

The Role of Electronic Banking in Shaping the Strategic Direction of Banks in the United Arab Emirates

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Abstract

The advent of digital innovation provides profound benefits and an excellent opportunity for various industries, including banking business. A plethora of electronic banking services have been witnessed in developing countries worldwide. The United Arab Emirates (UAE) is one of the most economically competitive in the region and the wider world. The adoption of electronic banking in UAE has been established a long time and increased tremendously. Scholars and business experts revealed that although the banking sector in UAE is noted as a financial and service sector leader, the whole system of financial services and intermediation is yet to be properly utilized as a real added value tool. The main focus of this paper is to investigate how electronic banking is shaping the strategic direction of banks in UAE, based on qualitative interviews with the bank managers and secondary data. Moreover, what are the provisions made to improve customer-company relationship using this technology? The results suggest that banks have thorough and defined procedures to acknowledge internet services, and although customers are still hesitant in using newer banking services, the need for sophisticated electronic banking system has acquired a new urgency. It was suggested that the specific factors such as convenience, security transactions, and computer self-efficacy could have a significant impact to maximize their profitability and improve customer-company relationship. Also, study revealed that trust is central to an effective functioning electronic banking system. Although electronic banking transactions have improved over a decades in UAE, more effort is required to alleviate influences associated with lack of trust of online transactions among electronic banking users.

Keywords: electronic banking, United Arab Emirates

1. Introduction

Adoption of digital innovation has provided tremendous benefits to the customers. It supported service quality such as access, convenience, speed and economy (Mansumitichai and Chiu, 2012). Currently, banks describe their activities and products through electronic banking to improve their competitive position and image. Figure 1 depicts a generic theoretical framework that influences the adoption of electronic banking. It shows that a bank must first attract banking consumer attention to the electronic banking service before the consumer will consider electronic banking. However, unless the consumer has a high level of internet accessibility at home or at work, they are unlikely to consider using electronic banking. The consumer also assesses whether it is convenient to conduct their banking that way, how usable the application appears, and their perceived competence of internet use and banking application use. The four factors of accessibility, self-efficacy, convenience and usability are interrelated. The consumer also considers whether the perceived relative advantages of internet banking compared with other banking forms outweigh perceived risks and costs.

In addition, the availability of sufficient customer support and in-depth knowledge from the bank and its employees contribute significantly to the adoption decision. The internet is used as the remote delivery channel for banking services. For instance, opening an account for depositing or transferring funds among different accounts can be done electronically. This enables some new services, such as electronic bill payments, online investments (Haque et al., 2009). These services are one of the most important aspects for advancing the competitiveness of banks. Rusu and Shen (2012), assert that electronic banking services can reduce administrative cost, operational cost, and increase customer satisfaction. On the other hand, the information of the customers can be updated and delivered on a continual basis through a website.

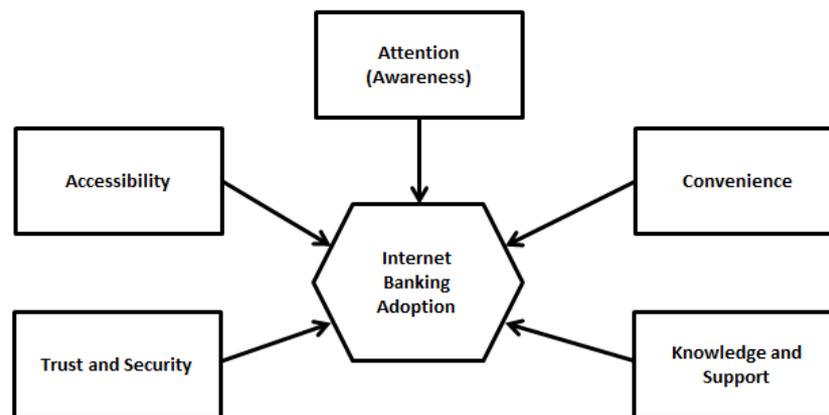


Figure 1: Key factors in consumer adoption of electronic banking
Source: Hozein (2009)

