CHRISTIAN SERVICE UNIVERSITY COLLEGE

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

EXAMINING THE DETERMINANTS OF MOBILE MONEY CONTINUANCE USAGE AMONG BANK CUSTOMERS IN GHANA.

BY

JENNIFER ABAYAA

MAVIS AMOAH

SAMUEL OWUSU ABOAGYE

YAMOAH SAMUEL

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A PROJECT WORK SUBMITTED TO THE SCHOOL OF BUSINESS, CHRISTIAN SERVICE UNIVERSITY COLLEGE, IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF THE AWARD OF BACHELOR OF BUSINESS ADMINISTRATION (ACCOUNTING OPTION).

JULY 2020

DECLARATION

We have read the university regulations relating to plagiarism and certify that this report is all our own work and do not contain any unacknowledged work from any other source. We also declare that we have been under supervision for this report herein submitted.

| Jennifer Abayaa . | | |
|----------------------|-----------|------|
| 10003708 | Signature | Date |
| Mavis Amoah | | |
| 10002810 | Signature | Date |
| Samuel Owusu Aboagye | | |
| 10002787 | Signature | Date |
| Yamoah Samuel | | |
| 13015762 | Signature | Date |

SUPERVISOR'S DECLARATION

I declare that I have supervised the students undertaking the study herein and I confirm that they have my permission to present it for assessment.

| Mr. Etse Nkukpornu | | |
|----------------------|-----------|------|
| (Supervisor) | Signature | Date |
| Dr. Mrs Ama Quartey | | |
| (Head of Department) | Signature | Date |

DEDICATION

This project work is dedicated to Mrs Margaret Yamoah, Mrs Ellen Owusu Aboagye, Mr and Mrs Amoah, Kingsford Brakatu who out of their motivation and advice have helped us complete our project. We say that may the almighty God out of his abundant grace richly bless them all. We also dedicate this work to Mr. Etse Nkukpornu, our supervisor and the entire staff of the Accounting and Finance Department who have all out of their help been our source of inspiration.

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ABSTRACT

This study sought to find the influence of mobile money continuance usage among bank customers in Ghana. This study is underpinned by the information system success theory. The study is a descriptive survey design and a quantitative approach that presents results in mean and standard deviation scores, frequency distribution tables. The study found that system quality is a determinant of mobile money continuance usage among bank customers in Ghana. The study used a sample size of 100 respondents, a structured questionnaire is used to collect primary data. The data is coded and analyzed using Microsoft excel and SPSS version 21. The findings of this study contribute to existing literature on the sector and provides more insight into the operations of the sector and direct policy decisions of policy- makers and telecom operators.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Mobile business and mobile money transactions continue to increase due to the rapid development of mobile internet technology and smart devices (Cao et al., 2017). This is due to the increasing usage of mobile devices among users in developing and developed economies (Baabdullah et al., 2019). Mobile technology and its usage has been developing very fast across the world (Zhou, 2014). In Ghana, Boateng (2016), indicated that the acceptance and the usage of mobile money increase daily. This resulted in major telecommunication firms introducing mobile money services. The increasing development in the mobile money sector could be linked with increase in the ownership and use of mobile phones by individuals and businesses across the globe (Boateng, 2011). According to Chen and Li (2017), digitization of virtual currencies have amplified inclusive monetary innovation of the individuals who cannot asses banking services. The term mobile money also known as mobile payment describes a system whereby mobile phones are used to transact businesses through payment of bills, and other related transactions such as goods and services (Dahlberg et al., 2008). As a basic application of mobile business, mobile payment product has received considerable attention from enterprises (Dastan and Gürler, 2016). The global system for mobile association (GSMA, 2013), indicated that mobile money services uses information and communication technology and non-bank retail channels to enable access to financial services to customers who are unable to transact banking business with the traditional banking sectors. According to Osei- Assibey (2015), the introduction of mobile money has influence a lot of payment options. According to Zhou (2014), ubiquity and immediacy contributes massively to why customers uses mobile payment services. According to Tam and Oliveira (2017), greater efficiency and convenience is achieved through the use of mobile money services. In addition, reduction in transaction cost also is a reason for the use of mobile payment services (**Gosavi, 2018**). Mobile payment services is seen as revolutionary mobile technology breakthrough which help individuals to transact business with others independently on their mobile phones (Liebana – Cabanillas et al., 2014). According to Slade et al. (2015) argues that penetration of mobile payment systems would radically transform the approaches of purchase and deliver a unique value for both service providers and consumers by offering the first ubiquitous payment solution. Cao et al. (2017) posit that the emergence of mobile payment has become a relevant study area for researchers interested in information technology and user behaviour (Cao et al., 2017).

Prior study on technology use in less developed countries focused on adoption and little on the factors that determine the user continuance of mobile money. According **Gosavi**, (2018) mobile money services exit as alternative financial programmes aimed at facilitating the development of mobile ecosystems for people who cannot access traditional banking services. Yet, studies have from developing economies on the subject remains lopsided towards the determinants of mobile money adoption (Mutsonziwa and Maposa, 2017). The proliferated adoption of mobile technology (Slade et al., 2015; Gong et al., 2016), enabled services like mobile money makes it important to ascertain the factors that determine the user continuance of mobile money in a developing economy, Ghana. Given that the existence and continuance of mobile payment service rely largely ongoing relationship with users, their continued usage of mobile payment is crucial to the survival of mobile payment companies (Zhou, 2014). According to Chen and Li (2017), long- term relationships with users

can help enterprises decrease costs and increase profitability. Existing studies concentrated mainly on examining the initial adoption of mobile payment users and exploring its antecedents (Slade et al., 2015; Gong et al., 2016). Therefore, this current study seeks to ascertain the determinants of mobile money continuance usage among customers of banks.

