UNIVERSITY OF EDUCATION, WINNEBA

EFFECT OF BANK INNOVATION ON FINANCIAL PERFORMANCE OF THE UNIVERSAL BANKS IN GHANA

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BY

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DEDICATION

I dedicate this work to my wife Comfort Esi Ekey, and to my children, Samuella Aba Paintsil, Phinehas Kobina Paintsil and Victoria Adjoa Paintsil.

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ABSTRACT

Innovation is a household term in businesses. Innovation aid in performance. The banking industry is one of the most dynamic sectors in any economy, as it plays a vital role in the financial intermediation process. Banks are important players in the economy as they mobilize funds from surplus sectors of the economy and channel them to deficit sectors for investment purposes. The purpose of the study was to identify the effect of bank innovations on the financial performance of the Ghanaian Universal Banks. The study adopted the descriptive survey design and purposive sampling technique to sample 15 Universal Banks for the sample frame. Based on the inclusion criterion set, a sample size of 250 participants were drawn from these banks for the study. The participants were banking staffs. The staffs were made up of both junior, senior staff and senior members of the 15 selected Universal Banks. The instrument for the data collection were self-designed survey questionnaire. The questionnaire was deployed to all participants electronically using Google forms. The data were coded and analysed using tables, frequencies, percentages and bar graph whereas path analysis was carried out to evaluate causal relationship between the dependent variables and independent variables with the aid of SPSS software Version 20. The findings reveal that banks that effectively respond to customer demands for digital innovations tend to achieve higher customer satisfaction and, subsequently, increased profitability. Another finding revealed the challenges including, customers being resistant to change, preferring to stick with the familiar products and services they are accustomed to. Additionally, customers may be hesitant to use new innovations if they perceive them as risky or insecure. Despite the challenges, implementing bank innovations also presents opportunities for banks. One significant opportunity is the potential to attract and retain customers. The study recommends among other things that in recognition to the impact of internal factors such as organizational culture and management support on innovation adoption, there is a need for universal banks to cultivate an organizational culture that values innovation. Additionally, implementing robust change management strategies will help address resistance from employees and ensure a smooth transition to innovative practices.

CHAPTER ONE

INTRODUCTION

1.1 Background

The banking industry is one of the most dynamic sectors in any economy, as it plays a vital role in the financial intermediation process. Banks are important players in the economy as they mobilize funds from surplus sectors of the economy and channel them to deficit sectors for investment purposes. In the light of Mishkin and Eakins (2015), a bank is a financial intermediary that performs various services for its customers, including accepting deposits, making loans, providing letters of credit, and other financial services. The ability to innovate is viewed as an important factor in ensuring the sustained success of businesses in today's highly competitive markets (YuSheng and Ibrahim 2020). Over the years, banks have developed various innovative products, services, processes, and technologies with the aim of improving efficiency, effectiveness, and cost-effectiveness in their financial performance (Ashiru, Balogun & Paseda 2023). Due to recent competition and advancements in the financial system, banks are conducting research to enhance customer accessibility and profitability to maintain their market share. Nigeria has implemented several reforms such as financial liberalization, capitalization, and consolidation, electronic banking, cashless policies, non-interest banking, and the Bank Verification Number to stabilize the financial system, prevent fraud, and increase public trust in the banking sector.

Several studies have looked at the impact of financial innovation on the financial performance of deposit money banks (DMBs), but there is no consensus on the findings (Adil, Gao, Zaman, & Ali. 2020, Asongu, Biekpe, and Tchamyou 2019; Mensah, Aboagye, and Kumi 2019; Orji, Adeoye & Okolie 2018;Sathye 2005). Some

researchers argue that financial innovation hinders financial performance, while others suggest that it enhances it. Yet, another group believes that there is no significant relationship between innovation and financial performance. Azimova, (2021) referred to bank innovations as new products, services, processes, or technologies that banks adopt to improve their performance and competitiveness in the financial industry. These innovations are aimed at increasing profitability, reducing costs, improving efficiency, and enhancing customer satisfaction (Bwalya 2015). Mensah and Opoku, (2017) defined bank innovation as the process of introducing new or improved products, services, processes, or technologies that add value to the bank's business model and enhance its competitive advantage. They note that innovation is not only about new products or services but also about how banks deliver value to their customers.

The banking industry is rapidly evolving due to advances in technology and changing customer expectations. Banks in Ghana are no exception to this trend and have been investing heavily in innovative products and services to improve their financial performance. In Ghana, the adoption of bank innovations has been driven by increasing competition, changing customer preferences, and the need to comply with regulatory requirements. However, adoption of bank innovations has been found to have significant effects on the financial performance of universal banks in the country. Universal banks are financial institutions that offer a wide range of banking and financial services to both individuals and businesses (Sampong 2016). In Ghana, universal banks are regulated by the Bank of Ghana (BoG), which is responsible for ensuring the safety and soundness of the banking system. There are currently 23 universal banks in Ghana, including Barclays Bank, Ecobank Ghana, and Standard Chartered Bank (Bank of Ghana 2019).

In Ghana, the banking industry has undergone significant transformations since the liberalization of the financial services sector. To improve the quality of service provided to customers, banks have introduced changes in service delivery. In the past, transactions were handled manually, resulting in long queues. Additionally, many individuals and companies in Ghana do not accept checks as a form of payment due to the time and inconvenience involved in accepting and depositing them into accounts. Due to rising customer acquisition costs, increasing customer expectations, and a high rate of customer defection, banks have recognized the importance of adopting innovative banking solutions. This is seen as a response to increasing competitive pressure and to improve service delivery while reducing operational costs. Through the use of technology, banks aim to develop stronger relationships with customers, increase customer satisfaction, and improve customer loyalty.

According to Mensah and Opoku (2017), banks that adopt innovative products and services can attract and retain more customers. For instance, the introduction of personalized banking services and customized investment products can attract high net worth individuals and enhance customer loyalty. This can result in increased revenue streams and higher profitability. Moreover, Bank innovations such as risk management software and tools can help banks to better identify, measure, and manage risks. This can lead to more effective risk management practices and a reduction in loan defaults and other forms of financial losses. This can result in higher profits for the bank (Amankwah-Amoah & Osabutey 2019). However, the adoption of bank innovations is not without its challenges. Banks may face various barriers to implementing new products, services, and technologies, such as regulatory hurdles, lack of technical expertise, and resistance from employees and customers (Khraisha & Arthur 2018). Innovation has become a buzzword in the banking industry in recent

years, and its impact on the financial performance of universal banks in Ghana has been a topic of interest for researchers and practitioners. The adoption of bank innovations has become necessary for banks to stay competitive in the fast-changing business environment. This paper seeks to examine the effect of bank innovations on the financial performance of universal banks in Ghana.

1.2 Statement of the Problem

Banking industry in Ghana is rapidly evolving, and universal banks are facing intense competition from various sources. To remain competitive and profitable, universal banks must adopt innovative practices to offer new products, enhance customer experience and optimize operational efficiency. While bank innovation is seen as a critical success factor for universal banks, the impact of these innovations on financial performance is not well understood. Additionally, there are challenges and opportunities that arise from the adoption of bank innovations that require a thorough examination.

