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BY

EDEM GIDEON

Dissertation submitted to the Faculty of Economics and Business Administration, Catholic University College of Ghana, in partial fulfilment of the requirements for the award of Master of Business Administration degree in

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JULY 2020

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature: …………………… Date: …………….................

Name: Gideon Edem

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Catholic University College of Ghana.

Supervisor's Signature: ……………………Date: ……………………….

Name: Dr. Patrick Ohemeng Gyaase

ABSTRACT

The main goal for this study is to examine the impact of digitization in the banking operations on the customer experience of the Societe Generale Ghana (SGGH) bank limited. The research design was quantitative with emphasis on survey research to achieve the stated objectives. The census technique and convenience sampling were used to invite all the 25 staff and 138 customers of the branch to respond to Likert scale questionnaire instrument. The data was analyzed quantitatively with the aid of IBM-SPSS (descriptive tools) and inferential statistics. The study revealed that customers perceived the digital banking as making banking services quicker, time saving, convenience, comfort, saves them money, easy to use, make life easy for them, makes it easy for them to do business online. Also, Automated Teller Machines, mobile banking, internet, telephone and electronic fund transfer are the major channels for accessing services. Customers use digital banking to carry out various services including checking balance, followed by fund transfer, current account, direct debit and standing order, savings and payment of bills. The study again showed that digital banking innovations such as telephone banking, mobile banking, internet banking; Automated Teller Machines (ATMs) positively influence customer experience. It was recommended, among others, that management of the bank should offer multi-channel services that customers can derive value and improve the business performance, concentrate on a particular segment of service by identifying the type of services to offer specific customer groups and the channels to use to improve customer retention and operational efficiency, and reduce customer acquisition costs, which increase their profit.

KEYWORDS

Digitization

Banking Operations

Customer Experience

Societe Generale Ghana

ACKNOWLEDGEMENT

First, I would like to profoundly thank Dr. Patrick Ohemeng Gyaase, for his deep patience and guidance as my supervisor. I appreciate his support.

I would like express my deepest appreciation to Dr. Mustapha Osman Opoku from the Faculty of Economics and Business Administration, who motivated and helped me to embark on my academic journey up to this level.

Thank you to all my colleagues in MBA (Finance) at the Catholic University College of Ghana, Fiapre. I have learnt a lot of things from you throughout the course. Thank you Evelyn, Eric, Pius, and Dompre for helping me in many group assignments.

I would like also to express my sincere gratitude to my parents, who always prayed for my success. In my MBA program, like every journey, I have had many stressful and difficult moments, but my parents never let me feel alone. They always wished me well. They supported and encouraged me to go on and work hard. I really appreciate your help, Mum and Dad.

DEDICATION

I humbly dedicate this dissertation to my parents and siblings. I love you all.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ATMs	Automated Teller Machines
CEM	Customer Experience Management
DB	Digital Banking
EFT	Electronic Funds Transfer
GSE	Ghana Stock Exchange
GIPSS	Ghana Interbank Payment and Settlement System
IDPM	The innovation-decision process model
IVR	Interactive Voice Response
PEOU	Perceived Ease of Use
POS	Point of Sale
PU	Perceived Usefulness
SG-SSB	Societe Generale- Social Security Bank
TAM	Technology Acceptance Model
SGGH	Societe Generale Ghana

CHAPTER ONE

INTRODUCTION

Technology-based applications such as internet banking, mobile banking, telephone banking, ATM and POS network brings significant advantages to customers in the delivery of existing products. The offer of services through digital banking has become important in the banking sector. The development of digital banking has significant implications for banks' marketing efforts (Dootson, Peatson & Drennan, 2016), as it affects customer interfaces. Digital banking enables banks and their customers to benefit from financial services. This shift towards digital banking means that banks' marketing and financial management models are changing and customer acquisition and retention, and financial performance are no longer determined solely in the branches. Therefore, every business must undergo a digital transform to survive. This suggests that banks should focus on digital banking aimed at improving customer experience, as customer needs are changing.

Background to the Study

The advancement and improvement in Information and Communication Technology has been rapid and aggressive over the last decade. Every sector of the economy is taking advantage of this change and the financial sector particularly banks are not an exemption. Around the world, the banking industry has been heavily impacted by the ICT revolution (Al-Qeisi & Hegazy, 2015). Information technology in banking has completely transformed the way in which banks deliver their services, with mobile banking, internet banking and e-services becoming the main delivery channels. Bakshi (2012) contends that rapid technological innovations have produced a fresh trend of dynamism and development in the Banking frontiers. Consequently, banks are going through the transition and setting up structures that suit the utilization of digitized client administrations and operations (Trivedi, 2013).

According to Mbama (2018), the banking sector has seen different technological innovations since the introduction of the ATM in the 1960s. Banks then started investing in computer technology to automate manual processing. Automation resulted to branch networking where a unified framework was established by use of Wide Area Network (WAN) and in this manner enabled making and sharing of consolidated client data/records. With the introduction of internet, banks adopted internet banking and electronic funds transfer systems. The entrance of remote systems and cellular technologies proclaimed the age of mobile money transfer. The technological infrastructure has also fast tracked the rise of new advanced online life, cloud computing, big data analytics, wearable gadgets, 3D printing, and smart independent systems.

The role of digital banking in the transformation of banking services is having a significant effect in society. Teo, Anderson, Fenwick and Ying (2014) argue that businesses continuously exploit digital technologies to create new value sources and increase efficiency in customer services. Digital banking was born from an original concept of selling services via the telephone in the late 1980s by First Direct (First Direct, 2014). It has enabled banks to offer multi-channel services, altering the way they interact with customers (Payne, Peltier & Barger, 2017; Cortiñas, Chocarro & Villanueva, 2010).

Every digital strategy is shaped and motivated by business need. Various motivators or factors persuading banks to go into digitization. Competition has motivated banks to embrace digital channels to automate operations and deliver better services (Alalwan, Dwivedi, Rana & Simintiras, 2016). Research in digital banking uptake argues that it offers banks alternative delivery channels through which services can be delivered more conveniently and economically (Akinci, Aksoy & Atilgan, 2003), and can be used to offer various services to customers (Koenig-Lewis, Palmer & Moll, 2010; Chong, Ooi, Lin & Tan, 2010).

The effect of digital banking has been economically important, making it a strategic weapon to stay competitive, as banks face a challenging environment. The relevance of digital banking for providing services, has prompted researchers to concentrate in this research area (Jun & Palacios, 2016; Hanafizadeh et al., 2014; Xue, Hitt & Chen, 2011), as it is having a major effect on the way customers access financial services.

Digital transformation is very important in increasing the banks' profitability, as banking services like mobile banking, Automated Machines (ATMs), agency banking among others are geared towards increasing the money speed and flow throughout the economy, therefore, adding to banks' profitability through instructed returns and a great and steady decrease in human resource, Information technology and marketing expenses that translates to improved profitability of the banks (Nyaiyo, Bichang'a & Nyanga'u, 2015). Digital transformation and the need to lower operating costs are major driving factors for the digital technology's adoption.

The development of digital banking has significant implications for banks' marketing efforts (Dootson, Peatson & Drennan, 2016), as it affects customer interfaces. Digital banking enables banks and their customers to benefit from financial services. However, the transformation towards digital banking due to changing customer behaviour presents a challenge to banks, particularly in the way services are offered. As customer expectations and bank competition increase, capturing and retaining customers and improving profitability become crucial after the financial crisis of 2008 (MonferrerTirado, Estrada-Guillén, Fandos-Roig, Moliner-Tena & Sánchez, 2016).

The banking sector in Ghana has come across numerous changes since the inception of digital transformation. Top banks have moved majority of their services to digital platforms. Loan services are being done digitally through platforms like Banking App, among others. These banks have also greatly adopted mobile phone technology including MTN MoMo, AirteltiGo money, Vodacash in their financial transactions. The advancement towards digital service provision by banks is anticipated to free banking halls and hence making a huge contribution towards the reduction of finance services provision costs, hence improve the profitability of these banks.

Statement of the Problem

The relevance of digital banking services deployed over digital technology has become widely recognised. Changes in technological interfaces have enabled banks to delight customers with instant services through digital banking (Oliveira & Tam, 2017). According to Mbama (2018), the proliferation of ownership of digital devices like mobile phones, personal computers, tablets and laptops has spurred the demand for financial services on these devices.

Studies carried out by Pooja and Singh (2009) as well as one by Franscesa and Claeys (2010), resolved that technological innovations had minimum effect on performance of banks, whereas Batiz-Lazo and Woldesenbet (2006) inferred that digital advancements had noteworthy influence to banks' performance. Previous studies mostly outside Ghana have concentrated on technology and its effect on financial performance such as by Mwange (2013); Wangui (2016); Jalang'o (2015); Mutua (2012); Maina (2012); and Kombe and Wafula (2015).

With rapid technological change, banks face the challenge of improving their customer experience and profit, following the financial uncertainty. However, studies into digital banking have put more emphasis on uptake (Martins, Oliveira & Popovic, 2014; Hanafizadeh, Behboudi, Koshksaray & Tabar, 2014; Chong et al., 2010). Consequently, Hoehle, Scornavacca and Huff (2012) note that prior research has not identified all the issues involved in e-banking usage. Although digital banking is ubiquitous among mainstream banks, there is still a need to understand the impact on customer experience, especially for different customer segments.

Traditionally, Ghanaian bank customers bought financial products through bank branches. The arrival of digital banking channels such as telephone (t-banking), internet (e-banking) and mobile (m-banking) banking have changed the way customers obtain services, challenging traditional banking methods. The changing dynamics of banking means that banks' performance is no longer solely dependent on branch sales. Capturing and retaining customers are vital for banks, and digital banking is becoming the tool of choice; however, research on how it affects banks' performance is still limited. This thesis focusses on determining the impact of digital banking services on customer experience.

The Objectives of the Study

The general objective of this study is to examine the impact of digitization in the banking operations on the customer experience of the **SGGH** bank limited.

Objectives of the Study

The study was guided by the following objectives:

I. To examine the general perceptions of employees and customers of the digital banking services in terms of customer experience

II. To identify digital banking channels used by the bank

III. To examine the impact of the digitization banking services on customer experiences

Research Questions

To achieve the broader goal of examining the impact of digital banking innovations on customer experience, the study sought to find answers to the following broad research questions.

1. What are the digital banking channels deployed by the bank?
2. What is the extent of utilization of digital banking services among the customers of the Bank?
3. What is the impact of the digitization on the bank's operations?
4. How do digital banking services general affect customer experience?

Hypothesis

H_o: the digitization of the bank operations does not positively and significantly impact on customer experience of the bank

H_1: there is a positive and significant impact of the digital banking innovations on the customer experience of the bank.

Significance of the Study

The findings of this research demonstrated how digital banking enhances banks' profitability. The results from the thesis have the potential to assist banks in the provision of services, and improve customer experience and financial performance, such as profitable growth and economic value-adds, through digital banking.

The findings from this study would help to understand the links between digital banking services, improving customer experience and financial performance.

The study would be useful to managers of Commercial Banks in Ghana to identify the effects of digital transformation on bank performance. The Management would benefit from this research as they will gain insight on the contribution of digital transformation. This will enable them formulate and effectively implement digital transformation strategies and policies that enhance and reduce operating costs leading to better business outcomes like higher performance and productivity.

It is therefore important that banks, managers, executives and investors, who are major research stakeholders, obtain clear information through an efficient framework. This will add new insight into their current banking model and marketing strategy, enabling banks to manage changing customer behavior using digital banking.

This will enable different banks to fine-tune their strategies in line with their overarching business model. This new knowledge will provide better digital banking evaluation, helping customers and banks understand economic value-adds.

