UNIVERSITY OF EDUCATION, WINNEBA

THE EFFECTS OF SECURITY AND PERFORMANCE RISKS ON CUSTOMERS' INTENTION TO UTILIZE ELECTRONIC BANKING BASED ON UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY

OBED ACQUAH

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A dissertation in the Department of Accounting, School of Business, submitted to the School of Graduate Studies, in partial fulfillment of the requirements for the award of the degree of Master of Business Administration (Accounting) in the University of Education, Winneba

NOVEMBER, 2021

DECLARATION

Student's Declaration

I, Obed Acquah, hereby declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own work, and that it has not been submitted for another degree elsewhere.

Signature: ……...…….

Date: ……...……

Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation were done in accordance with the guidelines for supervision of dissertation laid down by the University of Education, Winneba.

Dr. Philip Siaw Kissi (Supervisor)

Signature: ……...…….

Date: ……...……

DEDICATION

To my lovely mother, Madam Rebecca Jones and my siblings.

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Without my supervisor, Dr. Philip Siaw Kissi, this study would not have seen the light of day. I wish to thank Dr. Kissi for his words of encouragement and his constructive comments in shaping this work. In spite of the many times I failed to meet his deadlines, he never gave up on me and I am very grateful.

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LIST OF ABBREVIATIONS

ATM	-	Automated Teller Machine
AVR	-	Automated Voice Response
BI	-	Behavioral Intention
EE	-	Effort Expectancy
FC	-	Facilitating Condition
FTC	-	Federal Trade Commission
IT	-	Information Technology
PC	-	Personal Computer
PE	-	Performance Expectancy
PEU	-	Perceived Ease of Use
PIN	-	Personal Identification Number
POS	-	Point Of Sales
PR	-	Perceived Risk
SI	-	Social Influence
SMS	-	Short Message Service
SPSS	-	Statistical Package for the Social Sciences
SR	-	Security Risk
SWIFT	-	Society for Worldwide Interbank Financial Telecommunications
TAM	-	Technology Acceptance Model
TPB	-	Theory of Planned Behaviour
TRA	-	Theory of Reasoned Action
TTF	-	Technology Fit model
UTAUT	-	Unified Theory of Acceptance and Use of Technology
WAN	-	Wide Area Network

ABSTRACT

The study investigated factors that affect the intention to use electronic banking (E-banking) in Effutu Municipality. The study added security risk and performance into the Unified Theory of Acceptance and Use of Technology (UTAUT) model to investigate the intention to use E-banking. The study employed a cross-sectional survey research design with a quantitative approach to collect data from participants. A total number of 364 customers were conveniently selected from banks in the study area. The respondents‟ data were analyzed using linear multiple regression, means and percentages. The close-ended questionnaire was used as the research instrument in the study. The findings revealed that: (i) security risks, performance risk, effort expectancy, and social influence factors have an influence on intention to use E-banking. (ii) surprisingly, facilitating condition does not influence E-banking acceptance, (iii) the study revealed that security risk is the most important factor to determine the intention to use E-banking and (iv) the findings indicated that internet banking is the most demanded E-banking services in Effutu Municipality. The findings of this study could inform policymakers about factors that positively influence customers‟ intention to utilize E-banking, which might lead to the evaluation of the current E-banking services.

CHAPTER ONE

INTRODUCTION

1.0 Overview

This introductory chapter discusses the background to the study, statement of the problem, the purpose and the objectives of the study, research questions and hypotheses. It also talks of the significance of the study, delimitation of the study, limitation of the study, and organization of the study.

1.1 Background to the Study

Banks are important in every country and have a significant effect in supporting economic development through efficient financial services. For over a decade, banks have been affected by changes associated with globalisation and financial liberalization (Wang & Giouvris, 2020). The development of information and communication technologies offers innovative opportunities to establish business strategies focused on customer value co-creation. This situation is especially notable in the banking industry.

Internet and technological development have changed how financial services are offered and used (Malaquias & Hwang, 2019). Banks and many financial institutions suggest alternative innovative electronic channels for maintaining a competitive advantage and satisfying customer expectations (Lee & Lim, 2021). The use of E-banking offers a wide variety of services for customers, which provide them with value and create a competitive advantage over competitors, such as account checking, bill payment, transferences, or mobile phone text message notifications (Mostafa, 2020). However, it increased the vulnerability to fraudulent activities like spamming, phishing and credit card frauds causing security and performance risks in electronic

banking. Therefore, is important to investigate the impact of in ensuring banking security

1.2 Statement of the Problem

The massive usage of the Internet and electronic gadgets have captured the attention of researchers to E-banking. Previous studies (e.g., Glavee-Geo et al., 2017; Singh and Srivastava, 2020) show that previous works have studied the factors that encourage the adoption of E-banking (Mostafa, 2020). However, the acceptance rate of E-banking is below the expectation because of some risks, even though E-banking services offer several outstanding services to customers (Shankar et al., 2020).

There is the need to have advance trust, reliability, accessibility and awareness of E-banking services. Banks ought to likewise offer appropriate instruction and preparation to the clients emphasizing straightforwardness and wellbeing in utilising E-banking benefits so as to improve their general trust in the utilisation of electronic banking benefits in the long term to the self-employed. There is a need to make E-banking easy to understand since the banking customers in Ghana are yet to become technically equipped in using these services efficiently and effectively. The customers‟ schedules in the Effutu Municipality are always tight or busy coupled with the constant pressure and long queues in the banking halls which make it difficult to make time for daily or regular transactions with their banks. Moreover, the banks are often closed down when these self-employed retire from work. In addition, with the introduction of the E-banking services, one can access its services at any time of the day or even at night since the service has no time limit.

Again, technology in the outer world is not static. It keeps on changing and developing. At the same time, this developing technology is impacting continuously

on the ways of doing businesses and also about the willingness of customers towards organizations and businesses. In this respect, valuation of the customer willingness on a continuous basis is also important. Internet banking is also not in static state where it has fully developed rather it has been going through several changes over the times. Therefore, it is crucial to know that how changing world of internet banking is influencing intentions of customers. This offer is seen as a better offer to address the inconveniences of the traditional banking systems which is dominant among these customers, but it appears most of the customers in Effutu Municipality still stick to the traditional way in addressing their financial needs hence, the need to investigate the security and performance risks on customers‟ intentions to utilize E-banking services.

1.3 Purpose of the Study

In the light of the above, this study aims to examine the effects of security and performance risks on customers‟ intention to utilize E-banking based unified theory of acceptance and the use of technology.

1.4 Objectives of the Study

The objectives of the research were to investigate

1. Investigate factors (effort expectancy, social influence, facilitating conditions, security risks and performance risk) that affect consumer‟s intention to use E-banking
2. To find out the most important factors in the consumer‟s intention to use E-banking?
3. To find out the type of E-banking that is most in-demand in the Effutu Municipality.

1.5 Research Questions

This study is guided by the following research questions:

1. What are the factors ((effort expectancy, social influence, facilitating conditions, security risks and performance risk) that affect a consumer‟s use of E-banking?
2. What factors are most important in the consumer‟s intention to use E-banking?
3. What type of E-banking is most in-demand in the Effutu Municipality?

1.7 Significance of the Study

This research provides a series of contributions that can help identify decisive factors in the use of E-banking and encourage customer value co-creation through interaction with electronic services. This research would raise the awareness for the customers about the decision of using E-banking. the findings of the study provide stakeholders in the banking industry to identify and formulate strategies to promote E-banking.

1.8 Limitations of the Study

The study was limited to only customers in Effutu Manicipality which make it difficult to make generalization. However, the finding would be strictly applicable to the customers in the area of study and similar municipality.

1.9 Delimitation of the Study

The study is delimited to only the customers in the Effutu Municipality of the Central Region of Ghana. The current study will also be delimited to the performance and security risks associated with the usage of E-banking. It will also be delimited to the quantitative paradigm using the cross-sectional survey design. Instrumentally, the study is delimited to self-reporting instrument (structured questionnaire).

1.10 Operational Definitions

E-banking: The electronic channels such as ATMs, e-zwich, mobile banking and other related electronic means used by banks under this study in doing banking operations with their customers.

Attitude: A person‟s favourable or unfavourable assessment regarding the behaviour or system in question.

Intention: This is a measure of the strength of a person‟s willingness to use effort while performing a certain behaviour.

Trust: Trust alludes to the conviction that the guarantee of another can be depended upon and that, in unexpected circumstances, the other will act in a demeanour of goodwill and a benevolent manner toward the trustor. Trust has three qualities: capacity, benevolence, and trustworthiness (Guriting & Ndubisi, 2006).

1.11 Organisation of the Study

The study is organised into five chapters. Chapter One focuses on the introduction which discusses the background to the study, statement of the problem, the purpose of the study, the objectives of the study, research questions, significance of the study, limitation of the study, delimitation of the study, operational definition of terms as well as the organisation of the study. Chapter Two presents the theoretical framework. It also reviews the literature on E-banking services. Chapter Three addresses the research methodology. It discusses the research design and the rationale behind the choice. The target population, the study population, sample and sampling techniques are also discussed in this chapter. Also, the methods of data collection, analysis and ethical considerations are addressed. Chapter Four concentrates on the findings and

the discussion of the data. Chapter Five presents the summary of the study and this concentrates on the findings from the research, the conclusions and the recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews relevant literature in accordance with key variables of the study both theoretically and empirically. Having discussed different issues in the field of E-banking, this chapter seeks to probe further into the research framework adopted for the study. In order to effectively delve into the issue of the performance and security risks of customers intention to utilize E-banking in Effutu Municipality, this study sought to use the Unified Theory of Acceptance and Use of Technology (UTAUT) as its empirical lens. The reason behind the adoption of this theory is its ability to help researchers reach a unified view of users" acceptance of technology.

2.1 Theoretical Framework

Research on Internet banking adoption, which is guided by theoretically based approaches, tends to be dominated by the technology adoption theories. The theories usually employed include; Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB) and Theory of Reasoned Action (TRA).

2.1.1 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is a well-established social psychological model that is concerned with the determinants of intentionally planned behaviours (Fishbein & Ajzen, 1975). From a hypothetical perspective, the TRA is intuitive, parsimonious, and insightful in its capacity to clarify conduct, (Bagozzi, 2002). The TRA assumes that individuals are usually rational and will consider the ramifications of their activities before choosing whether to perform given conduct (Ajzen & Fishbein, 1980).

According to the TRA, behavioural intention is the prompt precursor of an individual‟s conduct. According to Ajzen and Fishbein (1980), the TRA posits that most behaviours of social relevance are under volitional control and are in this way unsurprising from expectation. The theory also recommends that in light of the fact that numerous superfluous components influence the soundness of intention, the relationship between intention and behaviour relies upon two variables: (a) the measure of intention must correspond to the behavioural paradigm in action, target, context, and time; and (b) intention does not change before the conduct is observed (Ajzen & Fishbein, 1980).

The TRA specifies that behavioural expectation is a function of two determinants: an individual variable termed attitude toward behaviour, and one‟s view of social pressures termed subjective norm (Fishbein & Ajzen, 1975). Attitude alludes to the individual‟s execution of the behaviour, rather than his or her performance in general (Fishbein & Ajzen, 1975). Subjective norm is a function of a set of beliefs termed normative beliefs. According to Ajzen and Madden (1986), normative beliefs are concerned with the probability that essential referent individuals or groups would endorse or object to performing the behaviour. According to the TRA, to get an assessment of a subjective norm, each normative belief of an individual is first multiplied by the motivation to comply with the referent and the cross-product is summed for all salient referents (Yousafzai, Foxall, & Pallister, 2010).

The TRA is a general model and, as such, it does not indicate the convictions that are operative for a specific behaviour (Davis, Bagozzi, & Warshaw, 1989). Thus, the researcher using the TRA must first identify the beliefs that are salient for participants regarding the behaviour under investigation. Furthermore, the TRA deals

with the prediction, rather than the outcome of behaviours (Foxall, 1997). In the TRA, conduct is controlled by behavioural expectations, in this manner constraining the consistency of the model to circumstances in which aim and conduct are much related.

The most astounding relationships between intention and behaviour are found where the transient gap between their expressions is insignificant. To take the extreme case of overcoming this, however, measuring intention and behaviour simultaneously fails to ensure a genuine test of the model‟s power to foresee what is to come. Best case scenario, validates the attitudinal premise of current conduct. Davies, Foxall, and Pallister (2002) suggested that in order to test TRA, actual behaviour should be measured objectively, and unobtrusively, without motioning in any capacity its association with the earlier intention estimation phase. A further requirement of the TRA is that behaviour must be under volitional control. Subsequently, the TRA is badly prepared to anticipate circumstances in which people have low levels of volitional control (Ajzen, 2002).

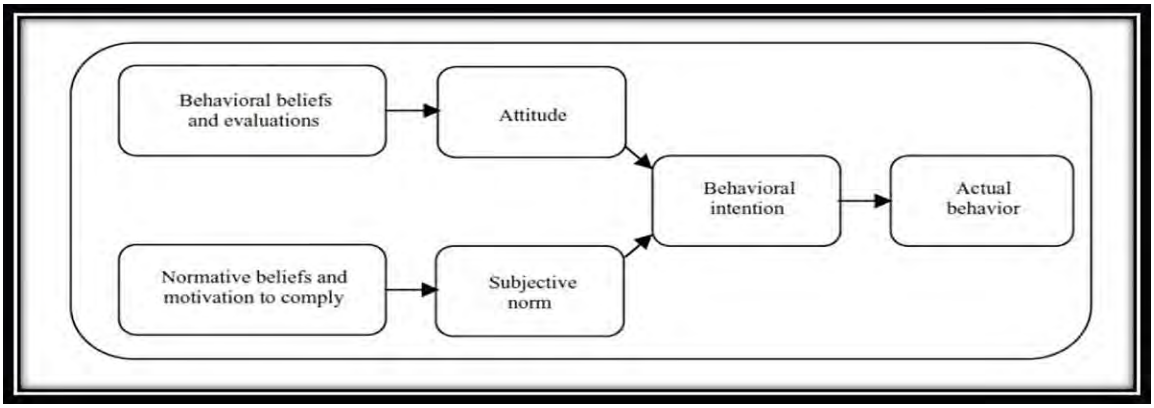

Figure 2.1: Theory of Reasoned Action.