A study conducted by Domehe, Frimpong & Appiah (2014) on banking innovations brought to the fore the ever changing technology has paved way for innovative strategies. The study contended that although there has been a clamour call for innovations, especially the financial services, there was no study that highlight why customers choose to adopt to electronic banking innovations in the banking industry in Ghana. Therefore, the study investigated the factors influencing the adoption of financial innovation in Ghana's banking industry. The study adopted the survey design and distributed 405 questionnaires 405 clients of the six major banks in the country. The findings revealed that when financial institutions adopt digital innovations that are customer friendly, it becomes easier for customers to adopt or buy into them. The study by A study conducted by Domehe, Frimpong & Appiah

(2014) focused solely on the factors influencing the adoption of financial innovation in Ghana's banking industry. That is the focus of that study was on digital innovations and did not consider non-digital innovations. A parallel study conducted Marfo-Yiadom & Ansong (2012), themed Customers' Perception of Innovative Banking Products in Cape Coast Metropolis, Ghana. The study adopted purposive sampling technique and sampled 288 students from a public university in Ghana. The study revealed that the critical features that influenced customers' choice of banking products and their adoption were convenience, reliability, security, flexibility, time saving and ease of use. The most popular innovative products were Automated Teller Machines and E-zwich. Telephone banking and credit cards were not very popular. In addition to this, the Bank of Ghana has also introduced various regulations aimed at promoting innovation in the banking industry, such as the Payment Systems and Services Act 2019, which provides a regulatory framework for electronic payments and other digital financial services. Despite the advancements in the banking industry, the extent to which bank innovations have impacted the financial performance of universal banks in Ghana remains unclear especially the extent to which bank innovations, such as electronic banking, mobile banking, and other digital financial services, have impacted the profitability, risk management, customer satisfaction, and operational efficiency of universal banks in Ghana.

Again, the two studies cited so far indicates that Ghanaian banks have adopted one aspect of innovation, notably digital innovation. None of the studies touched on non-digital innovations and as well as the interplay between the two innovations. More so, none of the two studies touched on how bank innovations are becoming increasingly important for the survival of universal banks. This shows that, there is limited empirical evidence on the relationship between bank innovations and financial

performance of universal banks in Ghana. Therefore, this study will contributes to the existing literature on bank innovations and financial performance in Ghana by providing empirical evidence on the relationship between bank innovations and financial performance of universal banks.

Additionally, the study will identify the factors that influence the adoption of bank innovations and how these factors affect profitability, which can help universal banks to make informed decisions regarding their innovation strategies. Therefore, it is crucial to examine the effect of these innovations on the financial performance of universal banks in Ghana.

1.3 Purpose of the Study

The purpose of the study is to identify the effect of bank innovations on the financial performance of the Ghanaian universal banks.

1.4 Research objectives

The study after extensive review of relevant literature arrived aa the following research objectives:

1. To investigate the relationship between bank innovations and financial performance of universal banks.
2. To explore the factors that influence the adoption of bank innovations by universal banks.
3. To evaluate the challenges and opportunities that arise from implementing bank innovations in the context of universal banks.

1.5 Research Questions

The study is guided by the following research questions:

1. What is the relationship between bank innovations and profitability of universal banks?
2. What are the factors that influence the adoption of bank innovations by universal banks?
3. What are the challenges and opportunities that arise from implementing bank innovations in the context of universal banks?

1.6 Significance of the study

The study of the effect of bank innovations on the financial performance of universal banks in Ghana is significant for several reasons. The findings of the study provide empirical evidence on the relationship between bank innovations and financial performance, contributing to the body of knowledge on bank innovations and financial performance in Ghana. This helps inform policymakers, regulators, investors, and other stakeholders in the banking industry on the importance of bank innovations and their potential impact on the financial performance of universal banks.

Moreover, the study identified the factors that influenced the adoption of bank innovations by universal banks in Ghana and how these factors affected profitability. By understanding the factors that influenced the adoption of bank innovations, universal banks could make informed decisions regarding their innovation strategies and enhance their financial performance by adopting innovative practices that were most relevant to their operations.

In addition, the study evaluated the challenges and opportunities that arose from implementing bank innovations in the context of universal banks in Ghana. By evaluating the challenges and opportunities of bank innovations, the study provided

practical recommendations to universal banks and policymakers on how to improve their innovation processes and outcomes.

Furthermore, the study contributes to the development of the banking industry in Ghana by providing insights into how universal banks could adopt innovative practices to enhance their competitiveness and profitability. The findings of the study help universal banks identify and adopt innovative practices that are most relevant to their operations and customer needs, thereby enhancing their competitiveness and profitability.

Finally, the study contributes to the development of the broader economy in Ghana by promoting the growth of the banking industry. The banking industry is a critical sector in the Ghanaian economy, providing financial intermediation, employment opportunities, and support for economic activities. By enhancing the financial performance of universal banks through the adoption of innovative practices, the study helped promote the growth of the banking industry and contributed to the development of the broader economy.

1.7 Delimitations of the Study

The study focuses on the effect of bank innovations on the financial performance of universal banks in Ghana. The study uses survey methodology and target management, staff, and heads of sections or departments of 15 selected universal banks in Ghana out of the total of 124 banks. The selected banks are representative of the industry as a whole and was chosen based on their size and prominence in the industry. The study examined the impact of bank innovations on financial performance, adoption factors, challenges, and opportunities.

There are several limitations to the study that should be considered. Firstly, the study is limited to 15 universal banks in Ghana and may not be representative of the entire banking industry in Ghana. Therefore, the findings of the study may not be generalizable to all banks in Ghana. Secondly, the study will rely on survey data, which may have limitations in terms of response rate, accuracy, and representativeness of the sample. Thirdly, the study is limited by the availability of data on bank innovations, as not all universal banks may disclose their innovation activities publicly. Fourthly, the study did consider the impact of external factors such as macroeconomic conditions, regulatory changes, and political instability, which may affect the financial performance of universal banks. Finally, the study is limited by the time and resources available for the research, which may prevent a more comprehensive analysis of the topic.

1.8 Limitation of the study

In the pursuit of knowledge and understanding, it is essential to acknowledge the inherent limitations that shaped the course of this paper. These limitations provide context for the interpretation of findings and underscore the boundaries within which the study's conclusions were considered.

Initially, it is important to recognize the limitation associated with the sampling size and representativeness of the study. While the researcher carefully selected 15 universal banks in Ghana to participate in this research, the sample size, in relation to the entire population of such banks in the country, remains relatively small. Although the study endeavoured to include diverse banks based on size and prominence, the findings were not fully generalizable to the entire Ghanaian banking industry. Secondly, the reliance on survey methodology for quantitative data collection presents certain constraints. Despite the researcher’s best efforts to ensure a high response rate

and minimize various biases, including response, non-response, and social desirability biases, these factors affected the accuracy and completeness of responses. Again, the availability of data for document analysis hinges on the extent to which universal banks publicly disclose their innovation activities. The completeness and comprehensiveness of the analysis were limited by variations in the level of information disclosed by different banks.

Moreover, while the study aimed to explore the impact of bank innovations on financial performance within the internal context of universal banks, external factors such as macroeconomic conditions, regulatory changes, and political stability were not comprehensively investigated within the study's scope. These external factors influenced financial performance but are beyond the study's immediate focus. Additionally, the research was conducted within a defined timeframe and resource constraints, which had implications for the depth and breadth of the analysis. Furthermore, despite the researcher's rigorous efforts to ensure objectivity in qualitative data collection and analysis, there were element of subjectivity in interpreting participant responses and qualitative findings. It is also worth noting that this study specifically examines the Ghanaian banking industry, and its findings were not necessarily being transferable to other countries or regions with distinct economic, regulatory, and cultural contexts.

1.9 Organization of the Study

The study encompasses five sections. The first chapter includes a brief overview of the topic, a problem statement, pertinent research objectives, and research questions, and also the study's justification and significance. It further gives a brief discussion of the theories relevant to the topic and how data will be collected and analyzed. The

second chapter covers the review of works related to the topic of interest and the various gaps identified.

Chapter Three entails a detailed methodology of how the information was gathered from respondents and other secondary sources. Chapter Four covers the analysis of information gathered from respondents and other secondary sources. Chapter Five which is the final part covers findings, recommendations, and conclusions.

1.10 Definition of terms

Effect: The good or bad outcome of something. The good or bad outcome of financial performance of Universal Banks as a result of adopting innovations**.**

Bank: Financial institutions or organisations that has been licensed by the Bank of Ghana where people and businesses can keep, invest, or borrow money, exchange currencies, etc.

Innovation: To come out with or adopt a new method, idea, concept

Financial: Relating to money or how money is managed

Financial performance: Complete evaluation of how financial objective being or has been accomplished.