Delimitations

It investigated employee and customer perspectives, to understand the links between digital banking services, improving customer experience based on the opinions of Ghanaian banks documented in their experiences. In this regard the study utilised questionnaire aimed to investigate the effects of digital banking on customer experience from the customers' perspectives.

In terms of theory, the study relied on the theory of technology acceptance and the diffusion of innovation theory which give an insight into the external critical success factors that impact acceptance and adoption of digital technologies by financial institutions.

Limitations

Financial institutions innovations is quite a delicate issue due to competition from within the sector. Each institution seeks to be ahead of their competitors hence it is difficult for the institutions to be forthcoming with information concerning their operations. Seeking the consent of the bank took quite a longer period of time to get the needed approval and the issue of the COVID-19 pandemic had limited the number of staff operating at the banking as most of them were on leave due to social distancing at the bank. This means staff were difficult to reach out to complete the questionnaire.

Customers become weary when confronted to give out information. Hence, people who took part in the study might not be willing to participate. The investigator therefore explained the significance of the study to respondent over and over again.

Resources needed for the research was a limiting factor. The logistics in terms of financial commitment and time were also be a challenge in conducting this study. 100% response rate might not be achieved, but about 88% response rate gotten will be a enough a good representation of the population. In all these limitations, the researcher will mobilize the necessary resources and motivation to make the study a success.

Definition of Terms

Digitization: Digital banking is the delivery of financial services over electronic devices (Martins et al., 2014)

Customer experience: the customer's cognitive and affective assessment of all direct and indirect contacts with the firm relating to their purchasing behaviour.

Digital Banking Channels – focusses on banking services via the telephone, internet and mobile channels.

Organization of the Study

The study will be structured into five chapters. Chapter one deals with the introduction which comprises background of the study, statement of the problem, objectives of the study, research questions, significance of study, scope, limitations and organization of the study. Chapter two covers the review of related literature as documented by some authorities and researchers. Chapter three deals with the research methods which includes the study approach, population, sample and sampling procedure, data collection instruments and method of data analysis. Chapter four deals with the presentation and discussion of results from the data collected. Chapter five contains the summary of the major research findings, conclusion and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The chapter reviews scholarly works related to the study objectives. The chapter is broadly divided into four main sections: the first section presents the conceptual base of the study. In the second section, the review of related concepts. In this section, all the concepts including the digitization, digital banking, customer experience, benefits, among others are reviewed. The theoretical framework focusing on the various theories that underpin the study are reviewed and presented. The next second focuses on the empirical review where previous studies which are related to the current study in area of establishing a relationship between digital banking and customer experience are reviewed. The final section is devoted to the development of the conceptual framework.

Theoretical framework

This section presents the initial research theoretical background. A research theory is a logical framework capable of explaining phenomena (Lee & Greenley, 2008). This study relies on the theory of technology acceptance and the diffusion of innovation theory which give an insight into the external critical success factors that impact acceptance and adoption of digital technologies by financial institutions.

The Technology Acceptance Model

Technology Acceptance Model (TAM) is one of IT systems theories that notes how the IT users use and adapt to the use of technology. It further notes that when the IT users are given or offered a new technology, there are various factors that will always affect their decisions concerning how and why they decide to use the technology. One of these factors is perceived usefulness (PU). Davis defines PU as the level with which a user has confidence that an innovation will influence and boost their performance at work. Another factor is perceived ease of use (PEOU) which Davis defined as the degree through which an individual believes that it would be effortless (Davis, 2011). According to Swanson (2008), one of the biggest challenges in IT is coming to an understanding why people would reject or use computer systems. It has prognostic rationality for intention to use, usage by the individual as well as the attitude of the user (Szajna, 2002).

Szajna (2002) notes that user acceptance of IT is a very vital study area that has been there for over two decades. Though many more models have come about after the TAM, TAM is considered the only model that has been able to explain the most devotion of the IT systems public. Davis (2011) noted that it can be concluded that TAM does not have enough consistency and relevance that is required to make it a well-established theory to be used by the information systems community.

Thus, Oliveira and Tam (2017) and Waite and Harrison (2015) find TAM variables the most widely used for m-banking and e-banking studies respectively. Xue et al. (2011) propose a model which relates e-banking uptake to customer demand for services, using channel availability, customer efficiency in service co-production and local penetration. Therefore, the research will utilise intention to use technology theory, incorporating social psychology, adapted in TAM, to support service quality, marketing and organisational theories to understand digital banking effects on customer experience.

Diffusion of Innovation Theory

According to Rogers (2009), diffusion is defined as the process through which an invention is circulated and made known through several channels for a time period among the members of the community. It can be a practice, an idea or a product that is seen to be new by a person or a unit that is going to adopt its usage. The process through which people are able to share, receive and send messages with one another is known as communication. Innovation as any idea, object or practice that is perceived as new by members of the social system and defined the diffusion of innovation as the process by which the innovation is communicated through certain channels over time among members of social systems.

According to Kombe and Wafula (2015) there are four basic elements in the diffusion of innovation; innovation, communication channels, time and social system. The characteristics of innovation as perceived by individuals affect their rate of adoption of a new innovation. The first feature that affect rate of adoption is related to (perceived) relative advantage: The greater the perceived related advantage, the faster the adoption. Secondly, the desire to improve organizational performance is seen to be an enabler for technological change. This theory explains individuals' intention to adopt a technology as a modality to perform a traditional activity.

The innovation-decision process model (IDPM) noted that the acceptance of an invention is a gradual process that takes a longer time as opposed to a fast process that takes a shorter period. There are 5 stages in the process of an invention that include knowledge where the consumers find out about the innovation; persuasion where the consumers either accept or reject the impression of the innovation; decision where the innovation is either accepted or rejected by the consumers; implementation where the invention is utilized; and finally the confirmation where the consumer now goes out to collect information about the innovation in a plan to wither continue or stop its use and production.

According to Rogers (1983) the critical factors that determine the adoption of an innovation at the general level are the following: relative advantage (the degree to which an innovation is perceived as better than the idea it supersedes), compatibility (the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters), complexity (the degree to which an innovation is perceived as difficult to understand and use), trial ability (the degree to which an innovation may be experimented with on a limited basis) and observability (the degree to which the results of an innovation are visible to others). It is concerned with the manner in which a new technological idea, artifact or technique, or a new use of an old one, migrates from creation to use. Rogers, (1983) classified users as innovators, early adopters, early majority, late majority and laggards. The adoption and use of mobile banking and POS machine has the potential to extend the limited nature and reach of the formal financial sector to the poor and rural population in Nigeria. Some studies on electronic banking (Odumeru, 2012; Ogunlowore & Oladele, 2014) used this theory to explain the adoption of electronic banking and its impact on performance.

Concept of Digitization

The difficulty in conceptualizing digital banking has made researchers combine different theoretical perspectives (Alalwan et al., 2016; Patsiotis et al., 2012), as it involves customer behavior, service quality, digital technology and banking. These theories contribute differently to building digital banking frameworks. Digital banking is the delivery of financial services over electronic devices (Martins et al., 2014), therefore, its conceptualization must include technology and service frameworks. Researchers have also conceptualized e-banking frameworks from service quality, bank marketing and psychology perspectives (Levy & Hino, 2016; Harrison et al., 2014).

Types and Channels of Digital Banking Products and Services

According to Chovanová (2006), the types of digital banking include but are not limited to Telephone banking, automated telephone system and SMS banking. Smart Cards such as credit and debit cards, mobile banking, Electronic Funds Transfer (EFT) system, electronic clearing services and internet banking all from part of electronic banking products and services (Nigudge & Pathan, 2014). Agrawal (2016) showed that common electronic banking services include transactional activities such as loan applications, funds transfer and utility bill payments as well as non-transactional activities like cheque book requisitions, stop payments, issuing online bank statements and updating customers' personal information. The primary 'DB Channels' (e.g. telephone, internet and mobile) for offering services (MBAMA, 2018). The internet banking channel is classified as e-banking (Sarokolaei, Rahimipoor, Nadimi & Taheri, 2012), mobile banking as m-banking (Hanafizadeh et al., 2014; Lin, 2011) and telephone banking as t-banking (Sundarraj & Wu, 2005). These digital channels share many characteristics with other services, with the main difference being the transmission medium, which can either be mobile or internet digital networks in digital banking.

Telephone banking allows customers to conduct transactions through telephones (Sundarraj & Wu, 2005).

Automated teller machine (ATM), also known as a Cash Point, Cash Machine, is a computerized telecommunications device that provides the clients of a financial institution with access to financial transactions in a public space without the need for a cashier, human clerk or bank teller (DeYoung, 2005).

Mobile banking is performing banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (Boston Consulting Group, 2009). Mobile banking allows management of financial services through mobile devices (Oliveira & Tam, 2017). Mobile banking is growing due to customers' ability to carry out activities remotely.

Internet banking is a system which allows individuals to perform banking activities via the internet (Atanassov, Nanda, & Seru, 2007). Internet banking enables banks to deliver services, offering different benefits due to more accessibility and user-friendliness of the technology from any location (Martins et al., 2014; Yiu, Grant & Edgar, 2007). It enables customers to carry out most services in the convenience of their homes (Mols, 2001).

Electronic funds transfer is a system of transferring money from one bank account directly to another without any paper money changing hands (Barnes, 2003).

Concept of Customer Experience

Many studies in customer experience explore customer perceptions (Lemke, Clark & Wilson, 2011; Holbrook, 2000), and Customer Experience Management (CEM) which strategically manages customers' overall enterprise experiences (Schmitt, 2003). The author argues that enterprises must value customer interactions and integrate different factors, during and after sales, to effectively interface with them, and create distinct experience. Similarly, Grönroos (1984) argues that developing a marketing theory requires a clear picture of what customers are looking for in their relationship with firms, shaped by intrinsic and extrinsic factors. Grönroos studies service functional qualities, and shows that expected and perceived service affect service quality, influenced by a firm's image. Customer experience is affected by customers' behaviour, but few of these factors are considered in research (Jun & Palacios, 2016; Amin, 2016), unlike here. Berry, Carbone and Haeckel (2002) suggest that CEM should define all the signs that a firm communicates to customers, to determine whether the company is meeting them.

This research could offer clues on interface design, functionality, usability and service quality, from digital banking experience, areas that have received limited attention.

Klaus and Maklan (2013) define customer experience as: the customer's cognitive and affective assessment of all direct and indirect contacts with the firm relating to their purchasing behaviour. This definition relates to other studies (Verhoef, Lemon, Parasuraman, Roggeveen, Tsiros & Schlesinger, 2009; Gentile, Spiller & Noci, 2007). Meanwhile, Verhoef et al. (2009) suggest that customer experience comprises the cognitive, affective, emotional, social and physical nature of the business, which are determined by social environment, service interface, atmosphere, product range, price, alternative channel experience, and the firm brand. They note that firm location and consumer attitudes affect overall customer experience, via elements both within (e.g. service interface, environment and price) and outside (e.g. shopping purpose) their control.

The above literature refers to customer experience as the customer's response to all direct and indirect encounters with a firm. Direct contact is initiated by customers during purchase and service usage, while indirect contact involves encounters with a firm's representations, through recommendations and advertising. However, digital banking experience involves the overall assessment of customers' and banks' digital interfaces. Unlike contact services, the implications of how this interaction influences customer behaviour (e.g. in design and ease of use) requires further clarification.

Customer experience suggests that both emotional and irrational behaviours influence customers' purchase decisions, helping create mutual benefit between customers and companies (Holbrook, 2005). Similarly, customer experience originates from interactions between a customer and a company, through which mutual value is gained (Gentile et al., 2007). Companies gain value through market share, loyalty, profitability, customer and brand equities, while customers gain through utilitarian and hedonistic values. Garg et al.'s (2014) study of banks also finds value creation an important customer experience factor. Value creation between firms and customers has boosted studies on how customer experience, satisfaction, loyalty and financial performance relate to each other.

