European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol 4, No.17, 2012
www.iiste.org

Impact of Demographic Variables on Consumers' Adoption of E-banking in Nigeria: An Empirical Investigation.

Ernest Emeka Izogo[1*] Ogbuji Chinedu Nnaemeka-PhD[2] Onuoha Ama Onuoha[2] Kalu Sylva Ezema-DBA[2]

1. Department of Marketing, Ebonyi State University, P. M. B. 053, Abakaliki, Ebonyi State, Nigeria
2. Department of Marketing, University of Port Harcourt, P. M. B. 5323, Port Harcourt, Nigeria

* E-mail of the corresponding author: ernestizogo@yahoo.com

Abstract

While a vast number of studies have pointed out the keys to the adoption and usage of e-banking, little attention have been paid to the demographic factors influencing the adoption of this unprecedented innovation. This aside, over the years, conclusive results are yet to be achieved in respect of the demographic variables influencing the adoption of e-banking, especially within African context. Following from these observations, the researchers used a sample of 150 respondents conveniently drawn from the eight commercial banks operating in the study area to examine the impact of six demographic variables, namely gender, marital status, religion, income, age and education level on the adoption of e-banking in Nigeria. Results show that while the influence of marital status, age and education level on the adoption of e-banking is significant, the reverse is the case with such demographic variables as gender, religion and income. Against these backdrops, the study explored the research implications and further proposed a guide for further research.

Keywords: Demographics, Nigeria, Consumer adoption, E-Banking, Commercial banking

Paper Type: Research Paper

1. Introduction

Commercial banking is undergoing a rapid change as the international economy expands and advances towards institutional and market competence as a result of the changing dictates of information technology (IT) (Zheng and Yonghong, 2005). What this implies is that the traditional frontiers are currently eroded seriously by the emergence of new technologies which gave birth to more effective and efficient channels of delivering banking services. One of the offspring of IT in recent banking operations is electronic banking. Online banking operations have displaced almost all the traditional systems of delivering banking services across the globe in the new millennium. Recent streams of empirical studies (Bright, Ayopo and Darego, 2010; Elisha, 2010; Mahdi and Mehrdad, 2010; Supathanish, 2010; Zakaria and Nidal, 2010) strongly validated this stand by stating that e-banking is a sure way of achieving competitive advantage in a highly dynamic business environment. According to Elisha (2010), online banking is an outgrowth of PC banking. He further cited (Mohammed, et. al, 2009) who stated that e-banking uses the internet as the delivery channel to conduct such banking activities as funds transfer, bills payment, viewing/checking of account balances, paying mortgages and purchasing financial instruments and certificates of deposits. Put simply, those distribution channels as automated teller machine (ATM), Mobile/Telephone banking, Television banking, PC-banking and most recently internet banking are the offshoots of e-banking.

E-banking in its simplest sense can therefore be seen as any banking transaction conducted via the new market space (Internet). According to Akinyele and Olorunleke (2010), electronic banking means the provision of information about the bank and its products via a page on the internet. Idowu (2011) citing the Technical Committee of CBN on electronic banking avers that electronic banking is a means where by banking business is transacted using automated processes and electronic devices such as personal computers, telephones, fax machines, internet, card payments and other electronic channels. Similarly, Elisha (2010) maintained that e-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic interactive communication channels. Electronic banking has become an important channel to sell products and services and is perceived to be a necessity in order to stay profitable and successful (Christopher, et. al., 2006). "Customers have started perceiving the services of banks through internet as a prime attractive feature than any other prime product features of a bank. They

have also started evaluating the banks based on the convenience and comfort it provides to them" (Elisha, 2010). Electronic banking adoption is referred to as the variety of electronic banking service usage such as ATM machines, Internet banking, telephone banking as well mobile banking services which are developed by certain banks (Samsudin, et al, 2009).

E-banking has gained wide acceptance in the current decade. The splurge in the acceptance of e-banking in recent time is pledged on its advantages over the brick and mortar system of banking. Don and David's (2002) analysis of a 6-branch financial institution suggests that institutions are vulnerable to loss of customers to rivals with extensive online services. Pikkarainen et al. (2004) maintained that it is well accepted that internet banking is a useful tool in banking system that offers less waiting time and is more convenient than traditional branch banking. In addition, this new banking system has significantly lower cost structure than traditional delivery channels (Mirza et al., 2009). According to Elisha (2010), e-banking is transforming the banking and financial industry in terms of the nature of core products/services and the way these are packaged, proposed, delivered and consumed. Supathanish (2010) stated that what attracts customers to mobile banking is the round the clock availability and ease of transactions. What stands glaring in this epoch of modernization is that electronic banking as a service delivery channel is a better alternative to the hitherto extant traditional banking system that places emphasis on branch banking. Today, bank customers can transact businesses with their banks at the comfort of their homes via such new banking channels as television banking, telephone banking, personal computer banking and more recently, internet banking and mobile banking.