Universal Banks: Banks that are bigger in size, are prominent and have market influence, example Ghana Commercial Bank.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The banking industry globally especially in Ghana has undergone significant transformation over the past few decades, driven by technological innovations and changing customer needs. In particular, the introduction of digital banking solutions such as mobile banking, internet banking, and agency banking has revolutionized the way banks operate and interact with their customers. As a result, banks have been able to reach previously underserved segments of the population and offer more efficient and convenient services. However, the impact of these bank innovations on the financial performance of universal banks in Ghana is still an area of active research and debate. While some studies have suggested that bank innovations can lead to improved financial performance, others have found no significant relationship or even negative effects. Therefore, it is important to examine this relationship further, particularly in the context of universal banks which are required to offer a wide range of banking services to different segments of the population.

This literature review aims to provide a comprehensive overview of the existing literature on the effect of bank innovations on the financial performance of banks. The review covers a discussion of the theoretical frameworks that guide the study. These include research on bank innovations and financial performance and the challenges and opportunities that arise from their implementation.

2.2 Theoretical review

The theoretical literature review is an essential aspect of any research study, as it provides a framework for understanding the underlying concepts and principles that

inform the research questions and objectives. In the context of the relationship between bank innovations and financial performance of universal banks, the theoretical review focuses on the key theories and concepts that explain how and why bank innovations impact profitability. This section provides an overview of the relevant theories, and interpretation of data in the empirical section. By examining the theoretical underpinnings of bank innovations, this review contributes to a deeper understanding of the factors that influence the adoption and implementation of innovative practices in universal banks, and how these practices affect the financial performance of these institutions. There are several theories related to the topic of the effect of sustainable strategies on company financial performance. This study employs three main theories related to the thesis topic. These theories are Diffusion of Innovation Theory, Technology Acceptance Model and Institutional Theory. These theories provide a theoretical basis for understanding the relationship between bank innovations and financial performance of universal banks.

2.2.1 Diffusion of Innovation Theory

Diffusion of Innovation Theory is a popular theory that has been used to explain the process by which new ideas or technologies spread and are adopted by individuals or organizations. This theory was developed by Everett Rogers in 1962 and has been widely applied in various fields, including marketing, public health, and technology adoption.

According to the theory, the adoption of new ideas or technologies follows a predictable pattern, where a small group of innovators first adopt the new innovation, followed by early adopters, early majority, late majority, and finally laggards. The theory also identifies several factors that can influence the rate and extent of adoption,

including the relative advantage, compatibility, complexity, trialability, and observability of the innovation.

Several studies have examined the application of Diffusion of Innovation Theory in the context of banking innovation adoption. For instance, Acharya et al. (2017) found that the relative advantage and compatibility of banking innovations significantly influenced their adoption by Indian banks. Similarly, Ozili (2018) found that the observability and trialability of innovations were significant factors influencing their adoption by Nigerian banks. Another study by Ansong et al. (2018) examined the adoption of mobile banking innovations by Ghanaian banks and found that the relative advantage and complexity of the innovation significantly influenced their adoption. Additionally, the study found that organizational factors, such as leadership support and organizational culture, were also important determinants of banking innovation adoption.

In conclusion, the Diffusion of Innovation Theory has been widely used to explain the process of banking innovation adoption and has identified several important factors that influence the rate and extent of adoption. These factors include the relative advantage, compatibility, complexity, trialability, and observability of the innovation, as well as organizational factors such as leadership support and organizational culture.

2.2.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) is a widely used theoretical framework that explains user acceptance and adoption of technology. The model was first introduced by Davis in 1989 and was later modified in 1991 to its current version (Davis, 1989; Davis, Bagozzi, & Warshaw, 1992). TAM is based on the theory of

reasoned action (TRA), which proposes that an individual's behavior is determined by their intention to perform that behavior (Ajzen & Fishbein, 1980).

TAM focuses on two primary factors that influence user acceptance of technology: perceived usefulness (PU) and perceived ease of use (PEOU). According to TAM, the extent to which a user perceives a technology as useful and easy to use will determine their intention to adopt it (Davis, 1989). Perceived usefulness refers to the extent to which a user believes that a technology will enhance their performance and productivity (Davis, 1989). On the other hand, perceived ease of use refers to the degree to which a user believes that a technology is easy to use and learn (Davis, 1989).

Several empirical studies have utilized the TAM framework to investigate user acceptance and adoption of technology in various settings. For example, a study by Venkatesh and Davis (2000) investigated the adoption of e-commerce technology by consumers. The study found that both perceived usefulness and perceived ease of use significantly influenced users' intentions to adopt e-commerce technology. Similarly, a study by Lee and Kim (2015) explored the adoption of mobile banking technology by consumers. The study found that perceived usefulness and perceived ease of use significantly influenced users' intentions to adopt mobile banking technology.

Moreover, studies have also used the TAM framework to investigate the factors that influence user perceptions of technology usefulness and ease of use. For example, a study by Chen and Li (2010) investigated the factors that influence user perceptions of the usefulness of online shopping technology. The study found that factors such as perceived risk, trust, and subjective norm significantly influenced users' perceptions of the usefulness of online shopping technology.

In summary, the TAM framework has been widely used in empirical studies to investigate user acceptance and adoption of technology. The model's focus on perceived usefulness and perceived ease of use has been found to significantly influence users' intentions to adopt technology. Moreover, studies have also used the TAM framework to investigate the factors that influence user perceptions of technology usefulness and ease of use.

2.2.3 Institutional Theory

The institutional theory has been a widely researched topic in the field of management and organizational studies. It explains how organizations operate within a given institutional environment and how they conform to the norms and values of that environment. This theory posits that organizations have to adhere to institutionalized practices and rules to gain legitimacy and ensure their survival.

The institutional theory posits that organizations are influenced by their external environment, particularly the institutional environment in which they operate. The institutional environment comprises of formal and informal structures, norms, and values that guide the behavior of organizations. The institutional theory has three main components: institutional isomorphism, institutional logic, and institutional entrepreneurship. Institutional isomorphism refers to the process by which organizations adopt similar structures and practices to gain legitimacy within their institutional environment. Institutional logic refers to the set of values, beliefs, and assumptions that underpin institutionalized practices. Institutional entrepreneurship refers to the actions of individuals and organizations that seek to change or create new institutionalized practices.

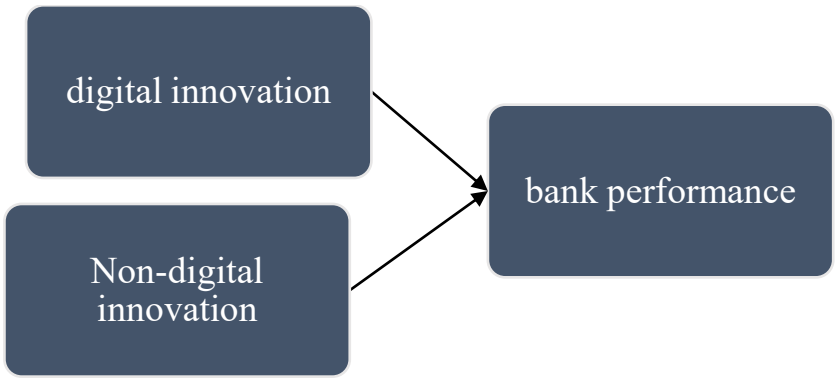
The institutional theory is based on several assumptions. First, it assumes that organizations operate within an institutional environment that shapes their behaviour. Second, it assumes that organizations strive to gain legitimacy within their institutional environment by conforming to institutionalized practices. Third, it assumes that institutionalized practices are taken for granted and are rarely questioned by organizations. Fourth, it assumes that institutionalized practices are socially constructed and are subject to change.

