

Factors Affecting Technology Acceptance in Banking - A Case Study of the Ghanaian Banking Industry

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Abstract

The introduction of new technologies has changed the way services are rendered by majority of organizations. Mensah, (2012) defines electronic banking as the provision of new and conventional banking products and services specifically to clients through electronic correspondence channels, usually using the internet. Parameswaran, (2012) defines electronic banking as the provision of financial services for the individual clients through the internet. (Parameswaran, 2012) further explains that electronic banking also involves the transfers of funds through an exchange of electronic signals between financial institutions rather than using cheques or other documentation.

The purpose of this study is to identify factors affecting the acceptance of technology in the Ghanaian Banking Industry.

The methodology used in this study is questionnaire, survey and information from Eco bank's website.

The results of the studies showed that Eco bank is able to use its websites to advertise, provide information to their clients, sell products and reach new customers. Technological tools have also helped employees get task done more quickly and efficiently. This then translates into high profitability of Eco bank and hence high employee remuneration. Technology acceptance has made it simple to set up banking facilities in rural areas. Also through technology acceptance, the customers of Eco bank and the general public are able to access a branch for a variety of services through the convenience of home banking.

Electronic financial services either by Internet or via mobile phone or other means of remote transmission or through smart cards has rapid expansion and has changed the nature of financial services around the world strongly.

Keywords: *modern business, information technology, economy, innovations, mobile banking and social influence.*

Introduction

It is said that banking plays a silent, yet crucial part of our day-to-day lives (Goyal 2016). The banking sector acts as the backbone of modern business (Akrani, 2011). (Ackah, 2016) shows that the Banking industry in Ghana plays a significant role in the country's economy. Through borrowing, lending and related activities, banks facilitate the process of production, distribution, exchange and consumption of money as well as goods and services. Banks also administer payment systems which are essential to the growth of an economy. Also, competition and limitation of resources has placed banks under pressure to lower their transactional cost and improve their services and maintain quality of service. (Boakye-Yiadom, 2016) shows that the influx of foreign banks, especially from Nigeria, has led to intense competition in Ghana's banking industry, with respect to size of deposits and the size of market share of the various banks. There are currently seven Nigerian banks operating in Ghana representing about 26% of the total number of banks in the country.

Osakunor, (2016) recounts that the evolution of banking in Ghana began in 1953 when the bank of the Gold Coast was set up by the then Colonial Government. Eventually, the Bank was split into two, namely; the Bank of Ghana, operating as a bank of issue, to be developed into a complete central bank; and the Ghana Commercial Bank, to be developed into the largest commercial bank with a monopoly on the accounts of public corporation. The Bank of Ghana took over the management of the currency and in July 1958 it issued Ghana's National Currency called 'the Cedi' which replaced the old West

African currency. The Ghana Commercial Bank assumed the role and functions of Government bankers and began to take over the finances of most Government departments and public corporations.

Goyal (2016) defines Banking as the business activity of accepting and safeguarding money owned by other individuals and entities, and then lending out this money in order to earn a profit. However, over a period of time, the activities of banks have widened and various other services are now also offered by banks. Modern banking services include issuance of debit and credit cards, providing safe custody of valuable items, lockers, ATM services and online transfer of funds across the country / world (Rahmani et al., 2016).

(Boakye-Yiadom, 2016) reports that in Ghana today, the competition in the banking industry has led to technological innovations with the introduction of automate teller machines (ATMs), electronic banking, telephone banking, SMS Banking etc. The technological innovations in the banking sector have largely improved banking services in Ghana. (Consumer.ftc.gov, 2016) defines electronic banking as electronic banking means 24-hour access to cash through an automated teller machine (ATM) or Direct Deposit of pay cheques into savings accounts. (Gcbbank.com.gh, 2016) also defines electronic banking as access to one's financial information whenever one needs it, wherever one is. Electronic banking services allow one to access his or her accounts at their convenience through a variety of channels, including Automated Teller Machines, mobile banking, and internet banking. Mobile banking is one aspect of electronic banking. (Page, 2016) explains mobile banking the act of doing financial transactions on a mobile device (cell phone, tablet, etc.). This activity can be as simple as a bank sending fraud or usage activity to a client's cell phone or as complex as a client paying bills or sending money abroad. Advantages to mobile banking include the ability to bank anywhere and at any time. Disadvantages include security concerns and a limited range of capabilities when compared to banking in person or on a computer. (Ackah, 2016) indicates that mobile banking is an electronic banking product widely offered by many banks across Ghana. Eco bank Ghana is one of the many banks in Ghana which provides electronic banking services. Eco bank recently launched a new product called the mobile banking application (Kai-Mensah, 2016). However, Kai-Mensah (2016) explains that Eco bank's mobile banking app is quite different from the general mobile banking services offered by other banks because it enables customers to open a new digital account with just a few clicks on their phone or other electronic device and with no paper references unlike other banks which require customers to manually open an account in person by filling forms before accessing the said bank's products. Also, the application among other unique features allows customers to deposit money into their bank accounts and withdraw money from their banks accounts without going to the bank in person.