Measuring Customer Experience

As the research is grounded in digital banking theories, the measurements and CFs to be extended will be the ones used in similar research. Klaus and Maklan's (2013) model suggests that positive product experience, outcome focus, moment-of-truth and peace-of-mind dimensions lead to positive customer experience, which leads to satisfaction, loyalty intentions and word-of-mouth behaviour. Maklan and Klaus (2011) argue that although customer experience is part of service quality, its measurement is far more complex. This agrees with other researchers' conceptualisation of customer experience (Verhoef et al., 2009; Gentile et al., 2007).

Meyer and Schwager (2007) advocate using NPS to capture customer experience. They conclude that customer satisfaction occurs when the gap between customers' expectations and experiences has been closed. Thus, banks should constantly seek the opinion of customers about their digital banking to improve their experience. However, Piyathasanan et al.'s (2015) recent study argues that few guidelines were available on how to improve customers' virtual experience. This research aims to offer those guidelines. Piyathasanan et al. (2015) find that communal and individual experiences indirectly contribute to social value, and virtual experience influences both economic and social values, hence relating customer experience to value derivation.

Knutson et al. (2007) use factors (e.g. environment, benefits, accessibility, convenience, utility, incentive and trust) to measure customer experience in the hospitality sector, while Kim, Cha, Knutson and Beck (2011) develop a consumer experience model using similar factors. However, these relate to a 14-factor model by Garg et al. (2014), which incorporates non-digital banking instruments. Chahal and Dutta's (2015) research on Indian banks, establishes a relationship model of customer experience with satisfaction, brand equity and word-of-mouth.

Chang and Lin (2015) develop a customer experience framework in the Taiwanese leisure sector, using experiential value which customers derive from services. Meanwhile, Klaus's (2013) model highlights psychological factors (trust, value for money and context familiarity) and functionality (usability, communication, social and product presence, and interactivity) to influence online experience. Other customer experience studies (e.g. Chang & Lin, 2015; Klaus & Maklan, 2013) have also combined behavioural and service quality theories, making them play a supportive role in this research.

Zeithaml, Berry and Parasuraman (1996) use various dimensions to measure behavioural intentions, including loyalty, switching intentions, willingness to pay more, external response, and internal response, while Kamakura, Mittal, de Rosa and Mazzon (2002) add behavioural elements to the SPC, based on perceptions and overall customer satisfaction in their future relationship with the service. Chang and Lin (2015) note customer experience to include physical moments and emotional participation moments, which generate value experiences and enhance customer loyalty. Other researchers have used behavioural intentions to capture digital banking uptake (Deng et al., 2010; Chong et al., 2010), which should be considered in the research.

Linking Digital Banking and Customer Experience

Digital banking satisfies customers' economic, personal and social needs (e.g. in social media), which predict overall perceived value (Dootson et al., 2016). It is changing service patterns and how customers interact with their banks, as different customer demographics have varying service expectations (Harrison, Onyia & Tagg, 2014).

Keisidou et al. (2013) attempted to predict bank services effect on customer satisfaction and loyalty using Greek banks' annual financial data and claim their study is amongst the little research that has combined customer satisfaction, loyalty and financial performance, as dependent variables. Keisidou et al. (2013) attribute the findings to the financial losses of banks at the time, and advise that the model should be tested with multiple users in other countries.

The impact of digital banking will depend on the employees' ability to innovate and add value to customer services, and how banks strategically adopt it. Thus, firms compete based on their customer value dimensions, like product features, experience, image and brand, which can increase profit (Akhter et al., 2011; Porter, 1980). Fathollahzadeh et al. (2011) state that value reflects customers' quality perceptions of the delivered services relative to price and not what a company desires to provide. Customers also recognise and value remarkable services when offered, improving loyalty behaviours (Chi & Gursoy, 2009; Keisidou et al., 2013).

Similarly, Dölarslan's (2014) model suggests that customer satisfaction and perceived value lead to repurchase intention, positive word-of-mouth communication and willingness to pay more, which mediate loyalty behaviours in services. Building trust in contact services could be through 'word-of-mouth' and courtesy, while in digital banking experience it is about the interface, ease of use, reliability and convenience, which need investigating.

Harrison et al.'s (2014) study suggests that this determines customers' e-banking adoption. The elements (e.g. web and functional design, brand) can also influence customer value and aid in relationship building in digital banking.

Evolution of Digital Banking in Ghana

According to Abor (2014), the forms of technology used for bank transactions in Ghana were mainly automated office devices such as Photocopiers, Telephones and Fax machines. However, due the competition in the Ghanaian banking industry, banks began to evolve through the introduction of computers as banks used them for their back office operations and teller to carry out teller duties. As computer technology advanced, banks in the industry began networking their branches. In recent years, the central bank has introduced the Ghana Interbank Payment and Settlement System (GIPSS) which enables common electronic platforms to be used for payments across bank and non – bank financial institutions in Ghana.

According to Enu and Gberbi (2015), the adoption of electronic banking in Ghana started with the introduction of the ATM in 1995 when The Trust Bank, Ghana which now a member of the Ecobank Group introduced the Automated Teller Machine (ATM). Not long after, competition set on as most major banks in the country also introduced ATM services to their customers.

Abor (2014) explained that customers of banks in Ghana consider the ATM as an important aspect of banking and its existence in the services rendered by a particular bank contributes to their choice of a bank. Hence, banks in the industry which delayed in introducing ATM services have suffered almost irreparably. Though ATMs have enjoyed great success because of the many benefits associated with using it, researchers have recognized that it is possible for banks to improve their competitive stance and profitability by providing their clients with more electronic products and services.

Currently, the addition of mobile money services and its operability has enhanced the mobile banking services where moneys are transferred from mobile phones to their bank accounts and vice versa.

E-banking AT SGGH

SGGH is one of the banks in Ghana. The name "SGGH" stands for "Société Générale Ghana"; the bank is part of the Société Générale banking group. It has its headquarters in Accra and its stock is listed on the Ghana Stock Exchange. It is a component of the GSE All-Share Index. According to its website it is the 4th largest bank in Ghana and has 38 networked branches in Ghana. The mission of the bank is" to create the preferred banking institution, which employs professionalism, teamwork and innovation to provide quality products and services that best satisfy the needs of our customers' (SG-SSB, 2007). The Bank operates in the Retail, Corporate and Small and Medium scale Enterprise banking markets. The bank is actively investing in internet banking.

The bank markets the "Sika" program including the Sikamail, sikanet, ATM debit card and the Sikatext Initiative Program which are E-banking products and services. SGGH was the first bank to introduce the following products in the country: 1) Doorstep Banking: the physical collection of cash at the doorstep of corporate customers. 2) Special Farmers Loan: whereby Cocoa farmers are given pre-harvest financing. 3) Consumer Credit Loan Scheme: for salaried workers, 4) Sika card: the first electronic smart card in Ghana, 5) Sikatel: the first banking access by phone in Ghana, 6) Sikatext: Banking information by SMS, 7) Sikamail an electronic statement service which makes your account just a click, 8) Sikanet an internet banking service which puts you online to your account.

Apart from the ones listed above, SGGH offered various forms of E-services and products which are available throughout Ghana. However, among the facilities, ATM is the commonest and the mostly patronized one. It also offers a wide-range of smart cards; The SGGH Visa Cards. The highly secured debit cards can be conveniently used at both the ATMs and merchant points and allows the cardholders to make transactions with ease. The cards allow a 24hour, 7 days a week access to the account. The SGGH Visa Cards are the only cards on the market with an electronic chip that allows usage on both ATMs and at merchant outlets. They can also be used at all Visa branded ATMs in the country, making money available to clients at all time.

The Privilege Card, a Visa Gold card, is top of the range of cards offered by the bank for some time now. The Priority Card is offered to the Priority Customer. These two cards have additional international features allowing use in Ghana and abroad. The other two cards available at SGGH are the Express card for the Current account holders and the Saver card for the Savings Account holders are mainstream domestic cards. In addition, there is the E-zwich smart card which is a new and secured way of paying for goods and services throughout the country based on biometric (fingerprint) identification (SG-SSB, 2007).

Sikamail

The Sikamail is a service which enables customers to receive soft copies of their statements of Account through e-mail. Among some of the features of sikamail are:

i) Listing of all transactions and balance for the period requested;

ii) ii) The statement of Account can be delivered in Printable Document Format (PDF) or Excel Fort;

iii) Customers can choose to receive their statements of Account daily, weekly, and monthly;

iv) Customers can also choose the day of the week to receive their statements;

v) Customers can access softcopy of periodic account statement from anywhere provided they can access their e-mail. Customers need not visit or phone the branch for periodic account statement request. It is very convenient and easy to use (SG-SSB, 2007).

Sikatel

The bank launched the sikatel service in September 2002 as a medium for doing business by telephone. The service was however free. The service covered enquiries, customer care and telemarketing particularly on financial issues pertaining to the Bank and the industry as a whole.

The system was basically a call centre manned by SG-SSB staff into which customers and non-customers alike could call. SIKATEL with the addition of an Interactive Voice Response (IVR) system, to provide 24-hour customer interactive with the Bank via telephone, the IVR has been developed, both in English and Twi. Customers can access the information they need by selecting it through the menus and submenus. The customer will navigate through the system using the phone keys to get the requested information (SG-SSB, 2007).

The IVR is an interactive automatic answering machine. Customers can access the information they need by selecting it through the menus and submenu. The customer will navigate through the system using phone keys to get the requested information. It is easy to use. In order to give access to the largest number of customers, the IVR has been developed both in English and Twi (SG-SSB, 2007).

Sikatext Short Message Service (SMS) Banking

This is a SMS banking service, which makes your SGGH account at your figure tip. From a cell phone, at any time, customers can perform a host of function. So there’s not a moment customers are not in control of their finances. Sikatext is easy to use and give instant access to information about your account via SMS. All you need is your cell phone, wherever you might be with sikatext. Sikatex can help check on the balance of your current and saving account. Sikanet & cadinet (internet banking). This is an internet banking service, which puts a customer on line to SGGH account. From their PC, at any time, customers can perform a host of functions. So there’s not a moment account holders are not in control of your finances (SG-SSB, 2007).

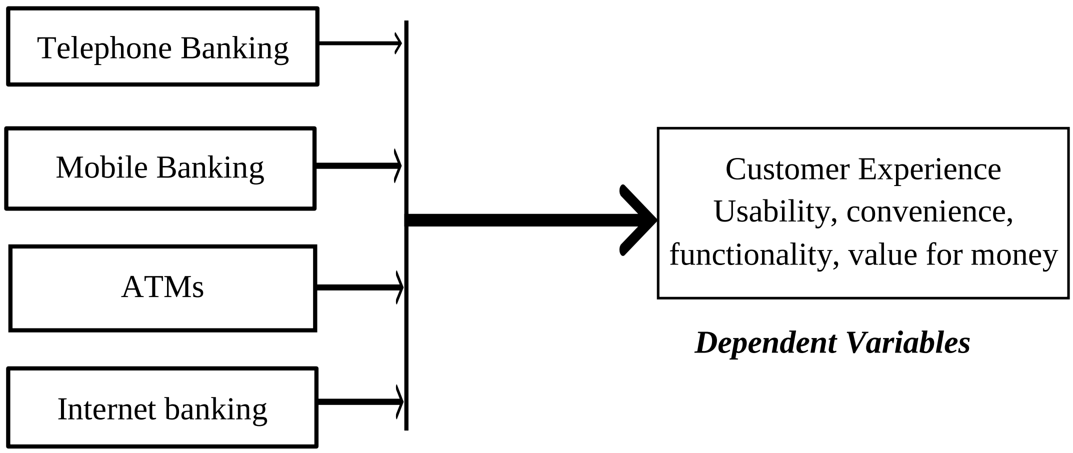
Conceptual Framework of the Study

A conceptual framework is defined as an assumed model that helps in recognizing the different variables and whether they are correlated or not (Mugenda & Mugenda, 2003). A conceptual framework for the present study shows the relationship of digital banking on customer experience of SGGH Bank and has been depicted in Figure 2.1 below. Figure 2.1 conceptualizes that digital banking (Automatic Teller Machines, Debit and Credit cards, Point of

Sale (POS) terminals, mobile banking, internet banking and electronic funds transfer) influence on customer experience.