Several studies have investigated the institutional theory and its implications for organizational practices. For example, Scott (2008) argued that institutionalized practices are essential for organizations to gain legitimacy and ensure their survival. He identified three types of institutional isomorphism: coercive, mimetic, and normative. Coercive isomorphism occurs when organizations conform to institutionalized practices due to external pressures, such as legal or regulatory requirements. Mimetic isomorphism occurs when organizations imitate the practices of other successful organizations within their institutional environment. Normative isomorphism occurs when organizations adopt practices because they are seen as morally right or appropriate within their institutional environment. Additionally, DiMaggio and Powell (1983) argued that institutionalized practices are taken for granted and are rarely questioned by organizations. They posited that organizations adopt institutionalized practices because they provide a sense of legitimacy and identity. Furthermore, Scott and Meyer (1994) argued that institutionalized practices are socially constructed and are subject to change. They suggested that institutional change occurs when new practices emerge and gain acceptance within the institutional environment.

The institutional theory has been a widely researched topic in the field of management and organizational studies. It posits that organizations operate within an institutional environment and conform to institutionalized practices to gain legitimacy and ensure their survival. The theory is based on several assumptions, including the importance of institutionalized practices, their social construction, and the existence of different forms of institutional isomorphism. The findings of literature on this theory have shown that institutionalized practices are essential for organizations to gain legitimacy and that they are rarely questioned. However, the institutional environment is subject to change, and new practices can emerge and gain acceptance. The institutional theory has significant implications for organizational practices, particularly in terms of gaining legitimacy and ensuring survival within a given institutional environment.

2.3 Conceptual review

When universal banks adopt the use of digital innovation in addition to non-digital innovation it would enhance bank performance. The digital innovation comprises of the use of Information Communication Technology devices. This would reduce the flux of people at banking halls which often creates overcrowding in most cases. More so, digital innovations will accelerate banking business and enhance banking performance. However, without good customer relations, digital innovations would mean nothing.



The non-digital devices here in this study refers to the human (employees) of the universal banks who deal with the clients who bank with the banks. The relationship between these two is not mutually exclusive. They all depend on each other. However, it is the bank that needs the customer most for without them the banks would be closed. Therefore, clients' needs to be treated with dignity. Banks ought to come out with innovative business strategies that can influence digital innovations. This would be build trust and lead to customer satisfaction and influence the performance of universal banks.

Therefore, the time has come and it is now for banks to blend both approaches to enhance banking performance and maximise customer satisfaction.

2.4 Empirical Review

The empirical literature review is a critical component of research that aims to investigate the relationship between bank innovations and profitability of universal banks. The empirical literature review builds on the theoretical review of relevant literature on bank innovations, profitability, and organizational theories. The review provides an overview of the existing empirical studies on bank innovations and their impact on the financial performance of universal banks. The review also examines the factors that influence the adoption of bank innovations by universal banks and the challenges and opportunities that arise from implementing these innovations. The purpose of this empirical literature review is to identify gaps in the existing research, provide insights into the relationship between bank innovations and profitability of universal banks, and offer suggestions for future research.

2.5 Concept of Banking Innovations

Banking innovations are crucial in enhancing the performance and growth of banks in today's highly competitive business environment. Various scholars have defined the concept of banking innovations from different perspectives. According to the definition provided by Zopounidis and Doumpos (2015), banking innovation refers to the process of introducing new ideas, products, or services in the banking industry to meet the changing needs and preferences of customers. Similarly, Akamavi et al. (2016) defined banking innovation as the implementation of new ideas, technologies, or practices that result in improved customer experience, increased efficiency, and enhanced performance of banks.

Innovation is a key driver of growth and development in the banking industry. It enables banks to remain relevant and competitive in the market by offering unique and differentiated products and services. Banks can achieve innovation through various strategies, including the adoption of new technologies, process improvement, product differentiation, and customer service excellence (Ozili, 2018). The adoption of technology has played a significant role in driving banking innovations. Technology-based innovations, such as mobile banking, online banking, and electronic payments, have transformed the way banks interact with customers and conduct their operations. These innovations have improved the efficiency of banking operations, reduced costs, and enhanced the customer experience (Adomako & Danso, 2019).

Additionally, banks can achieve innovation through process improvement. Process innovation involves the reengineering of existing processes to improve efficiency and effectiveness. Banks can achieve process innovation through the adoption of lean management practices, continuous improvement programs, and business process

automation (Acharya et al., 2017). Product differentiation is another strategy that banks can adopt to achieve innovation. Banks can differentiate their products through customization, bundling, and packaging. By offering unique and customized products, banks can enhance customer experience, improve customer loyalty, and gain a competitive edge in the market (Ansong et al., 2018). Customer service excellence is also crucial in driving innovation in the banking industry. Banks can achieve customer service excellence through the provision of personalized services, quick response times, and effective complaint management systems (Hidayat & Siregar, 2017).

In summary, banking innovation is critical in enhancing the performance and growth of banks in today's highly competitive business environment. Banks can achieve innovation through various strategies, including the adoption of new technologies, process improvement, product differentiation, and customer service excellence. The adoption of technology has played a significant role in driving banking innovations, while process improvement, product differentiation, and customer service excellence are also crucial strategies.

2.5.1 Concept of Banking Innovations and Financial Performance

Banking innovations refer to new or improved products, services, processes, or technologies that are developed and introduced by banks to enhance their operations and customer experience (Moghaddam & Mutum, 2019). These innovations have been found to have a significant impact on the financial performance of banks. Financial performance is measured using different metrics such as profitability, liquidity, efficiency, and asset quality. In this section, we will discuss the concept of banking innovations on the financial performance of banks and review empirical studies that have investigated the relationship between the two.

One of the main areas of banking innovations is digital banking, which involves the use of technology to offer banking services to customers. Digital banking has become popular among customers due to its convenience and accessibility. Banks have introduced digital products and services such as mobile banking, internet banking, and digital wallets to meet the changing needs of customers. According to a study by Fiaschetti et al. (2018), digital banking innovations positively affect the financial performance of banks. The study found that banks that adopt digital banking innovations have higher profitability, efficiency, and customer satisfaction compared to those that do not. Another area of banking innovations is financial inclusion, which refers to the provision of banking services to individuals and businesses that have limited access to financial services. Banks have introduced innovative products and services such as mobile money and agent banking to reach out to the unbanked and underbanked populations. According to a study by Balogun et al. (2019), financial inclusion innovations positively affect the financial performance of banks. The study found that banks that adopt financial inclusion innovations have higher profitability, efficiency, and customer satisfaction compared to those that do not.

In addition to digital banking and financial inclusion, banks have introduced other innovations such as green banking, social banking, and blockchain technology. Green banking involves the provision of financial services that promote environmental sustainability, while social banking involves the provision of financial services that promote social well-being. Blockchain technology is a decentralized digital ledger that is used to record transactions. According to a study by Zopounidis and Doumpos (2015), banks that adopt green banking, social banking, and blockchain innovations have higher financial performance compared to those that do not. It is important to note that the adoption of banking innovations is not without challenges. Banks face

challenges such as regulatory compliance, cyber security risks, and resistance to change from employees and customers. However, studies have shown that the benefits of banking innovations outweigh the challenges. Banks that adopt banking innovations are better positioned to compete in the market and meet the changing needs of customers.

All things considered, banking innovations have a significant impact on the financial performance of banks. Banks that adopt innovative products, services, processes, and technologies are more profitable, efficient, and customer-focused. Digital banking, financial inclusion, green banking, social banking, and block chain technology are some of the areas where banking innovations have been introduced. However, banks face challenges such as regulatory compliance, cyber security risks, and resistance to change when adopting innovations. Nonetheless, the benefits of banking innovations outweigh the challenges, and banks that adopt innovations are better positioned to compete and succeed in the market.

2.5.2 Adoption of Bank Innovations by Universal Banks

Empirical studies have extensively examined the adoption of bank innovations by universal banks. For instance, a study by Akhigbe and McNulty (2013) found that the adoption of innovative banking technology had a positive and significant impact on the financial performance of universal banks in the United States. Another study by Jaramillo and Preece (2015) investigated the adoption of mobile banking by universal banks in Chile and found that the perceived usefulness and ease of use were significant predictors of adoption.