Source: Fishbein and Ajzen, 1975; Yousafzai, Foxall and Pallister, 2010.

2.1.2 Theory of Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) that was introduced by Davis, Bagozzi, and Warshaw (1989) is one of the most cited models that researchers used to study underlying factors that motivate users to accept and adopt a new information system (Al Shibly, 2011). The primary goal of TAM is to provide an explanation of factors affecting computer applications‟ acceptance in general. In addition, this model helps researchers and practitioners to identify why a particular system is unacceptable (Davis, et al., 1989). Davis suggested that using an information system is directly determined by the behavioural intention to use it, which is in turn influenced by the users‟ attitudes toward using the system and the perceived usefulness of the system. Attitude and perceived usefulness are also affected by the perceived ease of use. According to TAM, greater perceived usefulness and the perceived ease of use of an information system will positively influence the attitude toward this system. The attitude, in turn, leads to a greater intention to use the system, which positively affects one‟s actual use of the system. TAM supposes that other things being equal, perceived usefulness is influenced by the perceived ease of use because the easier a technology to use, the more useful it can be. Perceived Usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived Ease of Use (PEU) refers to the degree to which a person believes that using the system will be free of effort. Attitude explains a person‟s favourable or unfavourable assessment regarding the behaviour in question. Intention is a measure of the strength of a person‟s willingness to use effort while performing a certain behaviour. The external variables in the model refer to a set of variables that can influence information system adoption indirectly through perceived ease of use and perceived usefulness (Davis et al., 1989). According to Taylor and Todd (1995),

constructs of TAM are almost measured in the same way in every context. Furthermore, TAM is a reliable instrument and empirically sound. Several meta-analysis studies have provided sufficient data about TAM to be highly credible and rationally explain up to 40 per cent of the behavioural intention to use (King & He, 2006; Yousafzai, Foxall, & Pallister, 2007).

For understanding, predicting and explaining why individuals/consumers acknowledge or refuse using of information systems; scholars developed several models in that regard, by Marina (2009) one of the most useful model in that regard is given name of the TAM, actually this model helps a lot in identifying and categorizing the factors which affect individuals for accepting or refusing use of technology applications. Whereas Sheikhshoaei and Oloumi (2011) indicated two models, they are the TAM and the Task Technology Fit model (TTF) which is frequently used by entities/organizations for explaining the acceptance of E-banking by consumers, actually these models offer quite dissimilar but occasionally overlapping point of views on the utilization behaviour of these electronic channels. By Sheikhshoaei and Oloumi (2011) the Task-Technology Fit model associates technology with performance and imagines that level of performance would go up when a given technology gives features and support that correspond with the requirements of the task. As a result for banks, they would take on E-banking technologies if it supports delivering superior quality services to consumers.

The main objective offered by the TAM model is to offer comprehensive clarification of factors that affect computer applications acceptance generally, and it also supports practitioners for identifying why a precise organism is intolerable and undesirable. Marina (2009) proposed that utilizing any type of information system is in a straight

line determined by the behavioural purpose of using it, which is in turn affected through the users‟ attitudes in the direction of utilizing the system and the perceived usefulness of the system, attitude and perceived usefulness are also affected by the perceived ease of use. By Rosenberg (2011) in accordance with TAM model, bigger level of perceived usefulness and the perceived ease of using an information system would optimistically influence the attitude in the direction of this system, the attitude, in turn shows the way to a bigger intention of using the system, which optimistically influences one‟s authentic use of the system.

TAM model actually assumes that, other-thing being equal, perceived-usefulness is influenced through the perceived ease of use for the reason that the easier a technology system to utilize, the more constructive and helpful it can be. Perceived usefulness can be describe like the extent to which consumers believe that utilizing a precise system would help to a great extent in enhancing their job-performance. Perceived ease of use actually defines the extent to which consumers believe that utilizing the technology system will-be free of effort (Rosenberg, 2011). Attitude (ATT) gives details about consumer‟s positive or unfavorable evaluation about the behaviour in question, Intention (INT) can be define as a measure of the strength of consumers readiness for using effort while-performing a certain behavior. Whereas in TAM model external variables point to such variables which have capability of influencing information-system acceptance ultimately by perceived-ease of use and perceived usefulness (Gregg & Luke, 2010). According to Marina (2009) constructs of TAM are almost measured in the same way in every context, in addition, TAM model is a consistent tool and empirically sound. Quite a few meta-analysis research works have given adequate amount of data regarding TAM to be extremely plausible and realistically explain up to forty percent of the behavioral- intention to use. In

addition, quite a lot of research works have applied TAM for evaluating consumer"s adoption in diverse settings for example e-commerce (Hearn & Hearn, 2008); e-learning, internet banking and e-government (Azouzi, 2009).

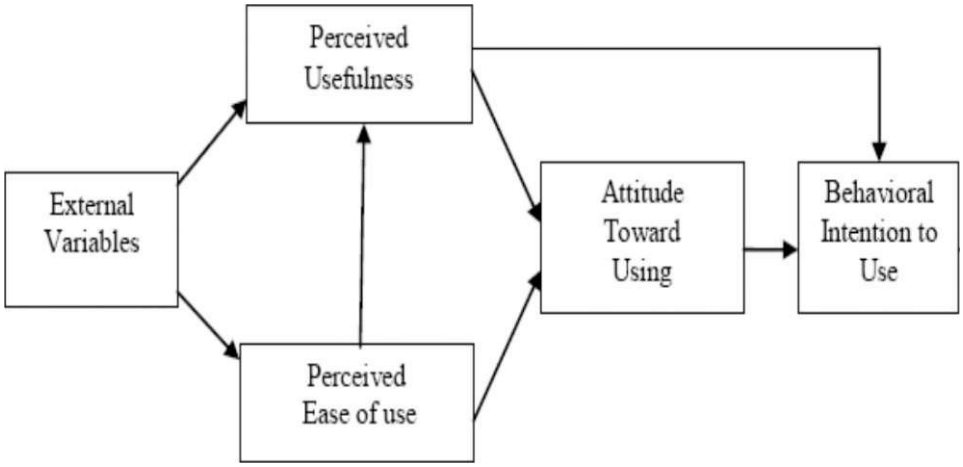

Figure 2.2: Technology Acceptance Model (TAM)

Source: Marina, (2009).

Though the above given technology acceptance models help organizations (banks) in identifying what exactly consumers consider before adopting a new thing, technology application, but they are just a general type of models. Britain is a developed country where people/consumers from almost all over the world come here, so in presence of multicultural environment it is essential for banks to use any other advanced tool instead of just TAM model or TPB model, and it is essential to take into account multiple dimensions in that as it is not easy to evaluate likings and disliking of consumers in a multicultural market towards online banking area.

2.1.3 The Theory of Planned Behavior (TPB)

The theory of planned behavior (TPB) suggested that human behavior is determined by intention to perform the behavior, which is affected jointly by attitude toward

behavior, subjective norm and perceived behavioral control (Ajzen, 2002). According to Warrington and Derrick (2010), the theory of planned behaviour (TPB) proposed that human behaviour is determined through purpose of performing the behaviour, which is influenced mutually through attitude in the direction of behaviour, subjective custom and perceived behavioural control, attitude (ATT) can be also as a broad sentiment of human regarding the attractiveness or undesirability of a precise behaviour, actually subjective norm (SN) states the perceived organizational or social stress of a person who plans of performing a precise behaviour. Perceived behavioural control (PBC) actually imitates a consumer‟s insight and awareness of the ease or complicatedness of executing a precise behaviour, the capability of TBP in giving a helpful hypothetical outline to understand and predict the acceptance of fresh information systems is made obvious (Warrington & Derrick, 2010). Gregg and Luke (2010) investigated earlier studies using the TBP in a meta-analysis study; the main conclusion was support for the efficacy of the TPB and the suggestion that more work on new variables is necessitated for increasing the inevitability of the model.

In Planned Behavior (PB), the perceived risk of people can also affect their acceptance and adoption or rejection of new technology. Consumer behavior studies define perceived risk (PR) in terms of the customer‟s perception of the uncertainty and potential adverse consequences of buying a product or services. The degrees of risk that customers perceive and their own tolerance of risk tacking are factors that influence their purchase decision (Nasri, 2011). On another hand, introducing a new technology may involve both benefits and risks to the user, and before deciding to adopt the technology, the individual may want to weigh risks and benefits. Electronic banking services will not be an exception to this general rule. A larger perception of risk will reduce the perceived benefit of the technology (Horst, Kuttschreuter, &

Gutteling, 2007). Previous studies mentioned that perceived risk was a major factor that influences the adoption of electronic banking services (Polatoglu & Ekin, 2001; Tan & Teo, 2000).

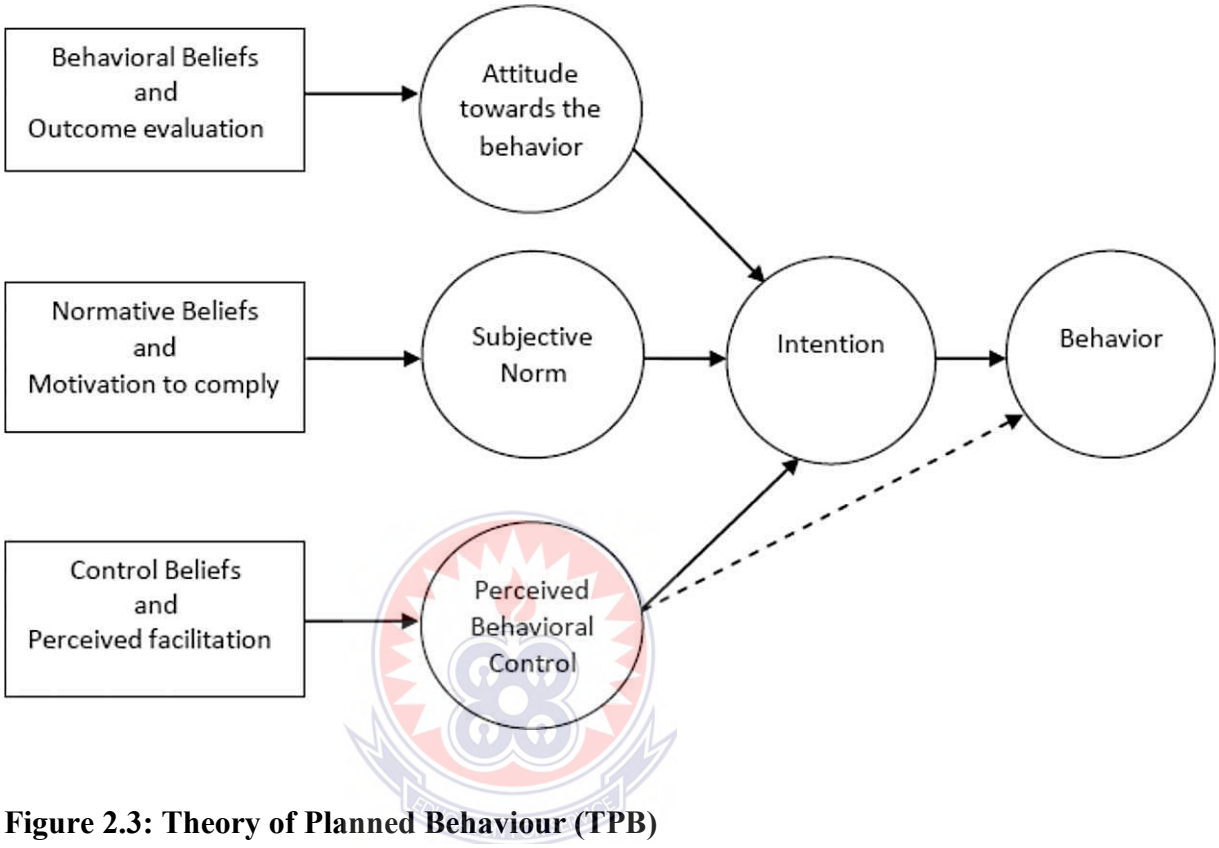

Figure 2.3: Theory of Planned Behaviour (TPB)

Source: Warrington and Derrick, 2010

2.2 Conceptual Review

2.2.1 The Concept of E-banking

The definition of electronic banking (E-banking) varies amongst researchers partially because electronic banking refers to several types of services through which a bank‟s customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols; 2000; Sathye, 1999). Different authors have defined it in different ways based on their understanding of the application of electronic banking. According to Daniel (1999), electronic banking is

electronic connection between the bank and customer in order to prepare, manage and control financial transactions. Sathye (1999) also asserted that electronic banking can be defined as a variety of the following platforms: (a) Internet banking (or online banking), (b) telephone banking, (c) television-based banking, (d) mobile phone banking, and (e) PC banking (or offline banking). In the opinion of Daniel (1999), E-banking is online banking (or Internet banking) which allows customers to conduct financial transactions on a secure website operated by their retail or virtual bank, credit union or building society. This implies that E-banking is a service that allows an account holder to obtain account information and manage certain banking transactions through a personal computer via the financial institution website on the internet.

For many consumers, electronic banking means 24-hour access to cash through an Automated Teller Machine (ATM) or Direct Deposit of paychecks into checking or savings accounts (FTC, 2006). But electronic banking now involves many different types of transactions. E-banking services are delivered through various electronic means collectively called electronic delivery channels. Electronic Banking is really not one technology, but an attempt to merge several different technologies. Each of these evolved in different ways, but in recent years different groups and industries have recognized the importance of working together (Abor, 2005). ATM banking is one of the earliest and widely adopted retail E-banking services in Kenya (Nyangosi, Arora, & Sumanjeet, 2009). It is described as a combination of a computer terminal, record-keeping system and cash vault in one unit, permitting customers to enter the bank‟s book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank‟s computerized records 24 hours a day (Rose, 1999). PC-Banking

is another channel that allows the bank"s customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer". Once access is gained, the customer can perform a lot of retail banking functions. The increasing awareness of the importance of computer literacy has resulted in increasing the use of personal computers. This certainly supports the growth of PC banking which virtually establishes a branch in the customers" home or office, and offers 24-hour service, seven days a week. It also has the benefits of Telephone Banking and ATMs (Abor, 2005). An Electronic Funds Transfer at the Point of Sale is another E-banking channel that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases (at purchase points). A POS uses a debit card to activate an Electronic Fund Transfer Process (Chorafas, 1988).

