



IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION OF AUTOMATED TELLER MACHINE SERVICE: CASE STUDY OF A PRIVATE COMMERCIAL JOINT STOCK BANK IN VIETNAM

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Abstract. One of key challenge for Vietnamese commercial banks is how to compete in the market place with commonly undifferentiated services. The aim of this study is to investigate the impact of service quality performance on customer satisfaction on ATM service in a commercial bank in Vietnam. This study applies SERVPERF framework to analyze the data collected from a questionnaire survey and found that ASSURANCE and TANGIBLES factors significantly impact on the customer satisfaction.

Keywords: service quality, SERVPERF model, customer satisfaction, bank, ATM.

JEL classification: M31, L15, G24.

Introduction

The fact that Vietnam became an official member of WTO in 2007 has opened a new page for the Vietnamese banking sector. Vietnamese commercial banks now must improve their competitiveness and exploit opportunities which are brought back from the opened market. The biggest challenge is the increasingly competitive pressure on the domestic market when Vietnam becomes more integrated, and demands of customers are changeable. In that sense, one of the most essential things Vietnamese commercial banks have to do is to improve service quality and diversify product line to meet various needs of customers and thus helping the banking sector become more and more integrated positively into the development of the banking sector in the region and in the world.

By applying modern banking technologies, Vietnamese commercial banks have launched a new product and service such as Automated Teller Machine (ATM). The appearance of ATM service has changed the basic transaction method in Vietnam's economy. Previously, almost all transactions and

transfers on the market were primarily carried out by cash. But now, there is a significant change when Vietnamese have altered their habit from cash payment to using bank transfers and ATM services.

Therefore, developing ATM service is one of methods to increase the competitive position of a bank in the market today in Vietnam. Indeed, ATM service is becoming a mean of transaction which is essential for banks to increase their competitiveness in the market. Together with the race of providing diversified services of transaction, Vietnamese commercial banks also find out how to improve the quality of ATM service and satisfy customers. Thus, assessing the quality of ATM service and researching the relationship between service quality and customer satisfaction for ATM service are meaningful to improve the quality of ATM services of banks in the future.

Although researches on the impact of service quality on customer's satisfaction have been numerous (Chinh, Anh 2008; Amoa-Mensha 2011; Vijay, Selvaraj 2012; Hasan *et al.* 2013; Rao *et al.* 2013; Mwatsika 2014; Jha *et al.* 2014),

those in Vietnam, especially on ATM service of banks, are still rare. There are even fewer researches that have applied the SERVPERF model to measure service quality in the banking sector in Vietnam. Traditionally, SERVQUAL model is used to measure service quality, thus applying the SERVPERF model is quite new in service quality measurement in Vietnam. The objective of this research is to provide more empirical evidence for academics and practitioners by investigating the impact of service quality on customer's satisfaction for ATM service in Vietnam's commercial joint stock banks through using SERVPERF model. This research focuses on analyzing a case study of a private commercial joint stock bank (the Bank), to suggest solutions for itself and thus may generalize new findings for other commercial banks in Vietnam. The research uses quantitative method through questionnaire survey. Data collected from this survey was analyzed by SPSS 16.0 in order to find out the impact of service quality on customer's satisfaction for ATM service in the Bank.

This paper is divided into 7 main parts. Beside this introduction part, Section 2 provides literature review for the study. Research methodology is given in Section 3. Section 4 and 5 present research analysis and discussion. Recommendations for practitioners are given in Section 6. Finally, the paper provides a conclusion in Section 7.

1. Literature review and hypothesis development

1.1. Service quality and customer satisfaction

There may be numerous definitions of service quality. *Service quality* is a customer's overall impression of the relative inferiority or superiority of the organization and its services (Bitner, Hubbert 1994). Edvardsson, Thomsson and Ovretveit (1994) suggested that service quality is a service that fulfills the expectations of customers and satisfies their needs. Parasuraman *et al.* (1985) defined service quality as "the global evaluation or attitude of overall excellence of services". So, service quality is the difference between customers' expectation and perceptions of services delivered by service firms. Nitecki, Hernon (2000) defined service quality in terms of "meeting or exceeding customer expectations, or as the difference between customer perceptions and expectations of service". In addition, one of important definitions is that the quality of service as perceived by customer is the result of an evaluation process in which they compare their perspective of service outcome against what they expected (Gronroos 2007).

