Consumer Attitudes towards On-line Banking in Ghana

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Abstract: *Technological advancement has been revolutionizing the way companies conduct business in various industries around the world, particularly banking. The use of mobile phones and the internet has increased the trend towards online banking in both developed and developing countries. The adoption of online banking by consumers in developing countries, though, has been slower than in developed countries. Beginning with a review of the literature on the development and implementation of online banking in general and in developing countries in specific, this paper analyzed Ghana's efforts to speed up the adoption and usage of online banking services in its banks and by its citizens. The findings revealed that security concerns and the challenges of carrying out individual transactions were problematic to the average customer. Customers reported that slow transaction times, internet accessibility, and even online banking operation difficulties were frustrating. The research findings were of significance to developers on online banking services with respect to planning and implementing online banking portals. The results also were beneficial for both practitioners and academics to give them a sense of the depth, direction, and acceptance of online banking in this developing country.*

Key Words: Online banking technology, Ghana, Consumer attitudes, Online banking adoption

1.0 Introduction

Since the mid-1990, there has been a trend in the banking industry to use self-service channels such as online banking and mobile banking (Patel & Patel, 2018; Pikkarainen et al., 2004). Electronic banking channels are playing an increasingly important role in the banking sector. Online banking is a secured website system that creates an opportunity for customers to access their bank accounts, conduct financial transactions, leverage other financial services and other general banking services and products (Oertzen & Odekerken, 2019). Online banking can be accessed via a personal computer or any other electronic communication mechanism (Biney, 2011). According to Essinger (1999), online banking provides clients access to their bank

accounts through a website and allows them to make assessments of their financial reports while observing strict security measures. The banking Industry all over the world is progressively using online banking as an established approach for combining traditional banking and internet technology.

Many developed nations like Australia United States, , Estonia and other countries in Western Europe are successfully offering online banking to their customers(Sathye, 1999), (Kolodinsky et al., (2004); Eriksson et al., (2005); Pikkarainen et al., (2004); and Gurau, (2002). Having seen the major success and convenience among customers in developed countries, there are major signs of an increasing movement towards online banking acceptance by developing countries. E-banking or the more popular name online banking services make it convenient for customers to access their accounts twenty four hours a day and seven days a weeek, print statements, pay bills, or even transfer funds. Because it reduces costs and affords the financial institution access to prompt and accurate customer data it allows bank management to invest valuable resources such as; time and money in developing online banking features (Gerrard & Cunningham,2003). Expanded competition in the banking sector and customers continued requests for online services has motivated banks to furnish their amenities online (Southard & Siau,2004). The pace of technological development has demanded that banks modify their banking services delivery systems significantly. Consequently, by the end of 2003, over 50% of the commercial banks in the U.S. and Europe offered online banking services to their customers (Hernández-Murillo, et al., 2010).

Research agendas for the African region regarding online banking has been scarce (Cite to support this assertion!). Studies on the adoption and implementation of internet banking (IB) in many African countries are infrequent and thus a major gap in understanding the online banking phenomena is deficient. Many African countries have no research articles on IB and Africa continues to be the highly under-researched continent in the area of information and communication technology and information systems (Mbarika & Okoli, 2005). Therefore, there is a need to close the gap in this research area. The study investigated the inclination of customers to accept online banking as an alternative means of banking in a developing country. The essential reason for this research was to explore the proliferation and implementation of

online banking in the sub-Saharan region of Ghana. The findings of this investigation would provide insight into the dissemination and adoption of online research on the African continent. The main purpose of this study was to understand what drives customers adoption of the online channel within the banking context. As such, the research questions presented in this study asked: a. what were the demographic and socio-economic differences between online banking adaptors and non-users? b. what were the bank services preferred for online banking versus traditional baking? c. what were the differences between online banking adaptors and non-users in terms of bank selection criteria? d. what were the reasons behind the slow pace of implementation in Ghana?

To accomplish this goal, the authors conducted a comprehensive review of the literature along with a quantitative analysis of data collected in Ghana. This paper extended different literature streams and adds a different perspective relating to developing countries to the literature that already exists. The findings will be useful for both practitioners and academics to give them a sense of the depth, direction, and acceptance of online banking in the developing country. This study would also furnish a theoretical and conceptual framework for future research studies in this growing field of study (Humphrey, 2014).

2.0 Literature Review

Research concerning online banking has been carried out in many developed and developing countries. Among the most prominent are: Australia (Herington & Weaven , 2007; Taiwan (Chen, 1999), the UK (Boyes & Stone, 2003; Jayawardhena & Foley, 2000), South Africa (Tsitsi, et al., 2016) Malaysia (Mohan et al., 2013), Poland (Szopinski, 2016), India (Banu et al., 2019), Turkey (Polatoglu & Ekin, 2001), Italy (Hasan, Maccario, & Zazzara, 2009), Finland (Karjaluoto, Mattila, & Pento, 2002), Singapore (Liao & Cheung, 2002), Pakistan (Raza &Nida, 2013), Thailand (Prompattanapakdee, 2009), Palestine (Salem, et al., 2019), Malacca (Ling, Lim, Tan, & Huat, 2016), China (Mao et al., 2020) and Korea (Suh & Han, 2002). These research studies have provided extensive insight connected with the physical structure and the consumer psychology associated with consumers acceptance of online banking.

In the present-day business environment, the service industry is joining the modern global economy by automating their transactions through the use of cutting-edge technological applications (Abualsauod & Othman, 2019). The spread of technology has created a faster, more complex business environment that almost all enterprises must navigate. The financial sector's infrastructure is no different. It is very suitable for a variety of technological adaptations. One of the most popular modifications the banking industry has made is that of instituting online banking to their service delivery system (Flavian, et.al., 2006). Internet banking or e-banking is one of the technological applications that has caused a major transformation in the banking industry (Abualsauod & Othman, 2019). This electronic approach to transaction processing and service delivery for its customers has had a substantial influence on how financial institutions connect with customers (Flavian, et.al., 2006). The level of independence approved for customers and how they join the e-banking process are the essential inputs to perceived service quality (Akkucuk & Teuman, 2016). The resultant transformation in e-service provides both banks and customers some major benefits. These benefits include personalized services, transaction security, speed of processing transactions and overall better service quality (Abualsauod & Othman, 2019). Since banks are major players in developing a country's economy, expanded use of electronic banking services has a positive influence on the economy. It leads to lower prices of services that are not available with traditional distribution channels (Szopinski, 2016). Banks can reach larger geographic locations which will significantly lower their operating costs. These costs including handling fees, transaction costs, manpower and overhead expenses will be automated and more efficiently administered with online electronic banking (Salem, et al, 2019).

2.1 Competition

Another major reason for banks adopting electronic banking is competition. In the financial sector, competition has driven most opponents to acknowledge the importance of being capable of going head-to-head with similar electronic products. In this environment of increased competition and intensifying, volatile customer demands, online banking will continue to be important to customers primarily because it offers twenty four hours a day and seven days a week access, easy transactions and avoidance of lines at the physical bank (Oertzen & Odekerken, 2019). The financial sector markets are changing rapidly.

