

The Influence of Electronic Banking Service Quality on Customer Satisfaction of Banks in Tripoli City, Libya

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The current age of globalisation has urged developing nations' banks and customers to keep abreast with the global market, within which they have a higher likelihood to face several challenges. In this regard, it has become necessary to understand the customers' perceptions concerning online banking quality in the context of developing nations in order to inform the future adoption of strategies and enhance banks-customers relationships. Therefore, this study primarily attempted to investigate the relationship between e-banking service quality dimensions and customer satisfaction, and to highlight which of the dimensions have the highest influence on the latter. The study made use of descriptive analytical method, with questionnaire copies distributed to the study population, comprising of bank clients in Tripoli City, Libya. From the 210 questionnaire copies distributed, 180 were retrieved and data was analysed using SPSS and AMOS 23. Based on the findings obtained, the quality of electronic-banking services' dimensions namely, ease of use, time saving, security and confidentiality, significantly influenced customer satisfaction. Moreover, the findings also showed that customers' gender, age and qualification did not significantly influence their satisfaction. Thus, this study recommends that banks concentrate on the electronic-banking services quality in terms of its top influencing factors.

Key words: *Quality of banking, e-banking, service quality, Libyan Banking Sector, customer satisfaction.*

Background and Introduction

It is indubitable that digital technologies, like the Internet, are transforming the business activities of companies as they are the primary drivers of the business models structures (Hammond et al., 2018).

Among the technologies in businesses, internet banking or e-banking is a common terminology and forms part of e-financing. According to Hertzum et al. (2004), e-banking is web-based banking, which entails banking operations to be conducted over the World Wide Web. Moreover, the United Nations Conference on Trade and Development (UNCTAD), provided a more extensive and well-established definition of the concept, one that encompasses the entire e-banking area – in that it described it as the deployment of retail and wholesale banking services over the Internet. This entails its use of individual and corporate clients for bank transfers, payments and settlements, documentary collections and credits, corporate and household lending, card business and other activities (UNCTAD, 2002). In this background, electronic-banking information architecture is formed based on the client-server architecture – where a client operates using a PC linked to Internet accesses, the bank's electronic-banking site and uses special secure numbers in order to conduct any banking activity, payments and transfers from a personal account. Following the exhaustion of the transaction number, the bank provides a new set of numbers for individual transfer sessions.

Notably, in the face of application and globalisation developments in the present times, there is a dire need to use e-banking services more than ever, particularly those that offer various services like Automated Teller Machines (ATMs), money transfers, bills payment, receivables collection and mitigation of transaction costs, telephone banking, banking cards, personal computer banking and Internet banking (Terzi, 2011).

In fact, electronic-banking has become among the fundamental concepts of modern banking services that works towards enhancing banking quality and providing differential advantage of the bank that boosts its niche and position in the competitive market. Moreover, e-marketing success requires the examination and determination of the drivers of customers and the opportunity to meet customers' needs in a way that they are satisfied with the services provided by the bank in the long-term. In the context of Libya, e-marketing and e-banking are novel bank approaches that require acceptance for Libyan banks to be able to be at par with the global banks. According to Al-Tawaty et al. (2017), a significant element for banks to create relationships with customer groups is service quality and similarly, Bahl (2012) stated that quality management among banks in light of their services have been garnering increasing attention in the past years.

Libyan banks have not been too keen in focusing on service quality with only a few of the entities providing good service. This may be exemplified by the long period of transition in each bank along with the long queues (Sadek et al., 2010). Service quality in the banking sector is in big demand owing to the expectations and the perceptions of customers concerning high quality service (Spears, 2004). In banks, the introduction and development of internet-based services has transformed bank-customer interactions and relationships, with electronic-service conceptualised as an interactive information service, providing the differentiated reputation and service offerings of the bank, upon which competitive advantage can be built. In e-service quality literature, the major themes relating to the topic include the e-service dimensions and measurement, web experience elements and the relationship among web-experience, trust, customer satisfaction, purchase intention and customer loyalty. This lays stress on the technological service facilitators' contracts to traditional service quality studies, which concentrates on the service delivery that is connected to the human element (Herington & Weaven, 2007).

