

# Investigating the Effect of ATM Service Quality of City Bank on Brand Loyalty; the Mediating Role of Customer Satisfaction

**Mohammad Birjandi\***

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

\*Corresponding Author Email: [birjandi1991@yahoo.com](mailto:birjandi1991@yahoo.com)

**Abstract:** This research aims to investigate the effect of ATM service quality of City Bank on brand loyalty with an emphasis on the mediating role of customer satisfaction. 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 29-item questionnaire developed by Iqbal et al (2018). Findings based on structural equation tests show that quality of ATM services affects brand loyalty and customer satisfaction. However, it does not affect brand loyalty through customer satisfaction.

**Keywords:** ATM Service Quality, Brand Loyalty, Customer Satisfaction, City Bank.

## Introduction

How to attract customers and make them loyal to a brand are of most importance to current companies, so that the in addition to being satisfied with the purchase of a brand's product, the customer will rebuy from that brand and even will encourage others to buy it (Cronin, & Taylor, 1994). Customer satisfaction and service quality are of subjects that can potentially influence customer behavioral intention and their brand loyalty (Iqbal et al., 2018).

ATM technology refers to technologies such as bank ATMs, electronic banking, mobile banking, automatic checkers in places such as airports, online shopping systems, online bill pay systems, and etc (Curran & Meuter, 2005; Xu et al., 2014; Oh et al., 2016). Through which customers can directly and easily receive services they need at any time and place (Tsou & Hsu, 2017).

The abundance of service providers in Iran such as many banks has led banks offering these services to seek different strategies and improve the quality of these services and customer satisfaction in this regard to make customers loyal to bank's brand as well as to encourage them to display repurchase behavior. Due to the increased number of customer choices as well as the large number of banks as providers of these services, it is inevitable, important and necessary for banks to identify factors affecting customer loyalty to a bank brand. However, studies show that there is no research on investigating the impact of ATM service quality on brand loyalty regarding the role of customer satisfaction; hence, this research aims to investigate this issue studying ATM services of City Bank. It is worth noting

that City Bank benefits from a wide variety of services in the field of these technologies. Accordingly, the main research questions are as follows:

- Does ATM service quality affect brand loyalty?
- Does customer satisfaction play a mediating role in this regard?

## Theoretical framework

### ***Brand loyalty***

Brand loyalty means repeat purchase; this is due to psychological processes. In other words, repeat purchase is not merely an optional reaction but a result of psychological, emotional and normative factors. Keller (1998) states that brand loyalty was often simply measured only by repeat purchase behaviorally, whereas customer loyalty can be more widely considered rather than being expressed by simple purchase behaviors. Brand loyalty consists of two components of behavioral loyalty and attitudinal loyalty. Mellens et al (1996) defines behavioral loyalty as brand loyalty through observable purchase over a period, and describes attitudinal loyalty based on the expression of preferences, commitment or purchase intention. Many researchers believe that behavioral loyalty cannot uniquely explain the real causes of purchase; hence, attitudinal dimensions must also be taken into account.

### ***Customer satisfaction***

Oliver (1997) defines customer satisfaction as follows: everyone knows what satisfaction means; however, when someone is asked to provide a definition of satisfaction, no one seems to be able to define it. Lingfield considers customer satisfaction psychologically as a sense resulted from the comparison between products received based on needs and demands of customers and social expectations regarding the product (Oliver, 1999). According to Rapp, customer satisfaction is defined as an individual perspective that results from making constant comparisons between the actual performance of organization and the expected performance of the customer (Oliver, 1980). Topfer states that customer satisfaction does not depend on the type of business activity of an organization on the market, but rather on the ability and capability of an organization to meet expected quality of the customer (Cronin, et al., 2000).

### ***Related review of literature***

Iqbal et al (2018) examines the impact of seven dimensions of ATM service quality when used by customers, including functionality, enjoyment, security, assurance, design, privacy, convenience and customization on brand loyalty and customer behavioral intention as well as the mediating role of customer satisfaction in these effects. They concluded that ATM service quality affects brand loyalty and customer behavioral intention in Indian banks. They also concluded that customer satisfaction affects brand loyalty and customer behavioral intention, and this variable plays a mediating role in the effect of ATM service quality on two variables of brand loyalty and customer behavioral intention.