Banks continue to dominate the landscape of electronic banking, and “electronic banking” has become a buzzword for research. Various banks have boosted accessible online services. The customer objective when using electronic banking has recently gained wider acknowledgement from both academia and practitioners. For academics, a fundamental concern is adoption characteristics of customers and the associated variables in developing countries. The sensitivity of electronic banking could be advantageous for the bank managers and management to develop in-depth pedagogical strategies for customers’ necessity. Over the years, abundant studies have looked at the phenomenon of the dynamic process of electronic banking (Al-Solami et al., 2009; Alsajjan and Dennis, 2010; Chong et al., 2010; Hoehle et al., 2012). Some have examined the expanding scope of research to developed countries (Nasri and Charfeddine, 2012; Zhao et al., 2010; Kesharwani and Bisht, 2012). Some have sought to examine the process of advancing developing countries (Gerrard and Cunningham, 2003; Wang et al., 2003; Akinci et al., 2004). However, some studies provide empirically mixed evidence. For instance, Onay et al. (2008) and Ciciretti et al. (2009) described a positive impact; Delgado et al. (2004) and Al-Samadi and Al-Wabel (2011) observed a negative impact while Farzianpour et al. (2014) showed no significant impact.

In UAE, the rapid adoption of electronic banking has increased steadily. Now, UAE is a major international financial center. However, majority of the banks are still in the crucial financial stage of banking development and harmonization associated with global competition. Only 18 out of the 51 banks in this developing country have well-advanced electronic banking infrastructure (Budd and Budd, 2007). Furthermore, market access for foreign banks has been imperfect because they have not been allowed to open more than eight branches throughout the modern banking operation (Hashmi, 2007). Also, one study revealed that various banks launch electronic banking as an additional service rather than a substitution for traditional branching operations. The main focus of this paper is to investigate how electronic banking is shaping the strategic direction of banks in UAE and to describe the provisions made to improve customer-company relationship using technology.

2. Literature Review

The term ‘electronic banking’ is theoretically and intricately complex to define as it may be understood differently from a wide range of perspectives. The flexibility of electronic banking as a multichannel mode of delivery raises the complexity of being precisely defined in the management studies. On the other hand, numerous efforts have been made to offer concise and complete meaning of electronic banking (Kricks, 2009). One research viewed electronic banking as an umbrella concept defined by distant and real-time access to banking services. In addition, it is viewed as the process by which a customer carries out banking transactions electronically without going to a brick-and-mortar institution (Imiefoh, 2012). However, the most commonly accepted definition of electronic banking is the one given by Basel Committee Report on Banking Supervision (1998). The committee defined electronic banking as “the provision of retail and small value banking products and services through an array of electronic technological devices and software”. According to Auta (2010) electronic banking can also be defined as a variety of following platforms: (i) internet banking (or online banking), (ii) telephone banking, (iii) TV-based banking, (iv) mobile phone banking, and e-banking (or offline banking).

Several studies have been conducted on adoption, customers’ acceptance and perception of electronic banking in UAE (Ashraf, 2012; Fernandes and Awamleh, 2005; Mouakket, 2009). For instance, Awamleh and Fernandes (2006) analyzed the internet banking channels and service preference of banking consumers in UAE and identified the factors that influence the intention to adopt or continue the use of internet banking. Ahmed (2009) explored how the consumers’ perception of satisfaction/dissatisfaction attributes of electronic banking

service quality in UAE. The findings indicate that customers were more satisfied with electronic banking services due to the continuous improvement and ease of use offered by banks in UAE. In addition, the international banks organizations and cosmopolitan environment were considered as motivators for creating a greater demand for electronic banking services. Further, Kariman's research (2014) evaluated the level of internet banking in UAE based on Technology Acceptance Model and found out that the exogenous factors that influence customers' attitude towards using electronic banking services are statistically significant.