Furthermore, research has identified factors that influence the adoption of bank innovations by universal banks. For example, a study by Kiptui et al. (2019) in Kenya

found that bank size, ICT infrastructure, and regulatory support significantly influenced the adoption of mobile banking by universal banks. Similarly, a study by Barua et al. (2016) in India found that organizational factors, such as top management support and organizational culture, were significant predictors of the adoption of internet banking by universal banks. Moreover, studies have evaluated the challenges and opportunities of implementing bank innovations in the context of universal banks. A study by Asamoah et al. (2018) in Ghana found that inadequate ICT infrastructure, inadequate regulatory support, and resistance to change were significant challenges to the adoption of mobile banking by universal banks. However, the study also identified opportunities such as increased customer satisfaction and reduced operational costs.

Empirical literature has shown that the adoption of bank innovations by universal banks has a significant impact on financial performance. Additionally, factors such as bank size, ICT infrastructure, organizational factors, and regulatory support significantly influence adoption. Finally, while implementing bank innovations poses challenges such as inadequate ICT infrastructure and resistance to change, it also presents opportunities such as increased customer satisfaction and reduced operational costs.

2.5.3 Concept of Bank Innovations and Profitability of Universal Banks.

Bank innovations are critical in driving the growth and sustainability of universal banks. They are essential tools that enable banks to maintain their competitiveness, enhance customer experience, and achieve financial success. Profitability, on the other hand, is a crucial measure of a bank's success and sustainability in the long run. It reflects the efficiency of its operations, the effectiveness of its management, and the level of customer satisfaction.

Studies have shown that bank innovations have a positive impact on the profitability of universal banks. According to Adomako and Danso (2019), the adoption of bank innovations such as digital banking, mobile payments, and electronic money transfers has significantly improved the profitability of universal banks in Ghana. Similarly, Hidayat and Siregar (2017) found that the introduction of new banking products and services has led to an increase in the net interest margin, which is a significant driver of bank profitability.

Furthermore, Acharya et al. (2017) noted that banks that embrace innovation tend to have lower operational costs, higher customer satisfaction, and increased revenue streams. This assertion is supported by the findings of Zopounidis and Doumpos (2015), who reported that banks that invest in innovation tend to have higher returns on equity, assets, and capital. Notwithstanding, it is worth noting that the impact of bank innovations on profitability may vary depending on the type of innovation and the market context. For example, while digital innovations such as mobile banking have been shown to enhance profitability in some markets, they may not have the same effect in other markets with different levels of technological advancement or customer preferences (Ansong et al., 2018). Therefore, it is crucial for banks to adopt innovations that are tailored to their market context and customer needs.

Ultimately, the adoption of bank innovations is critical in enhancing the profitability of universal banks. Banks that invest in innovation tend to have lower operational costs, higher customer satisfaction, and increased revenue streams, which are essential drivers of profitability. However, the impact of bank innovations on profitability may vary depending on the type of innovation and the market context. Therefore, banks

should adopt innovations that are tailored to their market context and customer needs to maximize their impact on profitability.

2.5.4 Relationship between Bank Innovations and Profitability of Universal Banks

The empirical literature on the relationship between bank innovations and the profitability of universal banks has provided mixed results. Some studies have found a positive relationship between bank innovations and profitability, while others have found no significant relationship or even a negative relationship.

One study by Yaseen et al. (2021) conducted on Pakistani banks found a significant positive relationship between bank innovations and profitability. The study analyzed various types of innovations, including product innovations, process innovations, and organizational innovations, and found that all types of innovations had a positive impact on profitability. Similarly, a study by Mwaniki and Muturi (2019) on Kenyan banks found that banks that invested in technological innovations, such as mobile banking and internet banking, had higher profitability than those that did not. The study also found that banks that innovated in their product offerings and service delivery had higher profitability.

On the other hand, some studies have found no significant relationship between bank innovations and profitability. For example, a study by Agyei and Kofi Asante (2020) on Ghanaian banks found that there was no significant relationship between technological innovations and profitability. The authors suggested that other factors, such as macroeconomic factors and management practices, may have a greater influence on profitability.

In contrast, some studies have even found a negative relationship between bank innovations and profitability. For instance, a study by Hamao and Miyakawa (2019) on Japanese banks found that banks that invested heavily in technological innovations, such as online banking and ATM machines, had lower profitability than those that did not.

In the context of the relationship between bank innovations and profitability of universal banks, the RBV theory suggests that the adoption of bank innovations can provide a firm with a valuable resource that can lead to superior financial performance. According to Kianto, Sáenz, and Aramburu (2015), the RBV theory posits that firms can achieve sustained competitive advantage through the acquisition and deployment of valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the case of universal banks, the adoption of bank innovations can create a VRIN resource that can enhance the bank's competitive advantage by improving the customer experience, reducing costs, and enhancing operational efficiency. Empirical studies have supported the link between the RBV theory and the relationship between bank innovations and profitability of universal banks. For instance, Wang and Huang (2018) found that the adoption of mobile banking technology, which is a bank innovation, has a positive effect on the financial performance of banks in China. The study suggests that mobile banking technology can create a VRIN resource that enhances a bank's competitive advantage and improves its financial performance.

Similarly, Lin and Wu (2014) found that the adoption of internet banking, another bank innovation, positively affects the financial performance of banks in Taiwan. The study suggests that internet banking can provide a VRIN resource that enhances a bank's competitive advantage by improving operational efficiency, reducing costs, and improving customer experience.

Overall, the empirical literature on the relationship between bank innovations and profitability of universal banks provides mixed findings. While some studies suggest a positive relationship, others find no significant relationship or even a negative relationship. These mixed findings may be attributed to various factors, such as differences in the types of innovations examined, the level of innovation adoption, and the specific context of the study. However, the RBV theory supports the link between the adoption of bank innovations and the financial performance of universal banks. The adoption of bank innovations can create a valuable resource that enhances a bank's competitive advantage and improves its financial performance.

2.6 Factors Influencing the Adoption of Bank Innovations

Innovation has become a crucial driver of growth and competitiveness in the banking sector. Banks worldwide have embraced innovative technologies to improve efficiency, reduce costs, and enhance customer experience. However, not all banks have been successful in adopting these innovations, and the adoption rate varies significantly across banks.

One of the primary factors that influence the adoption of bank innovations is organizational culture (Lee, 2018). The culture of a bank significantly affects its innovation adoption capability. Banks that have a culture that supports innovation are more likely to adopt new technologies and processes than those that do not. In addition, the leadership style of the bank plays a critical role in shaping the organizational culture. According to Lee (2018) transformational leadership has been associated with a culture of innovation, which leads to higher innovation adoption rates. Another critical factor that influences the adoption of bank innovations is regulatory and legal frameworks (Li et al., 2017). The regulatory environment in which a bank operates can either facilitate or hinder innovation adoption. The

complexity of regulations, particularly in areas such as data protection and cyber security, can make it difficult for banks to adopt new technologies. However, regulations that provide a clear framework for innovation adoption can facilitate the process.

The availability of resources is another factor that influences the adoption of bank innovations (Mishra & Mishra, 2020). Banks that have adequate resources, both in terms of financial and human capital, are more likely to adopt innovations than those that do not. Resources such as funding, expertise, and technological infrastructure are crucial for the successful adoption of innovations. Furthermore, external factors such as market competition and customer demands play a significant role in the adoption of bank innovations. Banks that face intense competition are more likely to adopt innovations as a means of gaining a competitive edge (Mishra & Mishra, 2020). Additionally, customer demands for better and more convenient services are driving banks to adopt new technologies such as mobile banking and digital payments.

In summary, the adoption of bank innovations is influenced by various factors, including organizational culture, regulatory and legal frameworks, availability of resources, market competition, and customer demands. Banks that are successful in adopting innovations are those that have a culture that supports innovation, a clear regulatory framework, adequate resources, and a focus on meeting customer demands. The findings from this literature review can provide valuable insights for banks that are seeking to adopt innovations to enhance their operations and competitiveness.