Essentially, banks have no choice but to offer online banking (Ong, et. al. 2017). In order to enter new markets and hold on to customers who are using information and communications technology, banks have to provide services through Internet that are over and above what is accessible through brick-and-mortar channel of service distribution (Huang, 2017). The international economy and the competitive markets have driven banks to make great changes in their operations (Danyali, 2018). Traditional banking services and transactions in the online banking environment are substantially similar but operationally very different (Flavian, et.al, 2006). Getting consumers to use the transition can be a major learning and educational process. While online banking can furnish consumers with a multitude of information-related benefits such as easy access, control over bank accounts at any time or any place, it also can be scary for those who are not familiar with online banking. Jansen and Leukfeldt (2016) explored factors that may explain online banking fraud victimization. Several respondents reported having insufficient knowledge and skills regarding the safety and security of online banking and finding it difficult to assess to what extent protective measures help them to safeguard against fraudulent attacks. Jansen and van Schaik (2018) concluded that online bank customers should have confidence in the efficacy of precautionary measures and in their own ability to actually perform a measure. These are the two most important factors leading to precautionary online behavioral intention. Moreover, both cognitive processes from Protection motivation theory (PMT) - threat and coping appraisal - are significant predictors of the intention to take precautionary measures. In sum, our study suggests that customer's precautionary online behavior, ensuring a safer online-banking experience, can be enhanced by acknowledging these dimensions in security education, training and awareness campaigns.

Customer satisfaction is a primary metric in the situation of online banking. Banks use different approaches to personalize products and services to meet customer needs (Skidar, et.al, 2015). Because the information can be personalized, it can help customers make better investment and finance decisions (Loureiro, et al, 2014). The impact of e-banking on a customer's behavior is of importance but little is known about online banking user's satisfaction services especially in developing countries (Flavian, 2006). More than ever, in the banking industry, the consumers' loyalty is vital while measuring customers' online satisfaction proved that it is extra challenging

to keep consumers motivated and satisfied while doing transactions online. Hence, customer satisfaction in online banking turn out to be more complicated and essential to retain loyal online customers. (Ahmed, et al, 2020). One of the major issues relating to the inclusion of online banking into a bank's service delivery system is the customers willingness to adopt this different approach to their banking activities. Cultural differences in technology acceptance can also have an impact on whether customer's adopt online banking or not.

Researchers have discovered that the Hofstede concepts of individualism and collectivism are cultural variables that can determine intentions and usage for online banking (Khan, et al, 2017). Some cultures have immersed its populations into living by very traditional ways of life that are difficult to change. Other cultures are much more open and want to follow the cutting-edge ideas and participate in a modern world of technology. People who believe in individualistic attributes will be more independent in their decision making and probably more amenable to participating in contemporary online banking. Others who live by collectivist ideas, may continue to adhere to the traditional banking approaches because their culture has promoted the notion of tradition as the best way to do business in the contemporary world of the 21st century. Tradition provides safety and comfort, no risk involved. As such people in this category would want to retain traditional banking methods rather than online banking (Khan, et al., 2017).

2.1 Conceptual Framework: Online Banking Adoption, Acceptance and Hypothesis

Continual technological change has created threats to established business models yet simultaneously offering opportunities for innovative service offerings, With the advanced and dynamic growth of technologies the speed at which consumers are accepting these technologies depends on a number of factors such as availability of technology, convenience, consumers' need, security etc. (Lai, 2017). To motivate people to accept online banking and participate in the services it offers, it may be necessary to simultaneously add entertainment or extra conveniences such as digital wallet, real time interaction like video banking, ATMs integrated with smart phones and website customization for very easy use. Also, biometric services, and digital currency can contribute to an increasing adoption of line banking (Dauda & Lee, 2015). One of the most popular conceptual framework for understanding the relationships involved with customers adopting online banking is the Technology Acceptance Model (TAM). This model is

purposefully fashioned for modelling user's acceptance of information system or technologies. Waite and Harrison (2015) reviewed the theoretical development of knowledge in the area of online banking research and specifically to critically assess the contribution of TAM as a key model utilized in online banking research. The TAM model focuses on two major beliefs that are universal to the online consumer world namely the perceived usefulness of the information system (PU) and the perceived ease of use or (PEU). These two factors relate to how the customer's use of a banking information system will add value to their banking transactions. Likewise, the term perceived ease of use denotes how uncomplicated the system will be to operate or use (Lai, 2017). The Technology Acceptance Model (TAM) proposes that the consumer's behavioral intention (i.e., adoption) will be influenced by his/her inclination to adopt or not adopt online banking. The usefulness and perceived ease of use are critical factors affecting the adoption of any online banking system. (Estrella & Perez, 2015). The model went through several iterations before it became an accepted model for explaining technology acceptance. Lai, 2017 created the TAM model with the security and design extensions which expanded the utility of the model. Figure 1 below depicts the content of the TAM model. The addition of two features, design and security, represent parts of the systems capabilities while the perceived ease of use and perceived usefulness are the consumer behaviors that denote the motivation for accepting and using the online technology (Lai, 2017). The fundamental element for increasing consumer use is to initially increase consumer acceptance of the IT system. Identifying the factors that influence one's intentions will allow organizations to adjust IT use to satisfy customer's needs. Two major factors that contributed to whether consumers used the IT system relate to the PU or perceived usefulness and the (PEOU) or perceived ease of use. TAM is a theory that has evolved over time (Holden & Karsh, 2010).

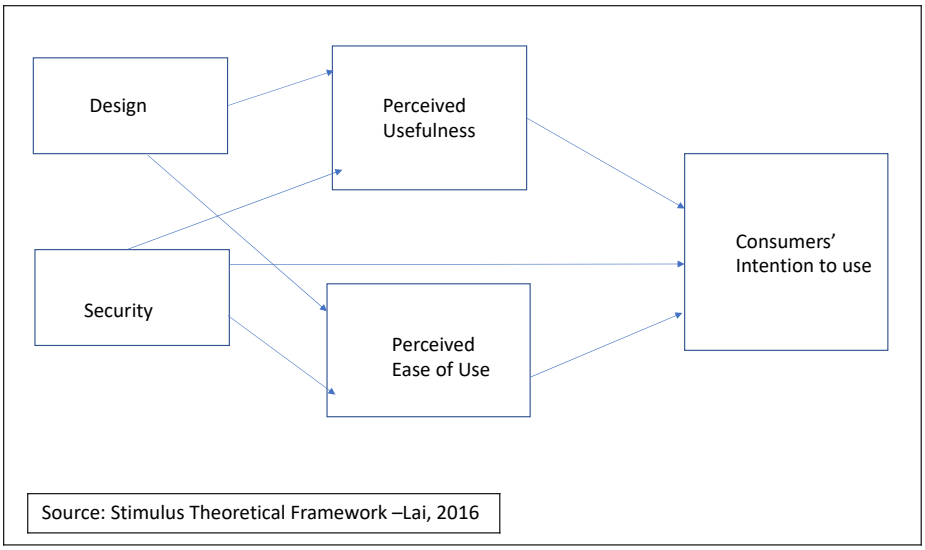

Figure 1: Theoretical Framework for Technological Acceptance Model

Figure 1 depicts the relationship among the critical elements of the TAM model of consumer online banking adoption. The two major factors that affect a consumer's acceptance of an online banking service delivery system relates to its usefulness with regards to their individual banking needs and the ease of using the online banking service delivery system. As previously mentioned, two major components design, and security are also critical to the consumer's accepting the online system. Consumers want a system that is easy to understand, easy to use. The design part of the TAM model focuses on this consumer desire. The security element is also an absolute necessity for any consumer of online banking. For home banking, Kiljan et.al (2016) examined 80 banks worldwide on how they authenticate their customers and how they implemented communications security as well as the implemented authentication methods for mobile banking at 66 banks. Seventy-five (75%) of the banks offer an authentication method that relies on multiple factors for home banking. The possible use of multiple factors was found in 59% of mobile applications and 25% of mobile sites. While this TAM model is simple in its architecture, the messaging and how it is marketed to consumers is critical to their acceptance and their adoption (Kiljan et.al,2016). To make it all work properly, trust is a critical component.