Various studies including Alalwan et al. (2016); Lee (2009); Martins et al. (2014); Hanafizadeh et al. (2014); Luo et al. (2010); Chong et al. (2010); Pikkarainen et al. (2004); Harrison et al. (2014); Luarn & Lin (2005); Xue et al. (2011); Lee & Chung (2009); Yoon (2010) using digital banking studies using behavioural theory (e.g. TAM).

Digital Banking Innovations



Independent Variables

Figure 1: Conceptual framework for the study

Source: Author's construct (2020)

Explanation of the Conceptual Model

The difficulty in conceptualising digital banking has made researchers combine different theoretical perspectives (Alalwan et al., 2016; Patsiotis et al., 2012), as it involves customer behaviour, service quality, digital technology and banking. These theories contribute differently to building digital banking frameworks. The conceptual framework for the research topic have been developed based on preferred frameworks with similar theoretical underpinnings, covering two main areas: i) digital banking services (focusing on the attributes that affect customer experience, and the impact of digital innovation from employees). ii) Customer experience (focusing on how digital banking attributes can improve customer experience).

As Kombe and Wafula (2015) indicated there are four basic elements in the diffusion of innovation; innovation, communication channels, time and social system. The characteristics of innovation as perceived by individuals affect their rate of adoption of a new innovation.

The use of technology in firms' service innovation, focussing on meeting client needs, is best understood through how users perceive the service (Baba, 2012), as customers need to use the innovation to make it valuable to both parties. Oliveira and Tam (2017) and Waite and Harrison (2015) find TAM variables the most widely used for m-banking and e-banking studies respectively. Xue et al. (2011) propose a model which relates e-banking uptake to customer demand for services, using channel availability, customer efficiency in service co-production and local penetration.

The customer experience indicators the study is focused support previous studies including Mbame (2018) that used usability, convenience, functionality, among others. Knutson et al. (2007) use factors (e.g. environment, benefits, accessibility, convenience, utility, incentive and trust) to measure customer experience in the hospitality sector, while Kim, Cha, Knutson and Beck (2011) develop a consumer experience model using similar factors. Digital banking reduces the face-to-face interaction between the customer and bank personnel, and differs from other services. The way customers' perceive service quality will be different in contact services. Therefore, a framework framework is required to ascertain the impact of digital banking delivered through electronic platforms such as ATMs, mobile, telephone, internet, among others on customer experience.

Chapter Summary

This chapter examines the core research theoretical frameworks. It reiterates the detailed literature review presented in Chapter Two, which justifies the need for integrated modelling for digital banking services and customer experience. The definition of digital banking services, customer experience and measures of customer experience.

CHAPTER THREE

RESEARCH METHODS

Introduction

Research methodology is a systematic scheme, plan or structure laid down to help the study in arriving at a conclusion on the research questions and objectives (Bridget & Lewin, 2005). This part recognizes the methods and systems that will be utilized to collect, process and analyze data. The sub-topics covered in this chapter are: research design, target population, data collection methods, diagnostic tests, operationalization and measurement of variables, data analysis and presentation.

Study Institution

In 2004, the bank rebranded as SG-SSB after Societe Generale acquired a 51 percent controlling interest in the institution. Social Security Bank (SSB) Limited was among the largest banks in Ghana. Incorporated in 1977, the bank merged with the National Savings and Credit Bank (NSCB) in 1994 augmenting its assets and branch network. The banks operations are centred around its emphasis on consumer banking and over time it has become a market leader through the introduction of new products to the Ghanaian market, such as the smart card (Sika Card) introduced in 1997. SG-SSB began in 1975 as Security Guarantee Trust Limited was solely owned by the Social Security and National Insurance Trust (SSNIT). The next year, SG-SSB changed its name to Social Security Bank Limited (SSB). In 1994, SSB and the National Savings and Credit Bank merged under a World Bank program. In 1995, the government of Ghana divested its 21% share of the bank and it was converted to a public limited liability company and subsequently listed on the Ghana Stock

Exchange. In 2004, the bank rebranded as SG-SSB after SociétéGénérale acquired a 52.24% share controlling interest in the institution. The bank is a member of the SociétéGénérale Bank Group with twelve (12) subsidiaries. Out of these, nine (9) are in Africa; Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Ghana, Guinea, Equatorial Guinea and Senegal. SG-SSB is listed on the Ghana Stock Exchange (GSE). It is a component of the GSE All-Share Index. SG-SSB is the 5th largest commercial bank in Ghana by assets, as of December 2011. And has 40 branches in Ghana. SG-SSB Ltd, a strong local bank and one of the leading banks in Ghana. SG-SSB serves corporate customers, individuals and Small and Medium Enterprises (SMEs). The mission is to create the preferred banking institution, which employs professionalism, teamwork and innovation to provide quality products and services that best satisfy the needs of our customers.

Research Design

Robson (2002) describes a research design method as research purpose and questions, phenomenon to guide study, method of data collection and sampling strategy. Every research study utilizes a variety of research methods which can be either quantitative or qualitative, or a mixture of both approaches.

The quantitative methodology of the descriptive or survey research design is adopted to examine the impact of digitization in the banking operations on the customer experience of SGGH, Sunyani in Bono Region. The survey was regarded suitable because it is the best way to describe the group under study's features, perspectives and views. It also provides the respondents the chance to answer the questions as per their knowledge. This strategy allows for questionnaire to be used as data collection. The focus is on quantity with this technique, and variables are linked, no greater insight is requested from study respondents, and distortion of study circumstances is not required.

Research Approach

According to Creswell (2013), a research approach spans from broad assumptions to detailed methods of data collection, analysis and interpretation. It further involves the intersection of philosophical assumptions, designs and specific methods (Creswell, 2013). Therefore, it is necessary to pinpoint the two main research approaches. These are: the quantitative method and the qualitative research. The study adopted the quantitative approach. Quantitative methods are techniques of carrying out research, which involve some form of numerical measurement and analysis, while qualitative methods involve the textual description of a study. This is not research design. Read about research designs and choose the suitable one for your research.

Type of Research

Several researchers have different categories for the types of research design. According to Walliman (2006), the four types of research designs are the cross-sectional design, longitudinal design, experiments and case studies. Neuman (2007) also asserts that there are three main types of research design, namely: cross-sectional, longitudinal and time series. Walliman (2006) states that a cross-sectional design entails the collection of data on more than one case out of a population, usually, enough cases that are representative of the population, and data collected at a single point in time as a snapshot of the ideas, information, or opinions (Walliman, 2006). Neuman (2007) also added that cross-sectional studies provide a snapshot of a single, fixed time examination of many diverse features of a number of cases a s well as allow the researcher to analyze it in detail. The cross-sectional study is simpler and less costly compared to longitudinal study. However, one thing to consider is that it can be exploratory, descriptive or explanatory in nature (Neuman, 2007). On the other hand, longitudinal research is any study that focuses on examining specific phenomena over two or more times. It is often more complex and costly than cross-sectional research (Neuman, 2007).

Longitudinal study is a repeated cross-sectional survey and a kind of study that helps to ascertain the possible influence of time on the results (Walliman, 2006). Lastly, time series which is another research design also focuses on the selected aspect of a phenomenon which is being studied at different points in time, often with the intention of studying social trends (Creswell, 2013). Here, a researcher's decision to choose any of these designs is mainly influenced by the objectives of a study and the purpose of the study (Saunders et al., 2011). Therefore, based on the objectives and the purpose of the study, this study adopts a crosssectional study.

Population

The research population consisted of SGGH bank managers, staff and customers, Sunyani. The target population is a sequence of the population representing the focus or target of the research (Saunders *et al*., 2016). For the research, the representative target population comprises the permanent staff and customers of the main branch of SGGH bank, Sunyani. Data from the Bank indicate that there are 29,765 customers and 25 permanent staff from the branch in Sunyani.

Sample and Sampling Procedures

The sample of the research applies to the group chosen from the population to draw conclusions regarding the overall population (Neuman, 2007). The unit of analysis is therefore managers, staff and customers of the SGGH bank Limited in Sunyani. The sample size was made up of 163 customers and the management staffs selected from SGGH Bank Limited, Sunyani. To aid generalisation, the sample to the population must therefore be representative (Bryman & Bell, 2011; Neuman, 2011).

According to Mugenda and Mugenda (2003) a sample of at least 10% is sufficient. As the target population, N, is defined the sample size has been calculated using Cochran (1977) as shown in the following equation 1 to establish the sample size, n, of study participants:

The formula is given by the relation:

$$N = \frac{Z^2 p(1-p)}{d^2}$$

In which;

n= sample size

Z= the number related to the degree of confidence expected in the result; in this case the confidence interval of 95 percent (Z=1, 96 which is the abscissa of the normal curve).

P= an estimate of the percentage of individuals in the group we are interested in as SGGH bank clients, where q=1-p

D = ratio of error to be accepted by the study (sampling error; expected error of 5 percent).

As indicated, the total population of customers (SGGH bank, Sunyani) is 29765 and which is used to calculate the research sample size.

Since;

n = the sample size

z = 1.96

p = 10% (0.10)

d = 0.05

Therefore, putting the numbers in the equation:

$$n = \frac{1.96^2 * 0.10(1 - 0.10)}{0.05^2}$$

$$n = \frac{3.8416 * 0.09}{0.05^2}$$

$$n = \frac{3.8416 * 0.24}{0.0025}$$

$$= 138.296$$

In the research, the sampling frame is displayed.

Table 1: Sample Frame for the Study

Branches	Management & staff	Sample	Customers	Sample
Permanent staff	15	15	29,730	138
Other staff	10	10	-	-
Total	25	25	29,765	138

Source: Field data (2020)

Pandey and Pandey (2015) describe sampling to mean setting as representative of a population from a specified amount of subjects from a specified population. Sampling according to Osei – Hwedie (2011) is the process of selecting people with whom to conduct the research. The sampling techniques available are either probability sampling or non-probability sampling (Bryman and Bell 2011; Neuman 2011; Saunders *et al.,* 2016). With regard to the study participants, two categories of respondents were sampled. First of all, SG-SSB Bank Limited management and employees, and secondly, Sunyani clients. A non-probability sampling technique (census and convenient sampling) was adopted. Census sampling technique was also adopted for the choosing of the management and staff of the SGGH Bank Limited, Sunyani while convenient sampling was used for customers to gather relevant data. Therefore, the researcher always used clients who had been banking with the bank for six years or more. Convenient sampling, on the other hand, describes the situation in which participants are only included in a study because at the right time they happen to be at the right place (Kumar, 2011). Convenience sampling is a method of non-probability sampling involving a sample from a portion of your population that is nearer to you. This is an easy and convenient sample (Saunders *et al*., 2016).

Sources of Data

Bless *et al*. (2006) presents the two main sources of data as the primary and secondary sources. Data were gathered from main and secondary sources for this research. Questionnaires were the means by which the primary data were obtained. Questionnaire to both employees (management and all staff included) and customers of the SGGH bank constituted the primary sources of data.