2.2.2 Forms of Electronic banking

Electronic banking (E-banking) technology represents a variety of different services, ranging from the common automatic teller machine (ATM) services and direct deposit to automatic bill payment (ABP), electronic transfer of funds (EFT), and computer banking (PC banking).

2.2.2.1 Internet banking

Internet banking is a new age banking concept. It uses technology and brings the bank closer to the customer. Internet banking refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank"s website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations (Thulani, Tofara, & Langton, 2009). According to Essinger (1999),

internet banking is: “to give customers access to their bank accounts via a web site and to enable them to enact certain transactions on their account, given compliance with stringent security checks”. Internet banking provides convenient and flexible services to customers. It enables customers to transact almost all their banking transactions online. One could check accounts, query the bank and also transfer funds to other people on different accounts, it is the most financially savvy innovative method for yielding higher profitability. Another feature of internet banking is that it gives 24/7 access to customers.

2.2.2.2 Telephone Banking (Telebanking)

Telebanking (telephone banking) can be considered as a form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing Automated Voice Response (AVR) technology” (Balachandher, Santha, Norhazlin, & Rajendra, 2001). It allows consumers to phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts (FTC, 2006). As indicated by Leow (1999), telephone banking offers several advantages for customers and banks. It provides convenience, easy access and customers also saves time. On the part of the banks telephone services are less costly than those of branch based services. It has almost all the benefits of ATMs, except that it lacks the productivity generated from cash dispensing by the ATMs. Customers get access to banking services at their various offices and homes.

2.2.2.3 SMS Banking

Short Message Service (SMS) banking uses short text messages sent through the client‟s mobile phone. SMS text messages can be used for both passive and active operations similarly as with classic telephone banking. A client can automatically receive information about his/her account balance: an SMS is sent to the client immediately after a certain operation is performed, or on request: a client sends the bank a correctly formatted message which processes it and answers the client‟s request by SMS.

2.2.2.4 Automated Teller Machines (ATMs)

Rose (1999) as cited in Abor, describes ATMs as follows: “an ATM combines a computer terminal, database system and cash vault in one unit, permitting customers to enter the bank‟s book keeping system with a plastic card containing a PIN or by punching a special code number into the computer terminal linked to the bank‟s computerized records 24 hours a day”. It offers a great deal of banking services to clients. They are mostly situated outside the banks. They were introduced initially to serve as cash dispensing machines. However, as a result of the rapid increase in technology, ATMs go to the extent of given accounts balances and bill payments. Banks use this electronic banking device, to gain competitive advantage. The combination of automation and human tellers gives more productivity for the bank during banking hours. It additionally spares time in customer service delivery as customers do not queue in banking halls, and along these lines can invest such time spared into other productive activities. ATMs are efficient method for yielding higher profitability as they accomplish higher efficiency per duration of time than human tellers (a normal of around 6,400 exchanges for every month for ATMs contrasted

with 4,300 for human tellers (Rose, 1999). Furthermore, ATMs ability to work after banking hours provide continue productivity.

2.2.2.5 Personal Computer Banking

Personal Computer Banking is a sort of service which provides the bank‟s clients to access their banking data through a restrictive system, through software installed on their personal PC. By having access the customer can perform a great deal of banking services. The significance of PC proficiency has brought about expanding the utilization of PCs. This positively bolsters the development of PC banking. Customers have access banking services even at their homes and offices (Abor, 2005).

2.2.2.6 Branch Networking

Networking of branches can be depicted as the computerization and between associating of geographically diverse stand-alone bank branches, into a framework of Wide Area Network (WAN) for making and sharing of solidified client data (Abor, 2005). It provides quick inter-branch transactions and hence the effect of time and distance are eliminated. Almost all banks in Ghana have various branches across the country networked. Regardless of where a customer opened his or her accounts, he or she can access it anywhere.

2.2.2.7 Mobile Banking

A very recent addition to the electronic banking products in Ghana is mobile banking. Literally this is banking on the mobile phone. Mobile banking is a system or platform in which customers are automatically updated on any changes in their accounts. These changes are may come in the form of account debits and credits or any charges to the account. All it needs for mobile banking is a mobile phone with a well-

functioning text messaging system. SMS banking falls under this category. This system uses short text messaging system to inform customers of their account (Chovanova, 2006).

2.2.3 Benefits of E-banking

The transition to electronic banking, as opined in Chemtai (2016) offers major opportunities in terms of competitive advantage. Specifically, it provides banks with the opportunity to develop a stronger and more durable business relationship with their customers. For instance, it makes access to finance from banks attractive with funds appearing to be much more available (Salehi & Alipour, 2010), and customers are given the opportunity to conduct banking transactions with great peace of mind and at their convenience (Offei & Nuamah-Gyambrah, 2016). Before the introduction of electronic banking, transactions took a lot of time to execute and this was tiring. Now, services are rendered quicker with transactions much more accurate hereby saving time, as well as reducing human errors and clerical overhead cost. Some other benefits derived from E-banking are increased customer satisfaction, expanded product offerings and extended geographic reach. These have helped to attract more customers since the level of satisfaction is high and also helped to conserve the energy of employees therefore giving them the opportunity to put in their best into the roles they have to play in the bank. The advantages of E-banking can thus be summarized into increased bank productivity (Chemtai, 2016), increased comfort and timesaving, quick and continuous access to information, better cash management (Salehi & Alipour, 2010) and improved customer experience (Onodugo, 2015).

The benefits of electronic banking cannot be over emphasized. This is to say that it provides a lot of benefits both to the customer and the bank itself. To begin with a

foremost benefit of E-banking service is competitive branding and as well as better appreciation of the market demands. As such banks that provide services are known to be leaders in technology implementation and advancement. Thus, the better image brand they enjoy.

The other advantages may be measured in terms of money. The primary objective of every institution is to increase profits with which banks cannot be excluded. Many contend that E-banking can do away with the hitherto laborious and less viable methods for banking. As indicated by perspectives communicated by Mols (2000) it was opined that the Internet is a revolution that will do away the old request holds much influence. The internet revolution in electronic-banking transaction is much less expensive than branch or even telephone transactions. According to Jen and Michael (2006) electronic-banking has made common open doors for banks and businesses around the world, and that is clear in the way they sort out financial transaction. Although opportunities to banks, there are various difficulties such as the innovation of IT applications, the obscuring business sector limits, rupturing modern boundaries, the passage of emerging competitors, and the development of new plans of action (Liao & Cheung 2008).

Studies by Rikya (2007) and Han (2008) on the presentation of internet banking and prospects for Bangladesh presumes that the coming of advances has truly gotten data upheaval the general public and that Internet Technology is rightly viewed as the third flood of upset after the farming and mechanical unrests. The approach and adoption of the internet by businesses has uprooted the constraint of time, distance and communication making the globe a little village. Han (2008) likewise discovered

the good effect of information technology on SME finance. SMEs that adapt E-banking are more productive than those that utilize conventional channels.

According to Rotchanakitumnuai and Speece (2003), E-banking provides various benefits to both banks and customers. With electronic banking customers can check accounts, transfer money and can have access to numerous banking products and services. There is no need for Customers to visit banks to make transactions, (Cheng et al, 2006).

E-banking assumes a vital part in the economy helping buyers and sellers to make financial worth via the exchange of goods and services by avoiding physical contacts (Bakos, 1998). Through electronic banking, banks have the capacity to draw in versatile clients which give to a great degree huge profit by giving portable money related services. Wind (2001) demonstrated that numerous banks are roused to actualize E-banking by components identifying with augmenting their profit through expansion market scope. The increased use of credit cards is attributable to electronic banking. Customers are able to shop worldwide without the need of carrying paper money.

2.2.4 Challenges of E-banking

Research by Daft (1982), demonstrated that the rise of E-banking may be a smart thought however with respect to customers they may confront some risk connected with the specific type of innovation. Daft identified what he described as strategic risk. Management of financial institutions should know and understand risks associated with E-banking and provide remedies for it. Poor E-banking planning and investment decisions can increase a financial institution‟s strategic risk.

The costs of establishing E-banking services are high. Establishing a trusted brand is very costly as it requires the purchase of expensive technology. Some of the problems that customers face in using electronic banking services include risk arising from fraud, network and system errors and other unanticipated events resulting in the organization‟s inability to convey banking products and services. This risk could be inherent in different products and services (Earl, 2002).

Earl (2002) further commented that banking activities can expand their activities of establishment‟s and the amount of its transaction or operational risk, particularly if the organization is putting forth imaginative administrations that have not been institutionalized. Financial institutions should therefore provide reliable services to help customers gain easy access at all times.

Another security issue associated with E-banking as introduced by the Economist journal (1999) recounts that E-banking insecurities is classified into three categories, firstly those associated with fraud and theft secondly those by hackers‟ and lastly flaws in systems design or set up leading to security breaches (genuine users seeing/being able to transact on other users‟ accounts). All of these insecurities have financial and legal reputations.

Other challenges associated with electronic banking span from the type of technology selected, lack of knowledge and lastly implementation. Earl (2002) furthermore identified that while managers understand their business and operational process, their employees mostly lack the skills and experience to adapt to software technologies and educate their customers.

In other to embrace global technology, there ought to be a satisfactory level of infrastructure and human capacity building before developing nations can receive the global technology for their nearby necessity. The Society for Worldwide Interbank Financial Telecommunications (SWIFT) to the internet shows that in many developing countries full migration has not occurred as a result of inadequate infrastructure, required technical expertise and working capital.

Many corporate and consumers in some developing countries do not have access to the necessary infrastructure to enable them to process electronic payments. There are a few ramifications of international electronic banking. It is realized that low transactional costs possibly makes it much less demanding to conduct international banking electronically. For some banks, cross-border operations offer a chance to harvest economies of scale. But it requires a higher level of supervision. In response, many financial institutions have already modified their regulations to achieve their main objectives, ensuring the safety and soundness of the domestic banking system, promoting market discipline, and protecting customer rights and public trust in the banking system.

While numerous commentators hold the view that web based business has many favourable circumstances for develop nations, the African mainland has various real difficulties to overcome before it can all the more completely endeavour the advantages of web-based business (Akoh, 2001). Xiao (2010) opined that in spite the fact that the Internet has made new potential outcomes for business banks, it has likewise opened the way to a few difficulties. Banks are ending up noticeably progressively progressing and interconnected, offering an assortment of self-

administration managing an account alternative on the web and subscribing to worldwide instalment frameworks and worldwide structures.

Shah and Clarke (2009) showed that the execution of E-banking can have various hindrances, for example, access to the Internet, which is yet troublesome in a few nations, notwithstanding the way that the development of the Internet is quick. The absence of PC education, high cost of equipment and call charges, and additionally different social and monetary variables are a portion of the reasons referred to for this. Concerning internet usage, Samuels (2002) expressed this is evolving quick, as an ever-increasing number of individuals associate with the Internet, and these numbers are relied upon to become significantly quicker with the development of versatile correspondences. A few banks have been reluctant to receive e-managing an account framework, dreading the high costs included and that it will be troublesome for them to coordinate the costs of contending Internet-just banks. These feelings of dread have ended up being noteworthy in most created markets (Xiao, 2010). Rabi (2011) outlined the difficulties in E-banking as takes after lack of lawful rights and electronic support, people do not care to uncover their accounts, lack of inspiration and culture preparing, lack of trust by clients, lack of security, lack of culture and information of banks about e-managing an account, management faltering to utilize specialists in IT area, traditional state of mind toward information re-building, lack of financial avocation and dangers required in utilizing E-banking frameworks and weakness of accessible offices.

In a few nations of the world, particularly creating nations, the absence of access to power is additionally one of the obstructions to the boundless selection of e-keeping money. As indicated by Digital Opportunities for Women (2009), financial

conditions, for example, destitution and absence of education, and additionally old-fashioned or prohibitive broadcast communications arrangements and constrained data innovation equipment and foundation, make it troublesome for creating countries to take an interest in web-based business.

2.3 Theory Adopted for the Study

After consideration of theories for this study, it was decided that the Unified Theory of Acceptance and Use of Technology (UTAUT) was the most appropriate.

2.3.1 Unified Theory of Acceptance and Use of Technology (UTAUT)

The UTAUT model is the consequence of other theories and models of technology adoption. It compressed the 32 variables of TRA, TAM, TPB, C-TAM-TPB, MM, MPCU, SCT, and IDT models into four main influential factors as well as four mediated variables to relatively cover all important aspects of them (Oye, et al., 2014; Tak & Panwar, 2017; Dwivedi, et al., 2019). The first model of the UTAUT was created by Venkatesh, Morris, Davis, and Davis in 2003 which can predict around 70% of individual‟s behavioral intention to use technology and 50% of technology use in the organizational context. These percentages of variance show a significant improvement over previous models, especially TAM model rates (TAM model forecast these variables between 30% and 40% respectively) (Oye, et al., 2014; Dwivedi, et al., 2019).

The first model of the UTAUT was initially developed to indicate employees‟ technology adoption and use, afterwards the second model of the UTAUT was extended in the context of consumers‟ technology adoption to critically investigate how this model can be developed to other ground (Venkatesh, et al., 2014). The

second model of the UTAUT added three new effect variables while dropping the voluntariness of use as the mediated variable. New variables involve hedonic motivation, price value, and habit. Hedonic motivation, which has been indicated to act significantly as a forecaster of consumers‟ behavioural intention, refers to the fun or pleasure that may come from using technology. Price value points out the level of consumer cognition about the degree of benefits that she/he perceive in comparison to the amount of money cost for using new technology. When the monetary cost is perceived lower than the benefits of using technology, the price value is positive and such price value will have a positive influence on consumers‟ behavioural intention. Finally, habit refers to behaviours that people perform automatically because of learning, therefore, there is a strong predictor of future technology use based on their previous use. In this case, habit is measured based on self-reported perception (Venkatesh, et al., 2014). Since its inception in 2003, researchers have increasingly turned to test UTAUT to explain technology adoption. It was tested and applied to several technologies, such as online bulletin boards (Marchewka, Liu, & Kostiwa, 2007), instant messengers (Lin & Anol, 2008), and web-based learning (Chiu & Wang, 2008). For instance, the adoption factors of Internet banking and mobile banking in Malaysia were investigated by Tan, Chong, Loh, and Lin (2010) with the use of this same model; Im et al. (2011) undertook to discover if the UTAUT constructs were affected by the culture, comparing the mp3 player and Internet banking technologies in Korea and the US; and Yuen, Yeow, Lim, and Saylani (2010) tested the UTAUT model in two groups of culturally different countries, i.e. the developed (the US and Australia) and developing (Malaysia) countries. Four main determinations of usage and intention namely performance expectancy, effort expectancy, social influence, and facilitating conditions were applied in the first

model of UTAUT. Moreover, four factors of age, gender, experience, and voluntariness of use were employed as mediated variables (Venkatesh, et al., 2003).

