

**THE EFFECT OF E-BANKING ON CUSTOMERS’
SATISFACTION IN FINANCIAL SERVICES:
AN EMPIRICAL INVESTIGATION ON
FINANCIAL SECTOR IN SAUDI ARABIA**

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ABSTRACT

The aim of this study is to investigate the effect of e-banking on customers’ satisfaction in financial services in Saudi Arabia. The data of this study was collected from both international and national Saudi banks’ customers. The collected data then has been analyzed using the SPSS version 20. Consequently, the results showed that the perceived usefulness, perceived ease of use, perceived credibility, and customer attitude are positively and significantly affect customers satisfaction in Saud Arabia. The correlation analysis showed that there is a significant and positive relationship between E-banking factors and customers satisfactions in Saudi Arabia.

Keywords: Perceived Usefulness, Perceived Ease of Use, Perceived Credibility, Customer Attitude.

INTRODUCTION:

Financial sector seems to have a lot of events and occasions, particular on the light of financial crisis, global economic as well as competition (Almansour, 2013). Banks plays a critical role in the economy by providing credit to customers and providing the liquidity needed for the economy to function. Therefore, banks committed and often inherited relationships between customer and banks were becoming increasingly scarce (Lee & Feick, 2001).

Managers do make appropriate financial decision in order to maintain the market leadership as well as customers' satisfaction. However, the successful of any service provider in any organization depends on the association between the high quality and customers' satisfaction. Customers' satisfaction has been the subject of great interest of researchers and practitioners; it has also become very vital in business since the marketing era of the 1950s when the organizations could produce what can sell (Evanschitzky & Plassmann 2006, Zoe, 2006, Kuo & Ye 2009, Boohene & Agyapong 2011).

In recent time, electronic banking (E-banking) has improved as well as changed the aspect of commercial banking through linking and connecting geographical, industrial and regulatory gaps and creating innovative products as well as services for both banks and customers (Liao and Cheung, 2002; Khan and Karim, 2010). In other words, Internet technology holds the potential to fundamentally change banks and the banking industry. Authors such as Polatoglu and Ekin (2001), Rotchanakitumnuai and Speece (2003), and Shah and Siddiqui (2006) recognized the advantages of the uses of E-banking such as lower costs, wider reach, higher competitiveness and generation of higher long-term profits to be linked with the e-banking services.

Recently, researchers put the academic spot light on studying E-banking in financial sectors, previously, studies have focused on electronic service quality (Ibrahim, Joseph & Ibeh, 2006); factors affecting the adoption of internet banking by customers (Al-Madi, 2010; Jahangir and Begum, 2008); the impact of E-banking on traditional banking services (Vyas, 2008), prospects and challenges of E-banking (Ainin, Lim, & Wee, 2005). Evaluating the influences of online banking factors on motivating the process of E-banking (Jala, Marzooq, & Nabi, 2011).

E-commerce is a developing stage in Saudi Arabia. However, the E-commerce consists many areas; one area of E-commerce that has demonstrated and recognized successfully in Saudi is E-banking. Internet banking is a form of self-service technology, obviously, the term of E-banking refers to the use of information and communication technology by banks through both telephone banking and computer to offer financial services to customers (Charity-Commission, 2003). According to Shah and Siddiqui (2006) who revealed that the provision of banking services via the internet (e-banking) is growing nowadays and new channels maybe been developed very soon.

According to Al-Abed (2003) who documented that E-banking is a term which covers for the process by which customers can perform such financial transactions in electronic way without visiting a brick and-mortar organization. Generally, banks and financial services industry in the Kingdom of Saudi Arabia have embraced E-banking for the past few years, which that has made possible by the improvements in information technology sector. To the author's knowledge, there is currently no study on the effect of e-banking on customers' satisfaction in financial services in Saudi Arabia. Thus, this study attempts to investigate the effect of E-banking on customers' satisfaction in financial services in Saudi Arabia.