1.2 Problem Statement

Mobile money or mobile payment usage have increased in Ghana in recent times.

The ubiquitous nature of mobile money service providers makes it easy for corporate and individuals to transact business. The user growth trend of mobile money presents an opportunity for the harness economic benefits such as increased money circulation, increased employment opportunities and promotion of financial autonomy. The proliferation of mobile money service providers is evidenced through the physical structures of mobile money agents and vendors in every corner of the country. Mobile money services is not free from hackers attack and fraudulent activities. Yet the user rate of the mobile payment services is on the ascendency, most significantly customers who have access to formal banking services. This study wants to ascertain the factors that determine continuance usage of the mobile money services among customers of banks.

1.3 Research Objectives

The study seeks to find out the determinants of mobile payment continuance usage in Ghana.

Specifically, the focus of this study will be on the following objectives:

1. To determine the effect of trust on mobile money continuance usage among bank customers in the Ashanti region of Ghana.

- 2. To find out the effect of system quality on mobile money continuance usage among bank customers in the Ashanti region of Ghana.
- 3. To ascertain the effect of information quality on mobile money continuance usage among bank customers in the Ashanti region of Ghana.

1.4 Research Questions

- 1. What is the effect of trust on mobile money continuance usage among bank customers in the Ashanti region of Ghana?
- 2. What is the effect of system quality on mobile money continuance usage among bank customers in the Ashanti region of Ghana?
- 3. What is the effect of information quality on mobile money continuance usage among bank customers in the Ashanti region of Ghana?

1.5 Significance of Study

This research work is important and timely for a number of reasons. First, the study contributes to existing literature in the technology continuance body of knowledge. Second, this study will inform policy makers and practitioners in the telecommunication industry to come up of dynamic products and services to meet the demands of their customers. Third, the findings of the study will enable the telecommunication industry to improve upon their services. Finally, the findings of this study would also serve as guide for the telecommunication firms in Ghana in their effort to improve customer satisfaction and retention.

1.6 Scope of the Study

The study was conducted only in the Kumasi metropolis, and further study needs to be conducted in other regions of the country where mobile money services are available to enable a broader generalization of findings.

1.7 Limitation of the Study

The study used cross-sectional data but user behaviour is not static. This study therefore suggest that a longitudinal study may be useful to give additional information into the user continuance of mobile money services. There are many factors that factors that determine mobile money continuance usage, but this study considered only three of such determinants.

1.8 Organization of the Study

The study contains five chapters. Chapter one consisted of the background of the study, the problem statement, research objectives and questions of the study, significance of the study, scope and limitation of the study. Chapter Two contains review of relevant literature. Chapter three contains the research design and research techniques such as; the research approach for the study, sample size, sources of data, data collection procedures, data analysis. Chapter four contains data analysis and discussion of findings. Chapter five contains the summary of findings, conclusions and recommendations for the study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on relevant determinants of the factors that influence the continuance usage of mobile money. Literature is also review on the theory that support this current the research work.

2.1 Information System Success Theory

The information system theory was developed by DeLone and McLean (1992). According to DeLone and McLean (1992), the information system success dimensions includes; "information quality, use, system quality, individual impact, user satisfaction and organizational impact". It defined system quality in terms of flexibility and volumes of an information assessed by the device. Information quality refers to content of information. The term user satisfaction means the satisfaction level of a user after the system experience. As a result of the dynamic trend in technology, Service quality was identified as one of the key determinants of use and user satisfaction.

2.2 Definition and Concept of Mobile Money Services

Mobile money or mobile payment refers to services operated and performed from a mobile phone (Gosavi, 2018).

Mobile banking allows customers of a financial institution to access their accounts and to perform transfers and payments. This service is therefore only available to people who possess a formal bank account (Lwoga and Lwoga, 2017).

2.2.1 Mobile Money Terminologies

Agent: A person or business that is involved in mobile payment transaction to facilitate transactions for users. They are involved in cash-in and cashout services. They are involved in the registration of new customers.

Cash in: "The process by which a customer credits his account with cash. This is usually through an agent who takes the cash and credits the customer's mobile money account" (GSMA, 2010).

Cash out: "The process by which a customer withdraws cash from his mobile money account. This is usually through an agent who gives the customer cash in exchange for a transfer from the customer's mobile money account" (GSMA, 2010).

E-money: This is also called an electronic money. This is stored value held in the accounts of users, agents, and the provider of the mobile money service.

Superagent: "A business, sometimes a bank, which purchases electronic money from an MNO wholesale and then resells it to agents, who in turn sell it to users" (GSMA, 2010).

Unbanked: "Customers usually the very poor, who do not have a bank account or a transaction account at a formal financial institution" (GSMA, 2010).

Underbanked: "Customers who may have access to a basic transaction account offered by a formal financial institution, but still have financial needs that are unmet or not appropriately met. For example, they may not be able to send money safely or affordably" (GSMA, 2010).

The Customer / Individual

The customer is the final recipient of the mobile money service and brings their various needs as opportunities to the ecosystem. According to Tobbin (2011), their engagement with the service ensures its success or failure.