E-banking in general has been recently subjected to scholarly research by interested practitioners and academicians the world over. One of the subjects mostly championed in the scholarly replete of literature on e-banking is the rate of adoption of this unprecedented innovation in the banking process and the factors influencing the adoption rate of e-banking services from both users' and firms' perspective. Majority of the results show that greater percentage of bank customers have switched to one form of e-banking channel or the other. The recent preference of e-banking to the traditional brick and mortar banking system is due mainly from such factors as convenience, accessibility, flexibility, speed, efficiency and time saving capacities which the former offers. For instance, according to Tommi and Mika (2008), in Finland, online banking services are widely adopted and already nearly 70 per cent of the bank customers pay their bills over the internet. But in Sujana et al. (2009)'s view, researchers have long been interested in identifying factors that affect consumers' adoption and non-adoption of internet banking and that despite initial adoption, acceptance and use of internet banking, unless and until the use continues, desirable managerial outcome is not expected. Researchers and practitioners also agree very much that players in the banking market cannot help but integrate the transformations in IT into their banking activities as it is a sure way of attaining competitive edge amidst today's topical market dynamisms.

Even though quite a great deal of studies have been conducted on the adoption rate of e-banking with more emphasis on the impetuous factors, the demographic variables influencing consumers' adoption of this innovation have rather attracted limited attention of researchers. While very few number of researches exist in this area in technically advanced economies of the world, the African continent and Nigeria specifically has suffered the torture of scanty literature in this facet. It is on this note that the present study seeks to fill this gap in literature. The significance of this study is not debatable as it offers the necessary insights on the demographic variables that influence consumers' adoption of e-banking which players in the Nigerian banking industry can tap from to better target the right audience for their e-banking services and equally give focus for further research.

2. Conceptual Clarification

Electronic banking as a term has undergone varying conceptual metamorphosis. "Electronic banking is the term used for new age banking system. E-banking is also called online banking and it is an outgrowth of PC banking" (Elisha, 2010). Authors vary greatly with respect to their conceptualization of electronic banking depending on the perspective which they have written from. Some call it internet banking (Dalia et al., 2009; Sujana et al., 2009; Serkan et al., 2004), while some refer to it as online banking (Tommi and Mika, 2008). Yet, Costanzo et al. (2003) and Aref and Mohammed,(2001) described it as telephone or telebanking while Zheng and Yonghong (2005) prefers the use of virtual banking to describe the concept. In Tommi and Mika's (2008) explications, mobile banking was the most suitable term to describe those electronic banking services delivered via the use of cell or mobile phones. Some authors are equally of the view that television banking was among the first form of electronic banking system that emerged. Despite these conceptual discrepancies in the literature, the most important thing about e-banking which

has always stood obtrusive is that it is a banking system fostered via the new market space. It is therefore the term that houses the other terms which researchers at one time or the other employed to define the concept. On this note, the researchers have decided to ignore the controversy surrounding its nomenclature and to interchangeably use any of the aforementioned term to mean the same thing as e-banking since each of the term in one way or the other makes an input that comes under the umbrella of electronic banking.

2.1 Previous Research

Electronic banking has changed the modus operandi of delivering banking services tremendously in recent years as a result of constant changes in technical know-how. According to Akinyele and Akinyele (2008), the proliferation of and rapid advances in technology-based systems, especially those related to the internet are leading to fundamental changes in how companies interact with customers. Days are gone when customers must have to meet with bank cashiers face to face before they can transact business with their banks. Today, such banking services as checking account balances, making cash withdrawals, standing payments, purchasing an investment such as stock or bond, contacting bank personnel, completing a loan application and so on can all be executed via electronic platforms. Observation and empirical studies show that the preference of electronic banking channels to manual systems have been on the increase in recent times. On this backdrop, a number of studies have been conducted, especially on the adoption of these new innovations. For instance, Wendy et al. (2005) have studied the customers' adoption of banking channels in Hong Kong. It covers four major banking channels namely ATM, Branch Banking, Telephone Banking and Internet Banking. It segments customers based on demographic variables and psychological beliefs about the positive attributes possessed by the channels. The psychological factors are ease of use, transaction security, transaction accuracy, speed, convenience, time utility, provision of different personal services, social desirability, usefulness, economic benefits and user involvement. Chiemeke et al. (2006) conducted an empirical investigation on adoption of e-banking in Nigeria. The study identified the major inhibiting factors to Internet banking adoption in Nigeria such as, insecurity, inadequate operational facilities including telecommunications facilities and electricity supply, and made recommendations on how Nigeria banks can narrow the digital divide. Also, the report revealed that Internet banking is being offered at the basic level of interactivity with most of the banks having mainly information sites and providing little Internet transactional services.