Trust

One of the important variables that is critical to successful online banking is trust. Some customers do not trust online banking services. Face to face has been their total experience and to do business online raises skepticism (Flavian, 2006). Yasin et al. (2020), investigated the role of online brand community engagement (OBCE) and the perceived trust of brand community page (BCP) as mediating variables between customer online brand experience (COBE) and the intention to forward online company generated content (CGC). The results support the positive influence of COBE on intention to forward CGC, mediated by brand community engagement BCE. This finding led to the conclusion that managers should focus continuously on customers' experiences with online banking brands aiming at creating unique online brand experiences.

Trust is an essential consideration associated with the establishment of long-term relationship between providers and their customers. Some have insinuated that customers who trust in tradition brick and mortar retailers will have a similar level of confidence in contemplating the purchase of products from the online channel (Estrella & Perez, 2015). When customers feel safe and secure in a company due to a long-term relationship, the supposed impediments to adoption of the online channel can be significantly diminished (Estrella & Perez, 2015). The notion of trust in Online banking can be understood using the idea of social exchange theory. This concept views interactions like that of an economic exchange. There are costs paid and rewards received. People partake in the exchange only if the results are useful to them. Since rewards cannot be certain in a social exchange, trust is essential. Trust becomes the determining factor for consumers in their relationship with the bank. Trust increases the perceived certainty concerning the other party's expected behavior and reduces the fear of being exploited. Trust in online banking is essential for diminishing uncertainty of financial transactions. Consumers will reference the trust they had with a physical bank and make judgements about the online banking based on their past physical bank trust. As such, trust in physical bank is clearly associated to their intentions to use online banking (Monteazemi & Hamed, 2015).

Increases in customer satisfaction are an important part of gaining customer trust (Abualsauod & Othman, 2019). A key ingredient into achieving customer trust in online banking is the establishment of solid information technology security system that the customer knows about and the bank has demonstrated repeatedly the security system's effectiveness (Makarevic, 2016).

For trust to be achieved in the online banking environment, the customer must be convinced that the transaction method is secure, and that information given to the websites are not being intercepted to a third party (Skidar & Munish, 2015). Trust is necessary where risk and uncertainty and interdependence exist. A customer-oriented quality strategy is imperative. Highly perceived quality leads to repeat business. Customer loyalty is an absolute necessity.

Service Quality

Service quality pertains to the entire support and services provided by the online service provider. Some of the major satisfiers are integrity, reliability, responsiveness, availability and functionality (Salem et al, 2019). It also refers to the differences that may occur between the bank's website and the customer's need for human interaction and responsiveness (Abualsauod & Othman, 2019). A customer-oriented quality strategy is critical to service firms as it drives customers' behavioral intentions. High perceived quality leading to repeat business and customer loyalty. Substandard service quality leads to negative word of mouth which may result in a loss of sales and profits for the service firm with customers migrating to competitors. These factors stress the importance of delivering high levels of service quality especially within an electronic environment (Loonam & Deidera, 2008).

Hypotheses

As with many activities in our society, gender plays a role in determining which gender participates in what event, which gender purchases which products and which gender is predominate in overall consumer decision making. Culturally, men are more prone than women in being persuaded to use technology. Gender is considered an important factor in consumer behavior. Men and women differ in their opinions and evaluation of online systems. Identifying such factors is important both for better ability to tailor technological products and marketing communications to gender and understanding the different motives underlying new technology adoptions. E-banking services are a major determinant regarding retention in men but not for women. Since the number of men who may use e-banking services is greater than the number of women, men want convenience in e-banking service (Mahmoud, 2019). Based on these ideas we can posit that:

H_1: There is a relationship between gender and online banking users/non-users.

Historically, there seems to be a major distinction between old and young regarding the use of technology. It seems to be common that younger people appear to adapt and affiliate with technology more rapidly and more adeptly than do older people. Younger individuals are more inclined to accept an innovation in information technology. Younger people are earlier adopters while older people are later adopters (Ameme, 2015). Users aged 65 and older are 43% slower at using websites than users 21-25 (Gatsou et al, 2017). The mid age people are more likely to use e-banking than younger or older consumers. Age does have a bearing on the perceived usefulness, perceived ease of use and intention to use wireless financial services acceptance (Shanab, 2015). Age 65 are late adaptors (Ameme,2015). As such we can hypothesize that:

H_2: There is a relationship between age and online banking users/non-users

When people have knowledge about modern technology and how it can benefit their daily lives, then they become more interested in its operation and applicability. Generally, people with more education have more insight into nuances of society and hence are more curious about how they can expand their knowledge more and more. Education plays an important role in adoption and use of e-banking (Shanab, 2015). The level of education increases the likelihood of using internet Banking. Customer professions correlates positively with mature customer use of Internet banking (Ameme, 2015). People with higher education are more comfortable and knowledgeable of computers – have good information and process skills which facilitate Internet uses (Shanab, 2015). People with higher education are earlier adopters while people with lower education are later adopters (Ameme, 2015). Sulaiman et al. (2007) found out that 2.9% of the people they surveyed who adopted mobile banking had a secondary education or below while 75% who had a master's degree adopted online banking. With this in mind we can hypothesis state that:

H3: There is a relationship between education level and online banking users/non-users

Historically, the poor sector of most economies shied away from participating in new technology arrangements especially when it related to banking. The issue of trust and tradition generally

occupied the concerns of poor people or those people with less monetary resources. According to Sulaiman et al.(2007) income level does have a major impact on adoption of online banking. The higher one's income the more inclination they have to participate in online banking. The lower the income level the inclination is to not participate. Hence, the richer participate the poorer do not participate in online banking. A person's income can have an impact on whether to adopt online banking or not. Hence, we can assert that:

H_4: There is a relationship between income level and online banking users/non-users

3.0 Online Banking in Developing Countries

One way of understanding online banking in developing countries is to examine the respective articles written about the subject among developing countries. Online Banking in developing countries has been carried out in Asia (90 articles, 47.9%). This is closely followed by the Middle East (42 articles, 22.3%), Africa (37 articles, 19.7%), Eastern Europe (17 articles, 9.0%), Caribbean (1 article, 0.5%) and South America (1 article, 0.5%) (Sabi, 2014). One exciting research topic is customer adoption and the use of online banking. Sathye (1999) is a pioneer in the study of online banking adoptions. His exploratory studies revealed that security concerns, an absence of mindfulness about internet banking, and absurd costs are the most significant purposes behind non-reception among Australian clients. The result of Sabi's review of internet banking literature indicates an advancement on internet banking (IB) adoption in developing countries, especially African countries contrasted to the results of the previous trend study conducted by Shao (2007) on IB in the world. The diffusion of IB in developing countries from the year 2000 to 2013 was consistent with the diffusion of technology curve. It shows a steady growth in the diffusion research peaking in 2012 (Sabi, 2014). Howcroft et al. (2002) found out that product features such as lower fees, family/friends' advice, round the clock access to services, acceptable service quality, and honest reporting in the popular media were factors to encourage the adoption of online banking. Liao and Cheung (2002) found out that other elements, for instance accuracy, user-friendliness, transaction speed, user experience, user involvement, and convenience, have a significant influence on the adoption of online banking. Hernández-Murillo et al. (2010) discovered that although bank-specific characteristics are important determinants of banks' adoption decisions, the competition also plays an important

role. Martins et al. (2014) introduced a conceptual model that merges a unified theory of acceptance of online banking and the application of technology. Their research explains that the transaction behavior of online banking customers demonstrates a significant desire to do their banking online. The response of the customer is an important variable to monitor in online banking.