2.3 Overview of the Global Telecommunication Industry

According to **Rahman and Masoom** (2012), the telecommunications sector is considered as one of the fastest growing sectors of the economy. The increase in the subscriptions in mobile technologies in developing countries is on the increase (ITU, 2013). Rahman and Masson (2012) posit that the telecommunications industry is very competitive with customers having large choice of mobile and fixed line operators from which to select service. Companies in the telecommunications industry are being challenged to adopt innovative measures as well as more competitive advantage by introducing technological dynamism to enable the provision of value-added services to their subscribers (Rahman and Masoom, 2012).

2.3.1 Mobile Network Operators (MNOs) and Regulators

The mobile money network operators bring the infrastructure, including wireless communication, back-end m- commerce server and application facilities and the mobile device application. They also bring their huge distribution channels for the sale of prepaid cards. These channels are far reaching than branches of other financial institutions.

The ability of the mobile money network in reaching their customers across all categories give them the impetus to be players in the system (Mutsonziwa and Maposa, 2016). The network operators are responsible for the customers who they provide customer services through their trained agents.

The role of the regulator in the ecosystem of the mobile money is for its long-term survival. They bring experience and understanding of the various industries involved in the ecosystem. They impose regulations to ensure a balance between innovation, value creation, efficiency, financial inclusion and prudence. MNOs are playing a key role in the delivery of mobile money services globally with 60% of all mobile money services run by MNOs and, in Sub-Saharan Africa, for example, over half of all MNOs have already launched a mobile money service (75 out of 144).

They have the expertise in setting up distribution networks, building broad and trusted brand awareness and mass marketing; they also own the USSD (Unstructured Supplementary Service Data) channel that is typically used to enable access to mobile money services from handsets (GSMA, 2014). Their activities cover all the other members of the ecosystem (Tobbin, 2011). The GSMA has published guidance on developing a regulatory framework for mobile money transfer with a focus on the remittance segment, recognising that mobile operations lack experience in payment regulations. The aim of the report is to explain potential regulatory issues arising from mobile operator payment services (GSMA, 2007).

2.4 Impact of Mobile Money

Increased in mobile phone penetration leading to the commercialization of mobile money services contributed to about 0.8% increase in the growth of the economy in developing countries. Mobile money penetration has, therefore had its own contribution especially in relation to financial inclusiveness. Mobile money has developed a wide range of services that can be used to benefit users in different ways. The service offered through mobile money for instance in Kenya allow users to benefit from a variety of financial service transactions. According to Jack and Suri (2010) about 99% of subscribers only use mobile money services to send or receive money; the rest of the 1% use it for additional services including arranging for loan and credit.

M- Banking in particular is a service available through mobile money that has been the potential to bring basic banking and electronic services to unbanked consumers (Anderson, 2010). The implications are that, the mobile money services were introduced to help the unbanked individuals. Donovan (2011) looked at M-Pesa in Kenya in an attempt to find the impact it had on human freedom. He concluded that a relationship of networks of social interactions, the need and the desire to coordinate financially with friends, relatives and businesses, and progressive dissertation of other alternatives like banks and Western Union Money Transfer lead to a form of power that acts on all Kenyans both users and non- users of M-Pesa. In addition, mobile money impact on the ability of a household to spread risks as a result of reduced transaction costs compared to households with mobile money who are likely to suffer a drop in consumption when hit by a negative income shock (Jack and Suri, 2011). The impact of mobile money has been felt well beyond transactions and accounts: people's lives have been enriched by greater personal security, a sense of empowerment, and more. Mobile money has also advanced economic growth by giving businesses the means to expand, and families a way to weather financial shocks. It also laid the foundation for a raft of innovation, evolving from a tool for purchasing airtime and sending money between friends and family, to a convenient way to access and pay for essentials, such as water bills or school fees (GSMA, 2017).

2.4.1 Role of Mobile Money in Ghana

Research by a United States university has revealed that mobile money services can promote financial inclusion and savings in rural Ghana (Flood et al., 2013). It showed that the use of mobile money can be easily promoted and this could also encourage a savings culture (Flood et al., 2013). Statistics from BoG indicates that the use of mobile money has witnessed exponential growth over the past 9 years; with a year on year increase in the number of mobile money accounts as well as the volumes and value of mobile money transactions. According to statistics from BoG, the total number of active mobile money accounts increased from 8.3 million in 2016 to 11.11 million in 2017. This places Ghana on the global stage as one of the countries making headway in mobile money acceptability and usage.

Mobile money phenomenon has increased exponentially over the last decade in both value and volume of transactions. Considering the enormous growth in the mobile money sector, the move to create interoperability was a step in the right direction. With the launch of the Mobile Money Interoperability System, customers are able to transfer funds from one mobile money wallet to another wallet across networks. Interoperability reduces the cost of initiating transactions across networks; as customers will no longer need the services of a third-party payment provider to initiate transfers across networks. Customers will be able to send and receive money directly to and from each other irrespective of the network they are on; allowing them more convenience and security (Duffett, 2015).

2.5 Mobile Service Providers in Ghana

The mobile telecommunication industry in Ghana is recognised as one of the most competitive sectors of the country. Within the last decade, the telecommunication industry of Ghana has experienced a massive growth in service providers and subscriber base. The growth of the sector can basically be attributed to the positive economic outlook of the country, fast growing customer base and availability of array of service providers. The mobile service industry in Ghana has a long history of acquisition. The recent merger of Airtel and Tigo currently leaves the country with five mobile telecommunication service providers. The firms in the telecommunication industry in order of their time of operation are AirtelTigo, MTN, Vodafone, Expresso, and Globacom. The following are profile of the mobile telecommunication service providers in Ghana.