Aref and Mohammed (2001) examined the adoption of tele-banking in Saudi Arabia. The field findings reveal that customers increasingly extend their use of tele-banking as their experience grows with the system. The results also indicate that in general, Saudi consumers' income levels and education play a vital role in their adoption and usage of tele-banking technology. Costanzo et al. (2003) equally used the case study of telephone banking to describe the main aspects of strategies adopted by the first and second movers, when implementing this delivery channel in UK. Results show that the successful innovator – First Direct – adopted the logic of 'value-innovation', whilst the second movers have followed the 'conventional' logic. In contrast with previous studies, the strategic approach applied in this case study also reveals that differentiation in the financial market place is not achieved with the implementation of distribution channels or just technology, but bringing to the market 'unprecedented value'. Similarly, Agboola (2006) investigated electronic payment systems and tele-banking services in Nigeria. The findings revealed that there has been a very modest move away from cash. Payments are now being automated and absolute volumes of cash transactions have declined. The result of the study revealed that tele-banking is capable of broadening the customer relationship, retain customer's loyalty and enable banks to gain commanding height of market share if their attendant problems such as, ineffectiveness of telecommunications services, epileptic supply of power, high cost, fear of fraudulent practices and lack of facilities necessary for their operation were taken care of.

Supathanish (2010) examined customers' discernment of using mobile banking in Northern Region of Thailand. The study have found that a significant number of customers are either not aware of the mobile banking services or do not trust the mobile banking as a channel to conduct their banking transactions, and have found that customers may adopt the mobile banking technology only if they perceive the technology to be useful. Tommi and Mika (2008) examined how mobile banking innovators and early adopters differ from other users of online banking services. An internet survey was conducted among customers of a large Scandinavian bank in Finland yielding 2,675 responses. Logistic regression was used to identify variables differentiating between users of mobile banking and other online banking services. Somewhat contradictory to earlier findings, the results indicate that only age and gender

differentiate these two groups of customers, while education, income, occupation and size of the household were found to be insignificant in differentiating the groups.

Bradley and Stewart (2003) reported a Delphi study of the Internet momentum in banking. Informed by diffusion of innovation theory, the study sought to discern the key issues and to explore the future of Internet banking. The results showed that Internet banking is a very important issue in retail banking. However, they concluded that the Internet will contribute as part of a multi-channel (bricks and clicks) strategy, rather than as a stand-alone (clicks only) strategy and that the developing functionality of Internet banking may enable some banks to achieve competitive advantage through delivering higher perceived customer value.

Wai-Ching (2007) explored the determinants of users' adoption momentum of e-banking in Malaysia. A questionnaire with four-point Likert scale was applied to 324 usable responses. Ten attributes were tested, namely convenience of usage, accessibility, features availability, bank management and image, security, privacy, design, content, speed, and fees and charges. Results indicated that all elements for ten identified factors are significant with respect to the users' adoption of e-banking services. Privacy and security are the major sources of dissatisfaction, which have momentously impacted users' satisfaction. Results also reveal that privacy, security and convenience factors play an important role in determining the users' acceptance of e-banking services with respect to different segmentation of age group, education level and income level.

Dalia et al. (2009) conducted a research aimed at understanding and explaining customers continued intention to use internet banking in Egypt. By using a sample of users of internet banking services, perceived ease-of-use was found to be the strongest predictor of intentions to continued usage of internet banking services. Findings equally show that demographic variables had no significant effect on continued usage of internet banking services. Similarly, Zheng and Yonghong (2005) examined the current trends in the Internet revolution that have set in motion in the Chinese banking sector, and reports on an empirical research carried out in China to study the customers' preference for virtual banking and the factors which they consider influence the adoption of virtual banking. The study showed that Internet accessibility, awareness, attitude towards change, computer and Internet access costs, trust in one's bank, security concerns, ease of use and convenience are the major factors affecting the adoption of Internet bank services in China. They equally found that ATM and phone banking are the most commonly used virtual banking services by the respondents. In contradiction to these evidences, some existing research indicates that despite these service delivery channels being readily available, they are not accessed and fully utilized by consumers as anticipated (Cazier et al., 2006).

"Extant studies assert the importance of demographics and its possible influence on consumer adoption and intention to adopt internet banking. However, the results obtained were mixed and often inconsistent" Sujana et al (2009). Some studies indicate a positive impact of gender, age, level of education and income, occupation and ethnicity on consumer adoption of internet banking (Gan et al., 2006, Foucault and Scheufele 2002). The results obtained from other studies exhibited no significant influence of the demographics on the consumer adoption of internet banking (Gan et al., 2006, Howcroft et al., 2002). In 2007, Srivatsa and Srinivasan conducted a gender psychographic study of banking customers in one of the leading states of India (Karnataka) in order to understand women and men better for strategic marketing purposes. It was found that the men and women customers exhibit different behavior in their preferences of banks, banking channels and product usage. Women prioritize on channel convenience and savings whereas men prefer safety and convenience of electronic channels when it comes to bank selection. Internet banking finds favour with women whereas men are branch banking loyalists. Women seek value from a credit card usage whereas men value the value of a loan product.