Automated Teller Machine (ATM) is one type of innovation that can mechanically accept deposits, issue withdrawals, transfer funds between accounts, and collect bills. ATM service quality is defined as the customer's overall evaluation of the excellence of the provision of services through electronic networks such as Automated Teller Machine (ATM).

Measuring quality in the service sector is more comprehensive than measuring quality of the manufacturing sector because quality evaluations are not made solely on the outcome of a service; they also involve evaluations of the process of service delivery. One of many service quality research models often used in the world nowadays is SERVPERF proposed by Cronin and Taylor (1992). This scale was based on the SERVQUAL scale (Parasuraman *et al.* 1985, 1988) which assessed service quality through the gaps between customer "expectations" – (E) and "perceptions" – (P). However, SERVQUAL has been criticized on its confusion, and SERVPERF was proposed by Cronin and Taylor (1992) in which the "expectation" – (E) component of SERVQUAL was discarded and instead the "performance" – (P) component alone was used. Cronin and Taylor provided empirical evidence across four industries namely banks, pest control, dry cleaning, and fast food to collaborate the superiority of their "performance – only" instrument (Sanjay, Garima 2004). The scale measure performance of five service quality components termed Tangible, Reliability, Responsiveness, Assurance, and Empathy (Parasuraman *et al.* 1988).

The definition of *customer satisfaction* has been widely debated as organizations increasingly attempt to measure it. Customer satisfaction can be experienced in a variety of situations and connected to both goods and services. It is a highly personal assessment that is greatly affected by customer expectations.

Kotler defined customer satisfaction as the extent to which a product's perceived performance matches a buyer's expectations. If the product performance falls short of expectations, the buyer is dissatisfied. If performance matches or exceeds expectations, the buyer is satisfied or delighted (Kotler *et al.* 2005). Customer satisfaction is an important theoretical as well as practical issue for marketers and consumer researchers. Customer satisfaction can be considered as the essence of success in today's highly competitive world of business (Vanniarajan, Anbazhagan 2007). In this study, customer satisfaction is defined as the levels of service quality performances that meet customers' expectations.

1.2. Relationship between service quality and customer satisfaction

Parasuraman stated that there is a distinction between service quality and customer satisfaction: perceived service quality is a global judgment or attitude relating to the superiority of the service, whereas customer satisfaction is related to a specific transaction (Parasuraman *et al.* 1988). However, many researchers have investigated the relationship between service quality and customer satisfaction.

Cronin, Taylor (1992) tested this relationship and concludes that perceived service quality leads to customer satisfaction. The other studies also conclude that service

quality is the antecedent of satisfaction (Spreng, Mackoy 1996; Brady, Robertson 2001) and is the main factor which affects satisfaction (Ruyter *et al.* 1997).

Sureshchandar *et al.* (2002) used a factor specific approach to test the relationship between service quality and customer satisfaction of different banks in India. These critical factors used are (1) core service or service product, (2) human element of service delivery, (3) systematization of service delivery: non-human element; (4) tangibles of service – servicescapes, (5) social responsibility. Questionnaires comprising 41 items in total were distributed to 452 customers from 51 different banks, and then 277 completed questionnaires from 43 banks were obtained. Analysis results revealed that correlation statistics between service quality and customer satisfaction are reasonably high which demonstrated high relationships between service quality and customer satisfaction.

Anber *et al.* (2011) conducted a research about service quality perspectives and customer satisfaction in commercial banks working in Jordan. The research examined the level of service quality as perceived by 260 customers and its effect on customer satisfaction with the questionnaire survey including 20 items to measure 5 dimensions of service quality (Reliability, Responsiveness, Empathy, Assurance, and Tangibles) and 5 items to measure customer satisfaction. The results indicated that these 5 dimensions of service quality have significant influence on customer satisfaction when 26.1% of customer satisfaction can be explained by them.