2.5.1 Airtel/ Tigo

On one hand, Airtel Africa operations is owned by Bharti Airtel Limited; it has over 200 million customers across its operations of which 50 million of the customers are from Africa (http://africa.airtel.com/wps). On the other hand, Tigo is operated by Millicom Ghana Limited, a subsidiary of Millicom international cellular with its corporate head office in UK and Luxembourg (www.tigo.com.gh/about-tigo).

These two companies who were formerly rivals in the telecommunication industry have merged in Ghana to become the second largest mobile operator with a new name AirtelTigo (www.nca.org.gh). The merger, the first of its kind in Ghana is a bid to increase share in the West Africa country where mobile phone use is the highest in Africa. The merger was approved by the National Communication Authority (NCA).

The talents, technologies and tactical expertise of Airtel and Tigo are now unified as AirtelTigo and their call charges are now treated as one network. In terms of ownership, both companies have equal ownership and governance right in the combined entity (myjoyonline.com).

2.5.2 Mobile Telecommunication Network (MTN)

The history of MTN can be traced to Scancom Ghana limited. Scancom, operators of Spacefon started its operation in October 2006 on the GSM (Global Systems for

Mobile Communication) 900 technology platform. The company in 2005 changed its brand name to Areeba after being acquired by Investcom LLC. Shortly after, it was acquired by Mobile Telecommunication Network, a South African company. MTN is a giant in the global mobile communication industry with an estimated combined subscriber base of 219 million in 21 countries in Africa and Middle East. MTN is currently the largest network provider in terms of subscriptions with a market share of 46% as at December, 2014 (NCA, 2014). MTN stands out with their wide network coverage and numerous value-added services (NCA, 2014)

2.5.3 Vodafone Ghana

Vodafone in Ghana is an operating company of Vodafone Group Plc., the world's leading mobile telecommunications company, with a significant presence in Europe, the Middle East, Africa, Asia Pacific and the United States. Vodafone is a widely recognised mobile telecommunication brand globally and adjudged the second most valuable brand in the world. Vodafone's entry into the Ghanaian telecommunication industry commenced through an acquisition of the erstwhile OneTouch managed by Ghana Telecom (GT). In 2008, Vodafone acquired 70% in GT making it the majority shareholder of GT and started operating under the new brand name –Vodafone (www.vodafone.com.gh).

2.5.4 Expresso

Expresso is a telecommunications group currently operating in Senegal, Mauritania, Guinea and Ghana. Expresso entered the Ghanaian market through the acquisition of Kasapa Telecom in 2010. Expresso identifies itself as an African telecommunications and information services company. The firm's telecommunications services currently provide coverage in five African markets through both fixed and mobile network infrastructure, servicing individual and business customers. The firm employs more than 1,000 employees across four commercial operations in Senegal, Mauritania, Guinea and Ghana. Expresso is a leader in adopting a variety of technologies to meet the needs of our customers (www.expressotelecom.com.gh)

The company has one of the fastest software that immediately connects customers to the fastest data speed available. The telecommunications company over the years has experienced a downturn in its subscription base (NCA, 2014). The firm currently has 200,000 subscribers representing less than 0.4% of the market share (NCA, 2014).

2.5.5 Globacom

Glo Mobile of Globacom, founded in 2003, has become the market leader in its home country Nigeria. It revolutionized the telecoms industry in Nigeria with lower tariffs and even more value-added services. Glo won a license to operate services in Ghana but started operation in 2012. The delay entry of Glo into the Ghanaian market was attributed to the bureaucratic procedure of the Environmental Protection Agency (EPA). GLO had a highly awaited Internet service (www.gloworld.com).

2.6 Conceptual Framework of the Study

This study focused on three of such factors; Trust, System Quality and information quality (Zhou, 2014). Literature is reviewed on each construct leading to the conceptual framework for the study.

2.6.1 Trust

Trust reflects a willingness to be in vulnerability based on the positive expectation toward another party's future behavior (Venkatesh and Zhang, 2010). Trust includes three dimensions: ability, integrity and benevolence (Wang et al., 2013). Ability means that service providers have the knowledge and expertise necessary to fulfill their tasks. Integrity means that service providers keep their promises and do not deceive users. Benevolence means that service providers are concerned with users' interests, not just their own benefits. Trust in online payment reflects user beliefs in the trustworthiness of online payment. Compared to mobile payment, online payment has been popular among users. Thus, if users have developed trust in online payment, they may transfer their trust to mobile payment belonging to the same brand. That is, if users build trust in online payment, they may also believe that mobile payment has enough ability to provide reliable and secure services to them. Previous research has reported the transference from offline trust to online trust (Lee and Hong, 2016).

We propose that online trust may also affect mobile trust. In addition, online trust may affect users' performance expectancy and flow experience associated with using mobile payment. Performance expectancy reflects the utility derived from using mobile payment. When users have formed trust in online payment, they have less concern on payment risk and uncertainty. This may increase their perceived control, which is a component of flow. Users may be ensured to acquire a positive utility and an engaging experience in the future. Lee et al. (2007) found that offline banking trust affects flow in using online banking.

2.6.2 System Quality

System quality reflects the access speed, ease of use and visual appeal of mobile payment systems. These aspects may affect user evaluation of mobile payment utility. For example, if users find that mobile payment systems have poor interface design and are difficult to use, they may perceive a low utility. System quality may also affect user trust. When users operate a mobile payment system with poor system quality, they may feel that service providers lack ability and integrity to provide quality systems to them. This may lower their trust in mobile payment. Prior studies have identified the effect of system quality on users' trust in infomediaries (Zahedi and Song 2008) and mobile commerce technologies (Vance et al., 2008). In addition, system quality may affect flow experience. For example, users may need to frequently wait for the loading and responses if mobile payment systems have slow responses. This may lead to their anxiety and undermine their experience.