Serkan et al. (2004) in their research on adoption of Internet banking among sophisticated consumer segments in an advanced developing country have focused on segmenting the academicians as users and non-users based on demographic, attitudinal and behavioral characteristics. Mirza et al. (2009) developed an understanding of Iranian customer's attitude and adoption of Internet banking services. Through using data from a questionnaire survey; demographic, attitudinal and behavioral characteristics of Internet banking users and non-users of Mellat bank customers from governmental sector were examined. The results revealed significant differences between demographic profiles and attitudes of users and non-users groups. The majority of the customers are very comfortable and willing to use Internet banking services. Branch counter was the most frequently adopted channel. The security concerns, lack of technological knowledge and awareness stand out as being obstacles to the adoption

of Internet Banking (IB) services. A major shortcoming of this study is that the sample is too limited and as such the findings cannot be generalized. Again, for the fact that the researchers studied the demographic, attitudinal and behavioral characteristics influencing the adoption of internet banking in Iran simultaneously may not have offered them the latitude to closely examine the true impact of these variables on consumers' adoption of internet banking.

Lee and Lee's (2001) study showed that adopters of Internet banking tend to be more highly educated, more wealthy and younger with good knowledge of computers and especially familiarity with internet usage. Kolodinsky, Hogarth, and Shue (2000) research yielded similar results. Wang et al., (2003) found that age has a significant influence on user acceptance of Internet banking. Moreover, Alagheband (2006) asserts that young individuals are more likely to adopt Internet banking. Venkatesh and Morris, (2000), investigated gender differences in the overlooked context of individual adoption and sustained usage of technology in the workplace. They found gender an important determinant of short-term usage, and can be used to predict sustained usage behaviour in individual adoption and continued usage of technology in work places. Education also plays a significant role with regards to attitude toward technology use. Highly educated customers such as university graduates are more comfortable in using technology, like the internet or Internet banking. A reason for this is that education is often positively correlated with an individual's level of Internet literacy (Burke, 2002).

A critical look at the past studies reviewed clearly revealed important omissions in e-banking literature. Of all the studies relating to the demographic characteristics of electronic banking users, none was conducted in Nigeria. Even though some studies have been conducted in this aspect of electronic banking in other countries, the existing volume of literature still stands largely limited in this area. This apart, consistent result has not been achieved in this respect. Another serious omission in the literature is that to the best of our knowledge, no study has explored the impact of religion of consumers as a factor determining the adoption or otherwise of electronic banking. The influence of consumers' marital status on the adoption of electronic banking has equally attracted very little attention. It is on the basis of these and other gaps in the literature that the following hypotheses of the present study were derived.

H_1: There is no significant relationship between consumers' gender and the adoption of electronic banking in Nigeria.

H_2: There is no significant relationship between consumers' marital status and the adoption of electronic banking in Nigeria.

H_3: There is no significant relationship between consumers' religion and the adoption of electronic banking in Nigeria.

H_4: There is no significant relationship between consumers' income and the adoption of electronic banking in Nigeria.

H_5: There is no significant relationship between consumers' age bracket and adoption of electronic banking in Nigeria.

H_6: There is no significant relationship between consumers' level of education and the adoption of electronic banking in Nigeria.

3. Methodology

A self-administered questionnaire was administered to 150 respondents who are customers of the following eight commercial banks in Nigeria: United Bank of Africa, Unity Bank, Zenith Bank, Oceanic Bank, Skye Bank, Guaranty Trust Bank, First Bank and Union Bank, operating in Offa, Kwara State Nigeria. This approach was also adopted in Akinyele and Olorunleke (2010).

The survey questionnaire which contained dichotomous, multiple choice and open ended questions was designed into two sections. The first section of the questionnaire was designed to collect basic participants' demographic information (e.g. gender, age, education level, occupation, religion etc). The second section of the questionnaire was designed to elicit information on respondents' awareness and usage of electronic banking services including Automated Teller Machine (ATM), mobile or phone banking, international money transfer, television banking, internet banking and personal computer banking.

The respondents were proportionally selected from the eight Participating banks, with 139 questionnaires return, representing 92.67% response rate. Respondents were mainly students, lecturers, graduates, public servants, businessmen, politicians and civil servants.

In testing the hypotheses, Pearson Chi-Square-Independence test was conducted with the following parameters for data analysis.

Level of significance- $\alpha = 0.05$ ---------- (1)

Degree of freedom- df = (m-1) (n-1) ---------- (2)

Where

m= Column total

n= Row total

Test statistic- $X^2 = \sum\left[\frac{(O_i - E_i)^2}{E_i}\right]$ ---------- (3)

Where

X^2 = Chi-Square

$\sum$ = Summation notation

O_i = Observed frequencies

E_i = Expected frequencies

Decision Rule- Accept H_1, H_2… H_6 if P-value > 0.05, otherwise Reject---------- (4)

4. Analysis and Discussions

Table 2 shows the awareness and usage distribution of electronic banking in Nigeria. On aggregate, 56.47% (78.5) of the respondents indicate that they are aware of the existence of the six channels under study while 43.53% (60.5) of the respondents indicate otherwise. Of the six channels studied, ATM, International money transfer and mobile banking channels commands the highest percentage of awareness with 97.84%, 79.86% and 70.50% respectively while majority of the respondents are not even aware of the existence of such other channels as Internet banking, PC-banking and Television banking (see table 2). In terms of usage, out of the average percentage of 78.5% who stated that they are aware of the existence of the e-banking channels, only 23.02% on aggregate indicate that they use the channels. While ATM and Mobile banking channels command 74.82% and 45.32% usage rate respectively, only 15.83% and 2.16% of the respondents use Internet and PC-banking respectively. The table equally shows that none of the respondents uses the television and PC-banking channels. This shows that ATM and mobile banking are the most commonly used e-banking channels in Nigeria. Zheng and Yonghong's (2005) study of the Chinese banking sector yielded parallel result.