Research in International banking statistics, for example, The Bank of International Settlements or European Central Bank) establishes that various payment routines are present in different countries. For instance, Japan is a cash-centric culture. While the Americans and French use of checks abundantly (Böhle et al., 2001). The popularity and acceptance of online banking are also significantly different from country to country. Online banking in the United States is more straightforward to conceptualize and implement because of a highly educated population. This characteristic alone can increase the chances of customer acceptance (Sullivan, 2000). Campbell and Frei (2020) found that customer adoption and use of online banking is associated with the following:

i. substitution primarily from incrementally more costly self-service delivery channels (ATM and Voice Response Unit (VRU);
ii. augmentation of service consumption in more costly assisted-service delivery channels (branch and call center);
iii. a substantial increase in total transaction volume;
iv. an increase in estimated average cost to serve resulting from the combination of points (l)-(3); and a reduction in short-term customer profitability.

Many research articles are focused towards studying online banking adoption in European countries. Sayar and Wolfe (2007) investigated online banking from a customer perspective and compare online banking adoption in the UK and Turkey. They examined the two countries concerning online banking services and find out that the most critical factors relateded to online banking adoption in these two countries were reliability and usability. Polasik and Wisniewsk's (2009) empirical study indicated that the link between the decision to open an online account and the perceived level of security of online transactions were foremost in the customers' minds.

They also found out that certain demographic variables are robust predictors of the adoption status. In recent years, online banking has also become popular in developing countries. In China, researchers have demonstrated that there was a significant relationship between trust and perceived risk. These two variables were crucial in explaining customer's internet banking usage intentions (Zhao et al., 2010). Raza and Nida (2013) discovered in Pakistan that the alleged usefulness, the information about online banking's perceived risk, security, and privacy have more influence on increasing consumer's intentions to adopt online banking services. Tsitsi Chikandiwa's et al. (2013) research indicated that perceived usefulness, perceived ease of use, and trust were essential variables for attitude towards online banking in South Africa.

The classification of online banking research by Sabi (2014) showed that internet and computer literacy (18.6%) were some of the crucial aspects that influenced user approval and acceptance of internet banking. Internet bank awareness (7.4%), infrastructure (9.6%) and accessibility to computers and internet (10.6%) were also seen to be imperative to adoption of internet banking since many customers in these developing countries nonexistence to a computer and the internet access (Sukkar & Hasan, 2005; George & Gireeshkumar, 2012; Ezeoha, 2005; Agwu, 2012). The classification also showed that many researchers used demographic factors (20.7%) such as; age, gender, education and income as well as social norms as study variables. The percentage and number of articles for different countries in Africa shown in Figure 2, focus on the research into internet banking adoption and implementation that has been carried out in Nigeria (12 articles) followed by Ghana, Mauritius and Tunisia (4 articles). According to the 2010 population and housing census (PHC), Ghana is a country of a little over twenty-four (24) million population. Ghana is segmented into ten Political regions with diverse cultures and traditions. Ghana is noted for its political stability and peace. Since its independence in 1957, Ghana's economy has not only been entirely sustained by agriculture, but the service industry plays a pivotal role in terms of economic stability and growth. The banking industry, as part of the service industry, also contributes significantly to the economy. For decades, the industry has rendered a variety of useful services not only to individuals but companies and firms as well. Globalization and technology advancement have initiated massive revolution in the banking sector all over the world, and Ghana is no exception. According to Ofori (2013), several financial institutions have

invested in technological infrastructure in order not to be left out in the new wave of change in the banking industry. The new phenomenon is the online banking technology, which has been embraced almost by every financial institution because more people in Ghana have access to the use of the internet.

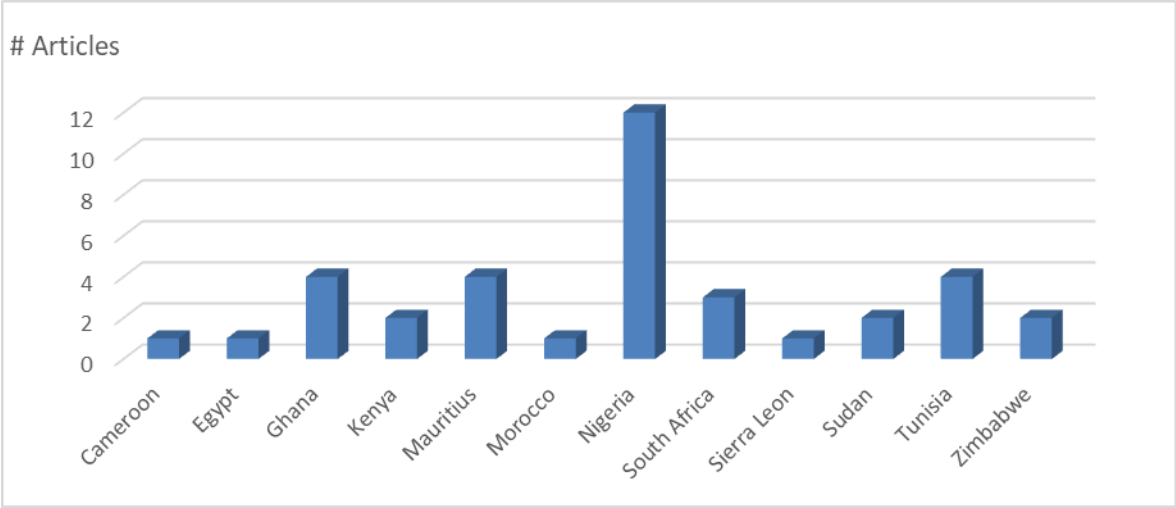

Figure 2: Article Classification for African Countries

Source: Sabi, (2014).

Over the years, the banking industry, the world over, has evolved from rendering traditional and conventional services through electronic banking to internet (online) banking services to ensure productivity increase, competitiveness, improving managerial effectiveness and efficiency as well as customer service delivery. The benefits derived from the use of the internet in banking services cannot be overemphasized. In Ghana, growth in the use of online banking has been relatively slow and hence the need to investigate consumers' attitudes and acceptance toward this new technology.

4.0 Overview of Ghana Online Banking

According to Biney (2011), the Bank of Ghana's updated list of recognized and fully operational banks in Ghana had increased to twenty-eight (28) in number as of 2011. For several years, these financial institutions have rendered a variety of services to clients using the traditional means of long queues at the banking premises (Akufo-Twum, 2011). Catching up with the spirit of globalization, technology advancement, and the necessity to improve customer service delivery

to an internationally acceptable standard has called for a drastic change in the banking operations in Ghana. The move for upgrading to an electronic technology has been very fast in Ghana, with the focus on introducing an efficient modern delivery framework of improving customer services to a 24/7 access to banking (Akufo-Twum, 2011).