Problem statement

According to (Yasuharu (2003); cited in Ackah, 2016) "implementation of information technology and communication networking has brought about a revolution in the functioning of the banks and the financial institutions. The transition to electronic banking has therefore become a necessity for banks as it offers major opportunities in terms of competitive advantage and it also allows banks to develop a stronger and more durable business relationship with its customers".

In their quest to increase their customer base with regards to electronic banking and to decrease the number of people who visit the banking hall daily to perform various transactions, Eco bank Ghana focuses on investigating the factors which attract or deter consumers from patronizing electronic banking and for that matter Eco bank's new mobile banking application. Therefore, the problem of this research study is to investigate the awareness and acceptance of the Eco bank mobile application by Eco bank's customers and the general public at large.

Electronic banking in ghana

Mensah, (2012) defines electronic banking as the provision of new and conventional banking products and services specifically to clients through electronic correspondence channels, usually using the internet.

Parameswaran, (2012) defines electronic banking as the provision of financial services for the individual clients through the internet. (Parameswaran, 2012) further explains that electronic banking

also involves the transfers of funds through an exchange of electronic signals between financial institutions rather than using cheques or other documentation.

Acevedo (2016) lays emphasis on the fact that electronic banking is very advantageous. E-banking offers ease of access, secure transactions and 24-hour banking options. From small start-up companies to more established entities, small businesses rely on e-banking to eliminate runs to the bank and to make financial decisions with updated information. In an information-driven business climate, companies who do not use e-banking are at a competitive disadvantage. Business owners, accounting staff and other approved employees can access routine banking activity such as deposits, cleared cheques and wired funds quickly through an online banking interface. This ease of review ensures the smooth processing of all banking transactions on a daily basis, rather than waiting for monthly statements. Errors or delays can be noted and resolved quicker, potentially before any business impact is felt.

In 19th century Ghana, office automation devices such as telephones, telex machines, fax machines, and money counting machines were used to make banking more efficient and to speed up the banking process in Ghana. For decades these were the main information and communication technologies used for bank transaction businesses (Ayisi, Odoom, Fynn, and Owusu Yeboah, 2009).

Later in the 1980s, as competition in the banking sector became intensified and desktop computers became common, Ghanaian banks began to use them in back-office operations and later tellers used them to service clients. Advancements in computer technology enabled banks to network their branches and operations thereby making the one-branch philosophy a reality. Barclays Bank Ghana Limited and Standard Chartered Bank Ghana Limited pioneered one-branch philosophy which gave banking in Ghana a modernized facelift (Abor, n.d.).

The most revolutionary electronic adoption in Ghana has been the ATM. In Ghana, banks with ATM offerings have them networked and this has improved their services and increased their customer base (Tetteh-Wayoe, Ofori-Appiah Danquah, & Asante-Gyabaah, 2015).

The Trust Bank, Ghana (now a member of the ECOBANK installed the first ATM Machine in Ghana in 1995. Not long after, most of the major banks began their ATM networks at strategic and competitive locations. The ATM has been the most successful delivery medium for consumer banking in Ghana. Customers consider it as important in their choice of banks, and banks that delayed the implementation of their ATM systems, have suffered irreparably (Abor, n.d.). Tetteh-Wayoe et al, (2015) indicate that ATMs have been able to entrench the one-branch philosophy in this county, by being networked, so people do not necessarily have to go to their branch to do some banking.

Asiamah, (2011) argues that though ATMs have been successful in recent years because of their great benefits, management of banks realised that it is possible for them to further improve their services and competitive advantage by making banking easier, more stress free and more convenient for their clients. With the introduction of information and communication technology in Ghana, some banks began offering personal computer banking services which provides customers with software which enabled them to have access to their bank accounts on their personal computer and sometimes on the internet. This was however often targeted at corporate clients and sometimes the elite in society (Mensah, 2012). Amoako (2012) deduced that banks have recognized the internet as an opportunity and a means to offer improved and convenient services to their clients, increase profitability and gain competitive advantage within the banking and finance sector in the country.