Jha *et al.* (2014) attempted to find out the satisfaction level of customers in ATM services in Bihar, India. For this purpose, primary data was collected from 100 respondents of different bank ATM users of Bihar. This paper suggested

that banks should focus on important aspects of user friendliness, ATM functionality and availability of transaction receipts, security, and privacy as well as frequent monitoring and maintenance of ATMs. Banks should also improve ATM features to suit customers and use this medium to build a strong and a sustainable relationship with customers.

Mwatsika (2014) researched customer's satisfaction with ATM banking in Malawi. The results are from 353 ATM card users where over half are satisfied with ATM services from their respective banks. The results have found that all service quality dimensions significantly correlate with customer satisfaction with ATM services and that reliability is the most important dimension followed by responsiveness, empathy, assurance and tangibles.

From these researches, it can be concluded that service quality and customer satisfaction have a positive relationship in which service quality is an antecedent as well as an important factor impacting on customer satisfaction.

1.3. SERVPERF model

SERVPERF is a popular model for measuring service quality in the world. It has been used in many researches (Zhou 2004; Hudson *et al.* 2004; Do Tien Hoa 2007; Pham, Nguyen 2007). In SERVPERF model, five dimensions include:

- Tangible includes physical evidences of the service such as appearance of physical facilities, equipments, personnel, etc.
- Reliability involves the ability of the organization to perform the promised service dependably and accurately.
- Responsiveness concerns the willingness or readiness of employees to help customers and provide services.
- Assurance refers to knowledge and courtesy of employees and their ability to convey trust and confidence.
- Empathy is individualized care and attention that the firm provides to its customers.

In short, this study will apply the SERVPERF model to measure service quality of ATM in a private commercial Joint Stock Bank in Vietnam as well as its customer satisfaction. Moreover, few researches have applied SERVPERF model to measure service quality in banking sector in Vietnam. Traditionally, SERVQUAL model is used to measure service quality, therefore applying SERVPERF model is quite new in service quality measurement in Vietnam. This study will contribute to the advancement of service quality measurement and it will become a reference or sample for other researches in the future.

To find out the relationship between customer satisfaction and service quality, it is necessary to hypothesize the relationship among service quality dimensions, perceptions of customer and their satisfaction (Fig. 1.).

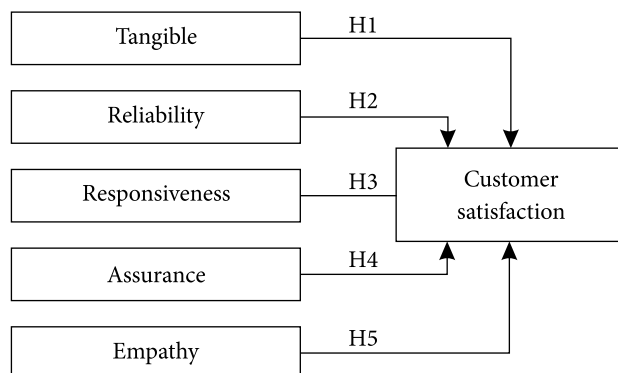


Fig. 1. Hypotheses of research model

Where: H1: Tangible component and customer satisfaction have a positive relationship. H2: Reliability component and customer satisfaction have a positive relationship. H3: Responsiveness component and customer satisfaction have a positive relationship. H4: Assurance component and customer satisfaction have a positive relationship. H5: Empathy component and customer satisfaction have a positive relationship.

2. Research methodology

2.1. Designing questionnaire

The questionnaire survey includes mainly 24 observed items under SERVPERF model, in which 22 items are divided into 5 components of service quality: Tangible, Reliability, Responsiveness, Assurance, and Empathy; the 2 remaining variables are used to measure customer satisfaction. This measurement bases on a 5-point rating scale which corresponds to 1 = strongly disagree, 2 = somewhat disagree, 3 = neither agree nor disagree, 4 = somewhat agree, 5 = strongly agree. Specifically, these variables can be described and encoded as follows (Table 1):