Technology Acceptance Model (TAM) has been using for decades by researchers and practitioners and continues to be the most widely applied theoretical model in the information system field. Figure 2 illustrates the original parsimonious and powerful theory in understanding the focal point of customer's decision to embrace such a technology (Kwon and Wen, 2010; Gefen et al., 2003; Ridings and Gefen, 2000). In TAM model, two cognitive beliefs are posited: perceived usefulness and perceived ease of use, as determinants of user acceptance. Davis (1989) defines perceived usefulness (PU) as the prospective user's subjective probability that using a specific application system will enhance his or her job or life performance. Perceive ease of use (EOU) can be defined as the degree to which the prospective user expects the target system to be free of effort. According to TAM, perceived ease of use and perceived usefulness are the most important determinants of actual system use. These two key variables are influenced by external variables. Wang et al. (2003) found evidence that these variables have significant and positive effects on customers' intentions to adopt internet banking. The main external factors that are usually manifested are social factors, cultural factors and political factors. Social factors include language, skills and facilitating conditions. Political factors are mainly the impact of using technology in politics and political crisis. The attitude toward use is concerned with the user's evaluation of the desirability of employing a particular information system application. Behavioral intention is the measure of the likelihood of a person employing the application (Surendran, 2012).

The number of banks offering electronic banking in UAE has risen steadily since the service was first launched in 1996. With this technological innovation, it has changed the way the banking industry does business by forcing the industry to consider non-traditional channels of delivering services to customers. As of 2014, there were a total of 51 banks operating of which 28 banks are foreign and 23 banks are local. Despite the growth of electronic banking services, bank branches in UAE increased by 10%, reaching a number of 948 (includes head offices, banking service units, branches, etc) as per the UAE Central Bank report. The number of banks in UAE compared to the total population is one of the highest in the world (Fatma, 2010). In light of these statistics, more recruitment services could possibly be delivered such in developed countries like the United States. In fact, according to a Madar Research published in 2006, total ICT operating and capital budget of UAE commercial banks, including \$40 million employees' salaries, is roughly \$190 million.

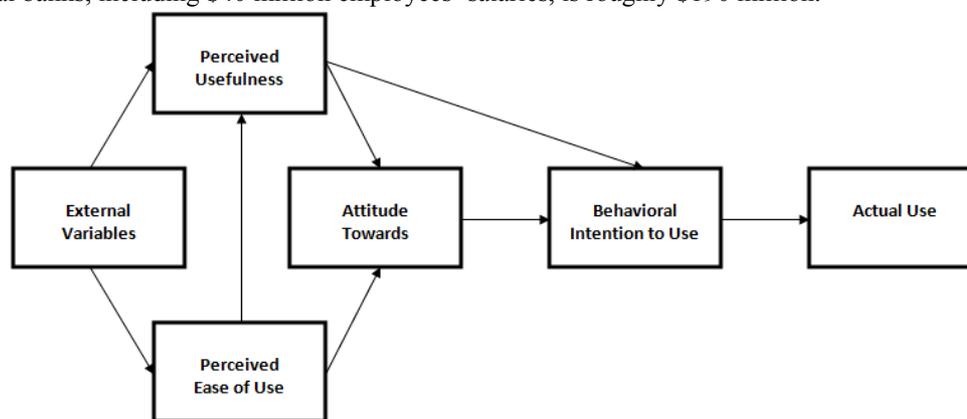


Figure 2: Technology Acceptance Model (TAM)

Source: Davis (1989)

Banks in UAE were investing in their online platforms mainly as a means to capitalize on growth areas such as personal finance and to refine the quality of services. In addition, replacing outdated services and rethinking business process designs and practices, and customer-company relationship management strategies. There are two major online banking models that have been utilized with the banking sectors, the integrated approach (click and mortar) and the stand alone internet banks. Banks in UAE adopted the integrated approach whereby they keep their existing brand name and offer online banking services as an extension to their other branch-based services, the ATM and the telephone (Howcroft et al., 2002). Gikonyo (2014) opines that UAE has the highest percentage of internet users in the Arab world (29.6% of the population are internet users) compared to Bahrain with 27.7% and Kuwait represent 22.4% and also rated 23rd in the world out of 133 countries by the World Economic Forum's Network Readiness Index (Department, 2011). With the help of the internet, banking is no longer bound to time or geography.