According to Biney (2011), 21 recognized banks out of 28 in Ghana as of 2011 were rendering internet banking services to their clients. The clientele services currently range from electronic bill presentation and payment, fund transfers between customer's accounts and another, checking of savings accounts, bank statement, loan application and transactions, real online balance and domestic wire transfer, SMS texting of purchase on accounts. The use of ATMs in effecting service delivery with the significant banks is widespread in Ghana. Ofori et al. (2013) indicate that the most significant transformation in the banking industry in Ghana was engineered by the introduction of the government of Ghana's policy development agenda captioned 'ICT for Accelerated Development (ICT4AD) policy in 2003. The aim was to establish an ICT-led socio-economic development in the country. Ghana was known to lead in ICT development and internet adoption in the West African sub-region as at 2003 (Zachary 2003; Adams & Lamptey 2009). To regulate money supply in the industry biometrically, the Government of Ghana introduced a project known as; E-zwich, the first of its kind, to purposely make Ghana a cashless society (Breckenridge, 2010). From the Bank of Ghana E-zwich report (2008), online banking was enhanced by an automated clearing house system that was brought during the introduction of Ghana's interbank payment systems, E-zwich cards.

As opined by (Woldie et al., 2008; Ofori & Dankwah, 2013; Domeher et al., 2014), the current position of banking development indicates that most banks in Ghana have switched on to the use of internet banking technology since it is flexible and convenient in terms of service delivery and management operations. However, the growth of this technology is relatively still at the infantile stage since the banks concerned only provide exclusive services to their corporate customers despite several awareness made (Quansah, et al., 2015). Most of the banks in Ghana link up with the telecommunication industries to offer banking services through the internet and mobile phones to ensure sustainable competitive advantage (Asante et al., 2011). At the moment, major telecommunication networks in Ghana such as MTN, TIGO, VODAFONE, and AIRTEL have

introduced mobile banking across the country as the fastest delivery service to augment and compete with the banks. This innovation has been welcomed with massive participation by the public. However, technology is only limited to cash transfer and withdrawals via the same mobile network. Transfer and withdrawal of cash across all other mobile networks are yet to be introduced. According to Ofori and Dankwah, (2013), the result of their research on the adoption of internet banking in Ghana showed that much as there are benefits to the acceptance of online banking technology, challenges and barriers are enormous and numerous as well. This was further supported by (Agboyi & Ackah, 2014) in their survey on the adoption of electronic banking in the Ghana banking system. It must be noted that the use of online banking in Ghana is not widely spread to many banks across the country hence its relatively slow growth. This process could be likely due to clientele attitude and acceptance toward online banking. The motivation of this study was to investigate consumers' attitudes toward online banking in Ghana and to ascertain reasons for the relatively slow growth of online banking marketing in Ghana.

Currently, major telecommunication networks in Ghana, such as MTN, TIGO, VODAFONE, and AIRTEL have launched mobile banking across the country as the fastest delivery service to ensure assistance and competitiveness among banks. This new technology has been accepted and massively accepted by Ghanaians. However, technology is only limited to cash transfer and withdrawals via the same mobile network. Transfer and withdrawal of cash across all other mobile networks are yet to be witnessed. Despite the efforts made to improve the state of online banking, the growth has still been at the infantile stage (Atsede, 2008), considering the awareness created (Quansah et all., 2015). Therefore, this study investigates the level of clientele attitude and acceptance toward online banking and its challenges in Ghana.

5.0 Methodology

The research aimed at accessing the Ghanaians practices to the use of online banking in their daily life. The quantitative approach employed to measure such human behavior. This research used primary data, collected from the staff (teaching and non-teaching) of three (3) second cycle institutions, workers from twenty small and medium scale businesses, and students in a tertiary institution all in the Kumasi metropolis. The questionnaire items borrowed from Kaynak and Harcar (2005). The questionnaire consisted of five groups of questions: screening questions used

to categorize the respondents into five categories: on-line banking users/nonusers, frequency of bank visits, time period with the bank account, number of different bank account and overall internet usage. Questions were asked that related to the criteria of choosing a bank among online bank users and nonusers. The items developed for the examination of the research propositions measured the subjects' given importance of different factors when choosing a commercial bank online adaptor versus non-users such as "location being near home or work, fast and efficient service, external appearance, interior comfort, counter partition, online service, bank reputation and its image, friendliness of bank personnel, availability of credit with favorable terms, lower service charges on checking account, lower interest charges on loans, higher interest payments on saving accounts, confidentiality of bank, confidence in bank manager, financial counseling and advisory services, overdraft privileges on checking accounts, hours of operation, knowledgeable staff, courtesy of personnel, promptness in correcting errors, accurate billing, convenience and availability of ATM machines, convenience of bank branches, bank fees and charges, night depository" A six-point Likert scale ranging from "very important" to "not at all important" was used to measure bank customers' given importance for different factors. Bank customers' practice related to on-line banking was measured using a dichotomous scale: "Do you use on-line banking for your banking transaction?" Other items focused on a preference between on-line and traditional banking of the various banking services for those who use on-line banking. The respondents are required to allocate 10 points between on-line and conventional methods on different bank services. Additionally, there were questions related to reasons for not adopting online banking only for those who do not use online banking. Finally, issues relating to the demographic characteristics of online banking users and non-users were presented in the survey.

5.1 Sampling Procedure and Sample Composition

The sample concerns with the observation of a small proportion of a population in order to make generalization, representing the facts and views of the entire population. In this research, the focus was set on the staff (teaching and non-teaching) of three (3) second cycle institutions, twenty Small and medium scale businesses, and students in a tertiary institution all in the Kumasi metropolis.

The random sampling method was used to administer the questionnaire. The researcher found this more convenient because of the proximity to the location of the selected institutions and businesses. It also saved much time and reduced the cost of transportation that could arise from questionnaire administration. A total of 350 questionnaire items were administered to the selected institutions and businesses. The researchers agreed that with such a number of the sample size, they could conveniently obtain the needed information. It must be emphasized that out of the total sample of 350 from the selected institutions and businesses in the Kumasi metropolis 306 (87.4%) respondents participated in the research, while 44 (12.57) did not. With the 306 workable samples, 198 (64.7%) were professionals (teaching and non-teaching) of the selected second cycle institutions and others. The remaining 108 respondents consisted of 73 (23.85%) respondents from the small businesses and 35 (11.43%) students from selected tertiary institutions.

The data set consisted of 107 online bank service users (35.1%) and 198 non-users (64.9 %). The demographic and socio-economic profile of the respondents is presented in Table 1.

5.2 Data Collection Procedure

After administering the questionnaire, the researchers waited for a maximum of two weeks for the respondents to complete the survey. After the two weeks, the researchers collected the completed questionnaire. The completed questionnaires were collected personally by the researcher for analysis.

6.0 Results and Discussions of Findings

To assess the statistical significance of the differences in demographics and on-line bank usage, cross tabulation, and a Chi-square test of association was performed. A close examination of the profile depicted that there were statistically significant differences in demographic characteristics of on-line bank users and non-users in Ghana. Online bank users were mostly male; high income earners consisted of a younger age group, held more professional and administrative, technical related type of jobs, and homemakers.

The sample consisted of about 49.5 male and 50.5 female bank customers. Female online bank service users were only 26.5 % of the total female sample, while 43.5 % of male respondents were on-line banking users. The ratios for non-users related to gender were 56.1% female versus 43.9 % of males. About 50.9 % of 36-45 years age group were on-line banking users, on-line bank users account 40.7 % of the 46-55 year group, under 25 years old group had the lowest ration (30.2%) for on-line banking practices while over 55 years old group had no usage of online banking. Online bank users comprised of 34.6% university graduates, while the ratios were 21.5% for vocational schools, 36.4% for high schools, 10.7 for secondary school, and %17.8 for primary schools. Concerning occupation, 59.4 % of the student population were using on-line banking. All other occupations distributed between on-line bank users and non-users can be found in Table 1.