2.6.1 Factors That Influence the Adoption of Bank Innovations and How They Affect Financial Performance

In the modern era, technological advancements and innovations have revolutionized the banking industry. The adoption of technological innovations in the banking industry has become an essential strategy to enhance financial performance. However, the adoption of bank innovations by universal banks is not a straightforward process. It depends on various factors that influence the acceptance of bank innovations and affect financial performance. This literature review focuses on discussing the empirical factors that influence the adoption of bank innovations and how they affect financial performance. Additionally, it analyzes the relationship between the Technology Acceptance Model (TAM) theory and the adoption of bank innovations and their impact on financial performance.

According to various empirical studies, several factors influence the adoption of bank innovations by universal banks. These factors can be broadly categorized into three categories: organizational, technological, and environmental factors.

Organizational factors: Several organizational factors influence the adoption of bank innovations. These include organizational culture, organizational readiness, organizational size, organizational structure, and organizational complexity. For instance, a study by Abiodun et al. (2021) found that organizational culture and readiness are essential determinants of the adoption of mobile banking technology by Nigerian banks. The study revealed that banks with a strong innovative culture and readiness to embrace technology were more likely to adopt mobile banking technology.

Technological factors: The technological factors that influence the adoption of bank innovations include perceived usefulness, perceived ease of use, compatibility, and complexity. According to various empirical studies, the perceived usefulness of bank innovations is a critical factor that affects their adoption. For instance, a study by Oke and Munene (2015) found that the perceived usefulness of internet banking is a significant predictor of its adoption by Nigerian banks.

Environmental factors: Environmental factors that influence the adoption of bank innovations include competition, government regulations, and customer behavior. For instance, a study by Agyeiwaah and Adomako (2019) found that competition and customer behavior are significant determinants of the adoption of mobile banking technology by Ghanaian banks. The study revealed that banks operating in highly competitive environments are more likely to adopt mobile banking technology, and banks with customers who are technology-oriented are more likely to adopt the technology.

The adoption of bank innovations has a positive impact on financial performance. The adoption of bank innovations enhances efficiency, reduces operational costs, and enhances customer satisfaction. According to various empirical studies, bank innovations have a positive impact on financial performance. For instance, a study by Hasan et al. (2020) found that the adoption of mobile banking technology has a positive impact on the financial performance of Malaysian banks. The study revealed that the adoption of mobile banking technology enhances financial performance by reducing operational costs and enhancing customer satisfaction.

The TAM theory is a popular framework used to explain the adoption of technology innovations. It proposes that the perceived usefulness and perceived ease of use of

technology innovations are significant determinants of their adoption. The TAM theory has been widely used to explain the adoption of bank innovations. According to various empirical studies, the TAM theory is a useful framework for understanding the adoption of bank innovations. For instance, a study by Bano et al. (2019) found that the perceived usefulness and perceived ease of use of mobile banking technology are significant predictors of its adoption by Pakistani banks.

The adoption of bank innovations by universal banks is an essential strategy for enhancing financial performance. However, the adoption of bank innovations is not a straightforward process, and it depends on various factors that influence their acceptance and affect financial performance. Organizational, technological, and environmental factors are critical determinants of the adoption of bank innovations. Additionally, the adoption of bank innovations has a positive impact on financial performance. The TAM theory is a useful framework

2.6.2 Factors Influencing the Adoption of Bank Innovations by Universal Banks

Several studies have investigated the factors that influence the adoption of bank innovations by universal banks. One of the key factors identified is the perception of the bank's customers towards the innovation. According to Wang and Huang (2018), customer awareness and acceptance of bank innovations are crucial determinants of their adoption. They found that customers are more likely to adopt bank innovations when they perceive that it would improve their banking experience.

Another important factor is the level of competition in the banking industry. Higher competition levels are often associated with higher levels of innovation adoption by banks (Lin & Wu, 2014). This is because banks are constantly seeking to differentiate themselves from their competitors by introducing new and innovative products and

services. The regulatory environment is also a key factor that influences the adoption of bank innovations. According to Kianto, Sáenz, and Aramburu (2015), regulations and policies that promote innovation and competition are likely to result in higher adoption rates of bank innovations. On the other hand, regulatory barriers to innovation can hinder adoption rates.

The internal factors of a bank, such as organizational culture and management support, also play a role in the adoption of bank innovations. Huang (2018) found that banks with a more innovative culture and management support are more likely to adopt bank innovations. This is because such banks tend to be more open to change and are more willing to invest in innovation.

The Diffusion of Innovation theory proposes that the adoption of new technologies or innovations is influenced by certain factors such as the characteristics of the innovation itself, the characteristics of the adopters, and the communication channels used to disseminate information about the innovation (Rogers, 2003). In the context of the relationship between bank innovations and the adoption of such innovations by universal banks, this theory suggests that certain factors may influence the adoption of bank innovations by these banks.

One such factor is the complexity of the innovation. According to the Diffusion of Innovation theory, innovations that are perceived as more complex or difficult to understand may take longer to diffuse or may not be adopted at all (Rogers, 2003). This suggests that the level of complexity of a bank innovation may influence the likelihood of adoption by universal banks. Another factor that may influence the adoption of bank innovations by universal banks is the relative advantage of the innovation. The Diffusion of Innovation theory suggests that innovations that are

perceived as offering greater relative advantage over existing solutions are more likely to be adopted (Rogers, 2003). This suggests that the perceived benefits of a bank innovation, such as increased efficiency or profitability, may influence the likelihood of adoption by universal banks. Furthermore, the theory suggests that the communication channels used to disseminate information about an innovation may also influence its adoption. In the context of bank innovations, this suggests that the channels used to communicate information about the innovation, such as industry conferences or trade publications, may influence the likelihood of adoption by universal banks.

In summary, the adoption of bank innovations by universal banks is influenced by several factors including customer perception, level of competition, regulatory environment, and internal factors such as organizational culture and management support. Understanding these factors can help banks to identify strategies to increase the adoption of bank innovations and improve their overall competitiveness in the industry.

2.7 Challenges and Opportunities of Implementing Bank Innovations

As banks strive to remain competitive and meet the changing needs of customers, they often turn to innovations in products, services, and technologies. However, implementing bank innovations can present various challenges, as well as opportunities for growth and success.

According to Al-Tamimi and Al-Mazrooei (2007) one of the major challenges of implementing bank innovations is the cost involved in developing and implementing new products and technologies. Banks may have to invest significant resources, both in terms of money and time, to develop and test new innovations. Moreover, banks

may have to train employees and make changes to their infrastructure to support the new innovations (Al-Tamimi & Al-Mazrooei, 2007). Another challenge argued by Bhatt and Sharma (2011) is the risk associated with implementing new innovations, particularly in terms of regulatory compliance and security risks. Banks have to ensure that their innovations comply with regulations and are secure to protect customer data. Furthermore, a lack of technical expertise among bank employees may also hinder the successful implementation of bank innovations. Banks need employees with specialized technical knowledge to develop and support new innovations. However, it can be challenging to find and retain employees with the necessary technical skills. Finally, customer adoption of new innovations can also be a challenge (Karjaluoto et al., 2002). Customers may be resistant to change, preferring to stick with the familiar products and services they are accustomed to. Additionally, customers may be hesitant to use new innovations if they perceive them as risky or insecure.

Despite the challenges, implementing bank innovations also presents opportunities for banks. One significant opportunity is the potential to attract and retain customers (Karjaluoto et al., 2002). Innovative products and services can help banks differentiate themselves from competitors and attract new customers. Additionally, innovative products and services can also help banks retain existing customers who may be more likely to remain loyal if they feel the bank is meeting their evolving needs.

Another opportunity is the potential for increased efficiency and cost savings. Innovations such as automation and digitization can streamline processes and reduce the need for manual labour, thereby reducing costs and increasing efficiency. In addition, implementing bank innovations can also help banks remain competitive in an increasingly digital and fast-paced industry. Banks that are slow to adopt new

innovations risk falling behind competitors and losing market share (Santoso et al., 2017; Karjaluoto et al., 2002).