LITERATURE REVIEW:

In order to increase the level of banks' services, banks should pay more attention to customers' satisfaction towards banks' products. Hence, managers in banks have to improve such strategies in order to maintain their customer's interest and satisfaction. This study concentrates on factors influencing customers' satisfaction towards financial services in Saudi Arabia.

Generally, in the area of telecommunications, information technology and the banking industry of the last few decades has been developed as well as improved, specifically in the internet banking sector. The internet banking began in the early 1980s when many larger financial organizations had started to offer such access to several banking services over and done with the internet (Phillips, 2007). E-

banking is defined as banking services provided by banks by which individuals can easily transfer funds, make account balance enquiries, pay bills and manage such assets as stocks online (Pearce & Robinson, 2009).

In the face of the point that E-banking has not fully replaced traditional banking services yet, the revolution promises that the E-banking services will all but completely replace traditional banking in the future. According to Bradley and Stewart (2003), who documented that nearly every bank will have such online facilities and services available by the year 2011. According to Sudarraj and Wu (2005), the use of E-banking has been increasing worldwide for the past decade, and seems to continue to do so. Moreover, using online services has rapidly contributed to creation competition even fiercer, nonetheless of the size of the organization. Several researchers have been examined the development and improvement of E-banking and its operations (Aladwani 2001, Gailly & Philippart 2004, and Wang, 2006).

Obviously, the sophisticated and developed E-banking services were introduced to develop service delivery and customer satisfaction and then customer loyalty toward the organization. According to the CBN (2003), the availability of Automated Teller Machines (ATM), cards, telephone banking, personal computer banking and internet banking has been existed nowadays in banking system.

According to Narteh (2014) and Al-Madi (2010), who revealed that E-Banking consists several important factors that could affect the level of customer satisfaction or even loyalty towards the organizations; these factors are perceived usefulness, perceived ease of use, perceived credibility, and customer attitude. Therefore, this study followed Narteh (2012) and Al-Madi (2010) in determining the e-banking factors that affect customers' satisfaction in Saudi Arabia.

Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1986).

In a study by Zahid, Mujtaba and Riaz (2010) who revealed that people who implement such a particular technology believe that the use of the E-banking, information system and technology would improve their performance. In other words, those people who pay attention to the usefulness of E-banking will perform in a good way. Therefore, they declared that perceived usefulness plays an important role in determining customer's decision to adopt E-banking.

Liao and Cheung (2003) conducted a study in Singapore on consumer attitudes towards the usefulness of and willingness to use internet retail banking. Based on their results, they found that expectations of accuracy, security, network speed, user involvement, convenience and user friendliness were the major quality attributes underlying perceived usefulness

Likewise, Al-Somali, Gholami and Clegg, (2004) studied factors effecting perceived usefulness and perceived ease of use in internet banking acceptance. They found that security, quality of internet connection and awareness about internet banking and its benefits have significant effects on the perceived usefulness and perceived ease of use in internet banking acceptance.

Perceived ease-of-use can be defined as the degree to which a person believes that using a particular system would be free from effort (Davis, 1986). AC Nielsen Consult (2002) documented that the development if E-banking can be determined through perceived ease of use. In other words, the perceived ease of use plays an important factor which could influence the acceptance of any information system. Moon and Kim (2000) revealed that perceived usefulness and ease of use are necessary factors in determining the acceptance information system in corporations.

Lichtenstein and Williamson (2006) found that the determinants of ease of use were significantly related to the framework of E-banking technology such as aesthetics and the ability of the component parts of a system to operate successfully together. Furthermore, Pikkarainen, Karjaluoto and Pahnla (2004) found that the complexity and design issues have been significantly found to discouraged customers from using E-banking. It is argued that any novelty perceived to be easier to use than another is more likely to be accepted by users (Pikkarainen *et al.*, 2004).

The influence of perceived ease of use on the acceptance of, and intention to using ,retail banking services was agreed as well as supported in several studies (Al-Sukkar & Hasan 2005; Kamel & Hassan 2003; Kolodinsky, Hogarth & Hilgert 2001; Ravi, Carr & Sagar 2007; Vatanasombut, Lgbaria, Stylianou & Rodgers 2008).