Secondary data is raw data created by other researchers that provides material for researchers (Hox & Boeije 2005). The data can be collected aimed at presenting general information, or for a specific research (Ghauri & Gronhaug 2005). The secondary information sources were gathered from relevant sources available and in line or study-related purposes such as papers, textbooks, web accessible, financial institutions records and other appropriate journals.

Data Collection Instruments

The primary research tools used in this study for information gathering were the questionnaire. The questionnaire aimed to investigate the effects of digital banking on customer experience from the customers' perspectives (May 2001). Particular attention has been given to ensuring that questions are explicit, unbiased, unloaded and relevant in the development of the questionnaires. The tools consisted of a combination of closed ended and Likert scale issues that used a scale of 1-strongly disagree, 2-disagree,3-indifferent, 4-agreeand 5-strongly agree. The instrument provided an opportunity for respondents to explain the response they chose for questions that required a response.

The questionnaire comprised five sections covering the research questions of the study. Each section focuses on one research question. Section A collected information on demographic data on the respondent's age, qualifications, and years of work experience and expertise. Section B examines the general perceptions of employees and customers of the digital banking services innovation in terms of customer experience. Section C identifies digital banking channels used by the bank. Section D examines the impact of the digitization banking services on customer experiences

Prior to sending out the main questionnaire, a Pilot Survey to assess validity and correct errors was conducted. The questionnaire was sent to 10 selected respondents from the bank to get their feedback and ensure the expected data would answer the research question. Their feedback was used to reshape the questionnaire, remove ambiguity and make sure the questions were understandable.

The study conducted both reliability and validity during the questionnaire development to ensure that the instruments meet credibility and trustworthiness. Validity in the form of face and content were checked by expert opinion from my supervisors and from other professionals who are well versed in research issues. Also, reliability was checked as the instruments of the study were tested in two financial institutions (5 management staff and 20 customers) which did not participate in the actual study in Berekum using Cronbach alpha to check reliability of data. Some problem areas have been recognized and recommendations for enhancement have been made, ensuring the questionnaire is complete.

Table 2: Reliability and Validity Test results of Instruments

Variables	Factor loading	No. of items	Cronbach α
Customer perception	0.706	11	0.778
Functionality	0.650	5	0.786
Value for money	0.774	5	0.736
Convenience	0.790	4	0.893
Usability	0.767	3	0.803
Customer experience	0.771	4	0.736

Source: Field data (2020)

In determining the reliability of the variables, the most common internal consistency measure known as Cronbach’s alpha (α) was used. Cronbach's alpha indicates the internal consistency or average correlation between items in a survey instrument and can be used to gauge the instrument’s reliability

(Cortina, 1993; Santos, 1999). Alpha is an important concept in the evaluation of assessments and questionnaires (Bland & Altman, 1997). It is mandatory that assessors and researchers estimate this quantity to ensure the validity and accuracy of the interpretation of their data. It is an unbiased estimator of reliability; that is, the components can have different means and different variances, but their covariance should all be equal. It indicates the extent to which a set of test item can be treated as measuring a single latent variable (Cronbach, 1971). Cronbach's alpha reliability coefficient ranges between 0 and 1. A coefficient of 0 implies that there is no internal reliability while a coefficient of 1 indicates a perfect internal reliability. The recommended value of 0.5 was therefore used as a cut-off of reliability (Sekaran, 2009). The result shows a construct reliability which indicates internal consistency. Therefore, improving the value of α for each cluster of items is not required.

With regard to content validity, Factor loading of the items was done used to confirm the content validity of the measurement model. The presentation is shown on table 4.4. As suggested by Hair et al. (2010), factor loading of the items could be used to confirm the content validity of the measurement model.

Data Collection Procedures

The collection of data is a critical phase in the implementation of a research project. The actual process of data collection took place within the period of the study. Prior to commencing with the distribution of questionnaires, a written request for approval to conduct the study was submitted to bank HRD manager, including the research proposal, proof of university permission and proposed measures for protecting participants' confidentiality. The questionnaire was distributed to employees of the bank. The administration of the questionnaires was by the “drop and pick” method that allowed respondents ample time to complete the questionnaires at a later date.

For the bank customers, exit interviews were used after they have come out from the bank and were approached to be interviewed by the research assistants. Those customers who agreed to take part in the study were interviewed.

Data Analysis

A major component of quantitative research is statistical analysis, and hypothesis testing is one of the key elements. The data, comprising items and instruments from the survey were categorised into different factors of interest. The data gathered information was evaluated using the quantitative approach of data analysis. The data collected were checked, edited, coded and processed using the Social Science Software Program Statistical Package (SPSS). This software (SPSS) package assisted the researcher to analyze the information using descriptive statistics. In order to ensure that it was the real reflection of what was on the questionnaires, the records were cleaned up before the primary analyzes were run. To investigate digital banking factors in the research model to see if they were significant in determining customer uptake and experience, a number of statistical tests were carried out using descriptive statistics, T-Test, Reliability tests, Correlation Analysis and Regression Analysis. All these are valid statistical tests within the quantitative research method, to evaluate correlation, cause and effect, and relationships between items. Descriptive instruments such as graphs and tables were provided on the outcomes of the analyzed information.

Regression Model

Single regression analysis was used to show the statistical relationship of the variables as captured below: $Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$

Where:

Y = Customer Experience

X_1 = Telephone banking

X_2 = Mobile banking

X_3 = Internet banking

X_4= ATM

α = Constant

ε = Error term

As stated, digital banking was measured using telephone banking, mobile banking, internet banking and ATMs, while customer experience was measured using employee usability, functionality, convenience and value for money.

*Customer experience is a function of digital banking (*telephone, mobile banking, internet banking and ATMs. *It is mathematically expressed as follows:*

Customer Experience= β_0 + β_1Telephone+ β_2Mobile + β_3Internet + β_4ATMs + μ_t

Table 3: Dimensions, Attributes and Definitions of Factor Items

Dimension of Factors	Attributes, Definitions
Digital Banking	Better services, investment in R&D, improving uptake and experience through innovation
Customer Experience	Overall customer experience, meeting service journey, customer requirements, needs and expectations
Value for money	Saves money, saves time, usefulness, enjoyment, better deal online
Convenience	Comfort, convenience, speed, hassle-free
Functionality	Interactive, clear information, easy to navigate, easy to do business online, simple and intuitive interface
Usability	Ease of use, user-friendly, flexibility, simple, easy to navigate, sufficient for my needs

Source: Field data (2020)

Ethical Consideration

Bryman (2012) warns that a major issue in organizational research is access to information therefore, ethics and sensitivity of information should be considered. Due to the nature of the research and the banking environment in which it was being carried out, ethical agreements were obtained. Prior to collecting the questionnaire and interview data, ethical approval was obtained from the bank. Further confidentiality, ethical approval was obtained from the case bank before interviewing the employees. To maintain the anonymity and confidentiality of data and results it was recommended not to mention the bank’s name in the final thesis version. The research ethical perspectives were also incorporated in data capture. The bank, customers and employees used had an equal opportunity, and there was no bias in making choices. Every effort was made to maintain the research ethics and integrity stipulated and agreed with CUCG and the case bank used.

Chapter Summary

The research design involves data collection from different sources: customer questionnaires and employee interviews. It details all data collection methods and postulates how they are analyzed and tested. The research design method has highlighted different models depicting digital banking's effect on customer experience from different perspectives. Data analysis focused on both descriptive and inferential statistics. The next chapter presents the results and discussion of results.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The main goal for this study is to examine the impact of digitization in the banking operations on the customer experience of the SGGH bank limited. The descriptive or survey research design was used. Data collection was done through self-administered questionnaires to the staff and customers of the bank. Before the actual final data collection, a pilot study was conducted where the content validity and reliability of the questionnaires were tested. The validity was enhanced through discussion of the questionnaire contents with two randomly selected bank managers. The reliability was tested through statistical package for social sciences (SPSS) and Cronbach alpha correlation coefficient was used to satisfy the reliability tests. The study sample had 163 questionnaires distributed and all of them were duly completed and returned for analysis. Both descriptive (frequencies, percentages, mean) and inferential statistics (correlation and regression) were performed and data presented by means of tables. This chapter presents the results from the data analyzed and followed by the discussions of the results. Both the presentation of the results and subsequent analysis was done to reflect the study objectives.

Demographic Characteristics of Respondents

This sub-section highlights the socio-demographic characteristics: age-sex structure, educational attainment and the number of years been with the bank.

Table 4: Sex, Age and Occupations of Respondents (Customers)

Item/Descriptions	Frequency	Percentages%
Male	53	38.4
Female	85	61.6
Total	138	100.0
Below 25 years	56	40.6
31 -35 years	31	22.5
36 -40 years	22	15.9
41-45 years	15	10.9
Above 45 years	14	10.2
Total	138	100.0
Self-employed	35	25.4
Unemployed	24	17.4
Salary employed	66	47.8
Pensioner	13	9.4
Total	138	100.0

Source: Field data (2020)

The sexes of the respondents showed that majority of the respondents (61.6%) were females, while the males constituted 38.4%.

Concerning the age of the respondents, most of them (40.6%) were below the age of 25 years while the least were those above 45 years of age constituting 10.2%.

With regard to the respondents' occupations, the results showed that most of them (47.8%) were salaried workers. A little above one-fourth of the respondents were engaged in their own businesses. These least among them were pensioners who constituted less than one-tenth.

Table 5: Educations and Number of Years Customers

Item/Descriptions	Frequency	Percentages
No formal education	9	6.5
Primary/JHS/SHS	23	16.7
First Degree	79	57.3
Second Degree	27	19.5
Total	138	100.0
Below 1 year	12	8.7
1 – 5 years	21	15.2
6 – 10 years	29	21.0
11 – 15 years	33	23.9
Above 15 years	43	31.2
Total	138	100.0

Source: Field work, 2020

The respondents were asked to indicate their level of education. Majority of respondents (76.8%) are well educated with those holding qualification from first degree being 57.3% and second degree 19.5%. While 16.7% had formal education to basic and secondary levels, very few of them representing 6.5% had no formal education. The results imply that the customer are educated enough to appreciate the experiences of digital banking.

With regard to number of years they have banked with SGGH bank, the results indicate that large percentage of the respondents (31.2%) had been with the bank for more than 15 years. Less than one-fourth of the respondents constituting 23.9% and 21% had been with the bank between 11 to 15 years and 6 to 10 years respectively. While 15.2% of the respondents had banked between 1 to 5 years, 8.7% of the customers had operated their accounts for less than a year. As the results indicated, most of the customers have been with the bank to know the bank as well as appreciating the level of change that has taken place in the bank.

Background of Bank Staff

This subsection analyses the demographic characteristics of the bank's staff in relation to their positions, number of years working as a staff when employed and level within the bank.

Item/Descriptions	Frequency	Percentages %
Senior staff	6	22.2
Junior staff	21	77.8
Total	27	100.0
1- 5 years	5	18.5
6 -10 years	8	29.6
11 -15 years	6	22.2
16-20 years	4	14.8
Total	27	100.0
Branch manager	2	7.4
Project manager	2	7.4
Operations	4	14.8
Tellers	6	22.2
Customer care	13	48.1
Total	27	100.0

Source: Field data (2020)

From the data analyzed, the results indicate that 2 (7.4%) each were branch managers and project managers. Four of the staff representing 14.8%

were in operations, 6 (22.2%) were tellers and 13 (48.1%) were in the customer care units of the bank.

With regard to the working years at the bank, the results further show that 5 (18.5%) of the staff have between 1 to 5 years of working experience, 8 (29.6%) have 6 to 10 years of experience, 6 (22.2%) have between 11 to 15 years working experience, 4 (14.8%) each have 16 to 20 and above 20 years of working experience.

The employee levels indicate that 6 staff representing 22.2% were senior staff while 21 of the respondents representing 77.8% were junior staff at the bank.