Table 3 clearly shows the gender distribution for the usage or otherwise of the six e-banking channels of interest in this research. An aggregate of 146.84% and 126.67% of the male and female respondents respectively indicate that they are using some of the channels, while 453.16% and 473.33% of the male and female respondents respectively stated otherwise. This implies that male respondents use e-banking more than their female counterparts. Data equally show that respondents who are still single use most of the e-banking channels more than those who are married (table 4). Hence, 158.82% of the respondents who agree that they make use of some of the e-banking channels are single while 105.56% are married (table 4). Table 5 shows that those practicing Islamic religion make use of e-banking channels more than Christians. This accounts for why 161.08% of the respondents who agree to have adopted some of these channels are Moslems while only 128.82% are Christians. This might because the study was situated in a Moslem-dominated state. Table 6 depicts the distribution of e-banking usage according to income level. On aggregate, 140.18% of the respondents who indicated "yes" are low income earners while 130.78% are middle income earners. Yet, 131.58% of the respondents are high income earners. 459.82%, 469.22% and 468.42% of low, middle and high income earners respectively stated otherwise. This shows that the low income earners use e-banking more than middle and high income earners. Table 7 shows that a greater percentage of e-banking users are relatively young. This was clearly depicted by the rate of responses of the different age groups captured in table 7. This is equally similar to the results of table 8 which shows that more educated consumers adopt e-banking more than the

lowly educated ones. However, the significance of these differences was further subjected to test with the used of chi-square test of independence. The summary of the results is therefore captured in table 9.

At (0.05; 1df) we shall obey the decision rule in respect of hypotheses 1 to accept that the difference in gender adoption of e-banking is not significant. This was because the p-value (0.2895) is greater than 0.05 and the Pearson correlation coefficient was 0.0396 indicating a weak positive relationship. We therefore accept the null hypotheses and conclude that there is no significant relationship between gender and adoption of e-banking in Nigeria. At the same (0.05; 1df), we equally obey the decision rule in respect of hypotheses 3 to accept that the relationship between religious differences and the adoption of e-banking is not significant because (p=0.1882) is greater than 0.05 and the correlation coefficient equally indicate a weak positive relationship. At (0.05; 2df; p=0.1855) we also accept hypotheses 3 to conclude that differences in income level and the adoption of e-banking is not significant. This is further illustrated by the Pearson correlation coefficient (0.0149) which indicates a weak positive relationship.

At (0.05) level of significance and 1 degree of freedom, we reject hypotheses 2 to conclude that the relationship between marital status and adoption of e-banking is significant. This is because (p=0.0039) is less than (0.05) though the correlation coefficient (0.10208) indicate a weak positive relationship. We equally reject hypotheses 5 and 6 at (3df and 5df) respectively and 0.05 level of significance to conclude that age group and education level differences and the adoption of e-banking is statistically significant. Though the respective p-values (0.0006 and 0.0007) and less than the conventional (0.05) level of significance, the correlation coefficients of the respective hypotheses (0.1443 and 0.1602) indicate a weak positive relationship.

5. Conclusion

This study examined the impact of demographic variables on consumers' adoption of e-banking in Nigeria. The output from the study reveals that demographic factors such as gender, religion and income do not have significant effect on customers' adoption and usage of e-banking. This findings is inconsistent with the findings from some similar, past studies (Srivatsa and Srinivasan, 2007; Foucault and Scheufele, 2002). On the other hand however, there is a strong correlation between the outcomes from this study, which is consistent with Howcroft et al. (2002).

Significant to this study is the evidence that marital status, age and education level are important determinants of customers' adoption and usage of e-banking in Nigeria. This finding is consistent with Burke (2002); Lee and Lee (2002); Wang et al. (2003) and Alaghaband (2006). There as there seem to be dichotomy in findings, therefore limiting possible conclusive view on the impact of demographics on e-Banking it is however evident that there is a convincing evidences that demographic variables do impact on consumers' adoption of e-banking. Additionally, the results equally reveals that ATM and mobile banking are the most commonly used e-banking channels in Nigeria whilst such other channels as television, internet and PC banking are almost ignored.

6. Limitations and Further Research

Whereas the above finding provides clear insight and possible direction for decision making, questions still remains on why such common e-Banking channels like Internet Banking is not in higher demand or usage in Nigeria. This therefore calls for further study in this area. Secondly, e-Banking in Nigeria remains under research. There is therefore an urgent need for further study with increased sample size covering major cities in Nigeria for possible generalization of outcomes and its applicability within other West African countries with similar banking and cultural history.