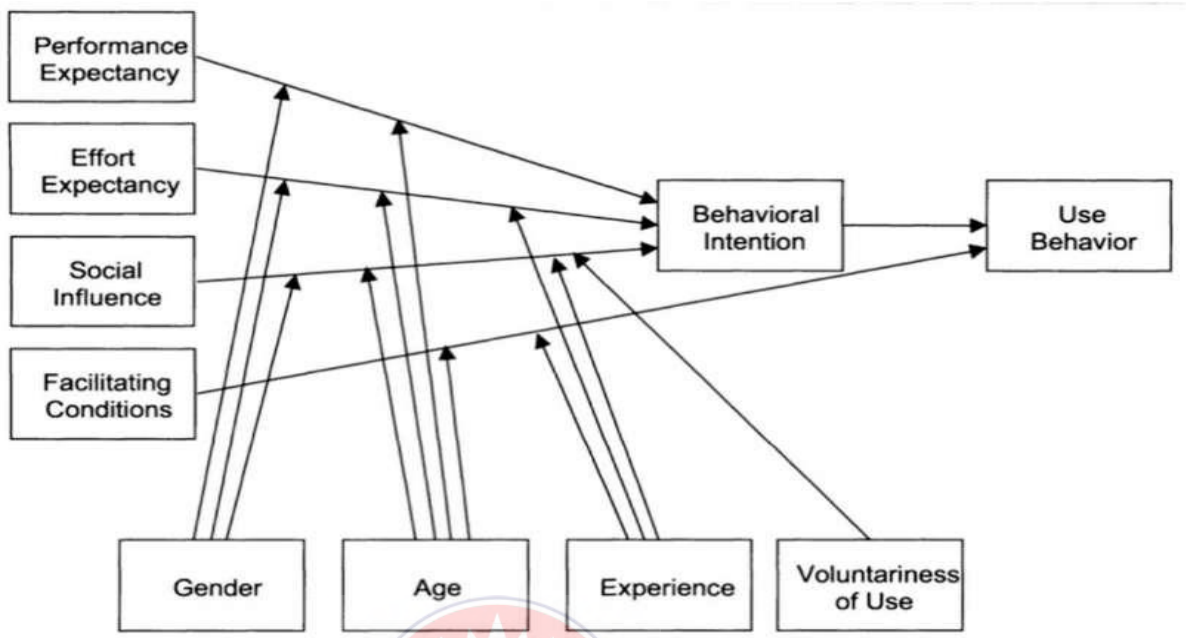

Figure 2.4: The unified theory of acceptance and use of technology model (UTAUT)

Source: Venkatesh et al. (2003)

2.3.1.1 Performance Expectancy

Performance Expectancy points out the level of individual perception about the usefulness of innovation and its function in improving her/his performance. It pertains to five variables namely perceived usefulness (TAM1, 2) (Davis, 1993; Davis, et al., 1989), extrinsic motivation (MM) (Davis, 1993), job-fit (Thompson, et al., 1991) relative advantage (Moore & Benbasat, 1991), and outcome expectations (Compeau, et al., 1999). Performance expectancy was defined as an individual understanding of the advantage of using a technological innovation that results in better outcomes (Zhou, 2010). According to Brown (2016), performance expectancy was the extent to which using E-banking would provide benefit to customers and led

to performance gains. The degree customers believed a technological innovation like E-banking helped them attain their goals as part of the expectations about performance (Chen & Chang, 2013). Previous research by Chen and Chang (2013) found that the use of E-banking services impacted the perceived performance expectancy of innovative technology payment. Chong (2013) proved that performance expectancy was the strongest determinant of behavioural intention to use E-banking. This is where a person thinks that the usage of a system will help him do his work well (Morris et al., 2003). In transacting a business with a bank, if customers get to know that an innovation like E-banking will help them to perform the transaction more easily, they are likely to adopt it. This is the reason why Abushanab and Pearson (2010) consider the Internet banking adoption by customers will be based highly on the performance expectancy of the system.

Broadly speaking, customers seem to be more motivated to use and accept new technology if they perceive that this technology is more advantageous and useful in their daily life (Alalwan, Dwivedi, & Williams, 2016). According to prior literature, E-banking has also been widely attributed as a more convenient channel that allows customers to access a wide range of services with flexibility in time and place (Alalwan, Dwivedi, & Williams, 2016). Particularly, in their study to investigate the acceptance of E-banking, Zhou (2010) concluded that the clients‟ intention to use E-banking was significantly predicted by the performance expectancy.

2.3.1.2 Effort expectancy

Effort expectancy refers to the degree of individual perception about the innovation and its easiness to use. Three variables of perceived ease of use (Davis, 1993; Davis, et al., 1989), complexity (Thompson, et al., 1991), and ease of use (Moore &

Benbasat, 1991) are considered as roots of effort expectancy. Effort expectancy was defined as the level of ease associated with the use of a payment (Venkatesh et al., 2012), and it was repeatedly recognized as a critical predictor of a user‟s behavioural intention (Wong et al., 2015). Park and Ohm (2014) have shown that the user-friendliness of E-banking exerted a positive significant influence over the adoption of E-banking because the lesser effort was required to use the transaction. Prior studies suggested that effort played a crucial role in determining behavioural intention to use and actual use of technology.

A system that requires less effort to use will be referred by users no matter the usefulness of its counterpart. It is for this reason that computers with a Graphical User Interface (GUI) are normally preferred by people to those with command-line interfaces (Morris et al., 2003). It is believed that if bank customers see that it will take less effort to use Internet banking channels to perform most of their banking needs, they are likely to accept it.

Therefore, due to the particular nature of E-banking, which required a certain level of knowledge and skill, effort expectancy could play a crucial role in determining the customers‟ intention to use such technology (Alalwan, Dwivedi, & Williams, 2016). Several authors over the relevant area of interest have validated the impact of effort expectancy on the customer‟s decision to use online payment channels (Alalwan, Dwivedi, & Williams, 2016). The captured factors of expectancy effort (i.e. perceived ease of use) have been verified by different E-banking studies to have a crucial role in predicting customers‟ intention to use E-banking (Riquelme & Rios, 2010).

2.3.1.3 Social influence

According to Morris et al. (2003), social influence is a situation whereby an individual is likely will use a new system simply because someone who is closer to him is also using the same system. For instance, to enhance one‟s self-esteem, some people sometimes do conform to the wishes of their friends and family members to adopt innovations like Internet banking.

Subjective norm alludes to the individual‟s observation that a great many people who are important to him think he ought to or ought not to perform the conduct being referred to (Fishbein & Ajzen, 1975). This definition has been interpreted as perceived social pressure, where significant others try to persuade a person to perform, or to refrain from, the behaviour in question (Lee, Trimi, & Kim, 2013). It is supported that this construct is a critical factor for the adoption of technological innovations of potential users with limited experience (Karahanna, Straub, & Chervany, 1999), in which late adopters are more likely to be influenced by interpersonal imitation factors such as word-of-mouth or peer pressure (Lee, Trimi, & Kim, 2013). Subjective norm is identified as an important predictor of intention to use mobile commerce (Pedersen, 2005), which also underlines how social pressure in the use of internet banking can build the client‟s self-notoriety (Lee, Trimi, & Kim, 2013).

According to Kesharwani and Tripathy (2012), social influence is characterized as the persons‟ recognition that a great many people, for example, companions, family, partners, associates and social groups, who are critical to him think he ought to or ought not to utilize the Internet banking services. The importance of social influence in consumer behaviour is well-documented. In TRA, Fishbein and Ajzen (1975) first

introduced the term “subjective norm” to describe social influence. Later, social influence was used as a construct in UTAUT by Venkatesh et al. (2003). The importance of social influence on technology acceptance behaviour is widely acknowledged (Kesharwani & Tripathy, 2012). In recent years, researchers have incorporated social influence into the framework of TAM. Past research presents mixed results that show the direct impact of social influence on behavioural intention. TRA posits that social influence has a direct influence on behavioural expectation (Fishbein & Ajzen, 1975). This contention was bolstered by the discoveries of Venkatesh and Davis (1989) who likewise found that social influence exerts a significant effect on PU. In contrast, Mathieson (1991), Lewis et al., (2003) together with Shih and Fang (2006) did not find any significant impact of social influence on behavioural intention.

Social influence referred to the degree to which individuals perceived that significant others, such as family and friends, believed they should use a technology (Martin & Herrero, 2012). They tend to influence the behaviour of the person to adopt or use E-banking. Chong (2013) proposed that social influence played an important role in determining users‟ behavioural intention in the study of E-banking. Venkatesh et al., (2012) also described social influence as the extent to which an individual is concerns about the opinion and perception of others who were important to the person. Individuals who desired social acceptance likely comply with others‟ expectations, and it might contribute to an individual‟s behavioural intention to use the payment system (Gruzd et al., 2012).

2.3.1.4 Facilitating condition

Facilitating condition measure the level of individual perception about the degree of organizational and technical infrastructure that exist for assisting the use of the system (Rodriguesa, et al., 2016). The usage of a system will be enhanced if and only if certain infrastructures exist to support it (Venkatesh, et al., 2014). In the telecommunication industry for example, if a mobile network operator can increase its infrastructure in many cities and towns so that users can use it without any difficulty, it is likely to be attracted more people than its counterparts in the same industry. It is for this reason that India is noted as one of the fastest technological nations in the world because it has the technological infrastructure for consumers to adopt innovations easily (Tan, 2000).

Facilitating conditions can be considered to be construct-reflecting external situational enablers and constraints to behaviour. It can be described as the degree to which an individual believes that an organizational and specialized framework exists to bolster utilization of the system (Venkatesh, Speier, & Morris, 2003).

2.3.1.5 Behavioural Intention to use E-banking

The emergence of new retail channels such as the Internet and mobile commerce created requirements for new payment instruments to enable feasible and convenient transactions. While existing card payments were suitable for most purchases, their transaction costs were too high to be profitable in micropayment transactions (Mallat, 2004). E-banking has been suggested as a solution to facilitate micropayments in electronic and mobile commerce and to provide an alternative for the diminishing use of cash at the point of sale (POS) (Menke & Lussanet, 2006).

Mobile phones have several characteristics which make them useful for payment purposes. First, the proliferation of mobile telecommunications technology has made mobile phones increasingly common and available for users. Second, compared to fixed-line computers and telephones, mobile phones are closer to the user, which enables the storing of personal information in them and facilitates their use as a payment instrument. Third, existing telecom operator billing systems are already suitable for handling micropayment transactions. Finally, the success of early mobile content services such as logos and ring tones suggest that consumers are already accustomed to using their mobile devices for payment purposes.

As one of the most innovative and novel technologies, E-banking represents a good example of a mobile technology breakthrough in the payment sector, enabling customers to independently produce financial transactions (i.e. balance enquiries, fund transfers, payment of bills) through mobile devices, smart-phones, or Personal Digital Assistants (PDA) at the time and place that customers choose (Alalwan, Dwivedi, & Williams, 2016). In the mobile commerce and payment context, previous studies suggest that one of the key attributes impacting the relative advantage of mobile technologies and services was their independence of time and location (Carlsson et al., 2006; Constantiou et al., 2006; Jarvenpaa & Lang, 2005). E-banking provided customers with ubiquitous payment possibilities, timely access to financial assets and an alternative to cash payments.

2.3.1.6 Trust

Generally, many studies have explored the impact of trust on consumers „ perception of accepting electronic services (Roca, Garcia & Vega, 2009; Yousafzai, Pallister & Foxall, 2009; Chaouali, Helings, Thiel & Karl, 2016) and found that trust

considerably influences consumers‟ perception towards the use of electronic banking services.

Mayer, Davis, and Schoorman (1995) defined trust as behavioural, based on one person‟s beliefs about the attributes of another person. In the space of explanations, three dimensions of trust were suggested by McKnight (2005): trust disposition, structural assurance, and trust belief. Trust disposition is the general tendency of people to trust others, which can be expressed in the form of the personality trait. Structural assurance is the feeling of confidence in the institutional environment. Trust belief is the idea that the vendor‟s trustworthiness consists of a collection of clear convictions regarding honesty, benevolence, and competence.

In order for a client to have hope in E-banking, the individual must be made to accept that the transactional channel is secure and that no information sent through those channels is intercepted or given to a third party. Consequently, the absence of direct physical contact in an online transaction distorts the trust factor within a transaction (Chaouali, Heling, Thiel & Karl, 2016).

Trust is a significant concern about E-banking service acceptance. As we cannot presume that all E-banking -trade participants are truthful. The willingness to accept E-banking services depends on the customers‟ perceived trust. Thus, technology trust and bank trust are equally significant in securing customer trust.

There are no assurances that online shoppers do not act opportunistically at the detriment of the vendors. Concerning E-banking, trust is the appreciation of the availability of the required legal and technological frameworks and other standards in the wireless internet to ensure financial transactions with a bank are completed successfully (Roca, Garcia, & Vega, 2009).

Trust of the customers‟ needs to be created to lead to an acceptance of technology, thus, understanding and perceiving the needs of the customer is very useful for the banks in recognizing the obstructions towards acceptance and eliminating them. Kim, Gailite, Moussian, Goette, Frickle, Honeman-Capito, Grubmuller, and Wodarz (2009) reported that when E-banking is considered to be related with a higher risk compared with conventional banking, the individual‟s initial trust in services is evidenced as the required factor for using E-banking.

Furthermore, trust should be a crucial component in an online environment where the customer has no direct influence over the vendor‟s behaviour. The user‟s trust in an E-service is therefore a significant determinant in evaluating his / her understanding and embracing behaviours relevant to any E-banking service (Roca, Garcia, & Vega 2009).