Implementing bank innovations presents various challenges and opportunities for banks. Banks must carefully consider the costs, risks, and technical expertise required to successfully develop and implement new innovations. At the same time, they must also recognize the potential to attract and retain customers, increase efficiency and cost savings, and remain competitive in an evolving industry. By striking a balance between these factors, banks can successfully implement innovations that drive growth and success.

2.8 Chapter summary

There is no doubt that the moment system we find ourselves demands innovation on how things ought to be done and the banking sector should not be left out. We are in era of technological buzz which clamour for the need for innovation. Besides business climate is ever becoming complex by the day and the competition between banks ever competitive. To be innovative requires that banking sectors especially the universal banks go beyond their current performance. To be able to do so is to put into practice the findings from the extant literature reviewed so far in this study. That way they can become competitive so as to rub their shoulders with foreign banks that operates in Ghana.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology employed in the study, which seeks to investigate the relationship between bank innovations and the financial performance of universal banks in Ghana. The methodological approach undertaken in this research is critical in providing valuable insights into the complex and multifaceted relationship between bank innovations and financial performance. This chapter explains the research design, geographical area of the study, data sources and data collection methods, data analysis techniques, ethical considerations, and limitations of the study.

3.2 Research Philosophy

The research philosophy adopted for this study harmoniously embraces positivism approach. Foundational to the study is the tenet of positivism, a philosophy that resonates particularly with the quantitative dimensions of the study. Positivism holds that the social realm can be examined with a scientific rigor akin to that of the natural sciences (Smith, 2010). It is anchored in principles of objectivity, empirical observation, and the quantification of phenomena (Blackwell, 2018; Weber, 2004). The structured surveys, meticulously designed to gather quantitative data, exemplify this positivist perspective. Through these surveys, the researcher endeavour to unveil causal relationships and correlations that illuminate the intricate dynamics between bank innovations and a spectrum of financial performance metrics (Babbie, 2016). By embracing positivism, the researcher aspiration is to furnish empirical evidence and

quantitative insights that make a substantive contribution to the broader comprehension of our research inquiries (Creswell & Creswell, 2017).

3.3 Research Design

The design for the study is descriptive survey. A descriptive survey design aims at accurately and systematically describe a population, situation or phenomena. It answers the what, where, when and how questions but not the why about a phenomenon. It is used when conducting research which aims to identify characteristics, frequencies, trends, correlations and categories (McCombes, 2023). The selection of this design was appropriate because the purpose of the study was to identify the effect of bank innovations on the financial performance of the Ghanaian universal banks. In line with the design, the researcher collected a quantitative data through a survey questionnaire designed to capture information on various aspects of bank innovations and financial performance.

3.4 Study Area

The geographical area chosen for this research study is Ghana, a West African nation with a burgeoning and dynamically evolving banking sector. Ghana, characterized by its rich cultural heritage, diverse geography, and a rapidly growing economy, provides a compelling backdrop for the investigation into the impact of bank innovations on the financial performance of universal banks. Within the context of Ghana, the study focused on selected universal banks operating across the country. Ghana is divided into several regions, each with its own distinct characteristics and economic activities. The research endeavours to encompass a representative sample of universal banks from various regions, taking into consideration factors such as the size, urbanization, and market prominence of these banks. This geographic diversity enables a more

comprehensive exploration of the influence of bank innovations, as it allows for the examination of potential regional variations and their effects on financial performance.

The choice of Ghana as the study setting is underpinned by several factors. Initially, Ghana's banking industry has witnessed significant transformation in recent years, characterized by technological advancements and changing consumer behaviours. Secondly, the regulatory landscape, with the Bank of Ghana as the central regulatory authority, plays a pivotal role in shaping the operating environment for universal banks. These factors create a fertile ground for the study, offering a real-world context where bank innovations are introduced, embraced, and navigated in the pursuit of improved financial performance.

Ghana's diverse population and economic landscape present an intriguing research canvas. Variations in economic conditions, customer demographics, and regional infrastructure can impact the strategies and outcomes of bank innovations. By conducting the study within this geographical area, the research aims to capture these nuances and provide a well-rounded understanding of the complex interplay between bank innovations and financial performance.

Figure 3.1: Geography of the study area of respondents

Source: Ghana Statistical Service, 2022

3.5 Population

The target population for this research comprises universal banks operating in Ghana. These banks collectively form the universe of interest as they represent the broader banking industry within the Ghanaian context. The study aims to capture a diverse range of perspectives and experiences from within this population.

3.6 Sampling procedure

Given the size and diversity of the universal banks operating in Ghana, a purposive sampling technique was deemed most appropriate for this study. Purposive sampling, often referred to as judgment or selective sampling, enables the deliberate selection of participants who possess the requisite knowledge and experience relevant to the research objectives (Creswell & Creswell, 2017).

To ensure the selection of banks that are representative of the industry as a whole, a criterion-based purposive sampling approach was applied. The criteria for inclusion

encompassed factors such as bank size, prominence, and market influence. These criteria were essential to ensure that selected banks have a significant presence and are likely to offer diverse insights into the impact of bank innovations on financial performance. Based on the criterion set, a sample size of 15 universal banks were selected. Out of it a total of 250 respondents were drawn for the study. The 15 selected universal banks which formed the sampling frame were the GCB Bank Limited, Absa Bank Ghana, Access Bank Ghana, Consolidated Bank Ghana Limited, Standard Chartered Bank Ghana Limited, Zenith Bank Ghana, Agricultural Development Bank of Ghana, Ecobank Ghana Limited, Fidelity Bank Ghana Limited, Prudential Bank Limited, CalBank Limited, Bank of Africa Ghana Limited, First Atlantic Bank Limited, First National Bank Ghana, National Investment Bank Limited. The sample size was determined with the aim of striking a balance between research depth and practical feasibility, considering resource constraints and the need for robust data collection (Creswell & Creswell, 2017). The selected banks represent a diverse cross-section of the industry and are expected to provide valuable insights into the research questions.

3.7 Data collection instrument

The data collection instrument for this study was a self-designed structured survey questionnaire. The questionnaire was designed in such a way to capture variables pertinent to the research, including bank innovations, financial performance, adoption factors, challenges, and opportunities. The questionnaire consisted of close-ended questions with predetermined response options, ensuring consistency and ease of data analysis. The questionnaire is made up of 5 parts/ Sections namely part A-E. The part A dealt with Respondent Background Information. Respondents were to select that which applies to them. The Section B focused on bank innovations which comprised

of digital and non-digital innovations with digital innovations being first then followed by non-digital innovations. This part was comprised of a 5-point Likert scale in descending order of 5 to 1. The 5 stand for strangle agree, 4-agree, 3= neutral, 2= disagree and 1 Strongly disagree. Part C also dealt with Bank innovations on performance. That part also was made up of a 5-point Likert scale in descending order of 5 to 1. The 5 stand for strangle agree, 4-agree, 3= neutral, 2= disagree and 1 Strongly disagree.

The part D focused on Factors Influencing the Adoption of Bank Innovations and Their Impact on Profitability. This too involved a five point Likert scale items but in ascending order from 1-5, where 1= Strongly Disagree, 2=Disagree, 3=Neutral and 4=Agree and 5=Strongly Agree. The last section E also dealt with the Challenges and Opportunities in Implementing Bank Innovations. It had the same format as Part D.

To maximize accessibility and participation, the survey was administered electronically through Google Forms, allowing individual entrepreneurs within the selected banks in Ghana to respond conveniently.

3.8 Data collection procedure

The researcher obtained an introductory letter from his department and visited the selected Universal banks. The researcher first and foremost sought permission from the management of these banks and briefed them about the intended study to be collected, explaining the rationale and the goal of the research. The management of the banks then allowed the researcher to announce his presence and his reasons for being with them. Then employees of the various banks were provided with comprehensive information about the research, including its objectives, procedures, potential risks, and benefits. For privacy, the respondents were asked to stay

anonymous. The researcher visited these banks twice. This helped establish rapport, then individuals who wished to participate were made to provide their email address. In all 250 emails representing 250 respondents were received. Then the researcher administered the survey items electronically through Google Forms, allowing individual entrepreneurs within the selected banks in Ghana to respond conveniently. Respondent were each given a week to respond which they all complied.