- Reliability Component: representing the reliability and confidence of customers to the bank services, including 5 observed variables (From R1 – R5);
- Responsiveness Component: representing the ability to quickly resolve customers' requirements, concerns or inquiries which are related to ATM Card, including 5 observed variables (From S1 – S);
- Assurance Component: representing the qualification as well as polite and courteous attitude of ATM Card Issuing officers to customers, including 5 observed variables (From A1 – A5);
- Empathy Component: representing the empathy and considerate caring to customers and provide customers with the best possible service, including 4 observed variables (From E1 – E4);
- Tangibles Component: is evaluated through the appearance outsides the ATM service facilities such as: Appearance and uniforms of the staff, including 3 observed variables (From T1 – T3).

2.2. Data sample

Information was collected from the surveys of customers coming to the Bank branches or transaction offices within Hanoi from February 17 to May 5, 2013. Direct interview accompanied with surveys are used to collect the information.

Samples were chosen in a random and convenient manner, including all customers who are using the Bank ATM service, regardless of gender, age and financial capabilities. Analysis methods that are mainly used in this research are Explanatory Factor Analysis EFA and Multiple Regression Analysis. According to Hair *et al.* (1998), it is necessary to collect a data containing at least 5 samples in each observed variables in order to obtain Explanatory Factor Analysis.

This research model has 24 observed variables. According to the criteria – 5 samples for an observed variables - the needed size of sample will be $n = 120 (24 \times 5)$. To obtain the required sample size, 250 questionnaires were sent to interview. After two weeks, authors collected 200 questionnaires back including 14 invalid ones, which

Table 1. Encoding the quality rating scale of ATM Service of the Bank

No	Code	Description
	R	Reliability Component
1	R1	Bank commits to provide customers all the ATM services (withdrawals, account management, money transaction etc) in accordance with the terms specified in the signed contract
2	R2	Any clients' questions, complaints or concerns about ATM Card Service are satisfactorily resolved by bank
3	R3	Customers are informed after every transaction done on ATM
4	R4	ATM carries out exactly what customers required
5	R5	Customers received ATM Card at the time committed by bank
	S	Responsiveness Component
6	S1	Bank staff is willing to answer any questions or concern of customers
7	S2	Bank staff is not willing to help customers solving their problems or concerns
8	S3	Bank staff does not heartedly serve customers in peak hours.
9	S4	ATMs are installed at places which are convenient for customers to make transactions.
10	S5	ATM always provides enough cash for customers to withdraw on special occasions or Tet holidays.
	A	Assurance Component
11	A1	ATM card Issuing staff always clearly gets information about cards and policies while consulting with customers.
12	A2	ATM card Issuing staff has a clear and understandable explanation to customers.
13	A3	Customers feel safety when make any transaction at ATM
14	A4	Bank staff is always gentle and polite.
15	A5	Customers put more and more trust and confidence in ATM staff after each transaction.
	E	Empathy Component
16	E1	Whenever going for a transaction at bank, customers are always warmly welcomed by receptionist.
17	E2	Whenever going for a transaction at bank, customers are always guided to the right parking area by safe guard.
18	E3	Bank staff always spends a lot of time to understand the concerns of customers.
19	E4	Bank staff always takes care for each and every individual customer.
	T	Tangibles Component
20	T1	ATM Card has good appearance and suitable size
21	T2	The screen of ATM always displays clearly
22	T3	There is always instruction signboards put at the place ATMs installed which is easy for customers to identify.
		Customer Satisfaction
23	CR	Customers are totally satisfied with quality of the ATM Service
24	CS	Customers will introduce the ATM Service to other people

contained many blank answers. Therefore, after removing 14 invalid questionnaires, 186 remained questionnaires met the requirement on size of samples. With sample size is 186, the author will use SPSS 16.0 software to clean and process data.

2.3. Analysis methodology

The data collected will be refined and processed by SPSS 16.0 software. Several following analysis methods are used in this research to find out and test impact of the factors on the quality of ATM service.

Reliability analysis

This method assists analysts in removing irrelevant variables. It also helps evaluating the reliability of the measurement by Cronbach Alpha coefficient. Variables which have item-total correlation less than 0.3 will be removed.