In the Ghanaian banking industry, investing in products that run on information technology have become an integral part of achieving organizational goals due to convenience and competition. Hence in recent years, information technology as well as electronic technology has been utilized immensely in the banking sector. The earliest forms of electronic and communications technologies used by the banks were mainly office automation devices. Telephones, telex and facsimile were employed to speed up and make more efficient, the process of servicing client (Amenuveve Dei, 2014).

Arguably, the most revolutionary electronic innovation in this country has been the ATM. Other technological innovations in banking sector include internet banking, telephone banking, Electronic funds transfer, among others (Jegede, 2013). In Ghana, banks with ATM machines have them networked and this has increased their utility to customers. This is because firms must respond to these changes if they wish to remain competitive. As customers experience busy schedules and the need to

manage their time well, short waits seem longer than ever before. If firms can improve customer's perceptions of the time they spend waiting to be served, then customers will experience less frustration and may feel more satisfied with the service encountered (Ramey, 2015).

Types of electronic banking

Today, weekends and workdays and 24-hour service operations have become common, likewise the provision of internet banking services by banks. Brief (2014) indicates that customers often cite certain digital interactions as "wow" experiences that exceed their expectation. Winning in the digital realm, therefore, is critical for improving the overall customer experience.

Examples of electronic banking services include; automatic bill payment, Use of Automated Teller Machines, Secure Message Alerts, among others.

Grönroos, (2001) defines a service as any activity or benefit that one party can offer to another which is essentially intangible and does not result in the ownership of anything. Services encompass a very wide range of activities e.g. health care, education, tourism, insurance and finance.

Thomas & Thomas, (2013) indicates that technology plays a major role in service delivery, especially in today's world. There are various scenarios in which technology plays different roles depending on the nature of the business and business requirements.

Thomas & Thomas, (2013) has given various scenarios of services as follows:

Technology free service encounter

In this form, there is no involvement of technology in the whole service delivery process. A good example is a manual, old school style ticket counter. Here the ticket is manually torn and given to the customer and money is collected without the involvement of technology at all.

Technology assisted service encounter

This is the second type with minimal involvement of technology in service delivery. In this case, an employee of the service provide does the delivery of the service with the help of some form of technology. The customer is however nowhere dependent on technology. A good example is modern movie ticket counter, where the employee checks the details on his computer and gives the customer a ticket.

Technology facilitated service encounter

In this scenario, the technology facilitates the business delivery Internet banking is a good example for this type of service encounter.

Technology generated service encounter

In this format there is no presence of the server! That means technology does it all for the customer. A good example of this is an ATM machine where the customer interacts with the machine and his service is delivered.

Technology mediated service encounter

In this scenario both the customer and service provider use technology for their business activity but there is no direct involvement between the customer and service provider. An example is financial transaction using mobile money.

Kooser (2016) explains that technology is involved in almost every aspect of a business; from accounting to customer communications to product design and development. The rapid forward movement in technology development over the last couple of decades has provided more powerful and less expensive options for companies. Business technology can help small business look bigger than they are and keep them ahead in a competitive marketplace. Kooser, (2016) explains further explains that the smart use of business technology helps small companies stay ahead of the competition by improving communications, making employees more efficient and tapping into effective marketing channels. Small business owners are often pressed for time and wearing many different hats. The use of business tools like accounting software, email, customer relationship management applications and smart phones can take some of the burden off entrepreneurs and help them make the most effective use

of their time. Up-and-coming generations of workers are accustomed to a world full of technology. Small businesses need to adapt and keep up with new technological advancements.

Applying technology to the provision of services has been considered as a new way to gain competitive advantage and enhance firm performance in a highly competitive market. In addition, technology is believed to encourage and facilitate service innovation (Lee, Ryu, & Ham, 2014).

Kooser, (2016) explains that Technology is influencing the practice of services marketing. It has resulted in tremendous potential for new service offerings. It is shaping the field of service enabling both customers and employees to get and provide customized services. The technology has been the basic force behind the service innovation. Automated voice mail, interactive voice response systems, fax machines, ATMs etc., are possible only because of new technology.

Also technology improves the provision of services in many considerable ways as follows;

Internet

The growth of the Internet has earmarked a positive change in small business technology. Businesses use websites to advertise, provide information to their clients, sell products and reach new customers.

