

SERVPERF-based empirical evidence on e-banking services quality and customer satisfaction from Saudi banking sector



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ABSTRACT

There has been accumulated research demonstrating that customer satisfaction is the key factor in the crucial and ultimate success of any business venture; and that quality dimensions of electronic banking services (e-banking services) are the most important ones in affecting customer satisfaction in the commercial banking sector. Given the acceleration in the provision of the latest electronic banking services by Saudi banks; and the lack of research on e-banking services quality provided by Saudi banks, this study aimed to measure the quality of e-banking services provided by commercial banks in Saudi Arabia, and analyze its impact on customer satisfaction. Unlike of most of previous research, the more precise and accurate SERVPERF model used for measuring service quality and customers' satisfaction. A significant impact of service quality of e-banking services was found on customer satisfaction; with reliability, assurance, and tangibility having the greatest effect on the satisfaction of complainants. Also, reliability and assurance of e-banking services found to have an effect on the satisfaction of Word-of-Mouth. However, no dimension of e-banking service quality was found to have an effect on the satisfaction of loyalty.

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1. Introduction

There has been huge acceleration in the provision of the latest electronic banking services (e-banking services) by Saudi banks in order to enable them to stand in a good competitive positions and achieve the highest possible returns (Turban et al., 2010; Aljasser and Sasidhar, 2016). The purpose of this study is to assess the quality of e-banking services provided by major Saudi banks; and to examine the effect of the quality dimensions of these services on Saudi banks customers' satisfaction. Customer satisfaction in the commercial banking sector has several dimensions. Service Quality is the most important one of these dimensions in its effect on satisfaction (Culiberg and Rojsek, 2010; Naik et al., 2010). Whereas quality in itself has several dimensions, this study will determine which of those dimensions of the e-banking services have the strongest effect on customer satisfaction in the commercial banking sector of Saudi Arabia. Unlike many of the previous studies which utilized SERVQUAL tool, this paper is the first, to the

knowledge of the researcher, in studying the effect of the quality of e-banking services on customer satisfaction in Saudi Arabia by adopting the measure scale of SERVPERF. SERVPERF scale perceived by many researchers as a more accurate measure of the quality of service than SERVQUAL (Taylor and Cronin, 1994; Ishfaq et al., 2015).

2. E-banking services and customer satisfaction

What we will highlight in this paper is the e-commerce of businesses, especially in the case of commercial banks. Banks have begun the provision of e-banking services in the last three. E-banking services have become an important distribution channels in banking sector to ensure the success and get a competitive edge in an industry that witnesses intense and fears competition (Gan et al., 2006; Salehi and Alipour, 2010). E-banking is defined as those banking activities and transactions that can be performed from home or on the road using electronic devices that might need; or not and internet connection (Turban et al., 2010). In general e-banking services include those who can be performed without dealing with banks personals and have the possibility of being conducted anywhere and anytime (Kumbhar, 2011). E-banking services that most commonly used are the services provided through ATMs, Tele-banking, banking services via

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mobile phones, and banking services provided through the portal of the bank via the Internet (Online Banking), which lots of people use them now a day to conduct their banking transaction and facilitate their communications with their banks (Khan and Mahapatra, 2008; Kumbhar, 2011).

E-banking services, therefore, are characterized with convenience and take less time to be performed compared to the traditional method used to perform banking services, this makes them in great importance for banks' clients and customers (Iqbal and Molyneux, 2016). Thus, e-banking services have become an imperative competitive means that banks have to master designing and delivering them faster and more convenient in order to increase customer satisfaction and gain market success and complete advantage (Kumbhar, 2011). In this regard, the study will measure customer satisfaction for these e-banking services provided by Saudi banks, which in turn reflects the extent of the Saudi bank's success in providing those important services in such a way that facilitate their customer access to their banking services more easily and efficiently.

It is well known that customer satisfaction is a key factor in the success of any business venture, whether traditionally or electronically (Kau and Loh 2006; Turban et al., 2010; Mohajerani and Miremadi, 2012). The acceleration of the provision of electronic services by financial banks is to satisfy existing customers and attract new customers by differentiating their services (Naik et al., 2010). Customer satisfaction can be defined as a result of the cognitive and emotional evaluation of a set of standards that compare the actual performance with that one perceived by the customer (Culiberg and Rojsek, 2010). If the performance was less than expected, the customer will feel dissatisfied, but if performance exceeds expectations, the customer will feel satisfied. Thus, customer satisfaction for services is reflected in the ability of the service provider to build a loyal customer base (Kheng et al., 2010). Many researchers indicated that customer satisfaction can be assessed by the word of mouth, which is spoken by the client for the service in front of others, the amount of complaints and how to deal with complaints, and loyalty to the service provider (Culiberg and Rojsek, 2010; Paul et al., 2016). Thus, customer satisfaction for the electronic banking services will be measured through these three dimensions.