Perceived credibility is defined as the privacy and security concerns in the adaptation of E- banking (Ba & Pavlou, 2002). Researchers defined perceived credibility as the level of perceived credibility to which people trust online banking services as trustworthy and secure (Lichtenstein & Williamson, 2006). To the authors' knowledge, this variable considers important in influencing customers' satisfaction because of the level of trust security and privacy are commonly used in online banking services around the world (Hain, Tootell, & Alcock, 2002; Lichtenstein & Williamson, 2006; McCullagh & Caelli, 2005).

Sommer (2011) defined attitude as a central conception in explaining the humans' intention behavioural. It is also defined as the perceptions about product information, form of payment, delivery terms, service offered, risk involved privacy, security, personalization, visual appeal, navigation, entertainment and enjoyment (Burke, 2002).

According to Sarlak and Hastiani (2011) who documented that customer attitude plays an important role in affecting their behaviour in refusing or accepting technology such as online banking services. Several researchers have highlighted the role of attitude toward using inline banking services, as a result of their findings is that the customers' attitude towards online banking services is expected to affect customers intention to start using the service (Al-Somali *et al.*, 2009; Lee, 2009; Karjaluoto *et al.* 2004; Maduku & Mpinganjira 2012; Pikkarainen *et al.*, 2004; and Al-Sukkar, 2005).

Satisfaction plays a significant antecedent in developing customer retention (Gil, Hudson & Quintana 2006), customers' decision can be effected by satisfaction towards products therefore it can affect a buyer's decision to remain and improve a relationship with the organization (Ndubisi, Malhotra & Chan 2006). Satisfaction is linked to loyalty. Bei and Chiao, (2001) had investigated the consequences of customer satisfaction, customer loyalty and the outcomes of customer satisfaction. Customer satisfaction considers a key factor in creation customers' desires towards buying products (Mittal & Kamakura, 2001). A study by Bloemer, Deruyter and Peeters (1998) who showed how service quality, and customer satisfaction influence customer loyalty. Based on their results, they found that service quality has a significant impact on customers' satisfaction.

THEORETICAL FRAMEWORK:

This study attempts to investigate the effect of e-banking on customers' satisfaction in financial services in Saudi Arabia. Therefore, the following theoretical model has been developed based on the previous study. Figure 1 illustrates the conceptual framework used in this study.

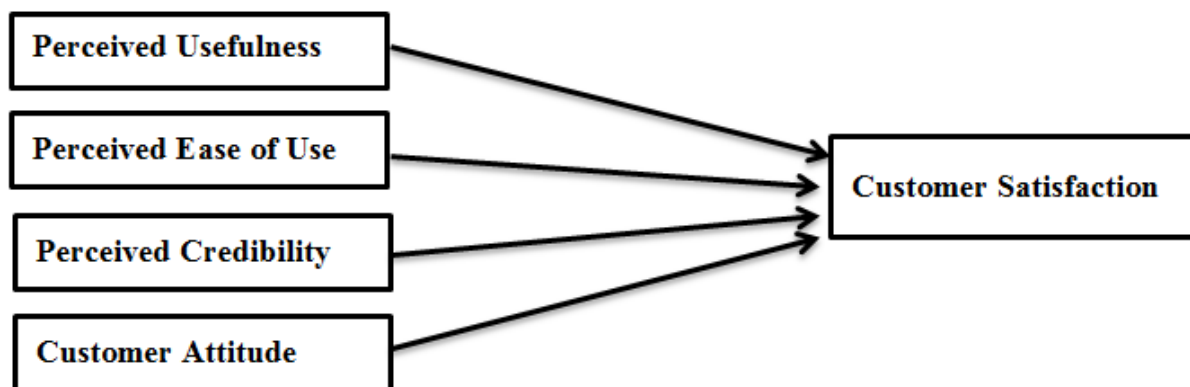


Figure 1: Conceptual Framework Used in this Study

The aim of this study is to investigate the effect of e-banking on customers' satisfaction in financial services in Saudi Arabia. From the above illustrated framework, the following hypotheses are developed:

1. There is a significant effect of perceived usefulness on customers' satisfaction in banks in Saudi Arabia.

2. There is a significant effect of perceived ease of use on customers' satisfaction in banks in Saudi Arabia.
3. There is a significant effect of perceived credibility on customers' satisfaction in banks in Saudi Arabia.
4. There is a significant effect of customer attitude on customers' satisfaction in banks in Saudi Arabia.

RESEARCH METHOD:

SAMPLE AND PROCEDURE:

In order to examine the effect of E-banking on customers' satisfaction in financial services in Saudi Arabia, a qualitative approach was used. This study focuses on banks customers, a total of 100 questionnaires were distributed. The selection of the respondent was based on the simple random sampling method. In all, a total of 92 useable questionnaires were used in the statistical analysis.

MEASUREMENT OF THE VARIABLES:

The independent variable of this study is the E-banking factors that affect customers' satisfaction namely are perceived usefulness, perceived ease of use, perceived credibility, and customer attitude. These factors were employed based on a developed instrument by Al-Madi. (2009), Narteh (2012), and Maduku (2014), the factors are contains 20 items. The dependent variable of this study is customers' satisfaction. The customers' satisfaction is contains 5 items. It was employed based on a developed instrument by Migdadi *et al.* (2013). All items in the questionnaire are based on the 5 point Likert scale ranging from 1 for strongly disagree to 5 for strongly agree.

In order to figure out the effect of e-banking on customers' satisfaction in financial services in Saudi Arabia, regression analysis was performed. Before proceeding to carry out the multiple regression analysis, this study has tested the assumptions of multiple linear regressions which justify the use of linear regression models for purposes of examining the e-banking factors influencing customer satisfaction is acceptable. This study is obliged to examine the outliers, normality, linearity, heteroskedacity and multicollinearity problems in confirming that there is no violation in the assumptions of multiple linear regressions (Hair *et al.*, 1995).

THE RESULTS AND HYPOTHESES TESTING:

RESPONDENT PROFILE:

Table 1 illustrates the personal information of the respondents. It can be seen in the table below that the majority of the respondents were male, as a results there are 78 (85%) male respondents and 14 (15%) female respondents. The results show also that there are 14 (15%) single respondents and 78 (85%) married respondents. Moreover, the age of the respondents is observed, the results showed that the age of the respondents that ranged between 20 – 30 are 25 (27%). However, those who ranged between 31 - 40 years old are 38 (41%). It can also be seen that the age of the respondents that ranged between 41 – 50 are 20 (22%). But those who ranged between 51 - 60 years old are 5 (5%), and few respondents are more than 60 years old which is 4 respondents (4%). Finally, in term of education, it can be seen that most of the respondents are educated. It can be observed that 14 respondents have secondary school certificates and 22 respondents (24%) had diploma degree. The respondents who hold bachelor degree are 30 persons (33%). Furthermore, the respondents who hold master degree are 18 persons (20%). Finally, the respondents who hold PhD degree are 7 persons (8%).

Table 1: Summary of Profile Respondents

		n	Percentage
Sex	Male	78	85%
	Female	14	15%
		91	100%
Marital Status	Single	14	15%
	Married	78	85%
		91	100%
Age	20-30	25	27%
	31-40	38	41%
	41-50	20	22%
	51-60	5	5%
	More than 60	4	4%
		91	100%
Education	Secondary School	14	15%
	Diploma Degree	22	24%
	Bachelor Degree	30	33%
	Master Degree	18	20%
	PhD Degree	7	8%
		91	100%

DESCRIPTIVE STATISTICS:

Descriptive statistics are used to describe the basic features of the data in a study. It summarizes the sample and the measures. However, before analyzing the descriptive statistics in this study, the level of satisfaction is considered from score of the answers and was divided into five levels to the Likert scale as follow:

$$\frac{\text{Higher score} - \text{Lower score}}{\text{Number of levels}} = \frac{5 - 1}{5} = 0.80$$

Therefore, table 2 illustrates the criteria for understanding the mean of satisfaction level.

