Paths
5.557	- 0.325	ATM services quality -----> customer behavioral intention
7.668	- 0.092	Customer satisfaction -----> ATM services quality

According to the table, since all numbers are above 1.96, two hypotheses whose path is specified in the table are confirmed.

Sobel test for mediator variables

To investigate the mediating role of customer satisfaction in the relationship between ATM services quality and customer behavioral intention, since Z-value is higher than 1.96, the hypothesis of mediating role of customer satisfaction in the relationship between ATM services quality and customer behavioral intention is confirmed.

Conclusion

In recent years, studies on identifying factors that influence customer satisfaction, their behavioral intention and brand loyalty have decreased. In most cases, customer loyalty is critical to the success of business organizations because it is usually more expensive to attract new customers than to retain existing customers. In most studies conducted by many researchers, it is suggested that loyal customers as a competitive asset be maintained, and one way to strengthen this is by establishing a close, intimate and strong partnership between sellers and buyers. In regard with banks which are completely service-oriented institutions, the set of services, technologies, tools and methods applied by them are in fact as the most fundamental strategies to create this relationship. As the findings of this study show, ATM services quality has a positive and direct effect on brand loyalty, customer behavioral intention and customer satisfaction; therefore, if services such as ATM technology with appropriate quality are provided by banks with the latest and most up-to-date banking systems, it will certainly be hoped to create customer satisfaction, brand loyalty and positive customer behavioral intention.

Regarding low amount of variables' mean, and in order to increase customer satisfaction and brand loyalty as well as to create positive behavioral intentions towards ATM services of City Bank, the following suggestions are provided which can be addressed by this bank and other banks providing these services:

ATM services quality affects customer behavioral intention in City Bank.

- Regarding the impact of ATM services quality on customer's behavioral intention, designing incentive mechanisms for customers in order to introduce these services to others and encouraging them to use these services, such as granting special privileges to receive various banking services like facilities can lead to promotion of customers' behavioral intention.

- Behavioral intention is a subjective matter, and a good sense of banking services can help improve this intention; therefore, City Bank should consider factors of an attractive and general design in its designs for ATM services, especially external designs of these services, such as user interface with ATMs and even peripheral design of room and space in which VTM is placed. Hence, customers receive a good sense of these services and recommend them to others.

ATM services quality affects customer satisfaction in City Bank.

ATM services quality affects customer behavioral intention through job satisfaction in City Bank.

- Regarding the impact of ATM services quality on customer satisfaction as well as its impact on customer's behavioral intention through job satisfaction, the importance of customer satisfaction seems to be very high; hence, designing necessary mechanisms to receive periodic and continuous feedback on these services from customers with the aim of identifying strengths and weaknesses and customers changing needs is one of the measures that can lead to a sense of engagement in customers and satisfy them with ATM services of City Bank. Receiving feedback can improve the quality of these services, and based on confirming these hypotheses, it can lead to improved customer satisfaction and customer behavioral intention.
- Increasing the number of different ATM services providers, and in particular VTM device in City Bank, with the aim of facilitating customer access to these services at any time and place is one of the important factors for customer satisfaction.
- Enhancing the reliability of different ATM systems with the aim of making them always available to satisfy customers more than before; customers will be satisfied to receive services at any time without any disruption and failure.
- Continuous and periodic updating of ATM systems to keep pace with customers changing needs, using modern technologies.
- Improving the security and safety of various ATM systems to create a sense of comfort and security in customers when using these services.
- Investing in research and development with the aim of continuous innovation in various aspects of ATM services such as design, application, customization, variety of options, etc.

Reference

- Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: reconciling performance based perception - minus - expectation measurement of service quality. *Journal of Marketing*.
- Crosby, P. (1984). *Quality without tears: The art of hassle free management*. New York: McGraw-Hill.
- Gee, R., Coates, G., & Nicholson, M. (2008). Understanding and profitably managing customer loyalty. *Marketing Intelligence & Planning*, 26(4), 59-374.
- Gronroos, C. A. (2000). *Service management and marketing*. Lexington Books, Lexington, MA.
- Iqbal, M. S., Hassan, M., & Habibah, U. (2018). Impact of self-service technology (SST) service quality on customer loyalty and behavioral intention: The mediating role of customer satisfaction. *Journal of Cogent Business & Management*, 5, 1-23.
- Kotler, P. H., & Armstrong, G. (2010). *Principles of marketing*. Translated by Forouzandeh, ab., Isfahan: Atropat.
- Oh, H., Jeong, M., Lee, S., & Warnick, R. (2016). Attitudinal and situational determinants of self-service technology use. *Journal of Hospitality & Tourism Research*, 40(2), 236-265.
- Oliver, R. L. (1980). A Cognitive model of antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, XVII.
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consume*. Irwin: McGraw-Hill Company.
- Oliver, R. L. (1999). Whence Consumer Loyalty?. *Journal of Marketing*, Special Issue, 63, 33-44.
- Palmer, A. (2005). *Principles of service marketing*. Britain: McGraw Hill.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 40, 41-50.
- Rezaei, K., Hosseini Ashtiani, H. R., Hoshyar, M., & Vaziri, F. (2005). *Effect of customer-based approach on planning and quality improvement*. 3rd edition, Tehran: Atena Publication.
- Ross, I., & Jowaheer, A. (2003). Service quality and store performance: some evidence from Greece. *Management Service Quality*, 15(1), 24-50.
- Shen, X., Tan, K. C., & Xie, M. (2000). An integrated approach to innovative product development using Kano's model and QFD. *European journal of Innovation Management*, 3(2), 97-99.
- Tsou, H.-T., & Hsu, H.-Y. (2017). Self-Service technology investment, electronic customer relationship management practices, and service innovation capability. In *Marketing at the Confluence between Entertainment and Analytics*. pp. 477-481, Berlin: Springer.
- Yi, Y., & Gong, T. (2008). The effects of customer justice perception and effect on customer citizenship behavior and customer dysfunctional behavior. *Industrial Marketing Management*, 37(5), 767-783.