2.6.3 Information Quality

Information quality reflects the accuracy, timeliness and relevancy of the information offered to mobile payment users. If users obtain inaccurate, out-of-date and irrelevant information, they may feel that mobile payment is useless to their work and life. Thus, information quality may affect performance expectancy. Chen et al. (2012) reported that information quality significantly affects perceived usefulness (similar to performance expectancy) of mobile applications. Information quality may also affect user trust in mobile payment. Quality information signals a service provider's ability and integrity, which further affect users' trust. Extant research has noted the effect of information quality on user trust in inter-organizational systems (Carlson and O'Cass, 2012), and health informediaries (Zahedi and Song, 2008). In addition, poor information quality may undermine user experience. For example, if mobile payment systems provide irrelevant information to users, they may need to spend much effort and time on information scrutinizing as mobile devices have small screens. This may decrease their perceived control and undermine their experience.

2.6.5 Continuance Usage

It is evident that service providers are at risk and not able to maximize returns unless consumers continue to use their services (Zhou, 2011). Continual usage is also known as post-adoption and is a behavioural pattern reflecting continued use of products or services (Aker et al., 2012). According to Chale and Mbamba (2015), continuance usage can be viewed as an extension of acceptance which implies the use

of a product or service that transcends conscious behaviour and becomes part of normal routine activities of a user. After an initial encounter with service, customers will take a concreate decision as to whether to continue or discontinue with service usage (Zhou, 2011).

2.6.6 Conceptual Framework

This is illustrated in the figure 2.1 below:

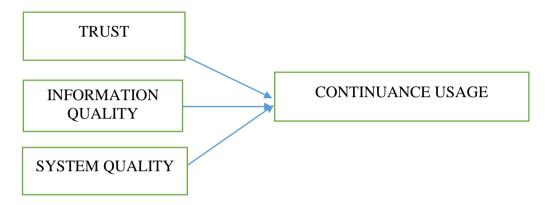


Figure 2.1 Conceptual Framework of the Study

Source: Adapted: (Zhou, 2014)

2.7 Review of Empirical Studies

In most of the developing world, one of such service is M-pesa which was launched in 2007 in Nairobi, Kenya and has witnessed an astounding growth (Kyobe and Osah, 2016). According to CCK (2012), the lunch of the service attracted 20,000 users within a month and 8.6 million within two years and 17 million users in 2012 in Kenya only. According to Kyobe and Osah (2016), the user trajectory of the M-pesa is evidenced that a gap in the market has been filled by an ex ante unconventional financial service delivery medium to previously financially excluded individuals.

According to Plyler et al. (2010), the user growth trend of M-pesa presents an opportunity for the harness economic benefits such as increased money circulation, increased employment opportunities and promotion of financial autonomy.

Lee et al. (2009) found information quality to be a key determinant for continuance usage of mobile money technology. Meanwhile Boakye (2015) found that service quality to be a determinant of mobile money continuance usage. Henandez et al (2009) found that positive attitude and trust in mobile service technology have a very strong association with mobile service continuance usage. Chiou (2004) found that trust had direct and positive impact on performance expectation leading to continuance usage of mobile money services. Ansari et al. (2013) found that trust has no effect on performance expectation and continuance usage of mobile money. Grafen et al. (2003) found a strong association among trust and performance expectation resulting in continuance usage.

Zhou (2014) in a study understanding the determinants of mobile payment continuance usage, found that system quality has a strong effect on performance expectancy. Kim et al. (2008) found that Information quality positively affect performance expectancy. Thatcher et al. (2011) in their study found that Trust has a significant effect on performance expectancy. In a similar study Zhou (2011) also found that trust has a positive association with performance. In a study conducted by Sharma and Sharma (2019) on the topic examining the role of trust and quality dimension in the actual usage of mobile banking service, found that information quality and service quality has positive and statistically significant relationship with the intention to use. In a study conducted in Ghana by Ofori et al. (2016), found that trust have significant effect on continuance intention. A study conducted on the topic understanding mobile internet continuance usage from the perspective of UTAUT and flow (Zhou, 2011). The study found that performance expectancy has a significant effect on continuance usage.

CHAPTER THREE

RESEACH METHODOLOGY AND PROFILE OF ORGANISATION

3.0 Introduction

This chapter provide details of the methodology that is used for the study. This includes research design; sources of data; and sampling design, which involves the study population, sampling size and sampling technique. Details of data collection instruments and data analysis are considered in this chapter.

3.1 Research Design

A descriptive and explanatory research design was adopted for the purpose of this study. The purpose of descriptive research design is to explain the demographic characteristics of the respondents and also find out the mean and standard deviation (Pallant, 2010). The aim of explanatory research is to provide explanation to certain association among the determinants of mobile money continuance usage.

3.2 Population of the Study

The target population is made up of all individual who are customers of banks and are mobile money service users who are in Ghana. As per the objective of the study, only a specific segment of the population is applicable. Therefore, the data have been collected personally, but from a relevant segment of the population which includes Adansi rural bank, the Republic bank and Amansie rural bank (Sahi and Arora, 2012).

3.3 Sampling Technique

The bank customers who are users of mobile money services were sampled using convenience sampling.