References

Agboola, A.A. (2006). Electronic Payment Systems and Tele-banking Services in Nigeria. *Journal of Internet Banking and Commerce.* 11(3). Retrieved March 25, 2011 from http://www.arraydev.com/commerce/jibc/

Akinyele, S.T. Olorunleke, K. (2010). Technology and Services Quality in the Banking Industry: An Empirical Study on the Various Factors of Electronic Banking Services. *International Business Management.* 4(4), 209-221.

Akinyele, S.T. Akinyele, F. A. (2008). An Evaluation of Service Quality: A Critical Review and Measurement. *Journal of contemporary management* 2, 1-21.

Alagheband ,P. (2006). Adoption of Electronic Banking Services by Iranian Customers. Master thesis. Sweden, Luleå University of technology.

Aref A. Al-Ashban, Mohammed A. Burney, (2001). Customer Adoption of Tele-banking Technology: The Case of Saudi Arabia. *International Journal of Bank Marketing.* 9(5), 191 – 201.

Bright C.O., Ayopo O.O. Darego W.M. (2010). Analysis of Impact of Technology on Relationship Marketing Orientation and Bank Performance. *European Journal of Scientific Research.* 45(2), 291-300.

Burke, R.R. (2002). Technology and the Customer Interface: What Consumers want in the Physical and Virtual Store? *Journal of the Academy of Marketing Science* 30(4), 411-32.

Cazier, J.A., Benjamin, B.M. Louis, R.D. (2006). E-business Differentiation Through Value-based Trust. *Information Management* 43, 718-727.

Chiemeke, S.C., Evwiekpaefe, A. Chete, F. (2006). The Adoption of Internet Banking in Nigeria: An Empirical Investigation. *Journal of Internet Banking and Commerce.* 11(3), Retrieved March 25, 2011 from http://www.arraydev.com/commerce/jibc/articles.htm

Christopher, G.C., Mike, L.V. Amy, W. (2006). A Logic Analysis of Electronic Banking in New Zealand. *International Journal of Bank Marketing.* 24, 360-383.

Costanzo L.A., Keasey K. Short, H. (2003). A Strategic Approach to the Study of Innovation in the Financial Services Industry: The Case of Telephone Banking. *Journal of Marketing Management* 19(3-4), 259-281.

Dalia El- Kasheir, Ahmed, S.A. Omneya M.Y. (2009). Factors Affecting Continued Usage of Internet Banking Among Egyptian Customers *International Business Information Management Association.* 9, pp. 252-263.

Elisha, M. A. (2010). E-banking in Developing Economy: Empirical Evidence from Nigeria. *Journal of Applied Quantitative Methods.* 5(2), 212-222.

Foucault, B.E., Scheufele, D.A. (2002). Web vs Campus Store? Why Students Buy Textbooks Online? *Journal of Consumer Marketing* 19(5), pp. 409-423 in Howcroft, B., Hamilton, R. & Hewer, P., 2002. Consumer Attitude and the Usage and Adoption of Home-based Banking in the United Kingdom *International Journal of Bank Marketing.* 20 (3), 111-121.

Gan, C., Clemes, M., Limsombunchai, V. Weng, A. (2006). A Logit Analysis of Electronic Banking in New Zealand. *International Journal of Bank Marketing.* 24 (6), 360-383.

Idowu, B. (2011). Legal Implications of Electronic Banking in Nigeria. *The Punch*, March 28, 2011, pp. 65.

Kolodinsky, J.M., M, Hogarth, J.M. Marianne, A, Hilgert, M.A. (2004). The Adoption of Electronic Banking Technologies by US Consumer. *The International Journal of Bank Marketing.* 22(4/5), 238-258.

Kolodinsky, J., Hogarth, J.M. Shue, J.F. (2000). Bricks or Clicks? Consumers' Adoption of Electronic Banking Technologies. *Consumer Interests Annual* 46, 180-184.

Bradley, L., Kate Stewart, K. (2003). A Delphi study of Internet banking. *Marketing Intelligence & Planning.* 21(5), 272 – 281.

Lee, E., and Lee, J., 2001. "Consumer Adoption of Internet Banking: Need-Based and/or Skill Based", *Marketing Management Journal* 11 (1), pp. 101-113.

Mahdi, S. Mehrdad, A. (2010). E-Banking in Emerging Economy: Empirical Evidence of Iran. *International Journal of Economics and Finance.* 2(1), 201-209.

Mirza, A.P., M.T. Hamidi Beheshti, A. Wallstrom O.P. Mirza, (2009). Adoption of Internet Banking by Iranian Consumers: An Empirical Investigation. *Journal of Applied Sciences* 9, 2567-2575. Retrieved April 01, 2011 from http://scialert.net/f ulltext/?doi=jas.2009.2567.2575

Mohammed, S.K., Siba Sankar Mahapatra, Sreekumar, (2009). Service Quality Evaluation in Internet Banking: An Empirical Study in India. *International Journal of Indian Culture and Business Management*. 2(1), 30-46

Pikkarainen, T.K. Pikkarranien, H. Karjaluoto S. Pahnila, (2004). Customer Acceptance of Online Banking: An Extension of the Technology Acceptance Mode. *International Research Journal* 14, 224-235.