Specialized technology

Business technology in the 21st century is not only limited to using desktop and laptop computers. Technology is also applied in the operation of with high-tech manufacturing robots, advanced microscopes and other specialized hardware and software. Many tasks that used to be done by hands are now automated and handled by specialized technology tools. For example, an independent machine shop may use computer-aided manufacturing equipment that combines specialized software with machines to create parts to specifications. Innovative small businesses are also working in high-tech industries like nanotechnology and biotechnology and are on the cutting edge of creating new technologies.

Communication

Cell phones have become small business necessities for owners and employees. These devices are lifelines for staying in touch while away and responding to customer inquiries in a timely manner. Smartphones offer an easy access to the Internet, email and business applications in a small hand held device. Email, text messaging and social networking is other advances in communication that keep small businesses connected to their customer bases and improve internal communication within the company.

Marketing

Technology has freed small businesses from the restrictions of print advertisements when it comes to reaching new and existing customers. Internet marketing ranges from a simple informational website, to advertising on search engines, to online product sales. Email marketing is an effective and low cost method to reach a large group of people with a newsletter, coupons or business updates. Mobile marketing is a relatively new frontier that reaches people through text messaging, advertising on mobile applications and offering branded applications that tie customers into what is happening with the business in a fun and entertaining way.

Productivity

Small businesses need to wring every ounce of productivity out of their operations and technology tools help employees get tasks done more quickly. This may range from printing out marketing materials to providing customer service through email or online chat. The key is to keep employees focused when using technology and to use it appropriately with the goal of saving time. Sometimes, a phone call may be more efficient and productive than an email. Provide employees with the right hardware and updated software to keep them working at peak proficiency.

Customer service

Technology brings businesses closer to customers. Businesses use email to answer questions, offer online chat to help customers that are visiting the business website, and equip call centres with the latest phone equipment that makes customer service agents more efficient.

Telecommuting

Many small businesses now offer telecommuting and flex time as benefits. Colleagues can stay in touch from different locations, and when working different hours, by using email, online collaboration tools and mobile computing devices. When in the office, workers can share digital documents, convey information through presentations and create training videos to bring new employees up to speed.

Teleconferencing

Teleconferencing over the phone is one of the simplest conferencing methods, but advancement in recent years has brought web conferencing to the fore. Web conferencing can bring together web cams, audio and collaborative online meeting spaces to create an extremely interactive environment. Participants can see each other, work together on documents and recreate the in-person meeting experience no matter where they are in the world. This is one way that small businesses can extend their reach to include global customers and workers.

Yahiya, (2011) shows that the speed that modern technology has developed has resulted in traditionally slow-moving financial institutions having had to invest billions to remain relevant to customers and competitive in the banking sector. (Mullin, 2016) states that, Information technology focuses on the development of electronic networks that exchange information. Because all financial transactions involve the exchange of information, the increasing popularity of online finance coincided with advances in information technology.

In recent years, one had to form long queues in the banking hall to withdraw money or pay in a cheque. In modern day, banks apply technology to help improve their services to the best of their ability hence, making it possible to perform most transactions online; from simple transactions to complicated issues such as applying for a mortgage (Brief, 2014). The banking sector has embraced the use of technology to serve its client's faster and also to do more with less time. Emerging technologies have changed the banking industry from paper and branch based banks to "digitized and networked banking services. Some banks are now only available online or electronically, e.g. banks like Smile in the UK and Simple in the US don't have any physical branches at all, although they're partnered with existing institutions which ensures the funds are completely safe (Ramey, 2015).

Unlike before, broadband internet is now quite cheap and it makes the transfer of data easy and fast. Technology has changed the accounting and management system of all banks. And it is now changing the way and how banks are delivering services to their customers. However, this technology comes at a cost. Implementing all this technology is expensive but the rewards are limitless (Brief, 2014). (Ramey, 2012) mentions that the role of technology in the banking sector include the following;

Electronic banking

Electronic banking enables the bank to deliver its services easily to its high end customers. To make the system user friendly to all clients, banks use a software called a graphical user Interface (GUI), with this software, customers can access their bank details on their own computers, make money transfers from one account to another, print bank statements and inquire about their financial transactions. Another technology used by banks to exchange data between the bank and clients is called Electronic Data Interchange (EDI); this software can be used to transmit business transaction in a computer-readable form so that the client at the other end can read the information clearly.

Rural banking

Unlike in the past when banking was centralized in urban areas, nowadays, technology has made it simple to set up banking facilities in rural areas. E.g. In Africa, Mobile money banking facilities have been introduced. In this case a user in a rural area will have an account with a mobile company which is opened for free. They can then deposit money on that account via a nearby mobile money operating

center. This money can be withdrawn anytime and anywhere; they can also receive or send money using the same system.