2.3.1.7 Security

Financial services and organisations suffer yearly losses through crimes such as online banking, cheque and card fraud (Adams, 2010). Inadequate security potentially leads to financial losses, punitive measures by regulators and negative media publicity. E-banking services, therefore, contain risks that must be mitigated to instil and maintain customers' trust.

Managing the risk associated with security as well as diminishing its impact is an important issue that faces financial institutions as fraud techniques have become more advanced with increased occurrences (Adepoju & Alhassan, 2010). More so, the rapid advances in technology have introduced an increase of tools that can be used to carry out unauthorised behaviours (Alfawaz et al., 2010). Hence, there is the need for

careful management and continuous security improvements to prevent fraud (Giles, 2010).

The common use of the same passwords for many services increases the vulnerability whenever such information is stolen. This coupled with increasing cyber security threats such as phishing and hacking all contribute towards weakened authentication systems. Researchers have emphasised the need for additional security measures to confirm people's identity (Moskovitch et al., 2009). This coupled with the challenge of people compromising their PIN further weakens authentication systems (Raja, 2012).

It has been frequently mentioned that people are the weakest link in security chains (Sasse & Flechais, 2005). The management and implementation of security are done by people (Della-Libera et al., 2002). Consequently, bank employees and customers can both be seen as weak links. In some cases, internal staff are knowingly involved in compromising security to carry out fraud. Strategies employed include collaboration with security agents and bank officials who work with local and international networks (Aransiola & Asindemade, 2011). Therefore, bank staff present an immediate and constant threat to e-banking services and their users. Myyry et al. (2009) indicated that the majority of security issues are due to employees violating or neglecting their organisations security policies. To counter this, it has been suggested that banks make customers aware of the risks associated with E-banking so that they follow prescribed security guidelines (Krishnan, 2017).

2.4 Empirical Evidence

In this study, the intention to use E-banking referred to the customers who used E-banking to shop and make transfers. Besides, customers would continue to

use E-banking and make positive comments about it. Furthermore, they would recommend people around them to use E-banking.

Woldie, Hinson, Iddrisu and Boateng (2008) researched the influence of internet services on the effective delivery of banking services. They discovered several dimensions of service quality of internet banking such as accuracy, convenience, quality, complaint management, feedback, efficiency, customization, accessibility and queue management. All these service dimensions influence the acceptability of internet banking services by the customers. Regarding the need for internet banking, Alsajja and Dennis (2010) suggested that it has become a ‚need to have service. In the current era, because of fast changing world, internet banking has become the most important and recent technological innovation in the banking field. For delivering different types of services, internet media are used under this paradigm of banking. Because of the evolution of the internet, banking has evolved from physical branches to mobile phones of customers through which customers can withdraw their cash or check their bank balances.

Ozdemir and Trott, (2009) suggested that internet banking has been applied in different countries of the world. However, in some countries, its implementation is more easy and acceptable because of certain factors such as risk factors and technological development. Similarly, Sayar and Wolfe (2007) suggested that the development of information technology and the evolution of internet banking has changed the ways through which banks traditionally deliver customer services and implement their business strategies. Ortega, Martinez and Hoyos, (2007) researched that internet marketing facilitates customers in their daily life and professional life through funds transfer, bill payments and internet shopping. Internet banking has

been expanding continuously as the traditional banks have started to offer a financial portal to their customers. The concept of the portal bank has a start has offered a new role to banks to serve their customers. It is important to mention that having internet does not mean that banks will generate a continuous stream of revenue rather they need to offer a reliable and wide range of services through the internet (Cheung & Lee, 2006).

Kassim and Abdulla (2006) studied the intentions of customers towards internet banking and drivers of internet banking or customers. It was an exploratory study to evaluate that how customers accept internet banking services and which factors improve the usage of internet banking services by customers. The results of this study suggested that gender, education and income of the customers are important factors that promote the use of internet banking services. Kassim and Abdulla (2006) concluded that if internet banking quality is improved, the customers will have increasing intentions of using internet banking. Many customers prefer to use internet banking services because of the large scale benefits provided by technology-based banking.

While discussing the intentions of customers towards internet banking, Chin et al (2008) reveal that customers do not trust internet banking services because of two factors; reliability and security. Security is considered to be the most important and common factor which may turn on the intentions of customers about unwillingness to adopt internet banking services. Kim et al (2010) found that most of the customers do not trust the web because of holes in its security mechanism. In this regard, resolving security concerns is the most crucial factor in future for the development of internet banking services because customers perceive high risk in using the internet for

completing financial transactions (Lee, 2009). While discussing the intentions of customers, Chang and Chen (2009) have revealed that the potential adopters of internet banking services perceive that the technological solutions are not secure and safe and can cause mistakes and errors in accomplishing the transactions. Therefore, there are more likely not to adopt internet banking services.

Norzaidi and Sabrina (2011) have discussed that the security dimensions are highly important for converting negative intentions of customers towards positive intentions regarding internet banking services. This is because security has a positive relation to the adoption of internet banking services. In this regard, Hua (2009) suggests that the immediate need for bankers is to reduce the risk and frauds in internet banking. By doing so, bankers can improve customer confidence and customer retention. High security and reduced risk in internet banking make customers perceive internet banking as a secure and accessible delivery channel. Similarly, Goi (2007) has also suggested that the perceived reliability of customers towards internet banking has a positive influence on the internet banking adoption rate.

Customer intention of internet banking is also influenced by the credibility factor. Credibility refers to the idea the person finds from the other person which is desired. In banking cases, credibility aims at building a positive reputation of banks and transferring high confidence to customers regarding internet banking services (Shaki & Gevers, 2011). Customers may have several concerns and security issues in their minds which may turn on their negative intentions regarding internet banking (Liao & Cheung, 2008). However, if the bank‟s credibility is high, the customers are more likely to be assured that the transactions with the bank will be safe and secure. On the other hand, if the credibility of the bank is low, it is more likely that the customers

will develop negative intentions about the bank. While evaluating credibility, Hua (2009) has discussed two important issues which are privacy and security. He suggests that if banks assure that customer data will be kept secure and private, the chances of mishaps or inconsistency in the internet banking service delivery will be less. On the other hand, security in internet banking refers to the idea that the personal information and financial data of customers will be in safe hands and will not be misused (Norzaidi & Sabrina, 2011). The factors that create negative intentions in the minds of customers regarding internet banking, insecurity of information are the most important. Therefore, bankers need to resolve the concerns of customers regarding security and privacy.

Again, using the UTAUT. technology acceptance model (TAM) model put forward by Davis (1989) and the use of questionnaires, Ankra (2012) conducted a survey in the Greater Accra region with a sample size of 6 banks and 360 customers. He finds that all the banks are engaged in internet banking and had business websites. Customers of the banks are also found to be generally enthused and satisfied with the banks. However, the study finds out that most the customers do not visit the websites of the banks and do not patronize SMS banking though all the banks had this product (Abor, 2005). Customers are also found not to be patronizing the internet banking platform of the banks. Though most of the customers do not use internet products and services, they are satisfied with banks with state of the art technology.

In 2008, Woldie, Hinson, Iddrisu, and Boateng, (2008) conducts a study to examine how internet banking can improve the relationship between clients (firms) and banks in Ghana. A sample of 180 firms is used. The results indicate that as of then only 68% of the respondent firms have heard of internet banking whiles about 33% have

never heard of it. 55% of the firms indicate they do not patronize internet banking because of the fear of security. The majority of them indicates that even with the adoption of electronic/internet banking; they would still love to bank manually.

In Nepal, Khatri and Upadhyay (2013) use data from five banks and 60 of their customers to analyze internet banking. They find out that though the majority of the sampled customers of the banks use the internet generally and have some knowledge about internet banking, they had not developed completely the attitude to make use of the internet banking facility. Khatri and Upadhyay (2013) point out that the under-utilization of internet banking in the country is a result of inadequate awareness and the fear of security. Bad internet infrastructural development in the country was also cited as the major challenge of internet banking in the country.

Ahmad and Al-Zu'bi (2011) study the adoption of electronic banking in Jordan and the impact it has on customer satisfaction, loyalty and positive word of mouth. In using purposive sampling, they selected 179 customers from 24 commercial banks. The study finds a positive effect of internet banking on customer satisfaction, loyalty. In using the four major commercial banks in Botswana (Barclays Bank, First National Bank, Bank of Baroda and Standard Chartered Bank) and 100 customers from these banks, Mobarek (2007) studies electronic banking practices and customer satisfaction. The study focuses on the use of automated teller machines, the internet and telebanking. 98% of the respondents are satisfied and saw the use of the automated teller machine to be good. Though 88% of them do not use telebanking, 62% of the respondents do not see telebanking as important. 78% see internet banking to be important. On a whole, 72% of the respondents prefer electronic

banking to the manual type of banking. The study also finds out that electronic banking is more patronized by younger folks and business persons.

Ariff, Yun, and Zakuan (2013) examine the relationship and effect of electronic service quality on electronic loyalty in the internet banking industry in Malaysia. Specifically, the study is conducted on a particular commercial bank and 265 internet banking customers of the bank. The study finds a positive relationship between internet banking satisfaction and aesthetics (attractiveness and appearance of website) assurance and the rate at which customers are responded to. However, it finds a negative relationship with privacy.

Aghaei, Biglar, Jamshidian and Asadollah (2013) using 384 customers in Tehran investigate the effect of electronic banking on customer satisfaction finds a positive relationship between electronic banking services provided by the surveyed banks and customer satisfaction. A positive correlation between customers‟ income and satisfaction with electronic banking services is found. Customers‟ positive experience with electronic banking is positively related to electronic banking customer satisfaction. The study however finds a negative relationship between customers‟ education and their satisfaction with electronic banking services. Also, customers‟ satisfaction with services of electronic banking is negatively related to their acquaintance with the services provided by banks.

Bello (2005) uses some banks in Nigeria (First Bank Nigeria Plc, Zenith Bank Plc and Guaranty Trust Bank Plc) and 155 customers that maintain a current accounts with these banks, find the impact of electronic banking on customer satisfaction. The study finds out though most of the respondent customers patronize electronic banking, they still patronize the going of the bank branches to have an encounter with

the officials. It also finds out that users of electronic banking of the banks are not satisfied with the quality and efficiency of services.

2.5 Conceptual Framework

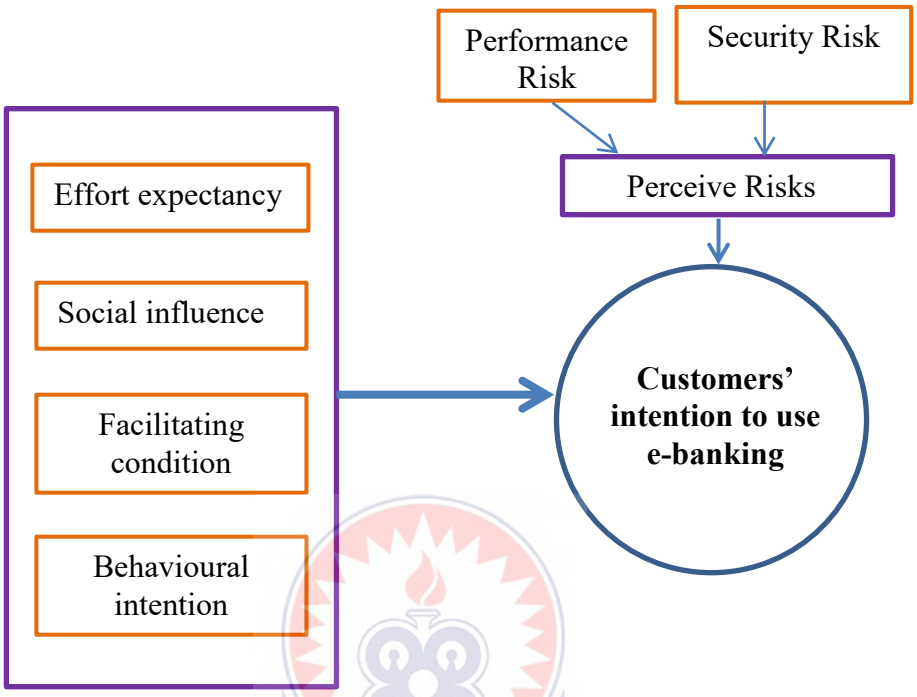

Figure 2.5 Conceptual Framework

Source: Designed by the Researcher, (2021).

In Figure 2.5, the information showed that there were two sets of variables. Independent variables include performance risks, security risks, effort expectancy, social influence, facilitating condition, trust and behavioural intention and the dependent variable of customers‟ intention to use E-banking.

2.5 Summary of the Chapter

This chapter reviewed literature about the effects of security and performance risks on customers‟ intention to utilize E-banking, a UTAUT-based empirical investigation in the Effutu Municipality. The first section of the literature review looked at the

theoretical framework of the study. The second section looked at the conceptual review and the final section reviewed the UTAUT-based empirical studies on customers‟ intention to use E-banking.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

In this chapter, the methodology adopted for the study is outlined. The chapter covers the research approach, research design, study area, population, sample and sampling techniques, instruments for data collection and data collection procedure. The final aspects of the chapter are methods of data analysis and ethical issues.

3.1 Research Approach

The research approach adopted for this study was a quantitative approach underpinned by the positivist paradigm. The quantitative approach involves the collection and analysis of numeric data to describe variables and their relationship (Walliman, 2006). Quantitative research collects data in the form of numbers and uses statistical types of data analysis (Creswell & Creswell, 2017). The choice of this approach was influenced by the purpose of the study which sought to investigate the effects of security and performance risks on customers‟ intention to utilize E-banking; a UTAUT-based empirical investigation in the Effutu Municipality. It is justifiable that the quantitative approach was chosen instead of a qualitative or mixed-methods because it requires collecting a large amount of descriptive information from a large population in a short amount of time. Therefore, a quantitative approach was both appropriate and practical for this study. Secondly, quantitative designs are well suited for testing theory and developing conceptual models (Creswell & Creswell, 2017). The quantitative research approach helps to measure social phenomena objectively and to test hypotheses. Again, it supports the use of inferential statistics for data analysis which is evident as the variables concerned lend themselves more to

inferential statistical analysis in an attempt to reveal the exiting reality of the objectives.