Samsudin, Wahab, Nor Azila Mohd. Noor, Juhary Ali and Kamaruzaman Jusoff, (2009). Relationship between Customer Relation Management Performance and E-Banking Adoption: A Look at Malaysian Banking Industry. *International Journal of Business and Management* 4(12), 122-128.

Serkan, A., Safak, A., Eda, A. (2004). Adoption of Internet Banking among Sophisticated Consumer Segments in an Advanced Developing Country. *The International Journal of Bank Marketing*. 22(2/3), 212-232.

Srivatsa. H. S. Srinivasan. R. (2007). Banking Psychographics- An Indian Empirical study. *International Journal of Business Research.* 7(5), 80-88.

Sujana A., Jennifer R. Ray C. Fredy, V. (2009). Consumers' Continued Usage of Internet Banking: Australian Context. ANZMAC, 1-9.

Supathanish, T. (2010). Customers' Discernment of Mobile Banking Business: Northern Region of Thailand. *International Trade and Academic Research Conference. (ITARC)* - London 2010.

Tommi, L. Mika, P. (2008). Mobile Banking Innovators and Early Adopters: How they differ from other Online Users? *Journal of Financial Services Marketing.* 13**,** 86–94. Retrieved April 01, 2011 from http://www.palgravejournals.com/fsm/jour nal/v13/n2/full/4760077a.html

Venkatesh, V., and Morris, M.G. (2000). Why do not Men ever Stop to ask for Directions? Gender, Social Influence, and their Role in Technology Acceptance and Usage Behavior. *MIS Quarterly.* 24 (1), 115–139.

Wai-Ching P. (2007). Users' Adoption of E-banking Services: The Malaysian Perspective. *Journal of Business and Industrial Marketing.* 23(1), 59–69. Retrieved April 01, 2011 from http://www.emeraldinsight.com/journals.htm?articleid=1641838&show=html

Wang,Y.S., Wang, Y.M., Lin, H.H. Tang, I. (2003). Determinants of User Acceptance of Internet Banking: An Empirical Study. *International Journal of Service Industry Management.* 14 (5), 501-519.

Wendy, W. N., Wan., C. L. Cheris, W. C. C. (2005). Customers' Adoption of Banking Channels in Hong Kong. *The International Journal of Bank Marketing.* 23(2/3), 255-272.

Zakaria A. A. Nidal M. A. (2010). Effect of Electronic Interactive Technologies Usage on Services Marketing Activities Empirical Study on Banking Sector in Jordan. *International Arab Journal of e-Technology.* 1(4), 154-163.

Zheng L. Zhong, Y. (2005). The Adoption of Virtual Banking in China: An Empirical Study. *Chinese Business Review.* 4(6), 75-78.