3. Measuring service quality for customer satisfaction

There is a proven relationship between service quality and customer satisfaction, as customer satisfaction can be achieved by providing a high-quality services (Culiberg and Rojsek, 2010; Paul et al., 2016). Parasuraman et al. (1985) developed the SERVQUAL tool, which measures service quality through ten dimensions: tangibility, honesty, responsiveness, competition, courtesy, credibility, security, freedom, communication, and

understanding of the customer. After three years, Parasuraman et al. (1988) developed a scale that includes five dimensions. These dimensions are: reliability, responsiveness, assurance, empathy, and tangibility.

There is a large number of studies and research which utilized SERVQUAL to examine the effect of service quality on customer satisfaction (Naik et al., 2010; Kumbhar, 2011). In general, such studies mostly found that achieving quality in the different dimensions of services lead to achieve high levels of customer satisfaction.

The idea of SERVQUAL scale is to measure the gap between customer expectations of service quality and the customer perception of the actual performance of the service, where the size of the gap determines the extent of the customer satisfaction with the service provided, as well as it is a measure of the service quality (Naik et al., 2010). However, SERVQUAL were subject for many criticisms since its inception in 1988 (Taylor and Cronin, 1994; Asubonteng et al., 1996). The most notable criticisms are related to its face and construct validity, ambiguity and operational definition of expectations construct, length and difficult administration of the questionnaire, and dimensional instability (Ladhari, 2009). Thus, researchers have worked to modify and improve SERVQUAL in order to increase the accuracy of the service quality measurement. As a result, SERVPERF was developed; and proven to be a better measure of service quality. It measures service quality based on the actual performance of the service provider. This measure is characterized by the ease of use and accuracy in measuring service quality (Ladhari, 2009; Mohajerani and Miremadi, 2012). Thus, SERVPERF scale is used in measuring both the quality of the electronic banking service and the satisfaction of the bank's customers. E-banking services quality is measured using the five dimensions of the SERVPERF scale (reliability, assurance, responsiveness, empathy, tangibility), then, the effect of each of quality dimension on every dimension of customer satisfaction is assessed (Kheng et al., 2010).

4. Research methodology

4.1. Hypothesis

The main hypothesis for the purpose of this research is:

H₁: There is a statistically significant effect for the dimensions of e-banking services quality (reliability, assurance, responsiveness, empathy, tangibility) on the dimensions of customer satisfaction (complaints, word of mouth, loyalty) of Saudi banks clients at significance level of ($\alpha \leq 0.05$).

4.2. Study tool, sample, and procedure

A field poll is done to collect data using questionnaire, which built on the criterions used to

measure the effect of e-banking service quality according to the SERVPERF model (Parasuraman et al., 1988) on customer satisfaction. The study tool was presented to a number of specialized professors at Qassim University to verify its reliability, and to examine the relevance, clarity, validity of the statements used to measure both of e-banking service quality and customer satisfaction, and the extent of the relevance of each statement to the measurement of each used dimension. The notes of the academic judges were taken into consideration before producing the final form of the questionnaire.

The final version of the sample was distributed using a convenient sample; which is chosen from the e-banking services' users. The sample was withdrawn by visiting banks branches at different neighborhoods in three major Saudi cities: Riyadh, Jeddah, and Dammam. These cities are the largest in the three major regions of Saudi Arabia. The total visited banks branches of the Saudi major banks in the three regions were (54) branches of the five largest Saudi Banks (Alrajhi, Riyadh, Samba, Banque Saudi Fransi, and Alahli Bank). The visits to each branch were in several different times during the working hours of each branch. This procedure was done to achieve randomness in the sample. A number of (602) questionnaires were received from the sample, however, after sorting the questionnaires we found that only (443) questionnaires were suitable for the analysis, which represent about (73%) of the total sample.

The internal consistency of the tool was calculated using Cronbach Alpha to all dimensions of

dependent and independent variables. The values of the reliability coefficient were high as they were greater than (60%) which considered statistically acceptable. This is shown in Table 1, which indicates stability and consistency among the statements of the study tool.

Table 1: Internal consistency coefficient for Study variables

Variable	Dimension	Statement	Cronbach Alpha
Electronic Banking Service Quality	Reliability	1 - 6	0,769
	Responsiveness	7 - 11	0,793
Customer Satisfaction	Assurance	12 - 17	0,829
	Empathy	18 - 22	0,858
	Tangibility	23 - 27	0,716
Customer Satisfaction	Complaints	28 - 32	0,884
	Word of Mouth	33 - 35	0,643
	Loyalty	36 - 40	0,783

To test the research hypothesis, the mean, standard deviation, multiple regression analysis, and stepwise regression are used to determine which independent variable that has correlation with the dependent variable.