Measurements with Cronbach Alpha being greater than or equal to 0.6 can be deployed (Nunnally 1978; Peterson 1994; Slater 1995). Normally, measurements with Cronbach alpha from 0.7 to 0.8 will be used. Many researchers assume that those which have the reliability from 0.8 to nearly 1.0 are acceptable measurements.

Exploratory factor analysis

After assessing the reliability of measurements by Cronbach Alpha coefficient and removing unreliable variables, exploratory factor analysis will be used to reduce and summarize the data. This method is very useful in determining the variable set necessary for the research as well as in finding the relationship between variables.

In exploratory factor analysis, the KMO index (Kaiser – Meyer – Olkin) is deployed to indicate the suitability of factor analysis. If the KMO index lies between 0.5 and 1, the analysis is suitable.

Table 2. Cronbach Alpha coefficients of measurement components

Observed Variable	Expected value if the variable is removed	Variance if the variable is removed	Item-total correlation	Cronbach's Alpha if the variable is removed
Reliability component (R): Alpha = .819; N of Item = 5				
R1	14.8925	11.469	.650	.771
R2	14.7957	11.850	.589	.790
R3	14.9247	12.816	.542	.802
R4	14.8925	12.756	.527	.806
R5	14.8387	10.979	.747	.740
Responsiveness component (S): Alpha = .796; N of Item = 5				
S1	15.4677	10.856	.580	.756
S2	15.4677	10.402	.610	.746
S3	15.7419	10.549	.549	.766
S4	15.4516	10.335	.597	.750
S5	15.5269	11.040	.546	.766
Assurance component (A): Alpha = .808; N of Item = 5				
A1	14.1237	11.168	.631	.759
A2	14.1559	11.246	.630	.760
A3	14.0860	11.398	.631	.760
A4	14.1828	11.642	.524	.793
A5	14.2258	11.711	.559	.782
Empathy component (E): Alpha = .736; N of Item = 4				
E1	10.4892	7.992	.502	.692
E2	10.5484	7.935	.575	.653
E3	10.8172	7.566	.537	.671
E4	10.6935	7.781	.503	.692
Tangibles component (T): Alpha = .687; N of Item = 3				
T1	7.0591	3.559	.557	.536
T2	7.2258	3.268	.524	.566
T3	7.1452	3.390	.437	.685

In addition, factor analysis depends on Eigenvalue in determining the number of factors. Only factors with Eigenvalue greater than 1 are kept in the model. Eigenvalue represents the varying element explained by factors.

One significant part of the factor analysis result table is the component matrix or rotated component matrix. This component matrix contains coefficients representing standardized variables by factors (each variable is a polynomial of factors). Factor loading coefficients show the link between variables and factors. Those coefficients reveal how close the relationship between variables and factors is. As the research uses factor extraction – principal component method, factor loading coefficients must have weights greater than 0.5.

Regression analysis

After extracting factors from exploratory factor analysis EFA, we search the necessary assumption violations in the multiple linear regression model such as testing standardized residual, testing Variance inflation factor VIF. If its assumptions are not violated, the multiple linear regression model will be used. And the adjusted R² depict how well the model has been built.

3. Analysis results

3.1. Reliability test

After making reliability test, all those 22 variables have the correlation greater than 0.3, so they are all accepted (Table 2). Moreover, as the Cronbach Alpha coefficient is more than 0.6, the reliability component measurement is qualified. Those variables will be included in the next factor analysis.

3.2. Exploratory factor analysis (EFA)

ATM service quality measurement of the Bank is in accordance with SERVPERF model, comprising 5 main components with 22 observed variables. All 22 variables have passed the reliability test by Cronbach alpha coefficient. Exploratory factor analysis EFA is utilized to re-assess the convergence of observed variables around the main components (Table 3).

KMO and Barlett’s test in factor analysis show that KMO index is high at 0.904 (greater than 0.5) with the significance equal to 0 (sig = 0.000). It can be concluded that EFA is suitable for the analysis.