Appendix – 2

2.1 Schematic Representation of the Research Model

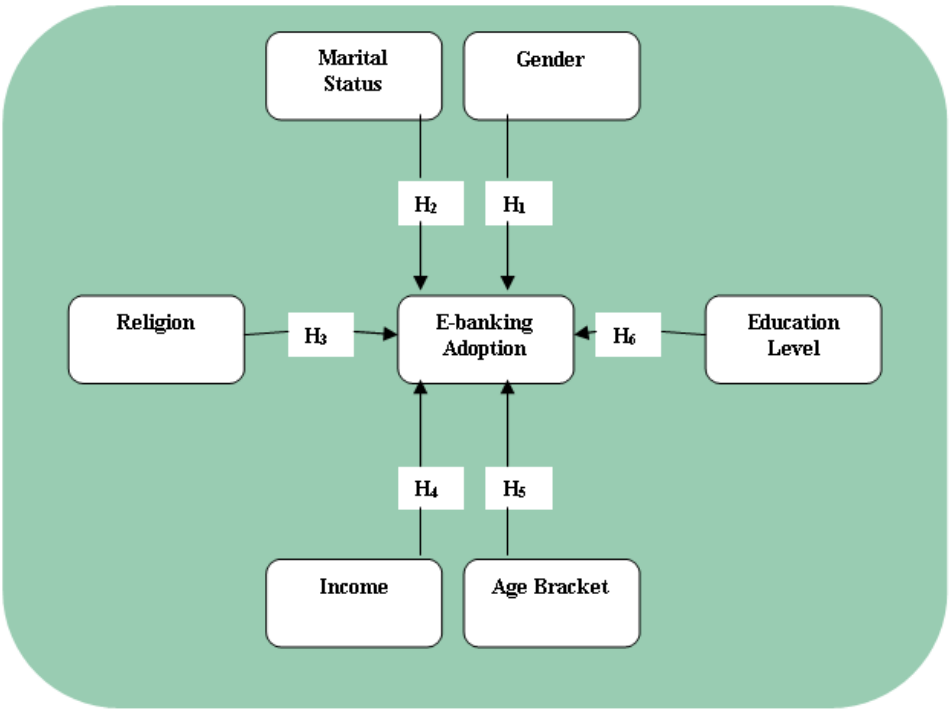

Table 1: E-banking Awareness and Usage Distribution

Channels	Awareness		Percentage		Usage		Percentage	
	Yes	**No**	(%)		**Yes**	**No**	(%)	
ATM	136	3	97.84	2.16	104	35	74.82	25.18
Mobile Banking	98	41	70.50	29.50	63	76	45.32	54.68
Int'l money transfer	111	28	79.86	20.14	22	117	15.83	84.17
Television banking	9	130	6.47	93.53	0	139	0	100
Internet Banking	76	63	54.68	45.32	3	136	2.16	97.84
PC-banking	41	98	29.50	70.50	0	139	0	100
Average Total	78.5	60.5	56.47	43.53	32	107	23.02	76.98

N/B: ATM=Automated Teller Machine; Int'l=International; PC=Personal Computer

Table 2: Gender Responses

Measure	Responses/ (%)	Channels						
		ATM	MB	IMT	TB	IB	PCB	Total
Male	Yes	60	44	9	0	3	0	116
	%	75.95	55.70	11.39	0	3.80	0	146.84
	No	19	35	70	79	76	79	358
	%	24.05	44.30	88.61	100	96.20	100	453.16
Female	Yes	44	19	13	0	0	0	76
	%	73.33	31.67	21.67	0	0	0	126.67
	No	16	41	47	60	60	60	284
	%	26.67	68.33	78.33	100	100	100	473.33

N/B: %= percentage; ATM=Automated Teller Machine; MB=Mobile Banking; IMT= International Money Transfer; TB=Television Banking; IB=Internet Banking; PCB=Personal Computer Banking.

Table 3: Marital Status Responses

Measure	Responses/ (%)	Channels						
		ATM	MB	IMT	TB	IB	PCB	Total
Single	Yes	72	44	16	0	3	0	135
	%	84.71	51.76	18.82	0	3.53	0	158.82
	No	13	41	69	85	82	85	375
	%	15.29	48.24	81.18	100	96.47	100	441.18
Married	Yes	32	19	6	0	0	0	57
	%	59.26	35.19	11.11	0	0	0	105.56
	No	22	35	48	54	54	54	267
	%	40.74	64.81	88.89	100	100	100	494.44

N/B: %= percentage; ATM=Automated Teller Machine; MB=Mobile Banking; IMT= International Money Transfer; TB=Television Banking; IB=Internet Banking; PCB=Personal Computer Banking

Table 4: Religion Responses

Measure	Responses/ (%)	Channels						
		ATM	MB	IMT	TB	IB	PCB	Total
Christianity	Yes	72	38	16	0	0	0	126
	%	73.47	38.78	16.33	0	0	0	128.58
	No	26	60	82	98	98	98	462
	%	26.53	61.22	83.67	100	100	100	471.42
Islam	Yes	32	25	6	0	3	0	66
	%	78.05	60.98	14.63	0	7.42	0	161.08
	No	9	16	35	41	38	41	180
	%	21.95	39.02	8.37	100	92.68	100	362.02

N/B: %= percentage; ATM=Automated Teller Machine; MB=Mobile Banking; IMT= International Money Transfer; TB=Television Banking; IB=Internet Banking; PCB=Personal Computer Banking

Table 5: Income Responses

Measure	Responses/ (%)	Channels						
		ATM	MB	IMT	TB	IB	PCB	Total
Low	Yes	88	43	16	0	3	0	150
	%	82.24	40.19	14.95	0	2.80	0	140.18
	No	19	64	91	107	104	107	492
	%	17.76	59.81	85.05	100	97.20	100	459.82
Middle	Yes	7	7	3	0	0	0	17
	%	53.85	53.85	23.08	0	0	0	130.78
	No	6	6	10	13	13	13	61
	%	46.15	46.15	76.92	100	100	100	469.22
High	Yes	9	13	3	0	0	0	25
	%	47.37	68.42	15.79	0	0	0	131.58
	No	10	6	16	19	19	19	89
	%	52.63	31.58	84.21	100	100	100	468.42

N/B: %= percentage; ATM=Automated Teller Machine; MB=Mobile Banking; IMT= International Money Transfer; TB=Television Banking; IB=Internet Banking; PCB=Personal Computer Banking

Table 6: Summary of Hypotheses Tests Outputs

Hypotheses	Df	Los	X^2_{cal}	P-value	Pearson correlation	Decision
H_1	1	.05	1.1218	.2895	.0396	Accept
H_2	1	.05	8.3182	.0039	.10228	Reject
H_3	1	.05	1.7316	.1882	.0488	Accept
H_4	2	.05	.1855	.9114	.0149	Accept
H_5	3	.05	17.3763	.0006	.1443	Reject
H_6	5	.05	21.4156	.0007	.1602	Reject

N/B: H=hypotheses; df= degree of freedom; Los=level of significance; X2cal= chi-square calculated; p=probability.