Scholars and business experts remarked that the economic growth of developed countries has been raised because of the apparent dominance and latent qualities of the banking sector. This notion was supported by Bekaert et al.'s research (2003) shows that measures of banking development are strongly correlated with economic growth in broad cross-section countries. Countries with efficient and growing banking sectors tend to grow rapidly. However, in UAE its products and services do not seem to be as developed compared to those in the Western economies (IMF Report, 2003). Previous research shows the majority of individual UAE banks have been rather slow to meet the demands of customer with electronic banking which has been stimulated by the rapid pace of domestic broadband connection and internet penetration in the country (Budd and Budd, 2007). Furthermore, World Trade Organization forced UAE government to completely open up its banking sector because most of the banks are small and still lack sophisticated bank management teams. At present, the domestic banks get preferential treatment from the UAE government and a few banks are partially owned by the government.

An additional hindrance of UAE banks is the financial strength ratings. According to Moody's International rates (2005), major domestic banks have received low ratings. One problem encountered by the banking sector which added to the low scores is the dearth of supervision in multiple ownership situations. For instance, commercial banks maintain the majority share in insurance and equity firms, and there is no formal instrument to observe possible anti-trust violations. The ambiguity from the banking laws and the inconsistencies between the federal and each emirate's banking laws create more glitches for the country. Because of these contradictions, the country's courts can make conflicting decisions in some instances. Therefore, UAE banks should streamline their operations in order to survive global competition and for potential future challenges (Hamshi, 2007).

3. Research methodology

The study uses a qualitative research methodology focusing on interviews with selective banking managers in UAE. By using the snowball sampling method, capable and experienced respondents were selected to contribute in the study. The thematic qualitative analysis was used to analyze data, and significant subjects were quoted from interview transcripts. Secondary data is also used in this paper because analysts of social and economic change consider secondary data essential, as it is impossible to conduct a new survey that can adequately capture past change and/or developments. Moreover, secondary data analysis saves time that would otherwise be spent collecting data and, particularly in the case of qualitative data, provides larger and higher-quality databases derived from literature reviews, case studies, published texts and statistics from official publications. The wealth of background work means that secondary data generally have a pre-established degree of validity and reliability which need not be re-examined by the researchers who are re-using such data.

4. Research findings

The findings revealed that banks in UAE considered diverse factors of electronic banking in outlining their strategic approach to influence the customers. Voluminous factors from previous empirical studies can be reduced to three factors. In this research, two factors have been suggested which are convenience (Sharma and Rao, 2010) and security (Angelakopoulos and Mihiotis, 2011). However, a new factor occurred which is designated as self-efficacy (Islam et al., 2011). Convenience has been identified as an important adoption factor of innovation technologies (ACNielsen, 2005; Pew, 2006). In the context of a service encounter, convenience has been described in terms of lifestyle, not having to travel, personal safety, and not having to wait (Lichtenstein and Williamson, 2006). Other researchers, however, expanded the concept of convenience to incorporate non-shopping activities. It is related to the visual view of the internet compared to telephone banking (Black et al., 2002). The notion of convenience includes the ability to manage one's finances from anywhere and around the clock without requiring a physical appearance with the bank. For instance, customers can download their history from different accounts and decide before any other new transactions. Further, a recent survey by Harris Interactive, an online banking solutions provider suggested that customers want convenience more than other facet of electronic banking services based on their experiences. They found out that 63% from 2,219 banking customers stayed with their current bank because of convenience (Camhi, 2013). It was affirmed that convenience has a significant impact on satisfaction and the higher the perceived risk the lower the intention to adopt. Karimzadeh (2011) pointed out that electronic banking has helped many banks to realize benefits. The main benefits from the customer's viewpoint are (i) saving time; (ii) fast transaction; and (iii) availability.