Plastic money

Credit cards or smart cards such as Visa Electron Cards have made bank transactions more flexible and convenient. With a credit card, a customer can borrow a specific amount of money from the bank for personal purchases and the bank bills them later. In this case, they don't have to go through the hassle of borrowing small money. Also, with "Smart Cards" like visa electron, a customer can pay for anything using that card and that money is deducted from their bank accounts automatically, they can also use the same card to deposit or withdraw money from their accounts using an ATM machine. (Prabhu, 2016) mentions the following as the role of technology in the banking sector;

Faster remittance facilities

Electronic Fund Transfer (EFT) has accelerated the movement of funds across the world-cash knows as cyber cash, it plays a predominant role in business world. SWIFT (Society for World Wide Interbank Financial Telecommunication) is a classic example of EFT. The reasons for the success of an EFT system are speed, reliability, security and accuracy. It is an efficient mode of fund transfer across various banks. It significantly reduces the number of outstation cheques issued by customers. Consequently, service load on banks could be reduced over a period of time. Furthermore, this technique makes reconciliation of financial transactions automatic.

Automatic teller machines

Automated Teller Machines called ATM for short, allows routine banking transactions without interacting with a human teller. It offers a wide range of services such as modern banking namely deposit taking, cash withdrawal, and account balance verification etc. with the help of personal identification number (PIN) system. It offers round the clock banking services to customers. It is safe due to its electro-mechanical input and output system which is itself controlled by a fully electronic user interface. It prevents an unauthorized user of a particular ATM card from gaining access to the machine's functions.

Telephone banking

Any branch of a commercial bank which has computerized its operations should be able to offer this facility to its customers with the help of a suitable software for this purpose. Digitization of voice has enabled the introduction of this technological move called Telephone Banking. Around the world, organizations such as airlines, railways etc. have already implemented a voice response system based on this technology.

Facilities offered through telephone banking can include a range of services such as balance enquiries, enquiries about collections or specific credits / debits, transfer of funds, request for statements of account or account opening forms etc. telephone banking services by the foreign banks include a wide spectrum of services such as opening accounts, ordering for demand drafts etc. Such services, however, would include a suitable levy towards service charge.

Home banking

Home banking is like an extended and versatile version of telephone banking. The customer is able to access his branch for a variety of services through home banking. This facility is made available through the customer's personal computer attached to a telephone line and modem. Online banking facilities including normal transactions can be accessed through home banking. The application software used this facility to incorporate security features such as encryption to protect the data transmitted over telephone lines.

Internet banking

The commercial transaction through internet has increased due to widespread popularity and cost effectiveness. Banks worldwide have launched their banking sites on the Internet World Wide Web (WWW). The main attraction of internet is the cost effectiveness. Banking transactions connected

through internet has 24-hour availability. Banks can offer their market service from any part of the globe at a fraction of the cost compared to traditional marketing channels.

The technology acceptance model

The technology acceptance model (TAM) is one of the well-known and widely used models related to technology acceptance and use. It was originally proposed by Fred Davis in 1986. TAM has proven to be a theoretical model in helping to explain and predict user behaviour towards information technology (Legris, Ingham, & Collette, 2003; cited in Park, 2009).

TAM, as illustrated in Figure 1 below, includes 6 concepts as follows;

External Variables (EV) which is defined as variables that affect perceived usefulness (PU), perceived ease of use (PEU), and attitude toward using a particular technology. Perceived usefulness (PU) which means that a person believes that using the particular system/technology will improve his or her action. Perceived ease of use (PEU) which means that a person believes that using the particular system/technology will be simple and not cumbersome, attitude towards use (A) which is defined as the users' desirability to use the particular system/technology complicated, behavioral Intention (BI) is forecasted by attitude towards use (A) combined with perceived usefulness (PU) (Venkatesh et al., 2003; cited in (Lezin, 2017).