Additionally, the study used quantitative techniques because it involved the acquisition and interpretation of the data obtained through the questionnaire administered to the respondents and the results were presented in the form of discrete units that can be compared with other units by using statistical techniques. Moreover, the sample used for the study was relatively not small, to ensure transparency, reliability of data and avoid time constraints, the quantitative technique was deemed appropriate. Consistent with Bryman (2012) and Berg (2004) who point out that the quantitative approach uses different types of statistical analysis, and provides stronger forms of measurement, reliability and ability to generalise. The study was a quantitative one because the achievement of the research objectives involved the use of quantitative research tools in its data collection and analysis.

3.2 Research Design

Several researchers have offered their definition of research design. Neuman (2011) stated that a research design provides a plan or strategy with practical value to answer questions regarding social problems. In this definition, it is construed that a research design is a blueprint or a framework that guides a researcher in carrying out a study. The cross-sectional survey design was adopted for the study. Cross-sectional survey is a type of non-experimental research in which the manipulation of the variables and randomization of samples are not present (Gyensare & Asare, 2012; Leedy & Ormrod, 2010). This design was deemed appropriate because, the researcher approaches the phenomenon as it exists, affecting the direction in which inferences can be made about the study findings. Consistent with Osuala (2001), crosectional

survey is versatile and practical, because of its ability to identify present phenomena. Similarly, Fraenkel and Wallen (2000) say the purpose of descriptive research design is to observe, describe and document aspects of a phenomenon as it occurs naturally. The purpose of a cross-sectional study is either to describe the incidents of the phenomenon, or explain how factors are related in an organisation (Saunders, Lewis & Thornhill, 2012). Against this backdrop, Cross-sectional survey design was chosen for the study to enable the researcher to obtain in-depth information on the topic under study.

3.3 Study Area

The study was conducted in Winneba. Winneba is a town and the capital of Effutu Municipal District in the Central Region of south Ghana. Winneba has a population of 55,331. Winneba, traditionally known as Simpa, is a historic fishing port in South Ghana, lying on the south coast, 140 kilometres (90 mi) east of Cape Coast.

3.4 Population

A population of a study is the sum, aggregate, or the totality of the phenomenon which are of interest to the researcher (Best & Kahn, 2012). Kusi (2012) describe a population as a group of individuals or people with the same characteristics and in whom the researcher is interested. This definition implies that research population is the entire number of persons or groups that conform to specified criteria to whom the researcher generalizes the outcome of a study or intends to gain an in-depth understanding. The population for the study consisted of all bank customers in the Effutu municipality of the Central Region of Ghana. In undertaking a study of this nature there is the need to choose a reasonable number of customers to form the target population so that concise research can be carried out with a reasonable probability of

success. The target population is the entire set of units for which the survey data are to be used to make inferences. Thus, the target population defines those units for which the findings of the survey are meant to generalize (Saunders et al., 2012). In line with the current study, the target population consists of all bank customers within the Effutu Municipality. Though the population is finite, information is scanty on the actual number of bank customers. It is however estimated that there are not less than 20,000 bank customers within the Effutu Municipality.

3.5 Sample Size and Sampling Procedures

A research sample refers to a portion of the population selected for a study and on whom information needed for the study is obtained (Awoniyi, Aderanti & Tayo, 2011). The sample of a study is those who are chosen from the population to participate and produce data for the study. In this study, all the bank customers who were selected to take part in the study constituted the sample for the study.

Researchers have argued in favour of using a sample than a population for a study. For instance, the use of a sample saves a lot of time and money, and to obtain similar information that would otherwise be provided by the population (Bluman, 2010). Hammersley (2010) also believes that if the sample is selected carefully by employing the correct procedure, it is possible to generalize the findings to the entire population. The use of the sample is more economical in terms of resources (time, money) without compromising the credibility of the results. Sample size determination is vital in research. Hammersley (2010) emphasized that a sufficient sample size leads to the accuracy of the research findings. This implies that the use of an inappropriate sample size would impugn the validity of research findings.

Basing the calculation on the sample frame of 20,000 retail customers, a sample of 322 was chosen. The ideal sample for infinite populations as outlined by (Cochran, 1977) is given as:

$$SS = \frac{Z^2 * (P) * (1-P)}{C^2}$$

Z = Z - value

P = Percentage of population picking a choice expressed as a decimal

C = Confidence interval expressed as a decimal

Z - Values (cumulative normal probability Table) represent the probability that a sample will fall within a certain distribution.

The Z - values for confidence levels are:

1.645 = 90% confidence level

1.96 = 95% confidence level

2.576 = 99% confidence level

Source: Godden (2004)

In line with the current study, the following values were used:

Z = 1.96 for 95 percent confidence level

P = 0.5

C = 0.05 (5 percent margin of error)

Calculation for the infinite population

$$SS = \frac{Z^2 * (P) * (1-P)}{c2}$$

$$SS = \frac{1.96^2 * 0.5 * (1 - 0.5)}{0.05^2}$$

$$SS = \frac{3.8416 * 0.5 * 0.5}{0.0025}$$

SS = 384

Note: Finite population = 20,000

Note that 384 was the result of the initial calculation using the infinite population.

$$\text{New SS} = \frac{SS}{\left\{1+\frac{(SS-1)}{Pop.}\right\}}$$

$$= \frac{384}{\left\{1+\frac{(384-1)}{200{,}00}\right\}}$$

$$= \frac{384}{1.00255}$$

$$= 322$$

The calculation shows that the study cannot use less than a 322 sample size. Therefore, convenient samples of 364 respondents were selected for the quantitative study.

Sampling refers to a process of selecting a given number of subjects from a defined population as representative of that population such that any statements made about the sample should also be true of the population (Orodho, 2009). Polit and Beck (2010) also see sampling as the process by which researchers select a section of the target population to represent the entire population in a study. It is deduced from these definitions that sampling concerns the scientific procedures that researchers take to choose participants for their studies. The researcher used convenience sampling and stratified random sampling techniques to select the participants for the qualitative and quantitative phases respectively.

Convenience sampling is one of the major sampling techniques used for qualitative studies (Bloom & Trice, 2007). It involves the selection of participants based on their presence or absence at the time of data collection and their willingness to participate in the study (Saunders et al., 2012). Therefore, the inclusion criteria in convenience sampling are accessibility and preparedness of persons to participate in a study. For

this sampling, it is suggested that researchers establish a good rapport with those they intend to choose, and request from them (subjects) to volunteer to participate in the study (Somekh & Lewin, 2006). This approach was considered where the researcher approached the customers and implored them to participate in the study. The convenience sampling technique was chosen because the respondents were readily available and willing to participate in the study. Selected banks include Republic Bank, UniBank, Zenith Bank, GCB, UEW Credit Union, Akyeampim Rural Bank, Awutu Emasa Rural Bank Ltd, and Microfin Rural Bank Ltd.

3.6 Data Collection Instrument

A questionnaire was used to collect data for the study. Kothari (2004) described a questionnaire as a document that consists of several questions printed or typed in a definite order on a form or set of forms. Scholars like Gall, Gall and Borg (2007) recounted the merits of using a questionnaire as a data collection instruments such as low cost in terms of both money and time involved, and wider coverage of participants. The choice of the questionnaire was also influenced by Denzin and Lincoln"s (2012) argument that it enables the collection of structured information leading to straightforward analysis, quick results as well as its stable, consistent, and uniform method of collecting data. Apart from it being an efficient way to collect statistically quantifiable information, it is more reliable while its anonymity encourages a greater degree of honesty over interviews (Cohen, Manion & Morrison, 2011).

A structured questionnaire was used which requests the respondent to answer a series of pre-developed questions posed by the researcher with closed-ended items and a rating scale pre-determined responses options such that respondents respond to the

same items (Polit & Beck, 2010). The nature of the response is determined at the instrument preparation, and the responses of the respondents are restricted to the format provided. The closed-ended questionnaire that was used also reduced the burden of respondents providing their answers, and facilitated the quick collection of quantifiable data for statistical analysis (Polit & Beck, 2010). However, the structured questionnaire has been criticized that it is limited to population and does not provide an opportunity to collect additional information (Fraenkel & Wallen, 2000). This limitation however did not affect the study because participants were literate which made the choice of the questionnaire in this study more appropriate.

The questionnaire was made up of two sections. Section A was made up of the personal information of the respondents such as gender, age, and academic qualification. Section B was made up of questions comprised items on the effort expectancy, social influence, facilitating condition, behavioural intention, security risks and performance risks. The items of the questionnaire were adapted from the UTAUT model. There were 25 items in the questionnaire. The items were measured on a 7-point Likert scale such that 1= Strongly Disagreed, 2= Disagreed, 3 = somehow disagree, 4= Undecided, 5= somehow Agreed, 6 = Agreed and 7=Strongly Agreed. Researchers like Sarantakos (2005) support the use of the Likert scale in questionnaires because it offers a high degree of validity and reliability even if the scale contains a few items. I selected 324 participants to respond to the questionnaires.

3.7 Pre-testing of the instrument

Pre-testing of the questionnaire refers to testing the questionnaire on a small sample of respondents to identify and eliminate potential problems (Malhotra & Birks, 2007).

The questionnaire was pre-tested using a sample of 33 participants to determine its validity and reliability. The participants involved in the pre-test were bank customers at Awutu Senya East Municipal, but they were not part of the main study. The involvement of 33 participants in the pre-test was considered appropriate based on the suggestion of Cooper and Schilder (2011) that 10% of the sample size should be included in the pilot test. Since the sample size of the study was 324, the 33 participants for the pre-test were adequate.

3.8Validity and Reliability

Polit and Beck (2010) defined the validity of a questionnaire as the degree to which the instrument measures what it is intended to measure. Face and content validity were addressed in the study. Face validity checks that the questionnaire items appear to measure the concept being tested, and this was assessed by colleagues on the master's programme to read through the instrument to see if the questions appear to be relevant, clear and unambiguous (Jones & Rattray, 2010). They also expressed their views on the format, length and clarity of the questionnaire items after which their views were considered in fine-turning the instrument. Content validity, on the other hand, checks that enough relevant questions is covering all aspects being studied and that irrelevant questions are not asked (Parahoo, 2006). The supervisor checked that the questions reflected the concept being studied and that the scope of the question was adequate.

The reliability of a questionnaire refers to its ability to yield the data when it is re-administered under the same condition (Creswell & Creswell, 2017). In this study, the reliability of the questionnaire was addressed through internal consistency where the Cronbach alpha coefficient was computed to determine the reliability. Therefore, the

questionnaire was administered once to participants in the pre-test. The reliability of the instrument for each variable was assessed with Cronbach alpha exceeding 0.7 as suggested by George and Mallery (2003) as contained in Table 3.2. Based on these results in Table 3.1, it was concluded that the instrument was reliable.

Table 3.1: Reliability Results

Variables	Cronbach Alpha Coefficients
Performance risks	0.81
Security risks	0.72
Effort expectancy	0.77
Social influence	0.79
Facilitating condition	0.82
Behavioural intention	0.73

Source: Fieldwork Data, 2020

3.9 Data Collection Procedure

Burns and Grove described data collection as "the precise systematic gathering of information relevant to specific research objectives or questions" (2009, p.49). Therefore, data collection entails the use of instruments to gather data to provide answers to research questions. The data collection lasted for two weeks, commencing from 15th January, 2021 to 26th January, 2021. The researcher visited the customers and explained the purpose of the study to them. Having granted consent by the customers, the questionnaires were administered. The researcher personally administered the questionnaires to the participants and offered the opportunity to clarify concerns pertaining to the items, and the completed questionnaires were collected immediately and put into an envelope. The researcher made follow up with telephone calls and text messages to collect questionnaires that were not returned on the day of administration.

3.10 Data Analysis and Presentation of Results

According to Orodho (2009), data analysis is the process of systematically searching and arranging field notes, data and other materials obtained from the field to increase understanding and enabling one to present them to others. Data collected was analysed in light of the objectives of the study. According to Polit and Beck (2010, p. 45), "The purpose of data analysis is to organize, provide structure to, and elicit meaning from research data", therefore, data analysis is the process of synthesizing data and deriving meaning from them. The quantitative data were analyzed with the aid of the Statistical Product and Service Solutions (SPSS) version 21. Martin and Acuna (2002) recommended the use of the SPSS in data analysis because it can handle a large amounts of data, contains a variety of statistical procedures purposefully designed for the social sciences, and it is also quite efficient.

The research questions were analyzed using linear multiple regression, means and percentages. Descriptive statistics enabled the researcher to reduce, summarize, and describe quantitative data obtained from empirical evidence (Polit & Beck, 2010). Descriptive statistics including percentages, means, standard deviations and frequency tables were employed in the analysis to find out the effects of security and performance risks on customers intend to use E-banking services.

3.11 Ethical Issues

Research ethics are about identifying certain norms and standards of behaviour that researchers are expected to follow (Connolly, 2003). According to Polit and Beck (2010), researchers must deal with ethical issues when their intended research involves human beings. In carrying out this study, the researcher took cognisance of the ethical guidelines in order to protect the participants and the researcher. The

following ethical issues were addressed: informed consent, confidentiality, anonymity, permission, harm to participants and plagiarism.

According to Taylor, Peplau and Sears (2012), informed consent implies the agreement to participate in research after learning about the study, including possible risks and benefits. This implies that the participants must be aware of what the research entails and how they are going to benefit from the research. The customers were given time to consider the risks and benefits of being involved in this research and decide whether to take part without being coerced. Participants were also informed of all the benefits and risks of the study. The bank customers signed the consent forms. The participants were told about the general nature of the study as well as about any potential harm or risk that the study may cause. Afterwards, they accepted to take part in the study without being forced.

Cohen et al. (2011) defined confidentiality as not disclosing information from the participant in any way that might identify that individual or that might enable the individual to be traced. The researcher used coding abstracted data with unique identifiers rather than names and masking features of specific cases, institutions or settings that may make them recognisable even without names (WHO, 2013). The researcher considered the way the data were to be protected from unauthorised persons. Passwords were also used to protect the data on soft copies.

Anonymity means that we do not name the person or research site involved but in research, it is usually extended to mean that we do not include information about any individual or research site that will enable that individual or research site to be identified by others (Walford, 2005). In this study, numbers were used on questionnaires in place of participants names.