5. Results

Table 2 displays that the level of respondents' perceptions of e-banking services quality is high, as the mean equals to (3.622) and the standard deviation equals to (0.811). However, the perceptions according to each dimension were between high and average, as the perception for the reliability dimension is the highest with a mean of (3,634), then the rest of dimensions.

Table 2: Means and standard deviations of the perceptions of e-banking service quality

Statements	Dimension	Mean	S.D.	Order	Mean Level
1 - 6	Reliability	3,634	0,834	1	High
7 - 11	Responsive-ness	3,562	0,877	2	High
12 - 17	Assurance	3,501	0,898	3	High
18 - 22	Empathy	3,244	1,127	5	Average
23 - 27	Tangibility	3,376	0,988	4	Average
General Mean		3.622	0.811	-	High

Table 3 demonstrates that general mean of customer satisfaction for e-banking services quality in Saudi Arabia is high with mean of (3.522). It also shows that the perceptions of the complaints dimension is high with a mean of (3,639), then loyalty also with high perceptions as the mean is (3,507), then the word of mouth dimension as an average with mean of (3,339).

Table 3: Means and standard deviations of customer satisfaction for e-banking services quality

Statement	Dimension	Mean	S.D.	Order	Mean Level
28- 32	Complaints	3,639	1,054	1	High
33 - 35	Word of Mouth	3,339	0,965	3	Average
36 - 40	Loyalty	3,507	1,174	2	High
General Mean		3.522	0.855	-	High

Table 4 indicates that the correlation coefficient between the study variables is (0.481), which establishes that the relationship between e- banking service quality and customer satisfaction is positive.

Table 4: Simple regression analysis results to test the validity of the model

Model Summary					
Dual Correlation Coefficient	R square	f value	Sig.		
0.481	0.253	65.746 *	0.000		
ANOVA					
	B value	Standard Error	β Value	t value	Sig.
Constant	1.885	0.215		8.864 *	0.000
Perceived Quality	0.493	0.127	0.483	8.747*	0.000

* Statistically significant ($\alpha \leq 0.05$)

Table 5 displays that the dimensions of quality (reliability, assurance, tangibility) has statistically significant effect on complaints dimension as a dimension of customer satisfaction for e-banking services quality.

Table 6 shows results of Stepwise Multiple Regression. Results indicate that reliability dimension has the strongest effect as it explains (42.3%) of the variance of complaints as a dimension of customer satisfaction. Then, the dual correlation

coefficient increased to (44.6%) after entering assurance dimension to the regression equation: then it increased to (46.9%) after entering the dimension of tangibility to the regression equation. Finally and after entering the responsiveness

dimension, the cumulative value of dual correlation coefficient increased to be to be (48.3%). The dual correlation coefficient reached this value after taking empathy dimension out of the regression equation.

Table 5: Effect of perceived e-banking service quality on complaints

Electronic Service Quality Dimensions	B	Standard Error	β Value	t-value	Sig.
Reliability	0.274	0.085	0.232	3.237 *	0.002*
Responsiveness	0.177	1.012	0.167	1.726	0.062
Assurance	0.198	0.174	0.175	2.506*	0.006*
Empathy	0.169	1.023	0.158	1.588	0.078
Tangibility	0.205	0.097	0.182	2.476 *	0.023*

* Statistically significant ($\alpha \leq 0.05$)

Table 6: Forecasting the effectiveness of complaints **

Entry order to the regression equation	R ² value	Calculated t value	Sig. of t
Reliability	0.423	3.587*	0.000
Assurance	0.446	3.979 *	0.000
Tangibility	0.469	3.895 *	0.000
Responsiveness	0.483	2.188 *	0.039

* Statistically significant ($\alpha \leq 0.05$)

**After deleting empathy dimension if from the regression equation

Table 7 shows the results of Stepwise Multiple Regression. Results illustrate that reliability and assurance are the only dimensions of e-banking service quality that have a statistically significant effect on word of mouth as a dimension of customer satisfaction.

Table 8 shows the results on the effect of perceived e-banking service on loyalty dimension. Results demonstrates that all dimensions of the independent variable do not have a statistically significant effect on loyalty.

5.1. Results and discussion

The results generally show that the perception of e-banking service quality of Saudi bank is high. The reliability dimension has the highest perceptions. These results indicates that it is possible for customers to depend on the e-banking services; and that these services are trusted as well as their providing banks. Also, results indicate that the e-banking services are viewed with high level of responsiveness and assurance.

This could reflect that they are being delivered through high technology, and they are modern and flexible (Khan and Mahapatra, 2008). However, the perceptions toward responsibility and empathy viewed as an average. This implies that Saudi banks should improve upon their ways of dealing with customer concerns about their e-banking services.