The General Perceptions of Employees and Customers of the Digital Banking Services in terms of Customer Experience

This objective sought the views of both customers and staff of the bank about their perception of the digital banking innovations introduced by the bank to improve customer experience.

Table 6: Customers Perception about Digital Banking

Items	Mean	Std. Dev
Access to banking services is quicker	3.88	.864
Saves me time from banking in branches	4.23	.864
Digital banking services are convenient to me	4.18	1.293
I enjoy using digital banking services.	3.92	1.437
I am able to bank from the comfort of my home, with digital banking	3.89	1.20279
Digital banking saves me money as I don't have to travel to the branch.	3.57	.78515
My bank's current digital banking is easy to use.	3.44	1.069
My bank creates innovative digital banking services that make life easy for me.	3.98	1.057
My bank makes it easy for me to do business with it online.	3.86	1.134
My bank makes it easy me to search for and buy products using their digital banking.	3.82	25.3
High quality online interactive support is important in digital banking.	3.98	1.068

Source: Field data (2020)

Table 6 shows the perceptions of customers about the digital banking innovations of the bank. The results show that respondents generally agreed to perception that digital banking innovations affect customer experience. For instance, majority of the respondents agreed and in strong terms that access to banking services is quicker with mean score of 3.88 and standard deviation of 0.864. Most of the respondents agreed that digital banking innovations save them time from banking in branches with mean score of 4.23 and standard deviation of 0.864. Again, majority of the respondents agreed that digital banking services are convenient to them with mean score of 4.18 and standard deviation of 1.293. Similarly, majority of the respondents agreed that they enjoy using digital banking services with mean score of 3.92 and standard deviation of 1.437. Furthermore, most of the respondents agreed that they are able to bank from the comfort of their home, with digital banking innovations recording mean of 3.89 and standard deviation of 1.20279. Most of the respondents agreed that digital banking saves them money as they don't have to travel to the branch recording mean of 3.89 and standard deviation of 1.20279. Half of the respondents (50%) agreed that the bank's current digital banking is easy to use. Those who agreed that the bank creates innovative digital banking services that make life easy for them were 81.3% while 7.5% disagreed. Also, most of the respondents (71.7%) agreed that the bank makes it easy for them to do business with it online. Again, most of the respondents (64.7%) agreed that the bank makes it easy them to search for and buy products using their digital banking. Finally, most of the respondents (75.8%) agreed that high quality online interactive support is important in digital banking.

Table 7: Employees Perception about Digital Banking

Items	Mean	Std. Dev.
Offering high quality digital banking services	3.00	1.11
Meeting customers' needs	3.17	.79
Catering for different demographics of customers	3.44	1.07
Providing flexible services	3.98	1.06

Source: Field data (2020)

Data in Table 4.5 shows how employees of the bank perceive the digital banking innovations influencing customer experience. The results show that majority of the respondents (66.8%) agreed that the digital banking innovations offer high quality digital banking services while 26.2% disagreed. Again, those who perceived the digital banking innovations as meeting customers' needs were 76.3% while 5.4% disagreed. Furthermore, majority of the respondents (56.2%) agreed that the digital banking innovation caters for different demographics of customers. While 34.6% were uncertain, 9.2% disagreed. Finally, majority of the respondents (81.3%) agreed and in strong terms that digital banking innovations provide flexible services.

Digital Banking Channels used by the Bank

In this objective, the study identifies various channels deployed by the bank to promote digital banking innovations. Specific areas dealt with include the most used digital banking innovations channels, frequency of their usage, the financial services that these channels are used to do, among others.

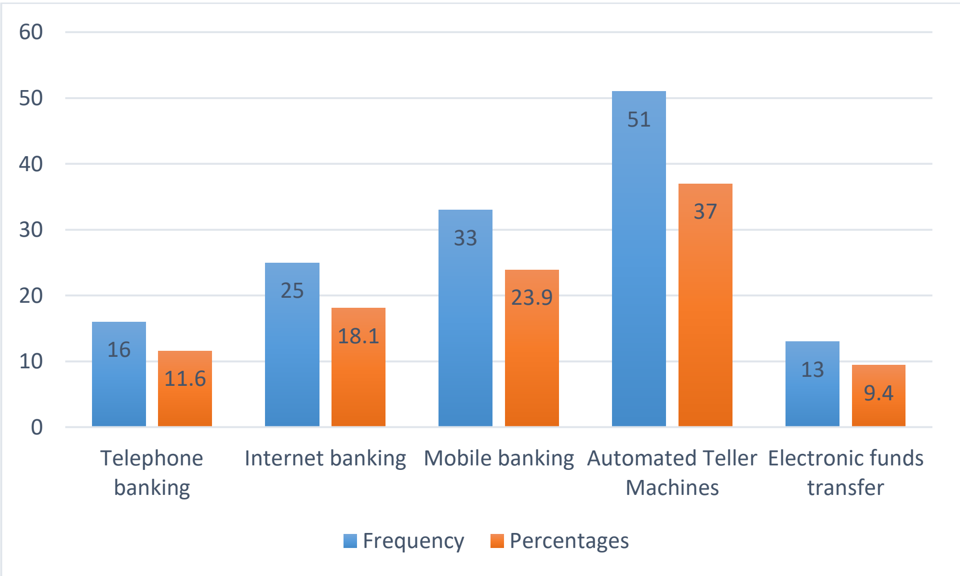


Figure 2: Most used digital banking innovation channels

Source: Field data (2020)

Figure 1 shows that Automated Teller Machines, mobile banking, internet, Telephone and electronic fund transfer are the major channels for accessing services. Regarding digital banking channels usage, the order of prevalence is ATMs (37%), mobile (23.9%), internet (18.1%), and telephone (11.6%). Other types of digital banking such as the electronic funds transfer accounted for 9.4%.

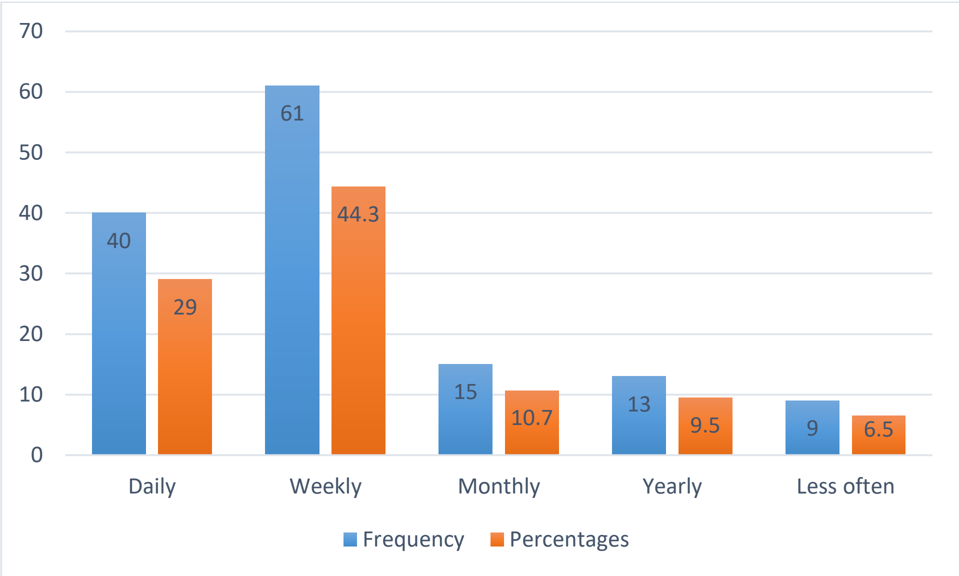


Figure 3: Frequency of digital banking usage

Source: Field data (2020)

Figure 3 presents digital banking usage according to frequency of usage, showing how often respondents perform transactions. Many customers use digital banking on a weekly basis (44.3%), followed by daily (29.0%) and then monthly (10.7%). Less than one-tenth of the respondents (9.5%) use digital banking yearly, few of them (6.5%) use the platforms less often.

Table 8: Types of financial services Customers use Digital Banking Channels

Digital banking channels	Frequency	Percentages
Check balance	33	23.9
Savings	6	4.3
Pay Bills	5	3.6
Print Statement	3	2.2
Transfer Funds	31	22.5
Standing Order	11	8.0
Current Account	30	21.7
Direct Debit	19	13.8
Total	138	100

Source: Field data (2020)

The result also shows that customers use digital banking to carry out various services: check balance (23.9%), followed by fund transfer (22.5%), current account (21.7%), direct debit (13.8%) and standing order (8.0%). Other uses include savings (4.3%) and pay bills (3.6%).

Impact of the Digitization Banking Services on Customer Experiences

The main objective of the study was to determine the influence that bank innovations have on customer experience. The objective was assessed by use of statements which were on the questionnaire where the respondents indicated their degree of agreement with the statements. Also, regression analysis was done to determine the level of significance of the independent and dependent variables.

Table 9: Respondents' Views on Functionality of Digital Banking Innovations

Items	Mean	Std. Dev.
Digital banking is scalable and accessible to the vast majority of customers	4.063	0.410
The bank gets more business traffic and a greater volume of customers	3.71	0.498
Digital banking making information easily available	3.75	0.487
The experience is more appealing to customers	3.83	0.448
Customers can access numerous services anytime	4.031	0.759

Source: Field data (2020)

Data in Table 9 shows that respondents generally agree to the perceived functionality of the digital innovations of the bank. Those who agreed that digital banking is scalable and accessible to the vast majority of customers were 96% while only 2% disagreed. The mean score of 4.063 indicate that majority of the respondents agreed that digital banking is scalable and accessible to the vast majority of customers. The standard deviation of 0.410 means that most of the responses were spread within one standard deviation around the mean. Again, majority of the respondents (69%) agreed and in strong terms to the statement that the bank gets more business traffic and a greater volume of customers with mean score of 3.71 and standard deviation of 0.498. Also, those who agreed that digital banking making information easily available were 73% while only 27% undecided. Moreover, 80% majority of the respondents generally agreed that the experience is more appealing to customers recording a mean score of 3.83 and standard deviation of 0.448. Furthermore, those who agreed that customers can access numerous services anytime were 84% while only 6% disagreed. The mean score of 4.031 indicate that majority of the respondents agreed that customers can access numerous services anytime. The standard deviation of 0.759 means that majority of the responses were spread within one standard deviation around the mean.

Table 10: Respondents' Views on Value for money of Digital Banking Innovations

Items	Mean	Std. Dev
Satisfying customers' needs	4.13	0.399
Customers get value-added services	4.08	0.722
Customers have more banking choices	3.62	0.645
Digital banking save money and time	3.97	0.572
Digital banking is useful and does the necessary job for them	3.65	0.841

Source: Field data (2020)

Table 10 shows a general affirmation to the perceived value for money regarding the digital innovations of the bank influencing customer experience. For instance, 95% of the respondents agreed and in strong terms that digital banking satisfies customers' needs while 2% disagreed. Again, 80% of the respondents generally affirmed to the statement that there is value for money as customers get value-added services. However, only 5% disagreed. Also, 65% of the respondents generally agreed that the digital innovations offer value for money because customers have more banking choices. While 29% were not sure, only 6% disagreed. Those who agreed that digital banking save money and time accounted for 91% with only 3% disagreed. Furthermore, 63% of the respondents agreed and in strong terms that digital banking is useful and does the necessary job for them. However, 12% disagreed.