Table 2: The Criteria for Understanding the Mean Scores of Satisfaction Level

	Mean Scores	Level of Satisfaction
1	1.00 – 1.80	Strongly Disagree
2	1.81 – 2.60	Disagree
3	2.61 – 3.40	Neutral
4	3.41 – 4.20	Agree
5	4.21 – 5.00	Strongly Agree

As a result of descriptive statistics is analyzed. Table 3 shows the descriptive statistics for all items used in this study.

Table 3: Descriptive Statistics

	Item	N	Mean	Std. Deviation	Meaning
Perceived Usefulness					
1	Internet banking makes it easier to do banking activities	91	3.7143	.45426	Agree
2	Internet Banking enables one to do banking activities more quickly	91	3.4505	.67105	Agree
3	I think Internet banking enables one to complete banking activities more conveniently	91	3.6044	.57502	Agree
4	I think Internet banking allows one to manage banking activities more efficiently	91	3.5604	.63611	Agree
5	I think Internet banking is useful in conducting banking activities	91	3.5934	.53703	Agree
Perceived Ease of Use					
6	I think it is easy to learn how to use internet banking	91	3.6264	.60825	Agree
7	I think it is easy to get internet banking to do what I want it to do	91	3.6264	.69360	Agree
8	My interaction with the electronic banking is clear and understandable.	91	3.4396	.80566	Agree
9	I think it is easy to become skillful at using Internet banking	91	3.6703	.47270	Agree
10	Overall, I think internet banking is easy to use	91	3.4286	.66904	Agree
Perceived Credibility					
11	Using the Electronic banking is financially secured	91	3.6154	.48920	Agree
12	I trust in the ability of the Electronic banking to protect my privacy	91	3.6044	.66465	Agree
13	I trust the technology of the Electronic banking is using	91	3.3297	.86993	Agree
14	I trust in the Electronic banking is a bank	91	3.4945	.72070	Agree
15	I am not worried about the security of the Electronic banking	91	3.3099	.35184	Neutral
Customer Attitude					
16	Using Internet banking is a good idea	91	3.6505	.45176	Agree
17	I like the idea of using Internet banking	91	3.5670	.32831	Agree
18	Using Internet banking is a pleasant idea	91	3.5758	.44180	Agree
19	Using Internet banking is an appealing idea	91	3.5451	.36279	Agree
20	Using Internet banking is an exciting idea	91	3.4945	1.49349	Agree
Customers' Satisfaction					
21	I will use online banking on regular basis in the future	91	3.0659	1.42830	Neutral
22	The language was easy to understand in bank website	91	3.4725	1.41689	Agree
23	The level of technical terms which used in bank website was appropriate	91	3.7363	1.34027	Agree
24	I will strongly recommend others to use online banking	91	3.2308	1.39106	Neutral
25	I am satisfied about the e-banking data and services in bank website	91	3.3297	1.46860	Neutral

Table 3 illustrates the descriptive statistics for all items used in this study. As a result, it can be observed that the respondents were almost agreed on the items used, except an item which is labeled as “I am not worried about the security of the Electronic banking” which records a value of an average 3.3099. Moreover, the items labeled as “I will use online banking on regular basis in the future”, “I will strongly recommend others to use online banking”, “I am satisfied about the e-banking data and services in bank website” which record average of 3.0659, 3.2308 and 3.3297 respectively. This indicated that the items that ranged of the mean score between the values of 2.61 to 3.40 are neutral in the level of satisfaction.

The Effect of E-Banking Factors on Customers' Satisfaction:

In order to explore the effect of E-banking factors on customers' satisfaction, regression analysis is performed. Table 4 describes the results of the regression analysis.