Table 7: Effect of perceived e-banking service quality on word of mouth

Electronic Service Quality Dimensions	B	Standard Error	β Value	t Value	Sig.
Reliability	0.387	0.112	0.365	2.763*	0.021
Responsiveness	0.047	0.107	0.038	0.522	0.754
Assurance	0.412	0.101	0.384	2.563 *	0.008
Empathy	- 0.133	0.124	- 0.171	- 0.886	0.143
Tangibility	- 0.047	0.103	- 0.069	- 0.366	0.792

* Statistically significant ($\alpha \leq 0.05$)

Table 8: Effect of perceived e-banking service on loyalty

Electronic Service Quality Dimensions	B	Standard Error	β Value	t Value	Sig.
Reliability	0.048	0.125	0.037	0.417	0.768
Responsiveness	0.102	0.132	0.086	0.729	0.235
Assurance	0.154	0.121	0.122	1.003	0.326
Empathy	0.113	0.141	0.058	0.435	0.701
Tangibility	- 0.017	0.139	-0.013	-0.203	0.885

* Statistically significant ($\alpha \leq 0.05$)

As for customer satisfaction, the results reveals that satisfaction perceptions of Saudi banks customers toward e-banking service quality is high. The satisfaction related to how the banks deal with customer’s problems related to e- services is high with a mean of (3.839). Also, the scores for loyalty dimension is high (mean is 3.569). This implies that bank's customers do not think of switching to other banks, and that they are satisfied with the way that bank deal well with customer’s problems related to their e-banking services.

With regard the relationship between e-banking services quality and customer satisfaction (main hypothesis), the initial results indicate that the correlation coefficient between the variables is (48.1%). This relationship is considered to be strong, and it suggests that e-banking services quality provided by Saudi commercial banks is one of the main pillars to ensure customer satisfaction, and hence, retention. This result is consistent with previous research (Kumbhar, 2011; Paul et al., 2016; Aljasser and Sasidhar, 2016). Specifically, the results

show that there is a statistically significant effect of e-banking services quality with its dimensions (reliability, assurance, and tangibility) on complaints as a dimension of customer satisfaction for e-banking services quality. All of these dimensions together explained (48.3%) of the variance in complaints. This demonstrates that Saudi banks realize that the satisfaction of complainants with regards to e-banking services has enormous effect on their customers' future behavior. The statistically significant effect of reliability, assurance, and tangibility on the satisfaction of complaints implies that e-banking services are touchable and trustworthy by customers (Kau and Loh, 2006). Mostly, due to the ways in which Saudi banks are dealing with customers' problems and concerns associated with their use of e-banking's services.

Moreover, results reveals that reliability and assurance of e-banking service quality have a significant effect on satisfaction of the word of mouth. The ability of e-banking services to make customer feels that they can depend on them, and that e-banking services are up-to-date, manageable, and easy-to-use (Aljasser and Sasidhar, 2016). All these factors together will make the customer recommend using the e-banking services that they are using now to their family, friends, and coworkers.

Finally, the results show that there is no statistically significant effect of e-banking service quality with its five dimensions (reliability, responsiveness, assurance, empathy, tangibility) on loyalty as a dimension of customer satisfaction. This indicates that e-banking service quality alone cannot guarantee customer retention. There are factors other than e-banking service quality that may affect (together with electronic banking service quality) on customer loyalty and on his/her willingness not to switch to another bank and use its e-banking services (Kheng et al., 2010). This result, also, confirms that loyalty at the top of the customer chain for satisfaction. Many dimensions of business design and execution need to be near perfect in order to have a loyal customers (Wulf et al., 2001)

5.2. Recommendations and conclusions remarks

The findings of this study reveal that the quality of e-banking services provided by Saudi banks has a positive effect on the level of their customers' satisfaction, particularly, complaints which is one of the important marketing concepts. The results show that complaints is tightly linked with the bank's ability to satisfy customers with its e-banking service. The results also imply the importance of considering customers' word of mouth regarding the bank's electronic services as a major determinant of its customer satisfaction. In general, Saudi banks should assess their e-banking services quality using more accurate scales such as SERVPERF to determine the weakness points in their e-banking services; and work to improve them. For future research, it is important to study different

dimensions to identify their effect on customer satisfaction, as e-banking service quality alone is not the only factor that affects customer satisfaction. Satisfaction for banking services can be affected by many other variables that might have a bigger weight than e-banking service quality (Mohajerani and Miremadi, 2012), and thus it is recommended to study the other factors and examine their effect. Studies of this kinds, along with such current research, eventually will result in building more concrete knowledge of what really make customer satisfied.

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