The balance of protecting respondents from harm by hiding their identity while, at the same time, preventing “loss of ownership” are issues that need to be addressed by each researcher on an individual basis with each respondent (Grinyer, 2002). In this study, the researcher made sure that participants were not exposed to physical, psychological and emotional harm. Sufficient information was provided to the participants so that they could make informed decisions. Data were not disclosed to any other person without the consent of the participants. The participants were asked not to write their names. References used in-text were acknowledged and that helped to avoid plagiarism.

CHAPTER FOUR

PRESENTATION, ANALYSIS, AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter deals with results and findings deduced from the responses to the questionnaires administered. The outcomes of the research are explained in detail. The results were presented in tables and analyzed in prose to the research objectives and questions. The results and findings of the study are presented under the following headings.

- Demographic information of respondent;
- Presentation of findings on research questions and hypotheses; and
- Discussion of the results.

4.1 Demographic Information of Respondents

4.1.1 Gender of the Respondents

The information in Figure 4.1 revealed that more females (n=228, 62.6%) than males (n=136, 37.4%) participated in the study. This implies that the findings of the study reflected the views of females more than the views of males.

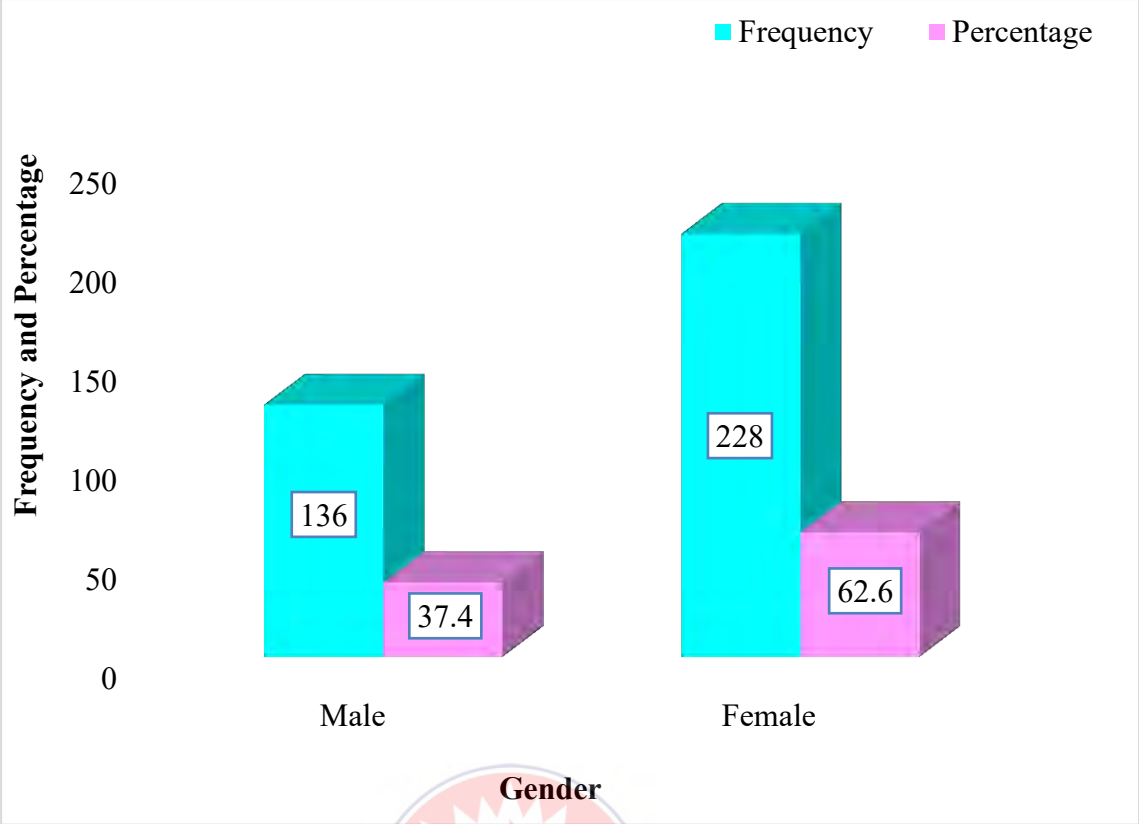

Figure 4.1: Gender Distribution of the Respondents

Source: Field Data, 2021.

4.1.2 Age of the Respondents

The findings in Figure 4.2 disclosed that majority of the respondents were 21-30 years (n=208, 57.6%) as compared to those who fe ll between 31-40 years (n=78, 21.4%), 41-50 years (n=56, 15.4%), and 51-60 years (n=20, 5.5%). Therefore, most of the respondents were youthful as compared to those who were old.

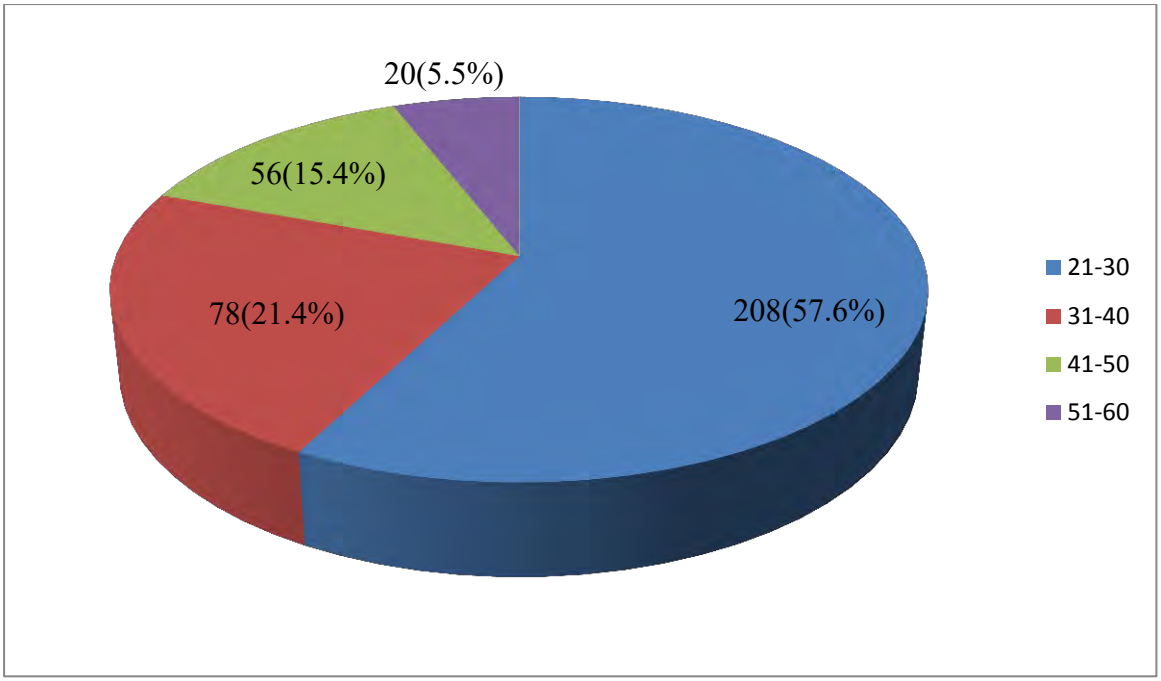

Figure 4.2: Age Distribution of the Respondents

Source: Field Data, 2021.

4.1.3 Academic Qualification of the Respondents

The composition of the respondents by academic qualification was examined. The academic qualification of the respondents included Diploma, Bachelor‟s Degree, and Master‟s degree, and the results are shown in Figure 4.3. The distribution of the respondents on academic qualification showed that more than half of the respondents had Bachelor‟s Degree (n=232, 63.7%), followed by those who possessed Master‟s degree (n=79, 21.7%), while those who had Diploma qualification constituted the least proportion of the sample (n=53, 14.6%). The findings showed that all the respondents were literates, and some have attained higher qualifications like masters degrees. Therefore, the respondents were deemed capable to provide valid data on the issues under study.

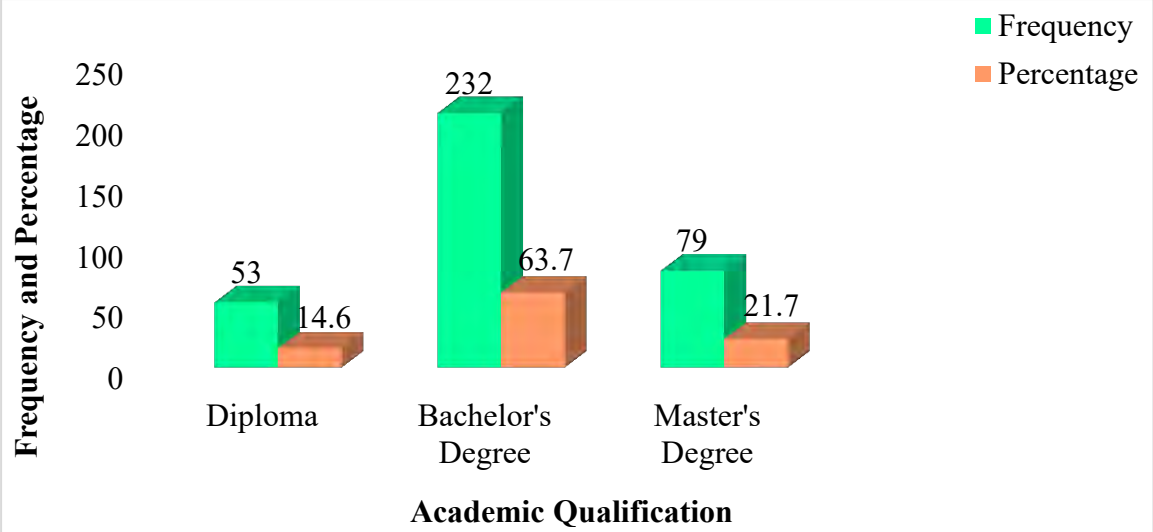

Figure 4.3: Composition of the Respondents by Academic Qualification

Source: Field Data, 2021.

4.2 Findings of the Study

4.2.1 Research Question 1

What are the factors (effort expectancy, social influence, facilitating conditions, security risks and performance risk) that affect a consumer's use of E-banking?

Descriptive statistics of factors: The responded survey questionnaire were measured from the seven-point Likert scale items on the variables ranged from 1 = strongly disagree to 7 = strongly agree: (1) behavioral intention, (2) Security risk, (3) performance risk, (4) social influence, (5) facilitating condition, and (6) effort expectancy were measured to find the overall average score (mean) and standard deviation. Behavioural intention and surety risk had a mean 5.23 (SD = 1.66) and 5.07 (SD = 1.84) respectively. This indicates that participant intention of using E-banking are high. Also, the participants believe that E-banking is useful in their daily transactions (performance risk (m = 5.25, SD = 1.62), find the E-banking services

easy to use (social influence (m = 5.19, SD = 1.53), have the resources necessary to use the E-banking (facilitating condition (m = 5.37, SD = 1.49) and encourage others to use the E-banking (effort expentancy (m = 4.96, SD = 1.66). The summary of the results is shown in Table 4.1.

Table 4.1: Descriptive statistics of variables (factors)

	N	Mean	Std. Deviation
Behavioural Intention	364	5.2285	1.65523
Security Risk	364	5.0728	1.84447
Performance Risk	364	5.2514	1.62040
Social Influence	364	5.1951	1.53183
Facilitating condition	364	5.3674	1.48585
Effort expentency	364	4.9610	1.65721

Table 4.2 displayed the standard regression model summary of Analysis of Variance (ANOVA). As shown in Table 4.2, F = 66.985, p = .000 and p < 0.05, which shows that the test is statistically significant. This suggests that the independent factors significantly related to students" behavioral intention to use a E-banking .

Table 4.2: ANOVA of regression significance

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	480.714	5	96.143	66.985	.000[b]
Residual	513.830	358	1.435		
Total	**994.544**	**363**			

a. Dependent Variable: Intention
b. Predictors: (Constant), Effort expentency, Social Influence, Facilitating condition, Performance Risk, Security Risk
Source: Author's construct, 2021.

The summary of the standard regression model in Table 4.3 represents multiple correlation values (R = 0.695). This show how well all the independent combine factors (SR, PR, SI, FC and EE) related to participants‟ behavioral intention (dependent factor) to use E-banking. Moreover, the Adjusted R^2 = 0.476 suggests that all the independent factors combine contributed 47.6% of the variances in participants‟ behavioral intention to use E-banking services.

Table 4.3: Standard Regression model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.695[a]	.483	.476	1.19803	.483	66.985	5	358	.000

a. Predictors: (Constant), Effort_expentency, Social_Influence, Facilitating_condition, Performance_Risk, Security_Risk
b. Dependent Variable: Intention

From Table 4.4, facilitating condition (β = 0.044, p = 0.340, p > 0 .05), is not statistically significant. This suggests that participants‟ behavioral intention to use E-banking is not influence by facilitating condition. However, security risk (β = 0.300, p = 0.000, p < 0.05), performance risk (β = 0.121, p = 0.020, p < 0.05), social influence (β = 0.137, p = 0.002, p < 0.05) and effort expectancy (β = 0.281, p = 0.000, p < 0.05) was statistically significant. This indicates that security risk, performance risk, social influence, and effort expectancy have positive influence on intention to use E-banking.

Table 4.4: Regression coefficient of the standard regression model

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.790	.290		2.728	.007
Security Risk	.269	.048	.300	5.630	.000
Performance Risk	.123	.053	.121	2.332	.020
Social Influence	.148	.047	.137	3.157	.002
Facilitating condition	.049	.051	.044	.956	.340
Effort expentency	.281	.048	.281	5.861	.000

a. Dependent Variable: Intention

4.2.2 Research Question 2

What factors are most important in the consumer's intention to use E-banking?

4.2.2.1 Comparative importance of the factors

Comparative importance of the factors As shown in Table 4.4 and Figure 4.4, security risk (SR) was found to be the most significant (β = 0.300, p = .000 (< 0.05)) and influential factor that contribute to the behavioral intention to use a E-banking in the study. The second most significant factor (β = 0.281, p = .000 (< 0.05) was effort expectancy followed by social influence (β = 0.137, p = .002 (< 0.05) and performance risk (β = 0.121, p = .020 (< 0.05). However, facilitating condition did not make any statistically significant contribution to the behavioral intention (BI) of participants (β = 0.044, p = .958 > 0.05).