Bedu   (2018) states that ATM technologies, such as online checks, are becoming more and more as integral parts of our daily routines. While SST of kiosks such as automated calculators are widely used in banks, mobile SST has only begun to gain market share. Customers' success will be difficult, if customers are often faced with privacy risks or fear of complex user interfaces to move from kiosk to mobile SST. The purpose of this study is to better understand factors affecting customer intention to switch from kiosk to mobile SST. The researchers of this study investigate positive and negative determinants; they examine positive and negative determinants of mobile SST as factors affecting customer intention. They conclude that compatibility of this technology with lifestyle and enjoyment is one of the most important positive factors affecting customer intention.

Integrating adoption of ATM technologies and technology adoption models, Boon-itt (2015) investigates comprehensive SQSST model to predict e-satisfaction in digital banking in Thailand. The results show that technology affects SQSST and improves e-satisfaction. This study also indicated that perceived value also moderates the relationship between SQSSTs and e-satisfaction. It was concluded that managers should consider technology readiness and customer perceived value when trying to provide SST.

Djajanto et al (2014) state that each bank should pay close attention to customer loyalty factors due to high competition in banking industry. The purpose of this study is to investigate the relationship between ATM services, service quality and relationship marketing and their effect on customer satisfaction and loyalty. Sample of this study included 201 state bank's respondents in East Java of Indonesia who experienced using this technology to receive their services. The results of this study show that ATM services, service quality and relationship marketing has a significant relationship with customer satisfaction. In addition, relationship marketing also affects customer loyalty. However, the hypothesis of the effect of ATM services and service quality on customer loyalty has been rejected.

Koran et al (2003) develop and empirically test three structural models that contain the hierarchy of customers' attitudes towards interpersonal and technological aspects of using ATM technologies. The results of this study indicate that the intention to use SST options based on multiple attitudes is hierarchical. In addition, the results show that global attitudes toward service technologies affect goals of using SST.

### **Research hypothesis**

- ATM services quality affects brand loyalty in City Bank.
- ATM services quality affects customer satisfaction in City Bank.
- ATM services quality affects brand loyalty through job satisfaction in City Bank

### **Methodology**

This is a descriptive (non-experimental) study in terms of data collection, and it is applied in terms of purpose. Data were collected using 29-item Iqbal et al (2018) questionnaire. Statistical population included all customers who have used various ATM services of City Bank at least once. According to Cochran formula, the sample size is 385. Data were analyzed using descriptive statistics at first stage, and then structural equation test was used to investigate hypotheses using Smart PLS in inferential level.

### **Results**

#### **Investigating normality of data distribution**

One of the most popular numerical methods, the Kolmogorov-Smirnov test, was used to determine whether the distribution of variables is normal or not.

**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
Brand loyalty	1.971	0.001	abnormal

As shown in Table 1, the significance level of all variables is less than 5%, and regarding 95% confidence level, it means that null hypothesis suggesting that data distribution is normal is rejected, and the first hypothesis suggesting that data distribution is not normal is accepted. In other words, none of the variable distribution is normal at 95% confidence level.

#### **Sample adequacy test**

Table 2 shows KMO criterion in regard with sampling adequacy, and Bartlett test shows the appropriateness of correlation among observations for using factor analysis. 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

### 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 3.** T-value and path coefficient in model relationships.

T	Path coefficients	Paths
6.077	0.322	ATM services quality -----> brand loyalty
7.668	- 0.092	Customer satisfaction -----> ATM services quality

According to Table 3, the significance level of t is specified in all model paths, and hypothesis related to paths with t-values higher than 1.96 is confirmed; otherwise, it is rejected. According to the table, since all numbers are higher than 1.96, two hypotheses whose path is specified in the table are confirmed.

### Sobel test for mediator variables

The Sobel test was used to prove the mediating role of customer satisfaction variable. The Sobel test is used for the significance of mediating effect of one variable and the relationship between other two variables. To investigate the mediating role of customer satisfaction in the relationship between ATM services quality and brand loyalty, since Z-value is higher than 1.96, the hypothesis of mediating role of customer satisfaction in the relationship between ATM services quality and brand loyalty is not confirmed.