Table 1. Demographic and Socio-Economic Characteristics of the Sample

	Online Bank Nonuser (n=198, 64.9%)	Online Bank User (n=107, 35.1%)	Percentage	Chi-Square
Gender				9.69***
Male	56.5 %	43.5 %	49.5 %	
Female	73.5 %	26.5 %	50.5 %	
Age				12.01***
Under 25	69.8 %	30.2 %	28.2 %	
26-35	67.4 %	32.6 %	42.3 %	
36-45	49.1 %	50.9 %	18.0 %	
46-55	59.3 %	40.7 %	8.9 %	
Over 55	100.0 %	0.0 %	2.6 %	
Education				91.23***
Primary School	82.2 %	17.8 %	14.8 %	
Secondary School	89.3 %	10.7 %	33.8 %	
High School	63.6 %	36.4 %	25.2 %	
Vocational School	34.3 %	65.7 %	11.5 %	
University	17.8 %	82.9 %	14.8 %	
Occupation				22.07***
Professional	60.0 %	40.0 %	22.3 %	
Administrative	58.5 %	41.5 %	17.4 %	
Trade Man - Sales Man	68.4 %	31.6 %	12.5 %	
Housewife	71.4 %	28.6 %	6.9 %	
Technical	76.9 %	23.1 %	12.8 %	
Craftsman	92.3 %	7.7 %	10.2 %	
Student	40.6 %	59.4 %	10.5 %	
Unemployed	72.7 %	27.3 %	3.6 %	
Income				39.12***
Low	79.8 %	20.2 %	35.7 %	
Medium	66.0 %	44.0 %	48.2 %	
High	28.6 %	71.4 %	16.1 %	

*** Significant relationship for 0.01 significance level

One of the major aims of this study was to explore Ghanaian consumers' adoption of online banking practices. And further, the study focused on the main demographic factors that impact online banking adoption decision among Ghanaian consumers. To complete this objective, the

authors completed a comprehensive review of the literature, established hypotheses to guide the analyses and performed various statistical data dissections in order to examine the decision behavior of the consumers. The results of the hypotheses analyses is presented in Table 2.

Table 2 Hypotheses Analyses

H_1 There is a relationship between gender and online banking users/non-users	Supported
H_2: There is a relationship between age and online banking users/non-users	Supported
H_3: There is a relationship between education level and online banking users/non-users	Supported
H_4: There is a relationship between income level and online banking users/non-users	Supported

The results shown in Table 2 was for the hypotheses that was related to demographic characteristics of customers' who supported for age, gender, education and income, but rejected for marital status and occupation. This means that all of these demographic variables such as; age, gender, income and education do have an impact on the Ghanaian consumers' decision to adopt online banking services. The Chi-Square technique allowed testing of the significant differences between the socio-demographic characteristics and interest level of the event. Comparison of the different level of interest showed that generally, sample characteristics was fairly uniform in terms of marital status and occupation as confirmed by the values obtained in the Chi-Square analysis (X^2=13.163, p=.106) for marital status and (X^2=33.396, p=.096) for occupation. A significant relationship was between respondents' gender and interest level. Not very surprisingly male respondents were found with higher interest to the event than females. As well as demographic and socio-economic characteristics of respondents, information related to the frequency of visit to the bank branch, the period of maintaining the account, and time spent on the internet were also investigated. There were statistically significant differences between on-line bank users and non-users on the frequency of visits to the bank, period of bank account, the number of banks used, and internet usage (see Table 3).

Table 3: Banking Characteristics and Internet Usage of the Sample of Respondents

	Online Bank Non-Users (n=198, 64.9%)	Online Bank Users (n=107, 35.1%)	Percentage	Chi-Square
Frequency of Visits to Bank Branch				13.55*
Daily	54.2 %	45.8 %	7.9 %	
2/3 Times a week	63.6 %	36.4 %	7.2 %	
Once a week	67.8 %	32.2 %	47.9 %	
Once every two weeks	51.8 %	48.2 %	18.4 %	
Once a month	21.1 %	78.9 %	18.7 %	
Period of Bank Account				11.48*
Less Than two years	66.7 %	33.3 %	18.7 %	
Two up to 5 Years	73.7 %	26.3 %	44.9 %	
Five and more years	53.2 %	46.8 %	36.4 %	
Number of Banks Used				44.4*
1	77.6%	22.4%	63.0 %	
2	48.5%	51.5%	31.8 %	
Three and more	12.5%	87.5%	5.2 %	
Internet Usage				30.1*
Light Users less than 5 hours a week	77.9%	21.1%	40.0 %	
Medium Users 6-15 hours a week	65.9%	34.1%	40.3 %	
Heavy Users more than 15 hours a week	36.7%	63.3%	19.7 %	

* Significant relationship for 0.01 significance level

6.1 Commercial Bank Selection Criteria for On-line Banking Users versus Non-users

The t-test was used to test for the statistical significance of differences between on-line bank users and non-users. A mean score for the importance of each selection criteria for each group was calculated. The results of this analysis is as seen in Table 4. Online bank customers for all the requirements except counter partition, night depository, and on-line bank service attached less importance for selecting a commercial bank. External appearance, confidence in bank manager, overdraft privileges on checking accounts, and knowledgeable staff have almost the same significance for both groups. There were statistically significant differences in the selection criteria of an on-line bank customer and traditional bank customers. Non-users attached more importance to fast service, bank reputation and image, promptness in correcting errors, and accurate billing in selecting a commercial bank. All of the other factors were not significant for both groups.