The second factor identified by respondents was security. It refers to security threats whereby a fraud or a hacker may get unauthorized access to the online bank user's account and fraudulently acquire sensitive information, such as usernames, passwords, and credit card details (Lee, 2009; Littler and Melanthiou, 2006). It was defined as the extent to which one believes that the internet has technical guarantees and protection for transmitting delicate information. White and Nteli (2004) conducted a survey where UK customers identified the

security of a bank's website as the most important attribute of internet banking service quality. Polasik and Wisniewski (2009) acclaimed that security is a very relevant factor in an environment like the UAE where the majority of population is expatriates whom would regularly make fund transfers to their accounts in their home countries using internet banking. However, Fitzgerald (2004) concluded that security is one of the major concerns areas for which customer do not adopt electronic banking. On surveying Saudi Arabia customers, security is the principal concern for customers when conducting financial transactions (Sohail and Shaikh, 2007). Greater concerns are involved in online investing than traditional trading; users need to have a feeling of security which is still a major hindrance to electronic commerce growth (Lee and Turban, 2002). In Dixit and Datta's study (2010) of 200 adult customers, it was revealed that even though security is a concern, adult customers are willing to adopt online banking if the banks provide them the necessary guidance.

Since there has been a proliferation of electronic banking, new products and services have been created to enable people to do task better than before. But innovation also carries constant risk with every transaction. The level of transaction risk is affected by the structure of the institution's processing environment, including the types of services offered and the complexity of the processes and supporting technology (Buhociu et al., 2009). In most instances, electronic banking activities increase the complexity of the institution's activity and the quality of its transaction risk, especially if the institution is offering innovative services that have not been standardized. Banks should ensure their electronic banking infrastructures contain sufficient capacity and redundancy to ensure reliable service availability. Also banks should carefully consider customer expectations and the potential impact of service disruptions on customer satisfaction and loyalty (Bhattacharjee, 2002). The latter is perhaps a reflection of the view that the longer the time taken for a transaction, the more likely that the service will be comprised on from a security point of view.

Security behavior can be viewed as part of the organizational culture and may define how employees see the organization (Koskosas, 2011). Similarly, organizational culture is a system of learned behavior, reflected in the level of end-user awareness, and it can have an impact on the success or failure of the information security process. Albrechtsen (2007) found that users considered a user-involving approach to be much more effective for influencing user awareness and behavior in information security. Leach (2003) studied influences that affect a user's security behavior and suggested that by strengthening the security culture, organizations may achieve significant security gains. Debar and Viinikka (2006) investigated security information management as an outsourced service and suggested augmenting security procedures as a solution. Today, it is believed that people make the difference to information technology and security development, and that training in the ethical, legal and security aspects of information technology usage should be ongoing at all levels within organizations (Nolan, 2005).

Lastly, self-efficacy. Bandura (1986) defined self-efficacy as one's belief or judgment of what can be done with the skills possessed within a particular realm. It can be differentiated on three interrelated dimensions: generalizability, magnitude and strength. Generalizability shows the degree to which one's belief is limited in a particular domain or not (Chan, 2004). In the context of computers, these skills can be what users can do with such skills such as data analysis with software (Compeau, 1995). Thus, people with high generalizability are more confident in using different computer systems and software packages. The magnitude refers to the level of proficiency expected which means individuals with high self-efficacy magnitude perceive themselves competent enough to accomplish difficult tasks. The strength of self-efficacy is the confidence one has in his or her abilities to perform a task. Wang et al. (2003) identified that people with high strength of self-efficacy regarding computers are expected to be able to use computer systems more regularly because they feel comfortable about computers than those with low strength of self-efficacy.

Chan (2004) suggested that self-efficacy is a formation through the regular and forceful weigh up, incorporation and assessment of difficult intellectual, verbal, and societal familiarities. Self-efficacy is a mediator between environmental variables, outcome expectations and usage (Compeau, 1995). Various studies have identified a relationship between self-efficacy and the acceptance and adoption of technology (Walker and Johnson, 2006; AbuShanab et al., 2010). Ariff et al. (2013) examined the impact of computer self-efficacy on the behavioral intention to use the electronic banking systems, and the study found that the computer self-efficacy is a determinant to the intention to use an electronic banking system. Venkatesh et al. (2012) explained that when users do not have any information system related experience, their self-confidence in their skills to use computer skills will draft their decision about how easy or difficult a fresh system will be to use. In the context of internet banking, self-efficacy is treated as one's confidence in having the skill and knowledge to carry out banking transactions through computer and internet. Luarn (2004) found that self-efficacy has a positive and significant impact on the behavioral purpose to use mobile banking. In order to enhance customer's self-efficacy, banks should arrange familiarity sessions for internet banking (Chan, 2004). Using these as a strategic tool, many banks in UAE started expanding their services to achieve higher customer base and increased cost efficiency. Also, this suggests that the more experienced in using computers and the internet, the more likely consumers are to use electronic banking.