The study sampled mobile money users from some banks (Adansi Rural bank, and Amansie Rural bank) during banking hours in the Ashanti region of Ghana. The respondents were identified transacting business at the various selected banks.

3.4 Sample Size

The study uses a sample size of 100 respondents who are users of mobile money services who are customers of Adansi rural bank and Amansie rural bank in the Ashanti region.

3.5 Data Collection

Structured questionnaire was used to collect primary data from the users of mobile money services in the Ashanti region of Ghana. Data were collected from the customers of the following banks (Adansi Rural bank, and Amansie Rural bank) after customers have come in to transact business. The data for this research work was collected before the Covid – 19 pandemic in the country. The researcher contacted users and enquired whether they had mobile money usage experience. Individuals who responded positively were asked to fill the questionnaire based on their usage experience. The questionnaires has three sections. Section A of the research instrument cover the demographic variables of the respondents, Section B include knowledge about mobile money services. Section C contains the items measuring the determinants of mobile money continuance usage on a five-point Likert scale.

3.6 Data Analysis

The data was first coded using Microsoft excel and further analysis carried out using the Statistical Package for Social Scientists (SPSS) version 21.0 for descriptive analysis.

Measurement of the Variables.

A five- point Likert scale was used for all items ranging from strongly disagree to strongly agree.

Trust: items adapted from Kim et al. (2009) to reflect the trust of the user towards the usage of mobile money.

System Quality: items were adapted from Kim et al. (2004) and the items reflects the access speed, ease of use, navigation and visual appeal.

Information Quality: items were adapted from Kim et al. (2004) and the items reflect the information relevancy, timeliness, sufficiency and accuracy.

Performance expectancy: items were adapted from Venkatesh et al. (2003) to reflect the performance and efficiency improvement associated with using mobile payment.

Continuance usage: items of continuance usage were adapted from Bhattacherjee (2001) to reflect user intention to continue using mobile payment.

a priori expectation

| Description of Items | a priori expectation |
|---------------------------------------|----------------------|
| Trust | +/_ |
| Information quality System quality | +/ |
| System quanty | +/- |

3.7 Reliability and Validity of Data

The reliability of the instrument was assessed using Cronbachs Alpha. According to Nunnally and Bernstein (1994), reliability within the ranges of 0.6 to 0.9 is acceptable. To achieve face validity the study adapted the questionnaire of Zhou (2014) and a pilot test were conducted to establish their validity before they were administered to the respondents.

| Dimensions of | Cronbach's | Cronbach's Alpha Based on | N of Items |
|----------------|------------|---------------------------|------------|
| Scale | Alpha | Standardized Items | |
| Bank customers | .716 | .745 | 20 |

Table 3.1 Test of Reliability Analysis

The confidence level of the analysis was set at 95% (0.05) level of significance. The results show a high Cronbach Alpha value for the scaled items.

3.8 Ethical Considerations

The respondents were assured of the confidentiality of their information and data collected were used specifically to achieve the objective of the research.

CHAPTER FOUR

RESULT AND DISCUSSION

4.0 Presentation and Discussion of Result

The chapter concludes with a sub-section discussing the result from the analysis of the field data. First, descriptive analysis of respondent's demographic information was done.

4.1 Descriptive Analysis

Table 1 shows the result of respondent's demographic characteristics.

| Profile of Respondents | Statement | Frequency | Percentage (%) |
|-------------------------|--------------|-----------|----------------|
| Gender | Male | 65 | 65 |
| | Female | 35 | 35 |
| Age | 18-24 | 12 | 5 |
| | 25-30 | 51 | 51 |
| | 31-40 | 25 | 15 |
| | 41-50 | 7 | 17 |
| | 50+ | 5 | 12 |
| Education Qualification | Postgraduate | 8 | 8 |
| | Degree | 49 | 49 |
| | Diploma | 18 | 18 |

Table 4.1: Descriptive Statistics of Respondents

Source: Field Survey (2020)

The study results in Table 4.1, information on gender was captured to enable ascertain the level of participation of male and female customers who do business with the bank. The results indicated that majority of the respondents were males representing 65% and 35% were females. The descriptive results further show that greater number of the respondents were within 25 - 30 years bracket, representing 51% of the respondents, followed by 31-40 years bracket, representing 25%, this is also followed by 18-24 age group, representing 12%, followed by 41-50 years age category, representing 7%, whiles 50 years and above represented 5% of the respondents. The implication of the large number of young people forming the majority of the respondents is due to the fact that the implementation of mobile money services has a bright future because of the younger generation understanding and the knowledge in the use of mobile applications.

Also, the educational levels of the respondents indicate that majority had first degree, representing 49%, followed by high school certificates, diploma and postgraduate representing 25%, 18% and 8% respectively. The overall statistics imply that respondents had the requisite backgrounds to understand and provide appropriate responses to the questions asked by the researchers.