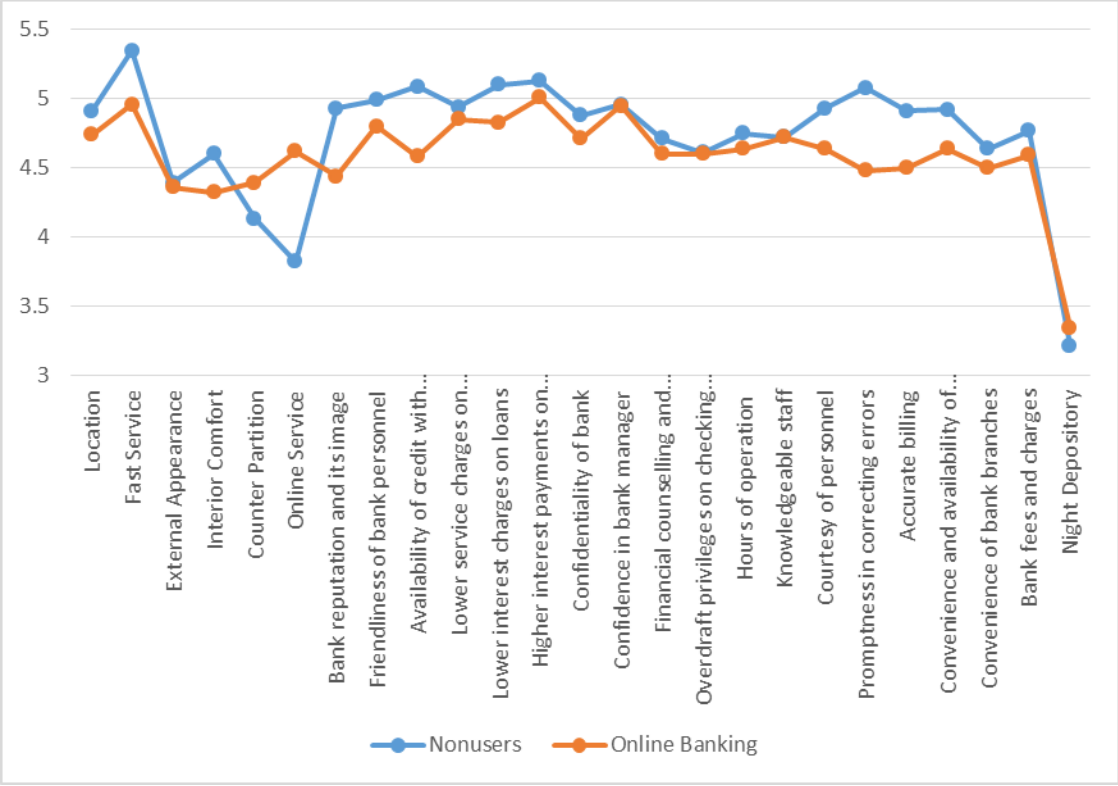

Figure 3: A comparative Profile of the Importance Given Selecting a Commercial Bank for Online Bank Customers and Traditional Bank Customers.

Table 4: Commercial Bank Selection Criteria Online Banking Users versus Non-Users

	Nonusers Mean	Online Banking Users Mean	t-test	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Fast Service	5.35	4.96	2.498	0.013	0.41	0.16
Higher interest payments on savings accounts	5.13	5.01	0.803	0.423	0.12	0.15
Lower interest charges on loans	5.10	4.83	1.665	0.097	0.26	0.16
Availability of credit with favourable terms	5.09	4.58	3.109	0.001	0.51	0.16
Promptness in correcting errors	5.08	4.48	3.64	0	0.6	0.16
Friendliness of bank personnel	4.99	4.8	1.178	0.24	0.19	0.15
Confidence in the bank manager	4.96	4.95	0.082	0.935	0.11	0.14
Lower service charges on checking account	4.94	4.85	0.519	0.604	0.89	0.16
Courtesy of personnel	4.93	4.64	1.771	0.078	0.29	0.16
Bank reputation and its image	4.93	4.44	2.596	0.01	0.49	0.18
Convenience and availability of ATMs	4.92	4.64	1.714	0.088	0.28	0.16
Location	4.91	4.74	1.079	0.316	0.17	0.17
Accurate billing	4.91	4.5	2.17	0.031	0.41	0.19
Confidentiality of bank	4.88	4.71	1.681	0.094	0.22	0.13
Bank fees and charges	4.77	4.59	1.143	0.254	0.18	0.16
Hours of operation	4.75	4.64	0.745	0.457	0.11	0.15
Knowledgeable staff	4.72	4.72	-0.017	0.987	0	0.14
Financial counselling and advisory services	4.71	4.6	0.702	0.483	0.14	0.16
The convenience of bank branches	4.64	4.5	0.72	0.472	0.14	0.19
Overdraft privileges on checking accounts	4.61	4.6	0.05	0.96	0.01	0.17
Interior Comfort	4.6	4.32	1.529	0.128	0.28	0.18
External Appearance	4.39	4.36	0.207	0.836	0.03	0.15
Counter Partition	4.13	4.39	-1.706	0.089	-0.03	0.15
Online Service	3.82	4.62	-3.85	0	-0.79	0.2
Night Depository	3.21	3.34	-0.707	0.48	-0.13	0.18

6.2 Type of Bank Service and Banking Methods (Traditional Banking vs. Online Banking)

Table 4 and Figure 4 present the preference of bank customers for different bank services by traditional and online banking methods. These results were based on only on-line banking users; non-users were excluded from the analysis since it is assumed that they prefer traditional banking for each service. The allocations can be followed in Figure 2. The results showed that many on-line banking users still prefer traditional banking methods for several banking services. According to the results in Table 4, applying for a personal loan, handling CDs, investing in stocks, purchasing insurance, saving plans, opening a new account, changing address and phone numbers, look up for financial news, and applying for mortgage were services significantly preferred by traditional methods even for those using online bank services. Handling bill payments, monitoring transaction history, review monthly statements, transfer between accounts, view previous payments, inquire about account balances, inquire about account summary and request for copies of reportswere services significantly preferred with on-line banking, Other services such as handling saving accounts, information about fund price, buy and sell foreign currency, check order, and buy and sell securities were services which were not significant in terms of traditional or on-line banking preferences.

Table: 5 Preferences for Type of Bank Services for Traditional and Online Banking

	Paired Difference Mean	**Std. Deviation**	**Std. Error Mean**	**T-test**	**Significance Level**
1. Applying for a Personal Loan	1.570	4.247	0.411	3.824	0.000
2. Handling CDs	1.776	3.720	0.360	4.938	0.000
3. Handling Bill Payments	-1.271	3.908	0.378	-3.364	0.001
4. Investing in Stocks	0.897	3.829	0.370	2.424	0.017
5. Purchasing Insurance	0.972	3.679	0.356	2.733	0.007
6. Handling Saving Account	0.131	4.003	0.387	0.338	0.736

	Paired Difference Mean	**Std. Deviation**	**Std. Error Mean**	**T-test**	**Significance Level**
7. Saving Plans	0.953	3.522	0.340	2.800	0.006
8. Monitor Transactions History	-1.607	4.179	0.404	-3.979	0.000
9. View Images of Cancelled Checks	0.748	3.598	0.348	2.150	0.034
10. Review Monthly Statements	-2.019	3.359	0.325	-6.217	0.000
11. Transfer Between Accounts	-1.103	4.302	0.416	-2.652	0.009
12. Information about Fund Prices	0.299	3.903	0.377	0.793	0.430
13. Open a new Account	1.701	3.834	0.371	4.589	0.000
14. View previous Payments	-1.159	4.010	0.388	2.990	0.003
15. Buy and Sell Foreign Currency	0.467	3.977	0.384	1.215	0.227
16. Changing Address, Phone number	1.103	4.114	0.398	2.773	0.007
17. Check Order	0.561	3.642	0.352	1.592	0.114
18. Inquire about account balances	-1.514	3.591	0.347	-4.361	0.000
19. Inquire about account summary	-1.626	3.758	0.363	-4.476	0.000
20. Lookup for Financial News	1.458	3.393	0.328	4.444	0.000
21. Request for copies of statements	-0.766	3.427	0.331	2.313	0.023
22. Buy/Sell Securities	0.579	3.827	0.370	1.566	0.120
23. Applying for Mortgage	1.159	3.454	0.334	3.471	0.001