Applying the extraction method: principal components analysis and varimax rotation method at every level of Eigenvalues greater than 1 and, analyzing variables which has been extracted 5 from 22 observed variables and with cumulative variance is 60.427% (greater than 50%) satisfied.

Based on the analysis of the Rotated Component Matrix table, there are 5 Reliability components, including: R1;

Table 3. Exploring factor analysis for service quality scale KMO and Barlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.904
Bartlett’s Test of Sphericity	Approx. Chi-Square	1.73703
	Df	231
		Sig.
		.000

Total variance explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.364	38.019	38.019	3.279	14.902	14.902
2	1.478	6.718	44.736	2.787	12.668	27.570
3	1.282	5.829	50.565	2.708	12.311	39.881
4	1.128	5.127	55.692	2.266	10.302	50.183
5	1.041	4.734	60.427	2.254	10.244	60.427

Rotated Component Matrix

	Component				
	1	2	3	4	5
R1	.661				
R2	.726				
R3	.640				
R4	.562				
R5	.703				
A1			.640		
A2			.601		
A3			.594		
A4			.717		
A5			.566		
S1		.732			
S2		.751			
S3		.547			
S4		.655			
S5		.577			
E1				.712	
E2				.514	
E3				.729	
E4				.494	
T1					.629
T2					.603
T3					.750

R2; R3; R4; R5 all with loading coefficients greater than 0.4 (respectively: 0.661; 0.726; 0.640; 0.562 and 0.703). The second components have 5 observed variables, including: S1; S2; S3; S4; S5, with loading coefficients greater than 0.4 (respectively: 0.732; 0.751; 0.547; 0.655 and 0.577). The next components are Assurance (A), which have 5 variables: A1; A2; A3; A4; A5 all having coefficients greater than 0.4 (respectively: 0.64; 0.61; 0.59; 0.717 and 0.56). Similarly, all Empathy and Tangibles components have loading coefficients greater than 0.4.

In summary, the result of analyzing exploratory factors (EFA) shows that every service quality component remain 5 factors with 22 observed variables, including: Reliability component (R); Responsiveness component (S); Assurance component (A); Empathy component (E) and Tangibles component (T).

3.3. Customer satisfaction scale analysis

The analysis of KMO and Bartlett's test of sphericity shows that the analysis of EFA is rather suitable, with KMO coefficient = 0.500 and Sig value = 0.000.

Customer satisfaction scale has been extracted into one component that is greater than Eigenvalue 1 (Table 4). Furthermore, the two customer satisfaction loading coefficients are all greater than 0.4. According to that, after applying EFA for customer satisfaction, the two remaining variables were extracted into 1 component: Customer Satisfaction (CS).

Table 4. Exploring factor analysis for customer satisfaction scale KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	54.407
	Df	1
	Sig.	.000

Component Matrix

	Component
	1
CS1	.868
CS2	.868
Eigenvalues	1.507
% of Variance	75.327

3.4. Regression analysis

In multiple regression analysis, dependent variable is Customer Satisfaction (CS) and independent variables are Reliability component (R), Responsiveness component (S), Assurance component (A), Empathy component (E) and

Tangibles component (T). The mean value of independent and dependent variables was calculated before conducting multiple regression analysis.

Table 5. Regression analysis summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. error of the estimate
1	.586 ^a	.343	.325	.76883

Coefficients

Model	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics
	B	Std. error	Beta			VIF
(Constant)	.832	.316		2.628	.009	
R	.031	.096	.028	.319	.750	2.073
A	.484	.102	.427	4.728	.000	2.233
S	.002	.094	.002	.022	.982	1.737
E	.028	.089	.027	.317	.752	2.001
T	.196	.085	.180	2.299	.023	1.672

In the Table 5, the coefficient R^2 is 0.343. Thus, 5 service quality components explain 34.3% of Customer Satisfaction deviations, including: Reliability component, Assurance component, Empathy component and Tangibility component.

The relatively small result of Variance Inflation Factor (VIF) (smaller than 10) shows that these independent variables are not closely related to each other so there is no multicollinearity occurring. Table 5 of the coefficients analysis shows the result of multiple regression analysis. Positive mark of regression coefficients show that components in the regression model above has positive relationship with customer satisfaction.