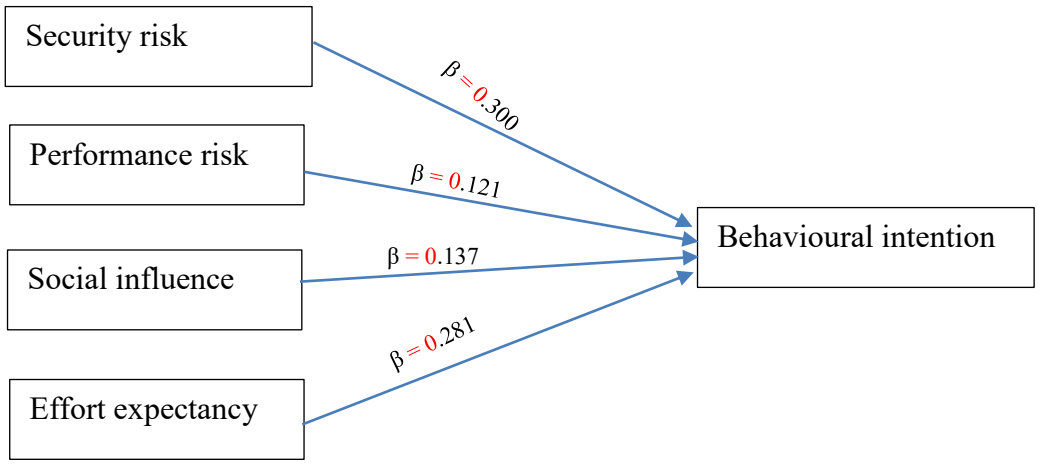

Figure 4.4: Comparative importance of the factors

Source: Author's construct, 2021

4.2.3 Research Question 3:

What type of E-banking is most in-demand?

The third research question sought to determine the level of customers patronage of E-banking services in the Effutu Municipality. Out of 364 participants, 90 (24.7%) indicated that they mostly use Automatic Teller Machines (ATMs). 142 (39.0%) of the respondents reported that they use mobile banking. Also, 45 (12.4%) stated that they prefer using E-zwich. 70 (19.2%) of the participant mostly use internet banking, while 17 (4.7%) used others (Table 4.5).

Table 4.5: Customers' demand of E-banking services

Customer's demand	Frequency	Percentage
Automatic Teller Machines (ATMs)	90	24.7
Mobile banking	142	39.0
E-zwich	45	12.4
Internet banking	70	19.2
Others	17	4.7

Source: Field Data, 2021.

The findings as indicated in Table 4.5 and Figure 4.5, suggested that Mobile banking is in high demand followed by Automatic Teller Machines (ATMs)

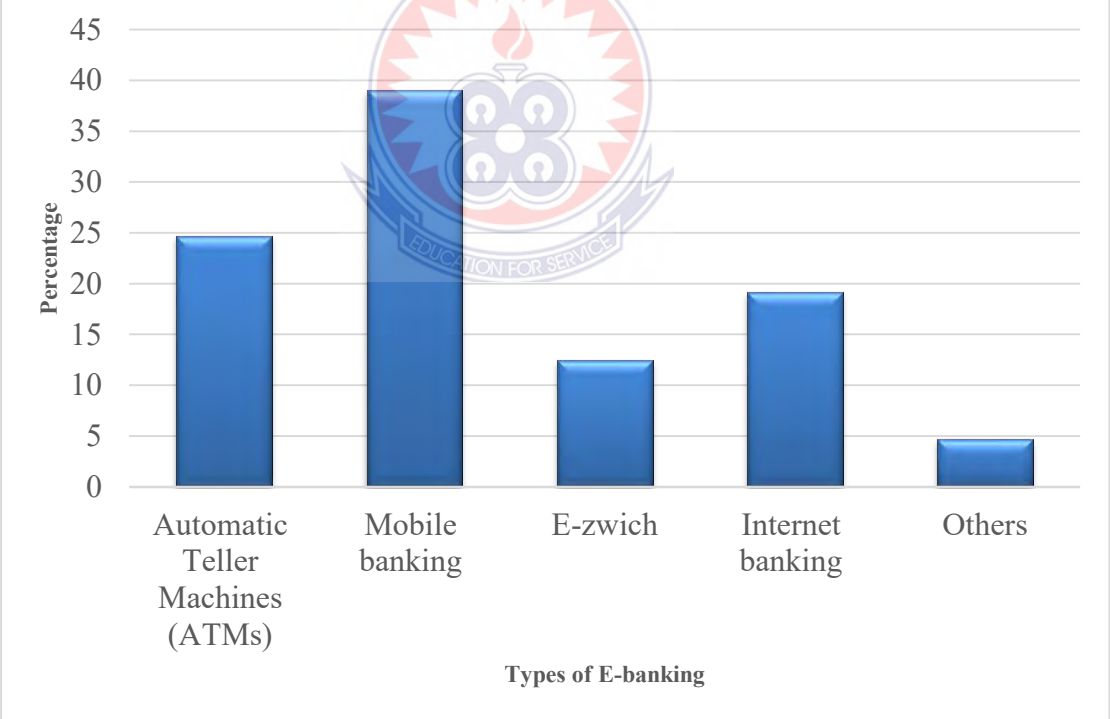

Figure 4.5: E-banking demand

Source: Field Data, 2021.

4.3 Discussion of the Results

The first research question aimed to find out the factors that affect a consumer‟s use of E-banking. The finding indicated that effort expectancy and social influence have a positive influence on intention to use E-baking. This finding is consistent with studies (Rahi et al., 2018; Yu, 2012) which indicated that the four factors of the UTUAT modal have positive internet banking. Also, the finding specified that intention to use E-banking is influenced by security risk and performance risk.

In addition, the result of the finding reported that security risk (β = 0.300) is the most important factor for the consumer‟s intention to use E-banking. This finding is in line with the studies (Khedmatgozar, 2021; Rahi and Ghani (2018) which suggested that perceived technology security were the most important factor to determine users‟ intention about the adoption of internet banking.

Moreover, the result of the finding indicated that mobile internet is the most frequent use among other E-banking in the area of study. In support, Patel and Patel (2018) reported that Internet banking has attained widespread acceptance not only in developed countries but also has gained a foothold in developing countries.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This study sought to investigate the effects of security and performance risks on customers‟ intention to utilize E-banking in the Effutu Municipality. The data for the study were collected from 364 participants using structured questionnaires. Data collected were analysed using linear multiple regression, mean and standard deviations

5.1 Summary of Key Findings

The major findings of the study are as follow:

The research objective investigated whether effort expectancy, social influence, facilitating conditions, behavioural intention, security and performance risk influences customers‟ intention to use E-banking in the Effutu Municipality. Overall, the findings revealed that perceived performance and security risk, perceived trust and effort expectancy were the major factors that determined whether customers used E-banking services or not.

The second objective determines the most important factor that predicts the intention to E-banking. The result of the finding suggested that security risk is considered an important factor in the E-banking context.

The third objective of the study assessed the most frequently use of E-banking services in the Effutu Municipality. The result of the finding indicated that mobile internet is the most frequent use among the participant.

5.2 Conclusion

This research examined the factors affecting internet banking utilisation in the Effutu Municipality from the customers' perspective The examination of the effects of security risk, performance risk, effort expectancy, facilitating conditions, behavioural intentions and social influence factors on internet banking adoption in Effutu Municipality showed that with the exception facilitating conditions, the other constructs had influenced on the way customers adopted internet banking in Ghanaian banks. There was a significant relationship between security risks and behavioural intentions to adopt internet banking as well as performance risks and internet banking usage. A study conducted on Internet Banking Security Strategy: Securing Customer Trust revealed that the perception people have about the security of internet banking come from the awareness of the threat and the trust of the providers and the system used (Twum, 2012). It is therefore important for the banks to make sure that the issue of security should be given the needed attention if they want customers to accept internet banking and use it as expected in the years ahead. The use of UTAUT as the theoretical model in this study to examine the effects of security risk, performance risk, effort expectancy, facilitating conditions, social influence and behavioural intentions on internet banking utilisation in the Effutu Municipality from the consumers' perspective was useful in bridging the research gap. The study further revealed that trust shows a significant positive relationship with the behavioural intention of customers to use internet banking in Ghana.

5.3 Recommendations

In line with the major findings of the study, the following recommendations were made:

1. Banks must also endeavour to guarantee the safety and security of online transactions. This will go a long way to instill confidence in the adoption of E-banking products.
2. Further, the study revealed that ignorance on the part of the customers with regard to the use of electronic banking services was a challenge. The only 'cure' to ignorance is education. Based on this it is recommended that the banks should embark on rigorous mass public education to sensitize the customers on the usage of electronic banking services. This can be done on public forums, print media, television shows to mention a few.
3. With respect to marketing strategies, it is recommended that the financial institutions should adopt research and development (R&D) as the major marketing tool. This will focus on identifying new opportunities and applying new technologies to satisfy customers‟ needs. In this way, promotion of the utilization of financial services (E-banking) by customers will be enhanced.
4. The study established that ATM and mobile banking usage was high among customers. This was positive and encouraging. It is recommended that more user friendly automated teller machines be put not only at the bank premises but also around vantage points within the metropolis to boost business transactions. Again, frantic efforts should be made to acquiring cash deposits ATM machine as done in some parts of the world.

5.4 Managerial Implications

This study shows that not only, consumers find new E-banking technology as a threat but they feel a lack of control over the consequences of using new emerging E-banking technology. These kinds of emotions influence negatively their effort expectancy which means that consumers who feel loss emotion probably find difficult a new emerging E-banking technology to use. In other words, consumers who felt angry, frustration, and annoyed when faced with a new E-banking technology, would perceive difficult it to use them. Loss emotion could also impact consumers‟ performance expectancy indirectly which means consumers may find the new emerging E-banking technology unfunctional or at least less useful. Eventually, these emotions could indirectly and negatively influence consumers‟ behavioral intention through their effort and performance expectancy. Considering these factors can help managers in the banking context to show consumers by advertisements how they can easily manage and control their financial activity with the help of new emerging E-banking technology. Also, they can consider the meaning of threat and opportunity in their advertisement to indicate to consumers how they can reach their financial goal like transferring money with the help of new emerging E-banking technology. Furthermore, managers should consider that positive emotions have not been considered by consumers as influential as negative emotions in the E-banking context. In contrast, consumers‟ negative emotion can impact their behavioral intention to adopt new E-banking technology indirectly and negatively through their effort expectancy and performance expectancy. Thus, it seems practical that managers try to avoid everything that may evoke consumers‟ negative emotions because the influence of negative emotions appears more than positive emotions.

5.5 Suggestions for Further Studies

In future studies, I recommend that researchers modify the UTAUT survey instrument to capture participants‟ comments. Alternatively, researchers could adopt a mixed-method approach which has a qualitative component to capture the participants‟ opinions and feedback through semi-formal interviews. Including a qualitative design could strengthen the data collection process by capturing participants‟ opinions and lived experiences with open-ended questions. Again, future research should therefore include new validated theories as foundation frameworks. Likewise, researchers can include other variables such as self-efficacy and cyber security as factors affecting customer adoption of E-banking.

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APPENDIX

UNIVERSITY OF EDUCATION, WINNEBA

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING

QUESTIONNAIRES FOR BANKING CUSTOMERS

Dear Respondent,

I am a student in the University of Education, Winneba, pursuing Master of Business Administration programme in the Department of Accounting. I am presently conducting a research on "THE EFFECTS OF SECURITY AND PERFORMANCE RISKS ON CUSTOMERS" INTENTION TO UTILIZE E-BANKING: A UTAUT-BASED EMPIRICAL INVESTIGATION IN THE EFFUTU MUNICIPALITY". I assure you that all information obtained will be held in strict confidence, and it will only be used for research/ academic purposes. Your names or departments will not be included in this research.

Thank you very much for your cooperation.

Section A

Instruction: ***Please tick (√) as appropriate.***

1. Sex: Male [ ] Female [ ]

2. Age:

Less than 20 years [ ] 20 – 25 years [ ] 26 – 30 years [ ] 31 – 35 years

36 - 40 years [ ] 41 years and above [ ]

3. Current level of education

Diploma [ ] Bachelor"s degree [ ] Master"s degree [ ]

Others, please specify …….

Section B

Student's behavioural intention to use accounting information system

Explanation: Please tick [√] into [ ] that matches your information the most.

1. Which of the services of E-banking do you mostly use? Choose the most prefereable one.
    a. ATM
    b. Mobile banking
    c. E-zwich
    d. Internet banking
    e. others, please specify …….

Section C

Read the following statements, and then use scales below to indicate the degree to which you agree or disagree with each statement. There is no right or wrong answers.

Key: SD= Strongly Disagreed, D= Disagreed, SHD = somehow disagree, U= Undecided, SHA= somehow Agreed, A = Agreed and SA=Strongly Agreed.

Statements	Choose **ONLY ONE** Option for each statement						
	SD	**D**	**SHD**	**U**	**SHA**	**A**	**SA**
Effort Expectancy							
I think that learning to use the E-banking would be easy for me.							
My interaction with E-banking would be clear and understandable.							

It would be easy for me to become skillful by using E-banking.							
I would find the E-banking easy to use.							
Social Influence							
People who are important to me think that I should use E-banking							
People who are familiar with me think that I should use E-banking.							
People who influence my behavior think that I should use E-banking.							
Most accountants surrounding with me use E-banking.							
Facilitating Condition							
I have the resources necessary to use E-banking.							
I have the knowledge necessary to use the E-banking.							
It is easy for me to get assistance if I needed help using E-banking.							
E-banking is compatible with other technologies I use.							
Behavioural Intention							
Given the opportunity, I would use E-banking for all							

my accounting duties.							
I would recommend others to use E-banking for all accounting duties.							
I intend to use E-banking in the future.							
I intend to use E-banking as an autonomous accounting tool for all my accounting duties.							
Security Risk							
I trust in an online bank as a bank.							
I am not worried about the security of an electronic procurement system.							
Matters of security do not influence using an electronic procurement system.							
Online customer service keeps accurate records of my account transactions.							
My E-banking password may be stolen.							
My funds may be fraudulently transferred from my account to other‟s account.							
My personal information may be shared by the bank with third party.							

Performance Risk							
I worry about whether the electronic procurement system will perform as well as it is supposed to.							
I am concerned that the electronic procurement system will not provide the level of benefits that I would be expecting.							