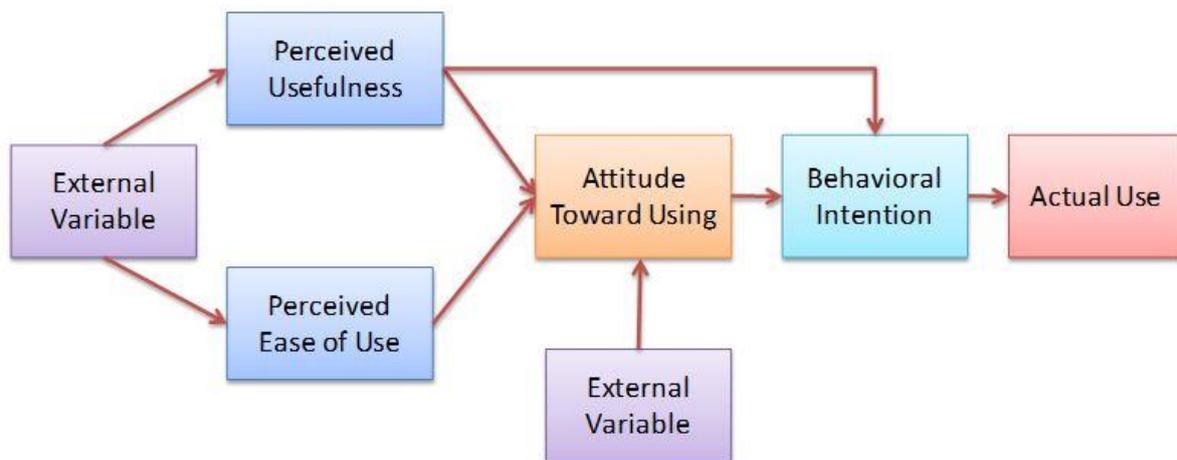


Figure 1. "Technology acceptance model"

Source: (Davis et al. (1989) cited in Phan & Daim, 2011).

"TAM is considered an influential extension of theory of reasoned action (TRA)", according to (Ajzen and Fishbein (1980); cited in Park, 2009). The theory of reasoned action (TRA) was first developed in the late 1960s by Martin Fishbein and revisited and expanded Fishbein and Icek Ajzen in decades that followed. TRA is a theory that focuses on a person's intention to behave in a certain way (Lezin, 2017).

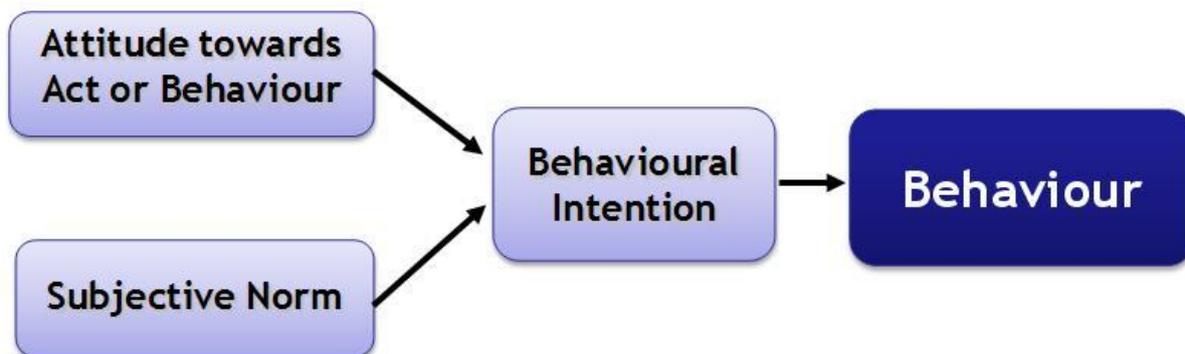


Figure 2. "The theory of reasoned action"

Source: (DR), 2016).

So many studies have been conducted which has led to the changes in the originally proposed model. Park, 2009 shows that a new model called combined TAM-TPB model which integrated the technology acceptance model and theory of planned behaviour was proposed by Taylor and Todd (1995). The theory of planned behaviour is used to predict deliberate or planned behaviour. It is true that attitudes are a good way to predict spontaneous, unplanned behaviour. It is a theory which is based on the fact that our attitudes don't always correctly predict our deliberate behaviour; at least, not on their own. Attitudes, combined with perceived control and norms, actually predict our intentions (Phan & Daim, 2011). According to this theory, when people have time to plan how they are going to behave, the best predictor of that behaviour is one's intention. In other words, to predict what people are going to do, you need to know what they intend to do (Ajzen, 2006).