Study Problem

The competitive environment of banks has necessitated procedures for the measurement and enhancement of service quality provided in order to enhance the trust and satisfaction of customers and to increase market share. In the present work, the main study problem lies in the need to determine e-banking service quality dimensions (ease of use, saving time, security, confidentiality), in the Libyan banks' case. From the above main problem, the following sub-questions are developed;

1. What is the influence of ease of use on customer satisfaction of banks in Tripoli, Libya?
2. What is the influence of security on customer satisfaction of banks in Tripoli, Libya?
3. What is the influence of confidentiality on customer satisfaction of banks in Tripoli, Libya?

Aims and Objectives of the Study

The above study questions highlight the aims and objectives of the study as follows:

1. To identify the influence of electronic-banking services' quality dimensions (ease of use, saving time, security, and confidentiality) on customer satisfaction of banks in Tripoli, Libya.
2. To identify recommendations to enhance e-banking services quality of banks Tripoli, Libya.

Study Limitations

This study has some limitations, which are enumerated as follows;

1. The study is focused on bank customers in Tripoli, Libya and thus, generalisation of results have to be made with caution;
2. Due to time limitations, this confined the data collection and study auditing to a minimum;
3. Cooperation from some of the participants was not forthcoming.

Literature Review

Literature on the study variables has been extensive; to begin with, Ahmadi et al. (2015) focused on the influence of electronic-banking service quality on customer loyalty, with the intermediary role of banks in the Iranian city of Yazd. The study problem indicated that banks and financial institutions did not provide much importance to e-service quality and thus, the study attempted to determine the top factors influencing banking services' quality and their relationships with customer satisfaction, using e-SERVQUAL questionnaire and seven-point Likert scale. The study population comprised of 80 bank customers and the questionnaire items measured ease of use, saving time, suitability, intellectual property rights, and the accuracy of using e-services. Based on their findings, there is a positive influence of service quality on customer perceptions more than that of traditional services. Customer perceptions of the e-service quality were also found to be stronger than that of traditional service quality when it came to customer satisfaction.

Electronic Banking

The pioneering Automated Teller Machine (ATM) was introduced and launched in Finland and this marked the advent of the new banking channel, making the country the leader of e-banking, prior to the extensive use of such channel in both country types (developing and developed) (Sharma, 2011). Owing to the rapid proliferation of IT, e-banking and financial systems have been increasingly adopted by customers, which in turn, heightened the competitiveness of banks (Salehi & Alipour, 2010). According to Lustersik (2004), e-banking services refer to various e-channels for conducting banking transactions using the Internet, telephone, mobile and computer. It is also notable that the customers' desires and expectations of the banking services are extending with the technological advances and enhancements. In the current times, it is the desire of the customer to operate and conduct banking transactions personally at any location and time without being confined to bank operating hours. This is also compounded by the need to make purchases, pay bills, and purchase stocks, among others in a time and cost-effective manner. As a consequence, the

quality of financial services has been characterised by concepts of independence, elasticity, flexibility and freedom for the meeting of needs (Khelfan & Alshawaf, 2005). In the case of Lebanon, electronic-banking is confined to the Internet and mobile telephones, which may be partially attributed to slow IT infrastructure development within the country. In summary, e-banking is the ability to conduct banking and financial transactions electronically, using internet or mobile telephone applications.

Customer Satisfaction

One of the top concepts in the marketing field is customer satisfaction (Jamal, 2004). It generally relates processes and factors, which end at the purchasing or post-purchasing phase and these include attitude change, repeat purchase and brand loyalty (Churchill & Suprenant, 1982). According to Oliver (1980), satisfaction comes when the customers compare their expectations of the product/service to their actual perceptions. Several definitions have been brought forward of the customer satisfaction concept but the comparison between pre- and post-product service consumption appear to be the commonality among them. Satisfaction refers to an emotional post-consumption evaluative judgment of a product/service (Oliver, 1981).

In a related study, Tse and Wilton (1988) referred to customer satisfaction as the response of the consumer to the evaluation of the perceived difference between expectations and performance following consumption (p.204). Satisfaction was defined by Kotler and Keller (2011) as the feedback of a post-purchase assessment of the quality of a specific service/product in comparison to the expectations before purchase.