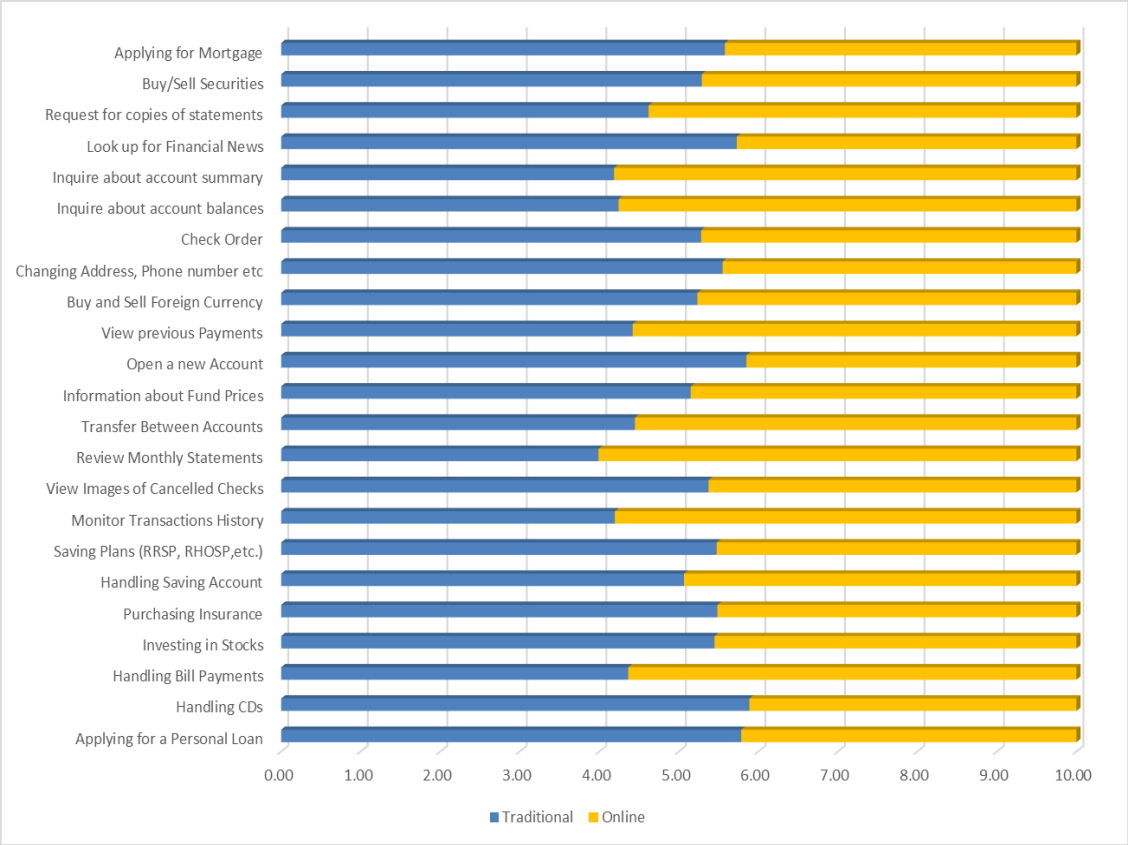

Figure 4: Allocation of Preference for Different Banking Service by Traditional and On-line Banking Methods

Table 5 summarizes the major services, according to importance, Ghanaian consumer preferences for various online banking services. Knowing this information gives bank managers insight into which preferred services they needed to devote more attention.

6.3 Reasons for not Using Online Banking

Respondents who did not use on-line methods indicated several reasons for not adopting to online banking. A five-point scale was used where 1= not at all important reason and 5= very important reason. The results showed that most important reason for not using online banking is security concerns and difficulty in completing a specific transaction. Second to the security concerns were the following issues: i.) slow download times, ii.) difficulty finding information, iii.) availability of

internet access, iv.) satisfaction with branch banking services, e.) navigation difficulties, v) inability to talk face-to-face with a bank representative, and g.) the complexity of connecting to the web.

Table 6: Reasons for Not Using Online Banking

Reasons	Mean	Std. Deviation
Satisfaction with Branch Banking Services	3.44	1.215
Security Concerns	3.71	1.274
Fee Charged for Services	3.14	1.270
The convenience of Bank Branches	3.28	1.316
Inability to Talk Face to Face	3.33	1.026
Don't have enough time to learn	3.11	1.223
No Paper Receipts	3.30	1.382
The difficulty of completing a specific transaction online	3.71	1.090
Slow download times	3.51	1.306
Haven't Got Around to It	3.22	1.305
Difficulty finding information	3.43	1.340
Service is New and Want to Wait	3.27	1.271
Don't have Internet Access	3.43	1.267
Don't understand How It Works	3.34	1.303
The difficulty of connecting to the web	3.32	1.336
Difficulties in Navigation	3.36	1.216

Table 6 provides a perspective on some of the reasons as to why Ghanaian consumers did not want to use Online banking services. Security and difficulty in completing the bank transactions seem to be the most important reasons for not adopting online banking services.

7.0 Conclusions

The findings will be useful for both practitioners and academics to give them a sense of the depth, direction, and acceptance of online banking in this developing country. The study furnish a theoretical and conceptual framework for future research studies in this growing field of study. The

initiation of internet technology has substantially transformed the way of banking industry service deliveries around the world today. Internet technology has transformed the marketing strategies of banking industry in the way they serve and deliver their services to the end consumer using the online banking. Some of the banking activities that have been facilitated through the use of online banking include handling bill payments, investing in stocks, monitor transactions history, review monthly statements, online transaction processing. The study expands the understanding of online banking usage and adaptation by studying users outside the U.S. In this regard, Ghana, a West African country with a low, middle-income status, becomes our focus. Ghana was a new environment, which can provide an understanding of whether marketers could use Online Banking as a valid commercial mechanism to achieve business objectives and goals. Banking in international settings (Ghana), as well as domestic environments (U.S), had a significant managerial implications. The research brought to light the differences between online and traditional bank customers when they decide on the commercial bank selection in a developing country.

7.1 Managerial Implications

The implications for using Online Banking in business transactions are substantial, and hence the study provides a broader understanding of its capacity as a financial tool for conducting business. It must be noted that online banking in Ghana is not widespread among banks across the country, and this is likely due to challenging barriers against both management and consumers. Managers need to emphasize to customers and stakeholders that there are:

- That a customer can manage his/her account 24/7 from any location that has an internet; and
- Can pay all bills without having to leave home or visit a bank.

Additionally, managers also have to recognize that there are some major factors that must be addressed in order for the implementation of online banking can be successfully implemented. Some of the factors that managers need to know are:

- Risk factor – participants need to be assured that their bank has a highly secure system with firewalls, encryption system and other essential security measures;
- Recognize that the customer's offline transaction behavior will influence the process of adoption;

- Consumer trust is a critical issue as to whether a customer will use online baking; and
- Four area that are crucial to success in online banking delivery – communication, privacy security and the reputation of the bank delivering the services.

Managers who conscientiously focus on these areas of concern, the implementation and performance of their online banking system will operate more smoothly and successfully

7.2 Future Research

Forthcoming research could encompass further antecedents of online banking approval allowing projection of overall customer satisfaction to a higher level, and bank type wise evaluation of such analytical relations. Several proposed issues for future studies can be recognized cost, recognized value and attitude toward use. Fields persists for studying the mediating effect of overall customer satisfaction of online banking customers on loyalty. Many developing countries are still under-researched in the area of IB, it should an extension of the growth of research studies particularly as many of them attempt to overtake with the developed countries on the internet banking trend.

Online banking literature indicates that along with the incentives for customers to use online banking is the development of Internet technology, trust, convenience, time efficiency and higher satisfaction of customers than the tradition. Furthermore, online banking encourages green banking via paperless transactions and less use of vehicles that reduces air pollution; but the online banking literature has not taken into consideration the sustainability concerns for online banking usage (Burhanudin, et al., 2019). Therefore, future studies should address if online banking commitment to environmental sustainability and happiness is a motivation to use online banking in developing beside just for the convenience reasons.

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