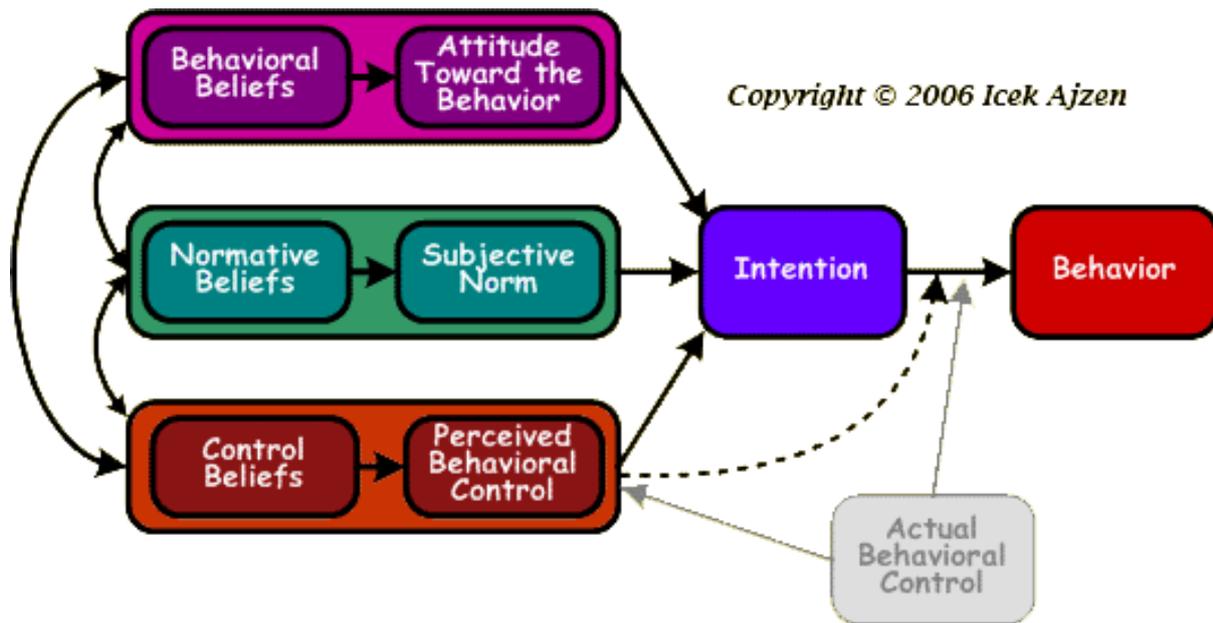


Figure 3. “Theory of planned behaviour”

Source: (Ajzen, 2006).

According to (Lee, Kozar, & Larsen, 2003) “several replication studies have been conducted on the theory of acceptance model.”

Adams et al. (1992) cited in ; Lee, Kozar, and Larsen, (2003) examined TAM in 5 different application namely word processors, graphics, spreadsheets, e-mail, and v-mail and found that, in general, TAM maintained its consistency and validity in explaining users’ s acceptance behaviour.

Davis replicated his previous study using e-mail and a text editor with 112 knowledge workers, and found that TAM successfully explained the adoption of both technologies (Davis 1993; cited in Lee et al, 2003).

Venkatesh and Davis (2000); cited in (Surendran, 2012), proposed a new version of TAM called TAM2 which added new variables to the existing model. Venkatesh et al. (2003) in a study published in MIS quarterly proposed the Unified Theory of Acceptance and Use of Technology (UTAUT) Model.

Davis (1989) and Davis, Bagozzi, and Warshaw; cited Park, 2009) proposed the TAM in order to explain why a user accepts or rejects information technology by adapting the TRA. TAM provides a basis with which one traces how external variables influence belief, attitude, and intention to use. Two cognitive beliefs are posited by TAM: perceived usefulness and perceived ease of use. According to TAM, one’s actual use of a technology system is influenced directly or indirectly by the user’s behavioral intentions, attitude, perceived usefulness of the system, and perceived ease of the system. TAM also proposes that external factors affect intention and actual use through mediated effects on perceived usefulness and perceived ease of use (Park, 2009).

Lee (2009); cited in (Surendran, 2012) combined the Technology Acceptance Model with Theory of Planned Behaviour, perceived risk and perceived benefit to understand the adoption of internet banking.

Results/ findings

It has been found out that through the acceptance of technology in the Ghanaian banking industry especially among the customers of Eco bank and the general public is that Eco bank is able to use its websites to advertise, provide information to their clients, sell products and reach new customers.

Technological tools have also helped employees get tasks done more quickly and efficiently. This then translates into high profitability of Eco bank and hence employee remuneration is also increased.

Technology acceptance has made it simple to set up banking facilities in rural areas. For example, Mobile money banking facilities have been introduced in Africa. In this case a customer of Eco bank and the general public in a rural area will have an account with a mobile company which is opened for free. They can then deposit money on that account via a nearby mobile money operating center. This money can be withdrawn anytime and anywhere; they can also receive or send money using the same system.