Other studies indicated that the practice of purchasing and consumption phase of the product/service may also influence the perceptions of customers towards satisfaction (Homburg, Koschate & Hoyer, 2006). Hence, customer satisfaction may be described as the feeling of the customer of pleasure/displeasure following the distinction between performance of service/product and expectations of it (Keller & Lethmann, 2006). Aligned with the definitions is the present study's definition of customer satisfaction, as the attitude of the customer that is formed in reaction to the use of electronic-banking services. In this regard, electronic-banking attributes may increase, decrease or maintain customer satisfaction.

Customer Satisfaction and Electronic Banking

As mentioned, this research primarily aims to shed light on the level of e-services' quality provided by the banks of Tripoli, Libya and their effect on customer satisfaction. Studies related to this topic include Gronroos (1998) who reported a consistent and positive

relationship between e-service quality and customer satisfaction. In addition, Parasuraman, Zeithaml and Berry (2002) reached the conclusion that the quality of service-customer satisfaction relationship is robust and versatile. With regards to the relationship confirmation, Jain and Gupta (2004) modified an easier formula and concluded that high customer satisfaction is largely dependent on the reception of higher service quality.

Several other studies supported the customer satisfaction-e-banking services' relationship. For instance, in Asiyanbi and Ishola's (2018) current study, they showed that the customers' level of satisfaction in the banking sector increases upon using e-banking services. Meanwhile, Ranaweera and Neely (2003) revealed that e-service quality is the initial step of customer satisfaction and Bei and Chiao (2006) supported the notion that service quality is significantly related to the degree of customer satisfaction. Lastly, e-banking service quality was found to be significantly associated with reliability and customer satisfaction level.

Effects of E-Banking Service Dimensions

Several studies under the relationship between e-banking service quality focused on the relationship between electronic-banking service and customer satisfaction aiming to answer the following questions: What aspects/dimensions of electronic banking service impact customer satisfaction and in what ways? The reviewed literature shows that the aspects can be categorised into efficiency, reliability, privacy and security, responsiveness and communication.

The speed in electronic-banking services provision or performance is a driver of customer satisfaction (Parasuraman, Zeithaml & Berry, 1986) and in the same way, efficiency, in light of quick service was also supported by other related studies (e.g., Wirtz & Bateson, 1995; Khadem & Mousavi, 2013). Meanwhile, reliability according to Liao and Cheung (2002) is among the top features sought by customers when they evaluate the quality of e-banking service. This was supported by Kettinger and Lee (2005).

Moving on to privacy and security, several elements were highlighted by authors (e.g., Agarwal, Rastogi & Mehrotra, 2009; Datta, 2010; Poon, 2007) and these included maintaining operational confidentiality, refraining from sharing personal information and ensuring a good security level for the information of customers. Also, Madu and Madu (2002) referred to responsiveness as the readiness to support the customers of the bank and to deliver services to them in a timely manner. The service types can be categorised into four; 1) e-banking system offers proper control and operation, 2) electronic-banking channels guide customers towards proper proceedings in case of failed operations, 3) e-banking offers rapid solutions for errors in e-banking transactions and 4) e-banking replies to customers' inquiries on the spot.

Methodology

The literature reviewed showed that ease of use, saving time, security, and confidentiality are four significant dimensions of e-banking service quality. Therefore, in this study a survey was developed and employed from revalidated scales for the assessment of the influence of the dimensions on customer satisfaction. More specifically, the scales were adopted from the studies by Alawneh, Al-Refai and Batiha (2013), Kazmi and Hashim (2015), Asad, Mohajerani and Nourseresh (2016) and Sikdar, Kumar and Makkad (2015).

The perceptions of clients were gauged with the use of the 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire was divided into two parts – the first part had 40 items that measured the dimensions of e-banking service quality and their effects on the satisfaction of customers in the Tripoli banks context, in Libya. The dimensions are ease of use, saving time, security and confidentiality, with satisfaction and customer satisfaction as the dependent variables. The second part of the questionnaire contained personal demographic information including age, gender, qualifications, income, period and frequency of electronic-banking use. The items in the first part were examined as control variables for the assessment of their potential influence on the satisfaction of customers.