4.2 Knowledge about the Use of Mobile Money Services

Table 4.2 shows the results of customers responses to the question concerning mobile money services and bank account operations.

| Statements (Customers) | YES | | NO | |
|-------------------------------------|--------------|-----|----------------|----|
| | Freq. | % | Freq. | % |
| Do you use mobile money services? | 70 | 70 | 30 | 30 |
| Do you have a mobile money account? | 75 | 75 | 25 | 25 |
| Do you have a bank account? | 100 | 100 | - | - |
| | Bank account | | Mobile account | |
| Comparing your bank account | 14 | 14 | 86 | 86 |
| to your mobile account, which | | | | |
| one do you frequently use? | | | | |

Table 4.2 Knowledge about the Use of Mobile Money Services

Source: Field survey (2020)

The results in Table 4.2 illustrate customers of Adansi Rural bank, the Republic bank and Amansie West Rural bank use mobile money. Out of the 100 sampled customers, 70% used mobile money services, while 30% admitted not using the mobile money services. In addition, 75% of the customers had mobile money account, while 25% did not have. However, the entire sampled respondents (100%) confirmed they had bank accounts. The results further show that 14% of respondents answered they used mobile account frequently, whiles 86% used mobile money account frequently. The results suggest that majority of the three selected banks customers used mobile money services and mobile money account making it easier for the mobile money concept to be fused into the financial Bank's system and also into Ghana's financial system.

These findings will aid in addressing the challenges reported by the World Bank about the lacuna in bank accounts holdings of adults in Ghana as at 2014 (World Bank, 2014).

4.3 Descriptive Statistics of Measurement Instrument

This section provides descriptive analysis of data on the 13 measurement scales used to measure the four constructs of the study namely; trust in payment, information quality, service quality and continuance usage. Table 2 (see below), present the descriptive result on the measurement scales used in measuring the determinants of mobile money usage among bank customers in Ghana. Statistical measures such as Mean, standard error (SR) and standard deviation (SD) values were use in this section. These preliminary measures were done to provide preliminary understanding on the specific measurement (questions) used to measure each of the construct under investigation. The result is presented below.

| Measurement Items | Mean | Std. | SD |
|---|------|-------|-------|
| | | Error | |
| Mobile payment always provides accurate financial services | 3.23 | .062 | 1.152 |
| Mobile payment always provides reliable financial services | 3.24 | .060 | 1.109 |
| Mobile payment always provides safe financial services | 3.26 | .060 | 1.114 |
| Mobile payment provides me with up- to- date information | 3.82 | .054 | 1.006 |
| Mobile payment provides me with up- to- date information | 3.89 | .047 | .883 |
| I intend to continue using mobile payment rather than discontinue | 3.50 | .053 | .990 |
| use | 5.50 | .055 | .770 |
| My intentions are to continue using mobile payment than alternate | 3.42 | .056 | 1.036 |
| means | 5.42 | .050 | 1.050 |
| I expect my use of mobile payment to continue in future | 3.50 | .054 | .998 |
| Mobile payment is easy to use | 4.08 | .066 | 1.224 |
| I receive swift response from mobile money service providers | 4.14 | .057 | 1.066 |
| I find it easy to check my account balance | 4.26 | .057 | 1.069 |
| It is safe and secure to use mobile money | 4.13 | .060 | 1.121 |

Table 4.3 Descriptive Statistics of Measurement Scales

Source: Field data (2020)

Result from table 2 (see above) regarding the measures of specific measurement items shows average to even values showing that all the measures are within threshold of 1 and 5 (likert-scale). The result shows that, the most common attributes regarding continuance usage of mobile money services is that, "I find it easy to check my account balance" (System quality) with a mean value of 4.26 and standard deviation (SD) value of 1.069. This means that, mobile money service providers provide systems that make it easy for users to have access to their account every day and time. This is very significant for payment system providers because customers will continue using a service if it becomes easy for them to use and adapt to it.

The descriptive analysis further shows that, among the measurement scales, the least common descriptor of determinant of mobile money usage is "Mobile payment always provides accurate financial services" (Trust in payment system) where Mean is 3.23 and SD is 1.152. This means that mobile money service providers do not provide accurate financial services to help users.

4.4 Analysis of Findings

4.4.1 Trust in Mobile Payment and Continuous Usage

Trust is a vital determinant of consumer choice and purchase decisions in an online environment (Narteh and Mahmoud,2017). The study results based on the descriptive statistics show that, trust does not influence continuance usage of mobile money services among bank customers. This could imply that service providers should up their game by assuring their customers safety and security of their information.

Issues of network failure and how to track transaction during such periods are some of the risk and trust issues providers have to contend with. Even though this result was not expected because consumers will continue using a service if they believe that, such as service is improving their work or performance living, but the result shows otherwise.

This research, however is consistent with prior research by (Wei et al., 2009; Pousttchi and wiedemann, 2005), where their findings show that trust does not influence continuance use of mobile money services although their studies were conducted in a different environment other than Ghana but supported by (Heijden, et al., 2003; Gefen, et al., 2003). The finding is also not consistent with earlier work that found that consumers' trust in the products is the main factor that determines people's purchase intention (Becerra and Korgaonkar 2011; Lee and Lee 2005).

4.4.2 Information Quality and Continuance Usage

Consumers who use online platforms for payment and other transaction require accuracy, timeliness and relevancy of the information. Mobile payment users who obtain inaccurate, out-of-date and irrelevant information may decide to opt out of the service because it does not serve their needs. The result further showed that, information quality does not influence customers user intension to continual usage of mobile money services. Finding in this study did not support other studies that showed that consumers require good information in relation to various products and services, and eventually it affects their decision on whether to continue using a service or not (Kozinets et al., 2010; Duffett, 2015; Lee and Hong, 2016).