Through technology acceptance, the customers of Eco bank and the general public are able to access a branch for a variety of services through the convenience of home banking. This facility is made available through the customer's personal computer attached to a telephone line and modem.

Also, Automated Teller Machines called ATM for short, allows routine banking transactions thorough acceptance of technology without interacting with a human teller. It offers a wide range of services such as modern banking namely deposit taking, cash withdrawal, and account balance verification etc. with the help of personal identification number (PIN) system. It offers round the clock banking services to customers. It is safe due to its electro-mechanical input and output system which is itself controlled by a fully electronic user interface. It prevents an unauthorized user of a particular ATM card from gaining access to the machine's functions.

Conclusion

Lee et al, (2003) elaborated on the problems of the theory of acceptance as follows;

Although TAM has aided the understanding of information systems acceptance, one neglected area is examining different information systems and environments. Researchers including Venkatesh (1999) suggested studies on multi-user systems, and more complex technologies. Opportunities in study of the Internet may also exist.

Studies have investigated the effects of different environments and individual differences, but more efforts to examine the broader environmental factors including emotion, habit, personality difference, and technology change, even going beyond individual acceptance to organizational and societal acceptance are necessary.

Social influence plays a crucial role in human behaviour and decision making. While TAM studies attempted to investigate the effect of social influence on the technology acceptance decision, the results were mixed weak associations were found between subjective norms and other variables.

Some studies attempted to include social influence into TAM and to start finding the boundary conditions that affect the significance of social influence. However, this issue is still in the early stages of investigation, requiring more research to find the causal linkage between social influences and IT adoption and the incorporation of new socially influential factors. For example, social identity and norms as new social factors in social psychology fields are liable for investigation.

One of the major problems of TAM studies was that TAM was applied to tasks that were too broad. Previous studies were mainly performed by assigning a single task to the theory. However, many studies of task-technology revealed that perception of the technology varies according to task type. For example, Karahanna and Straub (1999); cited in Lee et al, (2003) recognized that the research findings cannot be generalized under task-dependent situations.

Also, self-reported usage is widely used in TAM studies assuming that it is a reasonable predictor of actual system usage. However, there is the risk of distorted research findings by using self-reported usage instead of actual objective usage. Lederer et al., 2000; Karahanna and Straub, 1997; Rawstorne

et al., 2000; Straub et al., 1995; Szajna, 1996; cited in Lee et al, (2003) found that research based on self-reported usage shows distinctly different results with that of actual usage.

Self-reported usage was also found to be the major reason for common method bias Igarria et al., 1997 cited in; Lee et al, (2003).

References

- [1].Ackah, D. (2016). GRIN - *Adoption of electronic banking in Ghana banking system*. Grin.com. Retrieved 12 December 2016, from <http://www.grin.com/en/e-book/284721/adoption-of-electronic-banking-in-ghana-banking-system>.
- [2].Akroni, G. (2011). *What is a bank? Introduction, definition and features of bank*. Kalyan-city.blogspot.com. Retrieved 16 December 2016, from <http://kalyan-city.blogspot.com/2011/02/what-is-bank-introduction-definition.html>.
- [3].Boakye-Yiadom, N. (2016). *The changing face of banking in Ghana*. Ghana news. Retrieved 12 December 2016, from <http://citifmonline.com/2015/06/19/the-changing-face-of-banking-in-ghana/>.
- [4].Kai-Mensah, V. (2016). *Eco bank launches Eco bank mobile app*. Ghana news. Retrieved 16 December 2016, from <http://citifmonline.com/2016/10/25/ecobank-launches-ecobank-mobile-app/>.
- [5].Page, V. (2016). *Mobile banking*. Investopedia. Retrieved 16 December 2016, from <http://www.investopedia.com/terms/m/mobile-banking.asp>.
- [6].Rahman, Z., Tahvildari, A., Honarmand, H., Yousefi, H. and Daghighi, M. (2016). *Mobile banking and its benefits - ProQuest*. Retrieved 13 December 2016 from:
- [7].<http://search.proquest.com/openview/1731f94070e8364aa1b667e6778e73ca/1?pq-origsite=gscholar>.
- [8].Rajesh Goyal & nbsp. (2016). *AllBankingSolutions.com* -. AllBankingSolutions.com. Retrieved 16 December 2016, from <http://www.allbankingsolutions.com/banking-tutor/what-is-banking.shtm>.