### Conclusion

The results of this study generally indicate the inadequate quality of ATM services of City Bank, and consequently inadequate brand loyalty and customer behavioral intention and customer satisfaction. On the other hand, considering the impact of these variables on each other, based on research results, it can be said that in addition to implementing different brand building and brand loyalty programs, it is essential to improve ATM service quality in different aspects such as accessibility, reliability, comprehensiveness, modernity, ease of use, service customization, etc. in order to increase customer satisfaction and his loyalty to brand.

The results of this study can provide a clear perspective on City Bank and other banks of the country in order to prioritize their own activities with the aim of enhancing ATM service quality and thereby increasing customer satisfaction, customer behavioral intention and customer loyalty.

Indices and criteria determined for all concepts of ATM service quality, customer satisfaction, brand loyalty and customer behavioral intention in this research are thoroughly scientific and based on a valid literature review, and they can be fully applicable to banks.

Based on the results of the hypotheses reviewed, the following suggestions are offered:

- Due to the confirmation of the impact of ATM service quality on brand loyalty, it can be said that customers who use these services will remain loyal if these services have all necessary factors qualitatively and even quantitatively. In other words, City Bank should provide the condition to make customers loyal to its services by improving the quality of these services and measures such as increasing the number of different service delivery devices, being always healthy and safe, and in fact enhancing their high reliability, variety of active options to receive services and more importantly its upgrading and continuous growth of services based on customers' changing or new needs.

- Trying to introduce as well as familiarizing customers with various types of ATM services, and especially how to use them with the aim of returning customers to use these services is another important task that the bank should do. In addition to enhancing service quality, it is always important and effective to introduce these services correctly. Customers who know adequately and appropriately about the quality and quantity of services, in addition to feeling good about service quality, will remain loyal to the service.

- Designing incentive mechanisms for customers to reuse services and remain loyal to various ATM services are among other measures that should be considered by City Bank. These mechanisms can be provided as specific banking privileges, such as priority of using banking facilities for customers who use ATM services of City Bank at least twice or more.

For further research, the following suggestions are offered:

- By the change of statistical population of this study, another similar study can be conducted in a different statistical population (customers of ATM services of other banks), and their results can be compared with the findings of this study.
- Prioritizing City Bank's actions in regard with planning and updating and using modern ATM technology tools and methods based on customers' changing needs;
- Developing a localized pattern based on Iranian customers' needs and interests, and based on characteristics of ATM services in order to plan and perform marketing programs aimed at brand building.
- Modeling and explaining best practices and experiences of other similar international banks operating in other countries in regard with managing ATM systems implementation.

The research limitation included restriction on implementation of questionnaires due to lack of enough accuracy in answering the questions as well as respondents' ambiguities in regard with variables and questions that the researcher has attempted to eliminate these ambiguities by providing necessary explanations; consequently, respondents' accuracy will be enhanced.

### **Conflict of interest**

The authors declare no conflict of interest

### **Reference**

Bedu  , M. (2018). Customers' intention to switch to mobile self-service technologies. Twenty-Sixth European Conference on Information Systems (ECIS2018), Portsmouth, UK.

Boon-itt, S. (2015). Managing service quality of self-service technologies to enhance e-satisfaction in digital banking context, the roles of technology readiness and perceived value. In Proceedings of the 17th International Conference on Enterprise Information Systems, 602-609.

Cronin, J. J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: reconciling performance based perception-minus-expectation measurement of service quality. *Journal of Marketing*.

Cronin, J. J., Brady, M. A., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.

Curran, J. M., & Meuter, M. L. (2005). Self-service technology adoption: Comparing three technologies. *Journal of Services Marketing*, 19(2), 103-113.

Djajanto, L., Nimran, U., Kumadji, S., & Kertahadi. (2014). The effect of self-service technology, service quality, and relationship marketing on customer satisfaction and loyalty. *IOSR Journal of Business and Management*, 16(1), 39-50.

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.

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 consumer. Irwin: McGraw-Hill Company.

Oliver, R. L. (1999). Whence consumer loyalty?. *Journal of Marketing*, Special Issue, 63, 33-44.

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.

Xu, X., Thong, J. Y., & Venkatesh, V. (2014). Effects of ICT service innovation and complementary strategies on brand equity and customer loyalty in a consumer technology market. *Information Systems Research*, 25(4), 710-729.