4.4.3 System Quality and Continuance Usage

Literature report that, access speed, ease of use and visual appeal of mobile payment systems are important consideration of online users to determine future usage of the system (Taylor, et al., 2011). The result from this study shows that, system quality does not influence continuance usage of mobile money financial services. These findings is inconsistent with other studies that, the ability of the seller to provide easy to use technology, respond quickly to concerns and conflict influence users to remain loyal to the service provider (Lee and Hong, 2016; Taylor, et al., 2011).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Summary

The following key findings emerged from the result;

Descriptive analysis of respondents found that, majority of 65% per cent of 100 respondents engaged in this survey are males, who are within the ages of 25-30 years and they hold at least first-degree educational qualification, representing 49%. Again, 100 percent of the respondents (customers) have mobile money account. In addition, the respondents also use the mobile money account more frequently representing 85 percent as compared to the use of bank account, representing 15 percent.

The results showed that system quality (ease of using mobile system, swift response from providers, ease of checking account balance) influence bank customers continual usage of mobile money services.

5.1 Conclusions

Based on the summary of the study, the following conclusions were arrived at:

The study concludes that,

- 1. Users' trust in mobile payment system does not influence continuance usage of mobile payment system by bank customers.
- 2. Information quality; relevant, sufficient and up-to date information also does not influence the continuance use of mobile money services by bank customers. However, consumers will be more loyal to the service when the platform is useful, improve work efficiency, productivity and living standard of the individual.

- 3. Quality of mobile money payment system does influence Users' intention to continue using the service. The usefulness and benefits of online mobile money payment system does determine how quality system influence continues usage of the system.
- 4. The study further concludes that mobile money presents many opportunities and if the banks can position themselves well with a mobile application and ensure better customer relations and strategic partnership with service providers, it will be able to maximise the advantages mobile money presents.

5.2 Recommendations

Based on the findings from this project, the following recommendations are made for policy direction.

It is recommended that Adansi rural bank, Amansie rural bank and the Republic bank should pay attention to banking mobile money agents and, in that process, turn mobile money agents into mobilisers of funds for the banks. By this strategy, they will indirectly bank mobile money users. Also, it is recommended that Adansi rural bank, Amansie rural bank and the Republic bank should develop a mobile phone application which has access to mobile money service so that customers can easily transfer money between their bank accounts and mobile wallets.

As experienced in Ghana, mobile network problems by some of the networks have an impact on users' intention to continue using the service. Mobile money service providers must be honest and deliver it promises since users will not accept service failures. Providers must assure users of safety and security of their information.

Mobile money providers and vendors should emphasize on implementing a reliable system that will meet users' expectations, as well as ensure they provide helpful and quality information to users.

In terms of managerial implications, result from this study have brought about a decision-making guide to strategies formulation and decision, which can be employed for the different service providers of mobile money in Ghana. For financial institutions and mobile money providers, the need to recognize the factors that affect users' intention to continue using mobile money payment system should be put into consideration, so as to increase its continue use and encourage its general acceptance. Banks and financial institutions must encourage their customers to integrate their mobile account with their bank account so as to have an efficient system. This will help build confidence in the banking system.

5.3 Future Research Direction

It is suggested that future studies may consider employing similar construct in other sectors and compare the findings.

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CHRISTIAN SERVICE UNIVERSITY COLLEGE

Department of Accounting and Finance



Questionnaire

This survey seeks to elicit responses on the topic "*The determinants of mobile money continuance usage among Bank customers in Ghana*" Information provided for the purposes of this research will be treated confidentially and used for academic purposes only. Please take a few minutes to fill out this questionnaire by ticking ($\sqrt{}$) where appropriate. Thank you.

SECTION A: Background/ Demographic data of respondents

- 1. Gender: Male () Female ()
- **2.** Age: 18-24 years () 25-30 () 31-40 () 41-50 () Above 50 years ()
- **3. Educational Qualification:** High school () Diploma () Undergraduate () Postgraduate ()

SECTION B: Knowledge about Mobile money services

- 1. Do you use mobile money service? Yes () No ().
- 2. Do you have a mobile money account? Yes () No ()
- 3. Do you have a bank account? Yes () No ()
- 4. Comparing your bank account and mobile account, which one do you frequently use? Bank account () Mobile account ()

SECTION C: Measuring Instrument for the Determinants of mobile money continuance usage in Ghana.

On a scale of 1-5, please Tick $[\sqrt{}]$ the response that reflect your level of agreement or otherwise in each of the under listed statements.

1= Strongly Disagree (SD) 2=Disagree (D) 3= Neutral (N) 4=Agree (A) 5=Strongly Agree (SA)

| No. | STATEMENTS | 1 | 2 | 3 | 4 | 5 |
|-----|--|---|---|---|---|---|
| | TRUST IN MOBILE PAYMENT | | | | | |
| 1. | Mobile payment always provides accurate financial services | | | | | |
| 2. | Mobile payment always provides reliable financial services | | | | | |
| 3 | Mobile payment always provides safe financial services | | | | | |
| | INFORMATION QUALITY | | | | | |
| 4 | Mobile payment provides me with information relevant to my needs. | | | | | |
| 5. | Mobile payment provides me with sufficient information | | | | | |
| 6. | Mobile payment provides me with up- to- date information | | | | | |
| | SYSTEM QUALITY | | | | | |
| 7. | Mobile payment is easy to use | | | | | |
| 8. | I receive swift response from mobile money service providers | | | | | |
| 9. | I find it easy to check my account balance | | | | | |
| 10. | It is safe and secure to use mobile money | | | | | |
| | CONTINUANCE USAGE (USE) | | | | | |
| 14. | I intend to continue using mobile payment rather than discontinue its use | | | | | |
| 15. | My intentions are to continue using mobile payment than any alternate means | | | | | |
| 16 | I expect my use of mobile payment to continue in future | | | | | |
| | 1 | | | | | L |

Thank you