Table 4: The Effect of E-Banking factors on Customers’ Satisfaction

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.297	.473		-.628	.532
	Perceived Usefulness	.198	.097	.170	2.034	.045
	Perceived Ease of Use	.249	.080	.262	3.095	.003
	Perceived Credibility	.453	.102	.388	4.443	.000
	Customer Attitude	.232	.101	.192	2.290	.024
	R ²	45.8%				
	Durbin-Watson	1.553				
	VIF	No				

Table 4 illustrates the effect of E-banking factors on customers’ satisfaction in financial services in Saudi Arabia. It can be seen that the coefficient of determinations (R²) value of 0.458 implies that on average the variability in the E-banking factors for this study, can explain 45.8% of the variability in the customers satisfaction return. This means that there is 54.2% are external factors that were not included in the model.

As results; it can be observed that all E-banking factors can significantly affect customers’ satisfaction in Saudi Arabia in general. The results showed that perceived usefulness has a significant effect on customers’ satisfaction with a coefficient of 0.198 and probability value of 0.045. Moreover, the perceived ease of use is found to be positively and significantly affect customers’ satisfaction with a coefficient of 0.249 and probability value of 0.003. Furthermore, the perceived credibility is found to be positively and significantly affect customers’ satisfaction with a coefficient of 0.453 and probability value of 0.000. Finally, the customer attitude has a significant effect on customer satisfaction which records a probability value of 0.024.

The Relationship between E-Banking Factors and Customers’ Satisfaction:

In order to explore the association between E-banking factors and customers’ satisfaction, correlation analysis was performed. Table 5 demonstrates the relationship between the E-banking factors and customers’ satisfaction.

Table 5: The Relationship between the E-Banking Factors and Customers’ Satisfaction

		Perceived Usefulness	Perceived Ease of Use	Perceived Credibility	Customer Attitude
Perceived Usefulness	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	91			
Perceived Ease of Use	Pearson Correlation	.071	1		
	Sig. (2-tailed)	.505			
	N	91	91		
Perceived Credibility	Pearson Correlation	.295**	.285**	1	
	Sig. (2-tailed)	.005	.006		
	N	91	91	91	
Customer Attitude	Pearson Correlation	.137	.262*	.229*	1
	Sig. (2-tailed)	.197	.012	.029	
	N	91	91	91	91
Customers’ Satisfaction	Pearson Correlation	.329**	.435**	.557**	.373**
	Sig. (2-tailed)	.001	.000	.000	.000
	N	91	91	91	91

It can be observed in the table above that E-banking factors have a positive and significant relationship with customers’ satisfaction. The perceived credibility is found to be associated and significant with customers’ satisfaction which has recorded a significant value of 55.7%. Furthermore, the perceived

ease of use is also found to be positively correlated and significant with customers' satisfaction which has recorded a value of 43.5%. Moreover, the results showed also that there is a positive and significant relationship between customer attitude and customers' satisfaction, which recorded a significant value of 37.3%. Eventually, a positive and significant relationship is found between perceived usefulness and customers' satisfaction with a value of 32.9%.

Conclusion and Recommendation for Future Researches:

The aim of this study is to investigate the effect of E-banking factors on customers' satisfaction in financial services in Saudi Arabia. The E-banking factors used in this study were perceived usefulness, perceived ease of use, perceived credibility, and customer attitude. Based on the results, it is revealed that all factors can significantly influence customers' satisfaction. Moreover, when correlation analysis was performed, the results indicated that there is a positive and significant relationship between the E-banking factors and customers' satisfaction. In general, the positive and significant effect of E-banking factors is valid on customers' satisfaction in Saudi Arabia. Other researchers who are interested on E-banking can improve other model that consist same variables used in this study but in different sectors such as telecommunication sector or industrial and service sector rather than focusing on financial sector. Moreover, interested parties can also develop models that consist some other factors that could influence the customers' satisfaction in financial services.

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