Table 11: Respondents' Views on Service Convenience of Digital Banking Innovations

Items	Mean	Std. Dev.
Customers can bank from the comfort of their homes	4.13	0.671
Customers have access to services anytime	3.91	0.633
Customers get more choice	4.13	0.785
There is faster service experience than branches	4.28	0.773

Source: Field data (2020)

Table 11 shows that there is a general affirmation to digital banking innovations offering service convenience to customers. The results indicate that customers are in agreement that there is service convenience in using the digital banking innovations. Those who agreed that customers can bank from the comfort of their homes were 90% while only 2% disagreed, customers have access to services anytime were 82% while only 5% disagreed, customers get more choice were 83% while only 4% disagreed, and there is faster service experience than branches were 90% while only 7% disagreed. The mean scores of 4.13, 3.91, 4.13, and 4.28 all indicate that majority of the respondents agreed that digital banking is service convenient. The standard deviations of 0.671, 0.633, 0.785, and 0.773 mean that most of the responses were spread within one standard deviation around the mean.

Table 12: Respondents' Views on Service Usability of Digital Banking Innovations

Items	Mean	Std. Dev.
Digital banking is provided on self-service devices customers are used to	4.142	1.11
Making their lives easier	4.032	.79
Giving them the right experience	3.44	1.07

Source: Field data (2020)

Table 12 shows the level of agreement with customers' experience with the digital banking innovations. The results show that respondents were generally in agreement with the service usability of customers experiences with the digital banking innovations. For instance, those who agreed and in strong terms to digital banking are provided on self-service devices customers are used to were 80% while 12% disagreed. Similarly, 80% majority agreed that digital banking innovations have enhanced customer experience as it is making their lives easier. Furthermore, majority of the respondents (84%) agreed and in strong terms that digital banking innovations has enhanced their customer experiences by giving them the right experience.

Table 13: Correlation Results of the Relationship between Digital Banking and Customer Experience

Variable	Customer Exp.	T-banking	M-banking	Int-banking	ATMs
Customer Exp.	1.000				
Telephone	0.790	1.000			
Mobile	0.907	0.429	1.000		
Internet	0.998	0.522	0.831	1.000	
ATMs	0.886	0.912	0.566	0.596	1.000

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field data (2020)

Table 13 presents the degree of correlation and levels of significance between customer experience and digital banking innovations. All the digital banking innovations display strong correlation relationship with customer experience. This indicates that digital banking innovations through telephone banking, mobile banking, internet banking; Automated Teller Machines (ATMs) have influence on customer experience. For instance, the results showed a positive relationship of 0.790, 0.907, 0.998 and 0.886 between telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs) respectively and customer experience.

Regression Results

Next, the study conducted a regression analysis to examine the significance of the effects of these digital banking innovations on customer experience. Table 4.12 shows the output based on the best model of each size having the customer experience score. The table gives the p-value for the independent variables in the regression equation as dependent variables.

Table 14: Regression Results of Digital Banking Innovations on Customer Experience

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	(beta)	t	Sig.
Constant	0.5605	0.1323		0.4233	.006
Telephone	0.2176	0.2082	.462	0.5648	.005
Mobile banking	0.4269	0.1633	.349	0.05673	.001
Internet banking	0.3018	0.5963	.234	1.7077	.005
ATMs	0.5054	0.2582	.224	4.0825	.000
Dependent variable: Customer Experience					
R2	.595				
Adjusted R	.548				
F=	12.86231				

**Significant at p.05

Source: Field data (2020)

A review of the beta weights specifies four variables, telephone β = .462, t (0.5648) p < .005; mobile banking β = .349, t (0.05673) = p < 001; internet banking β = .234, t (1.7077) = p < .006, and ATMs β = .224, t (4.0825) = p < .000, significantly contributed to the model. Based on the results showing the beta weights for the variables, telephone banking, mobile banking, internet banking and ATMs were significantly related to customer experience.

Table 15: ANOVA

Model		Sum of squares	df	Mean square	f	Sig.
1	Regression	1.75827	4	4.39567	12.86231	.005
	Residual	1.19612	35	3.41748		
	Total	2.95439	39			

a. Dependent Variable: Customer experience scores

b. Predictors: (Constant), telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs)

Source: Field data (2020)

The results of linear regression showed that the model comprising the four predictors, telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs) combined accounted for about 43.9% of variance in customer experience scores and the result was statistically significant ($R^2 = .595$, $F (12.86231) = 4.46085$, $p< .000$). Table 4.13 reveals that bank digital banking innovations are statistically significant in explaining customer experience.

Summary of Findings

The following summarizes all the results in terms of the hypothesis that were found to be true.

Hypothesis 1a: there is a positive and significant impact of the digital banking innovations on the customer experience of the bank. This hypothesis is accepted because the beta value of independent variable (digital banking innovations) is 0.595 with t value 4.46085 and significant level of 0.005. Thus, as the significant level is lesser than 0.05.

Discussion of Results

This section presents the discussion of the results from the data analyzed in relation with the study objectives and with reference relevant literature.

Employee and Customer Perception of Digital Banking

The perception of digital banking can vary among customers, employees and banks. The use of technology in firms' service innovation, focusing on meeting client needs, is best understood through how users perceive the service (Baba, 2012). Both customers and employees of the bank expressed their perception of the digital banking innovation services on customer experience. Responses on from customers' perception about the digital banking innovations of the bank were that it affects customer experience. For instance, there was general agreement to the effect that access to banking services is quicker, digital banking innovations save them time from banking in branches, digital banking services are convenient to them. The findings agree with Teo, Anderson, Fenwick and Ying (2014) who argued that businesses continuously exploit digital technologies to create new value sources and increase efficiency in customer services. Similarly, Hoehle et al.'s (2012) study suggests that the proliferation of digital banking has impacted the way banks serve customers.

Similarly, the relevance of the digital banking service is that of easing access to financial services as they enjoy using digital banking services, they are able to bank from the comfort of their home, with digital banking innovations, digital banking saves them money as they don't have to travel to the branch, the bank's current digital banking is easy to use, the bank creates innovative digital banking services that make life easy for them, the bank makes it easy for them to do business with it online. Again, the bank makes it easy them to search for and buy products using their digital banking, and high quality online interactive support is important in digital banking. These findings support previous studies (Jun & Palacios, 2016; Hanafizadeh et al., 2014; Xue, Hitt & Chen, 2011) as having a major effect on the way customers access financial services.

On the other hand, employees of the bank perceive the digital banking innovations influencing customer experience. The results show that the digital banking innovations offer high quality digital banking services, meeting customers' needs, catering for different demographics of customers and providing flexible services.

Digital Banking Channels Used by Customers

Literature has identified Technology-based applications such as internet banking, mobile banking, telephone banking, ATM and POS network brings significant advantages to customers in the delivery of existing products. Responses to this question indicate that Automated Teller Machines, mobile banking, internet, Telephone and electronic fund transfer are the major channels for accessing services. This finding confirms Mbame (2018) that identified three major digital banking channels, namely telephone, internet or online and mobile banking for offering value-added services, due to the perceived values they offer. There are other ways, point-of-sale, ATM and Contactless Card, however they are used for paying in and withdrawing money, and purchases. The digital banking usage according to frequency of usage, showing how often respondents perform transactions indicate that many customers use digital banking on a weekly basis, followed by daily and then monthly, yearly, and less often.

The results show that customers use digital banking to carry out various services including checking balance, followed by fund transfer, current account, direct debit and standing order, savings and payment of bills. The findings confirm other studies (Jun & Palacios, 2016; Hoehle et al., 2012) that found that digital banking enables customers to perform transactions like paying bills, transferring funds and balance inquiries. It plays a central role in electronic payments to support ecommerce.

The Effects of Digital Banking on Customer Experience

Literature has found important qualities that determine the effectiveness of digital banking in improving customer experience which are functionality, value for money, service convenience and service usability (Mbame, 2018). Results of the perceived functionality of the digital innovations of the bank show that digital banking is scalable and accessible to the vast majority of customers, the bank gets more business traffic and a greater volume of customers, digital banking making information easily available, the experience is more appealing to customers, and customers can access numerous services anytime.

The findings on the perceived value for money regarding the digital innovations of the bank influencing customer experience revealed that digital banking satisfies customers' needs, there is value for money as customers get value-added services, the digital innovations offer value for money because customers have more banking choices, digital banking save money and time, and digital banking is useful and does the necessary job for them. The finding corresponds to Dootson et al's (2016) finding that expected value draws customers towards performing an action.

The results indicate that customers are in agreement that there is service convenience in using the digital banking innovations. For example, the results show that customers can bank from the comfort of their homes, customers have access to services anytime, customers get more choice, and there is faster service experience than branches. Garg et al. (2014) found convenience, customisation, value addition, speed and employees' attributes to affect customer experience in Indian banks. Their findings relate to this research's results in UK digital banking. Jun and Palacios (2016) and Knutson et al.'s (2007) research also found that convenience affects customer experience.

The results show that there was general agreement with the service usability of customers experiences with the digital banking innovations. For instance, digital banking is provided on self-service devices customers are used to, digital banking innovations has enhanced customer experience as it is making their lives easier, digital banking innovations has enhanced their customer experiences by giving them the right experience. The findings support Alalwan et al. (2016) study that found usability affects telebanking experience in Jordanian banks.

In answering this question, two main statistical analyses were performed namely correlation and regression analysis. Results of the correlation analysis show that all the digital banking innovations display strong correlation relationship with customer experience. This indicates that digital banking innovations through telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs) have influence on customer experience. For instance, the results showed a positive relationship of 0.790, 0.907, 0.998

and 0.886 between telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs) respectively and customer experience.

The regression results show that the independent variables (bank digital banking innovations) are statistically significant and positively affect customer experience of the SGGBL. The findings support Mbama (2018) study which found that attributes such as perceived value, convenience, functional quality, service quality and digital banking innovation are important in improving customer experience.

Chapter Summary

This chapter has presented the results and subsequently discussed the results with relevant literature. What was clear in the results was that customers perceived the digital banking as making banking services quicker, time saving, convenience. The major channels that customers used in accessing services include Automated Teller Machines (ATMs), mobile banking, internet, Telephone and electronic fund transfer. These innovations are used for checking balance, followed by fund transfer, current account, direct debit and standing order, savings and payment of bills. Statistically, the correlation analysis show that all the digital banking innovations display strong correlation relationship with customer experience. The independent variables (bank digital banking innovations) are statistically significant and positively affect customer experience of the bank. The next chapter presents the summary, conclusion and recommendations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

Introduction

This concluding chapter summarizes the major findings arising from the analysis of data in relation to the study objectives with conclusion. It also makes recommendations for all stakeholders in the corporation and further research in making the study generalizability.

As indicated earlier, the research design was quantitative with emphasis on survey research to achieve the stated objectives. The census technique was used to invite all the 25 staff of the branch to respond to Likert scale questionnaire instrument. The data was analyzed quantitatively with the aid of IBM-SPSS (descriptive tools) and inferential statistics. The results were presented by means of frequencies, percentages, mean and regression.

Summary of Key Findings

The following were the key findings that emerged from the discussion of the results and done in relation with the objectives of the study.

General perceptions of digital banking services in terms of customer experience

The study observed that customers perceived the digital banking as making banking services quicker, time saving, convenience. Other perception of the innovation include comfort, saves them money, easy to use, make life easy for them, makes it easy for them to do business with it online. Again, makes it easy them to search for and buy products, and high quality online interactive support.

Similarly, the study found out that employees perceived the digital banking innovations as offering high quality digital banking services, meeting customers' needs, catering for different demographics of customers and providing flexible services.

Digital banking channels used by the bank

The study revealed that Automated Teller Machines, mobile banking, internet, Telephone and electronic fund transfer are the major channels for accessing services.

It was found out that customers use digital banking to carry out various services including checking balance, followed by fund transfer, current account, direct debit and standing order, savings and payment of bills.

The digital banking usage according to frequency of usage, showing how often respondents perform transactions indicate that many customers use digital banking on a weekly basis, followed by daily and then monthly, yearly, and less often.