In the context of adoption process, the findings also argue that trust can play an important role in boosting the level of acceptance of electronic banking among customers. They assert that it is the key factor of customer loyalty (Hernandez-Ortega, 2011). The reluctance to adopt electronic banking in developing countries particularly in UAE has been attributed to lack of trust. Gerrard et al. (2006) argued that trust is lacking among bank consumers mainly because their online services are prone to undesirable and unwanted behavior. Avoidance of these characteristics promotes successful transaction and reduces risk and uncertainty in transaction costs and facilitates collaboration among banking sectors (Jeoungkun et al., 2011). The adoption and patronage of electronic banking service by banking consumers is still insignificant despite the enormous investment in internet technology by different banking sectors (Durkin et al., 2008). Previous studies have investigated the role of trust in the context of electronic banking around the globe, however trust antecedent is limited in the literature especially in UAE management studies. Mayer et al. (1995) identified trust factors such as ability, benevolence, and integrity which have been noted as the three characteristics of a trustee in order to establish trustworthiness. Folake (2014) conducted a study regarding the impact of trust antecedents in acceptance of electronic banking and the result of the study indicated that trust features are positively affect an individual's trust on intention to adopt electronic banking.

The main aim in this context is helping banks to create and maintain a business rapport with the customers or vice versa. Nevertheless, the capability of customers depends on the degree to which they are intended to trust the electronic banking services. Therefore, trust may give some insight with the bank management in order to reach the goal, which is that the customer will return to doing financial activities. One research indicates that the role of trust in electronic banking is more essential because it provides the hindsight through which successful outcomes such as better coordination of fiscal and monetary policies can be achieved. When banks have the ability to impact and predict customers' attitudes, it is very likely to lead to the achievement of competitive advantage in the future (Goudarzi et al., 2013).

5. Conclusion and recommendations

The banking industry plays a significant role in supporting economic development through efficient financial services (Dube et al., 2009; Salehi and Azary, 2008). The electronic banking in UAE has fundamentally changed by expanding and improving the information technology systems and a number of new electronic banking services have been developed. All 51 banks operating in UAE have declared electronic business as one of the core strategies for the future development. At the same time, electronic banking acceptance depends probably on bank service quality, customer preferences and satisfaction. The research done with the help of bank managers and secondary data clearly indicate the factors responsible for electronic banking. Results indicate that convenience, security transactions, and computer self-efficacy are significant factors. The study revealed that trust was the most important attribute affecting the acceptance of electronic banking. This concept was selected due to the fact that trust can improve the quality of relationship, and building relationships with the customers plays a vital role in increasing the level of future revenue in any organization (Wang et al., 2003). Based on the study results, the following recommendations are outlined:

- As the UAE move closer towards full WTO membership compliance, the UAE banks must be prepared to meet global market demands and electronic financial competition. It is important that all banks continue to adopt and improve their information technology and electronic banking services.
- Banks should continually train their employees who will in turn pass the knowledge to their customers so the issue of perception is dealt with. It also important to develop their customers' capabilities with respect to technology use and electronic banking specifically. For example, in-branch training, or facilitation, could be provided to customers to guide them through the stages from log-in to simple electronic banking transactions.
- Banks should carry out marketing research to identify the factors inhibiting electronic banking adoption. They should regularly perform a customer surveys in order to understand what their customer's needs are. In this regard, banks will formulate consumer driven strategies.
- It suggests that managers should have a continuous relationship with the customers especially in an extremely uncertain environment of transactions, and managers further need to develop comprehensive policies of trust that can preserve further risk-taking and trusting behavior.

6. Note on contributors

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