In terms of each component, Assurance component (A) has a coefficient of 0.484, with significant value = 0.000 (<0.05). Thus, Assurance component (A) has the most significant impact on customer satisfaction. Similarly, the coefficient of Tangibles component (T) is 0.196, Sig. = 0.023 (<0.05). Because of that, Tangibles component (T) also has significant influence on customer satisfaction.

The three remaining independent components including: Reliability component (R), Sig. = 0.982; Responsiveness component (S), Sig. = 0.750; Empathy component (E), Sig. = 0.752 are greater than significant level 0.05, so all these components are not significantly effect on customer satisfaction. It means that we only accept two out of five hypotheses H4 and H5. Although 3 components: Reliability,

Responsiveness, Empathy have no significant impact on the level of customer satisfaction, but these 3 components act as sufficient condition to establish the quality of the Bank service.

4. Discussion on the satisfaction of customers over the quality of ATM service in the Bank

Customer satisfaction with the Bank's ATM service was created by five quality components, which are Reliability, Responsiveness, Empathy, Assurance, and Tangibles. Results of the linear regression show that service delivery capacity and tangible utilities have significant influence on customer's satisfaction. It means that the higher assurance and tangibility are, the more satisfaction customers get. More specifically, in terms of assurance, customers highly appreciate the thorough knowledge about expertise and professionalism of banking officers in contact with customers, which requires the affability, courtesy and politeness, thus building up the trust and credibility for customers. Therefore, it can be seen that the Bank has staff with deep expertise and professionalism in providing customers with ATM service. The good human resources have brought the Bank the competitive advantage in providing ATM service. Besides, the level of security, confidentiality and utility in transactions are also chosen by customers as the criteria to demonstrate their satisfaction over ATM banking service of the Bank. Customers feel secure and committed to become long-term customers of the Bank.

Regarding tangibility, the quality of ATM card (nice design and suitable size), the equipment for transactions such as: always-clear computer display screen, convenient and easy identification of the teller (ATM machinery) are the factors that create satisfaction of customers over the service. Among them, quality criteria, appearance, design of cards are highly evaluated as they are appropriate for using in a dynamic and modern life. Furthermore, the display screen of machinery also affects the quality of service of the Bank. ATM machineries' screens of the Bank have high resolution, user-friendly and convenient window display for users, which create advantage for the quality of service of the Bank. Last but not least, customers highly appreciate the convenient, easily-identified and highly secured place of ATM machinery in making transactions.

5. Recommendations

5.1. Recommendations for assurance

First and foremost, the Bank needs to constantly improve service quality to enhance customer satisfaction, especially improving the quality of human resources. It is important to have enough human resources and also improve the capabilities of human resources. Customer caring staff must be

knowledgeable, professional and equipped with soft skills i.e. communication skills and sales skills. Simultaneously, the bank staff should also have good service attitude, be polite, enthusiastic to meet customer's expectation and to shape positive behavior and attitude in customer service among their employees.

The Bank continuously improves the level of modern banking technology. The technological capabilities and people using that technology play a crucial role in the quality of customer service. Technology creates rapid advancement and enhances the ability to meet customer expectations. The trust and loyalty of customers depend on modern technology, as well as the utility, value added services for customers.

Bank offices, especially where conducting transactions with customers should be decorated beautifully, have eye-catching and harmonious color combinations, with easily recognizable and distinctive decorations against other banks. Headquarters should have a logo and slogan statement in ensuring quality services. The staff uniform also creates a comfortable and friendly atmosphere for customers and makes customers more assured when having transactions with the bank.

The Bank should regularly communicate with customers. Exchanging information with customers plays an important role in understanding and meeting customer expectations. Information exchange can be carried out in various forms and can be implemented parallel to each other such as customer conference, advertising programs, promotion of products and services, survey of customer needs, and hotline set up etc. By doing these, banks transmit to customers information about products, services, handle customer requests and collect feedback as well as customer complaints related to banking activities. The bank also needs to store centralized data about customers to facilitate customer service.