Effects of digital banking services on customer experience

The perceived functionality of the digital innovations of the bank show digital banking as scalable and accessible to the vast majority of customers, the bank gets more business traffic and a greater volume of customers, digital banking making information easily available, the experience is more appealing to customers, and customers can access numerous services anytime.

The findings on the perceived value for money regarding the digital innovations of the bank influencing customer experience revealed that it satisfies customers' needs, there is value for money as customers get value-added services, customers having more banking choices, save money and time, and useful and does the necessary job for them.

Findings on service convenience in using the digital banking innovations show that customers can bank from the comfort of their homes, customers have access to services anytime, customers get more choice, and there is faster service experience than branches.

The study found out that the service usability of customers experiences with the digital banking innovations are provided on self-service devices customers are used to, making their lives easier, giving them the right experience.

The study found out those digital banking innovations has strong correlation relationship with customer experience. This indicates that digital banking innovations through telephone banking, mobile banking, internet banking; Automated Teller Machines (ATMs) have influence on customer experience. For instance, the results showed a positive relationship of 0.790, 0.907, 0.998 and 0.886 between telephone banking, mobile banking, internet banking, Automated Teller Machines (ATMs) respectively and customer experience.

The regression results show that the independent variables (bank digital banking innovations) are statistically significant and positively affect customer experience of the SGGHBL.

Conclusions

Banks and customers are recognizing the benefits from digital banking. The proportion of bank customers accessing digital banking services has increased in recent years and the trend is expected to continue. The findings indicate that customers perceived the digital banking as making banking services quicker, time saving, convenience. Other perception of the innovation include comfort, saves them money, easy to use, make life easy for them, makes it easy for them to do business with it online. Again, makes it easy them to search for and buy products, and high quality online interactive support. Similarly, the study found out that employees perceived the digital banking innovations as offering high quality digital banking services, meeting customers' needs, catering for different demographics of customers and providing flexible services.

The findings of the digital banking innovations were Automated Teller Machines, mobile banking, internet, Telephone and electronic fund transfer are the major channels for accessing services. The customers used digital banking to carry out various services including checking balance, followed by fund transfer, current account, direct debit and standing order, savings and payment of bills. It was further revealed that many customers used digital banking on a weekly basis, followed by daily and then monthly, and yearly.

The study found out those digital banking innovations has strong correlation relationship with customer experience. This indicates that digital banking innovations through telephone banking, mobile banking, internet banking; Automated Teller Machines (ATMs) have influence on customer experience. The regression results show that the independent variables (bank digital banking innovations) are statistically significant and positively affect customer experience of the SGGHBL.

Digital banking innovation enables banks to deploy value-added services, differentiate themselves, increase sales, improve competitiveness and customer experience, and respond to growing customer demands via digital devices. Based on the findings of the study, it can be concluded that digital banking innovations influence customer experience of commercial banks such as the SGGH in Ghana positively.

Recommendations

The following recommendations are based on the findings and conclusions of the study.

The study recommends to management of the bank to focus on ‘Employee-Customer Engagement’ through feedback, training and communication, as it influences the bank’s ability to design digital banking that improves customer experience and financial performance.

The findings show that improving customer experience through perceived value, service quality and convenience, and customer satisfaction are key drivers for digital banking uptake. Therefore, customers’ values are improvements in customer experience attributes and satisfaction. In view of this, management should offer multi-channel services that customers can derive value and improve the business performance of the bank.

The study recommends to management to concentrate on a particular segment of service by identifying the type of services to offer specific customer groups and the channels to use to improve customer retention and operational efficiency, and reduce customer acquisition costs, which increase their profit.

Management of the bank should focus more on developing a unique value proposition to acquire customers, offer value-added services and stay competitive. They can adapt their strategy around serving different customer segments well and offering them good services, with appropriate customer experience attributes.

Management of the bank needs to constantly research the trend in customers' uptake on these devices as they evolve and the type of services that can be offered.

Suggestions for Future Studies

The research in this thesis has investigated digital banking innovations in Ghanaian Commercial banks using only the SGGH Limited. Although conclusions have been drawn, there are things that need further investigation. The research needs to be extended to other banks where digital banking can be beneficial due to the large population living in remote areas. The research has studied digital banking's effect on customer experience. Further research is needed to understand the applicability of this findings to other organizations like insurance firms, and whether there are other factors to be added. The research used analysis results from questionnaire data collected from 138 SGGH bank customers. There is a possibility that the scope can be enlarged and tested further. The framework can be applied in banks using their customer database to build marketing insight and verify how their digital banking innovations.

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APPENDIX A

CATHOLIC UNIVERSITY COLLEGE OF GHANA, FIAPRE

MASTER OF BUSINESS ADMINISTRATION (FINANCE)

Questionnaire distributed to Bank Customers

Thank you for participating in the survey. This is much appreciated. The survey includes questions about your experience with digital banking services, e.g. Telephone banking, Internet banking and Mobile banking. This is the ability to carry out banking transactions online without going to a bank branch. It is part of a MBA research at the Catholic University College of Ghana, Fiapre on the relationship between digital banking and customer experience. There are no right or wrong answers to the questions, just answer them as honestly as possible, by ticking the box. The answers are completely anonymous and cannot be linked to you or your bank. Your name and financial details are NOT required. Where the questions have a scale, they are ranked on a 5-point Likert scale, with the exception of one question which uses an 11 point scale.

Section A: General information of the Respondents

1. What is your highest educational attainment?

   a. No formal education [ ]
   b. Elementary/Middle school leaver/JHS [ ]
   c. SHS [ ]
   d. HND/First Degree [ ]
   e. Master's Degree [ ]

f. Other Specify: ……………………

2. How long have you banked with SGGH bank, Sunyani branch?

   a. Less than a year [ ]

b. 1 -5 years [ ]

c. 5 – 10 years [ ]

d. Above 10 years [ ]

Section B: Digital banking services in the Banks

What type of digital banking do you use? Please tick as many as applicable. If you selected other please specify:

a. t-banking [ ]

b. m-banking [ ]

c. e-banking [ ] Other……………………………………………..

Section C: Type of Financial services

What services do you use digital banking for? If you selected other please specify:

Savings [ ]	Pay Bills [ ]	Check Balance [ ]
Transfer Funds [ ]	Print Statement [ ]	Standing Order [ ]
Current Account [ ]	Direct Debit [ ]	Buy Insurance [ ]
Mortgage [ ]	Stocks/Shares [ ]	

Other…………………………………………………………………………

Section D: Customer perception on digital banking

To what extent do you agree with the following statements? Rated on a five-point Likert scale, where 5 = ‘strongly agree’, 4 = ‘agree’, 3 = ‘neutral’, 2 = ‘disagree’ and 1 = ‘strongly disagree

Please use the spaces below the table to add

Sn	Customer perception on digital banking	**1**	**2**	**3**	**4**	**5**
1	With Digital banking, access to banking services is quicker					
2	Digital banking saves me time from banking in branches					
3	Digital banking services are convenient to me					
4	I enjoy using digital banking services.					
5	I am able to bank from the comfort of my home, with digital banking					
6	Digital banking saves me money as I don’t have to travel to the branch.					
7	My bank’s current digital banking is easy to use.					
8	My bank creates innovative digital banking services that make life easy for me.					
9	My bank makes it easy for me to do business with it online.					
10	My bank makes it easy me to search for and buy products using their digital banking.					
11	High quality online interactive support is important in digital banking.					
	Others (please specify)					

END OF QUESTIONNAIRE. THANK YOU.

APPENDIX B

CATHOLIC UNIVERSITY COLLEGE OF GHANA, FIAPRE

MASTER OF BUSINESS ADMINISTRATION (FINANCE)

Template for Bank Employees' Survey

Thank you for participating in the survey. This is much appreciated. The survey includes questions about your experience with digital banking services, e.g. Telephone banking, Internet banking and Mobile banking. This is the ability to carry out banking transactions online without going to a bank branch. It is part of a MBA research at the Catholic University College of Ghana, Fiapre on the relationship between digital banking and customer experience. There are no right or wrong answers to the questions, just answer them as honestly as possible, by ticking the box. The answers are completely anonymous and cannot be linked to you or your bank. Your name and financial details are NOT required. Below is an outline of the proposed interview questions Themes covered in the interview: Employees' Perceptions of digital banking, and Digital banking impact on Customer Experience

SECTION A: Background of Respondents

1. Position of Respondents
   [ ] Branch Manager [ ] Project Manager [ ] Operations Manager [ ] Customer care [ ] Tellers [ ]
2. Years of working experience

[ ] 1 – 5 years [ ] 6-10 years [ ] 11- 15 years [ ] 16-20 years

[ ] Over 20 years

3. Employee Level

[ ] Casual [ ] Junior staff [ ] Head of Dept. [ ] Senior staff [ ] Other specify……

Section B: Digital services in the Banks

4. What type of digital banking services channels do you provide to your customers? Please tick as many as applicable. If you selected other please specify:

t-banking [ ] m-banking [ ] e-banking [ ]

Other……………………………………………..

Section C: Type of Financial services

5. What type of financial services do you think digital banking can be used for? If you selected other please specify:

Savings [ ] Pay bills [ ] Check balance [ ] transfer funds [ ] print statement [ ] standing order [ ] current account [ ] direct debit [ ] buy insurance [ ] mortgage [ ] stocks/shares [ ]

other…………………………………………………………………………

…………………..

Section D: Employee perception of digital banking

6. What are your perceptions about the digital banking services this bank offers to your customers? To what extent do you agree with the following statements? Rated on a five-point Likert scale, where 5 = 'strongly agree', 4 = 'agree', 3 = 'neutral', 2 = 'disagree' and 1 = 'strongly disagree

Customer experience	**1**	**2**	**3**	**4**	**5**
offering high quality digital banking services					
meeting customers' needs					
catering for different demographics of customers					
providing flexible services					

7. To what extent are you satisfied with the prospects of digital banking services that this bank is providing to customers?

Highly satisfied [ ] satisfied [ ] fairly satisfied [ ] not satisfied [ ] very dissatisfied [ ]

8. How would you rate your bank's digital banking in terms of offering good experience and satisfaction to customers on a rate (0 - 10 scale)?

9. How does your digital banking service compare with your competitors?

To what extent do you agree with the following statements? Rated on a five-point Likert scale, where 5 = 'strongly agree', 4 = 'agree', 3 = 'neutral', 2 = 'disagree' and 1 = 'strongly disagree

	1	2	3	4	**5**
The bank ensures that staff have the relevant knowledge and skills necessary to support customer requirements					
We have a dedicated User Experience department					
We have a single sign-on for multiple products and systems, so they can log into the system and see different products					
All the products and services offered at the branch level can be done with all the digital channels and very affordable, convenient, usability and faster.					

10. How satisfied are your customers with your digital banking?

Highly satisfied [ ] satisfied [ ] fairly satisfied [ ] not satisfied [ ] very dissatisfied [ ]

Section E: Effect of Digital banking services on customer experience

11. To what extent do you agree with the following statements? Rated on a five-point Likert scale, where 5 = 'strongly agree', 4 = 'agree', 3 = 'neutral', 2 = 'disagree' and 1 = 'strongly disagree

Functionality	**1**	**2**	**3**	**4**	**5**
digital banking is scalable and accessible to the vast majority of customers					
The bank gets more business traffic and a greater volume of customers					
making information easily available					
The experience is more appealing to customers					
Customers can access numerous services anytime					
Value for money					
Satisfying customers' needs					
Customers get value-added services					
Customers have more banking choices					
Digital banking save money and time					
Digital banking is useful and does the necessary job for them					
Service convenience					
Customers can bank from the comfort of their homes					
Customers have access to services anytime					
Customers get more choice					
There is faster service experience than branches					
Service usability					
Digital banking is provided on self-service devices customers are used to					
making their lives easier					
giving them the right experience					

END OF QUESTIONNAIRE. THANK YOU.