The developed survey questionnaire was translated into Arabic, and back-translated into English in order to make sure that the items intended meanings were conveyed, after which modifications were made accordingly. The survey items are attached in the Appendix. Because not all banks agreed to participate in the survey, only those bank branches that did were distributed copies of the survey. Convenience sampling method was used to select samples and clients that visited the branches were requested to complete the survey. Moreover, the survey instrument was made available online through a Google survey form and was distributed to other media channels (Facebook), allowing a diverse pool of respondents to participate and enhancing the rate or response. A total of 180 questionnaire copies were retrieved.

Study Hypotheses

On the basis of the reviewed literature and in light of the study questions and objectives, this study proposes the following hypotheses for testing;

H1: There is no relationship between e-banking service quality and customer satisfaction.

H2: There is no relationship between ease of use and customer satisfaction

H3: There is no relationship between saving time and customer satisfaction.

H4: There is no relationship between security and customer satisfaction.

H5: There is no relationship between confidentiality and customer satisfaction.

H6: Customers are not satisfied with the quality of electronic-banking services in Tripoli, Libya.

H7: There is no difference in customer satisfaction of electronic-banking service quality in Tripoli, Libya based on gender.

H8: There is no difference in customer satisfaction of electronic-banking service quality in Tripoli, Libya based on qualification.

H9: There is no difference in customer satisfaction of electronic-banking service quality in Tripoli, Libya based on age.

Results / Discussion

On the basis of the results obtained from descriptive analysis, e-banking service quality has a positive and significant influence on customer satisfaction with the mean score being 4.21 (near 5), with 5 being the score that indicates customers total satisfaction with the quality of e-banking services in Tripoli, Libya. The result is aligned with those reported by Ahmadi et al. (2015) and Kaur et al. (2015), which also supported a positive influence of e-banking services' quality on customer satisfaction. The results also showed a significant and positive relationship between ease of use dimension of e-banking services with a mean of 3.25. Therefore, the customers are convinced that electronic-banking services are easy to use and thus, this enhances the satisfaction of the services. With regards to the electronic-banking services quality dimension of saving time, the mean value obtained was 3.03 out of five, indicating that the customers are not that satisfied with this dimension. Saving time has a significant effect on customer satisfaction. Moreover, for the security dimension, the mean value is 3.52 out of 5 and thus, customers indicated their satisfaction of the electronic-banking services security in that the services are secured. Therefore, security has a significant effect on customer satisfaction.

Finally, for the confidentiality dimension, the mean score is 3.61 out of 5, which shows that the customers are satisfied with the confidentiality aspect of e-banking services in Tripoli, Libya. This dimension therefore has a significant effect on the customers' satisfaction.

On the basis of the results, the electronic-banking services dimensions of ease of use, saving time, security, and confidentiality all have a significant relationship with customer satisfaction and that customers are satisfied with the quality of e-banking services in Tripoli, Libya. With regards to the control variables, beginning with gender, the results showed no difference on the satisfaction level of bank customers in Tripoli, Libya, with p-value being 0.596 (higher than 0.05) and thus, the null hypothesis is accepted. Moving on to qualifications of customers, no difference was found on customer satisfaction of e-banking services in Tripoli, Libya as p-value was 0.427 (higher than 0.05), which means the null hypothesis is accepted. Lastly, no difference was also found for customer satisfaction of e-



banking services quality provided by Tripoli banks in Libya as the p-value was 0.977 (higher than 0.05) and thus, the null hypothesis is accepted.

Conclusion

This study found the dimensions of electronic-banking services quality, namely ease of use, saving time, security and confidentiality to significantly affect banks customer satisfaction in Tripoli, Libya. In the present times, Libya is facing many challenges in banking institutions with the inclusion of security breakout, lack of liquidity and frequent electricity interruption, and e-banking ensures that banking services are provided 24/7 addressing the safety and security measures to counter the above challenges. This study recommends that future studies conduct a comparison between customers of Tripoli banks and other Libyan banks in light of e-banking services quality and customer satisfaction relationship for the achievement of competitive advantage. This paper contributes to the development of the banking sector in Tripoli, Libya. It evaluated and analysed the quality of electronic-banking services and enriched literature on e-commerce and the applied activities, furnishing details on the topic and recommending further avenues of studies for future works.



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