Moreover, customer complaints should be considered as signal for the banks to continuously improve service quality. The research shows that customers often complain about certain types of errors. If these errors could be found out timely, recorded, and amended actions to be made promptly, the number of complaints would drop. It also translates to the fact that customer confidence and satisfaction are enhanced. Many bank employees, even managers are worried, scared and reluctant to handle customer complaints. It is common that they do not show enthusiasm upon receiving complaints. This is a misconception because customer complaints not only provides an opportunity to rectify and improve service processes but also creates an opportunity to retain customers. In addition, it also limits the spread of information since dissatisfied customers would tell others about their dissatisfaction.

The Bank should build a base of regular and loyal customers. The loyal relationships of customers are reflected in long-term transaction relationships, the ability to increase the size and diversity of the transaction and the ability to persuade others to use the bank's services. Customer loyalty increases profits through increased sales, reduce customer sensitivity to price, and reduce customer service costs because they are now familiar with the bank's operating system. To have a base of loyal customers, the bank should firstly start to build customer's trust & belief in bank services and also ensure service quality provided by the bank. In addition, the attitude, professionalism and the ability to satisfy customer needs are important factors. Besides, it is not correct to assume that discount and promotion campaign are enough to attract and retain customers. These solutions only work in short term and can attract just a small number of random customers. However, they would fail to gain customer loyalty if these campaigns cannot ensure service quality of the bank.

5.2. Recommendations for tangibles

For transaction space, the Bank needs to estimate the future market development before choosing to open new transaction locations in order to avoid circumstances such as if the Bank must upgrade or widen them only after a short time, which is wasteful and has negative influence on the psychology of customers when transacting during time of construction. In addition, card division should be established in each transaction location to give exact advice to the customers on the advantages and utility of using cards.

Regarding documents, leaflets on ATM service, the Bank should check the currently used leaflets to reject the ones with obsolete information, sketchy design or overlapping contents. It also should have professional design organizations consult about necessary contents and images to yield leaflets that can attract customers' care and attention. Especially, the Bank needs to design unique and fresh banners in promotion programs to advertise the service directly and lively.

In terms of ATM locations, while carrying out a survey and choosing locations to install ATMs, along with the criteria of population density, traffic system, the Bank needs to carefully study security issues, especially parking place for the customers. To do this effectively, parking area should be included in the ATM room construction design, which is an important factor that helps customers feel comfortable and safe with their properties when conducting transactions.

Conclusion

Service quality plays a significant role in maintaining and developing sustainable competitive advantage of company or firm because service quality influence directly customer

satisfaction. Thus, this study focused on investigating the relationship between service quality and customer satisfaction on ATM service of a private commercial bank in Vietnam by using SERVPERF model.

The research used 24 observed items divided into 5 components of service quality and one component of customer satisfaction based on SERVPERF model. The number of respondents is 186 and these samples were tested by using SPSS software 16.0 through descriptive analysis, factor analysis and regression analysis. As a result, we found that two factors that have impacts on ATM service quality of the Bank, which are assurance and tangibles, in which assurance has the strongest effect on customer satisfaction.

Based on these findings, some recommendations for improving the ATM service quality of the Bank are raised in the upcoming time. In addition, the study results also have useful implication for other banks when making their service policy. This study provides more empirical evidence for academics on ATM service quality of commercial banks by using SERVPERF model.

The study made positive contribution to the bank in learning about factors affecting customer satisfaction about ATM service quality. However, this study also has the following limitations: firstly, the study was carried out on customers using the ATM service of the Bank so its generalization level is not high. Its generalization level would have been higher if this study had been carried out for some more banks in other cities in Vietnam, which is a direction for the next research. Secondly, this study only focuses on private customers with their own criteria to evaluate the service quality, so the study results cannot be right for all customers. This study should be additionally conducted on enterprise customers, thus we can generalize customers satisfaction at ATM service quality. Finally, the study mainly considers the effects of quality factor on customer satisfaction at ATM service quality. There may be many other factors which affect customer satisfaction such as enterprise image, customer value, etc. This also suggests for further research.

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