3.9 Data Analysis Techniques

In unravelling the impact of bank innovations on the financial performance of universal banks in Ghana, a multifaceted approach to data analysis was meticulously applied. The data collected from structured survey questionnaires. The quantitative data from surveys was seamlessly integrated into the statistical software SPSS, where it underwent thorough scrutiny for precision and uniformity, with special attention to the identification and handling of any outliers or missing data points. For the exploration of relationships between bank innovations and financial performance metrics, a quantitative avenue was traversed. Adopting the Ordinary Least Squares (OLS) regression analysis technique through SPSS version 20, the study scrutinized the intricate associations between the dependent variable, financial performance, and a slew of independent variables encompassing diverse dimensions of bank innovations. To uncover inter-variable connections, Pearson correlation analysis was enlisted, shedding light on the strength and direction of these associations.

The initial steps of the data analysis journey comprised the computation of descriptive statistics, including mean values, standard deviations, as well as the minimum and maximum data points for each variable. This foundational analysis provided an informative glimpse into the central tendencies and the dispersion of data. Subsequently, a meticulous Pearson correlation analysis was conducted, unearthing

the subtleties within the relationships between bank innovations and various financial performance metrics.

To embark on an in-depth exploration of the influence of bank innovations on financial performance, while considering potential confounding factors, the researchers harnessed the power of Ordinary Least Squares (OLS) regression analysis. Constructing a robust regression model with financial performance as the dependent variable and a spectrum of bank innovations as independent variables, the study aimed to discern the significance and magnitude of these relationships.

The assessment of the regression model's quality and the significance of individual coefficients was grounded in critical indicators, encompassing R-squared, adjusted R-squared, F-test statistics, and p-values. These metrics collectively offered insights into the overall model fit and the unique contributions of different facets of bank innovations to financial performance.

3.10 Ethical Considerations

Ethical principles and guidelines have been at the forefront of this paper, underpinning every phase of the study to safeguard the rights and well-being of participants and to ensure the integrity of the research process.

Respecting the autonomy of research participants is a cornerstone of ethical research (Smith, 2010). In line with this principle, every effort was made to secure informed consent. Participants were provided with comprehensive information about the research, including its objectives, procedures, potential risks, and benefits. Informed consent forms were diligently obtained from each survey respondent and interviewee, symbolizing their voluntary willingness to participate. Protecting the privacy of participants was of paramount concern. To maintain confidentiality, personal

identifiers such as names and contact details were rigorously separated from research data. All collected data were anonymized and aggregated, preventing any traceability of individual responses to specific participants.

Stringent measures were in place to ensure the security of research data. Electronic data, encompassing survey responses and interview recordings, were securely stored on password-protected servers, accessible solely to authorized research personnel. Hard copies of consent forms and printed documents were stored securely in locked facilities, shielding them from unauthorized access. The research was conducted with unwavering honesty and transparency. The presentation of research findings faithfully reflects the collected data and the analysis conducted. All results, including negative or inconclusive outcomes, were presented in a balanced manner to prevent any reporting bias. Special care was taken to minimize any potential harm or discomfort to participants. Survey questions and interview prompts were crafted to be non-intrusive and sensitive to participant experiences. Participants were assured of their right to skip any questions they found uncomfortable.

At the conclusion of their participation, participants were provided with a debriefing statement. This document outlined the research's objectives and offered resources for further information or support related to the study's themes. Throughout the interview process, deep respect for cultural sensitivities and customs was maintained. The research team ensured that local customs and norms were acknowledged and respected during interactions with participants.

In sum, ethical considerations have been seamlessly integrated into every facet of this study. From securing informed consent to safeguarding data and ensuring transparency, the study has adhered to the highest ethical standards. The ethical

compass that guided this research was unwavering, ensuring that the rights, privacy, and dignity of all participants were honoured throughout the research journey.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents and interprets the findings in light of the study's research questions. The data is presented in tables and charts containing frequency and percentage statistics. The chapter further discusses the study's findings.

4.2 Analysis of Results

4.2.1 Descriptive Statistics

Understanding the demographic characteristics of a study's participants is an integral aspect of any research endeavour (Kivunja & Kuyini, 2017). It not only provides a foundational context for the data analysis but also offers valuable insights into the representativeness of the sample and the potential implications for the study's findings. In this section, the study delves into the analysis and discussion of results in Table 4.1. Table 4.1 presents a comprehensive overview of the gender, age, education, and employment status of the respondents in the study. These demographic attributes play a pivotal role in shaping the perspectives, experiences, and responses of individuals participating in research.

As such, a careful examination of these factors is essential for a comprehensive understanding of the study's findings. This discussion explores the implications of gender, age, education, and employment status distribution.

Table 4.1: Gender, Age, Education and Employment Status of Respondents

		Frequency	Percent
Gender			
	Female	82	45.1
	Male	100	54.9
	Total	182	100
Age			
	18-20 years	4	2.2
	21-25 years	20	11
	26-30 years	41	22.5
	31-35 years	69	37.9
	36 years and above	48	26.4
	Total	182	100
Education			
	Primary School	1	0.5
	Junior High School	5	2.7
	Senior High School	19	10.4
	Tertiary	156	85.7
	Uneducated	1	0.5
	Total	182	100
Employment			
	Employed	150	82.4
	Student	9	4.9
	Unemployed	23	12.6
	Total	182	100

Source: Field Data, 2023

From Table 4.1, the gender distribution shows a nearly equal balance, with 54.9% being male and 45.1% female respondents, indicating a representative mix of genders. This gender equilibrium holds significance in ensuring the broader applicability of the study's findings to the target population.

Concerning the age distribution, the data reveals that a substantial proportion of the respondents fall within the age categories of 26-35 years (37.9%) and 36 years and above (26.4%), collectively constituting 64.3% of the total sample. This implies that the study predominantly captures the perspectives of adults in their mid-20s and beyond.

In terms of education level, an overwhelming majority (85.7%) of respondents have tertiary education, while only a small percentage (2.7%) possess an educational background below senior high school. The substantial educational attainment of the sample reflects their capacity to comprehend and respond to the research inquiries. Thus, it was necessary to explore this educational background.

Regarding employment status, the data indicates that a majority of respondents (82.4%) identify as employed. This statistic holds significance, especially if the study pertains to work or employment-related matters, as the employment status of the sample could significantly shape their experiences and viewpoints. It is advantageous to investigate potential correlations between employment status and other demographic factors.

4.2.2 Involvement in the Implementation of Bank Innovations of Respondents

In today's rapidly evolving financial landscape, the implementation and management of bank innovations are pivotal in ensuring competitiveness and relevance within the banking sector. Within this context, understanding the extent to which the respondents are involved in these innovative initiatives is of paramount importance. Figure 4.1. offers insight into the proportion of respondents involved in the implementation or management of bank innovations within their respective institutions.

This data aims to illuminate the degree of engagement and experience of the respondents within the dynamic realm of bank innovations. An exploration of these descriptive statistics provides a foundation for comprehending the sampled population's involvement as a starting point for the subsequent analysis and discussion.

When asked whether they have personally been involved in such activities, 100 respondents (representing 54.9% of the sample) responded affirmatively with a "Yes." Another 48 respondents, or 26.4% of the sample, indicated a somewhat involvement. A total of 34 respondents (accounting for 18.7% of the sample) responded with a "No." These statistics provide insights into the degree of engagement of the respondents in bank innovation initiatives. The majority of respondents have, in varying degrees, been involved in these activities, with a significant proportion answering "Yes." The "Somewhat" category suggests a moderate level of involvement, while the "No" responses represent those who have not participated in such activities.

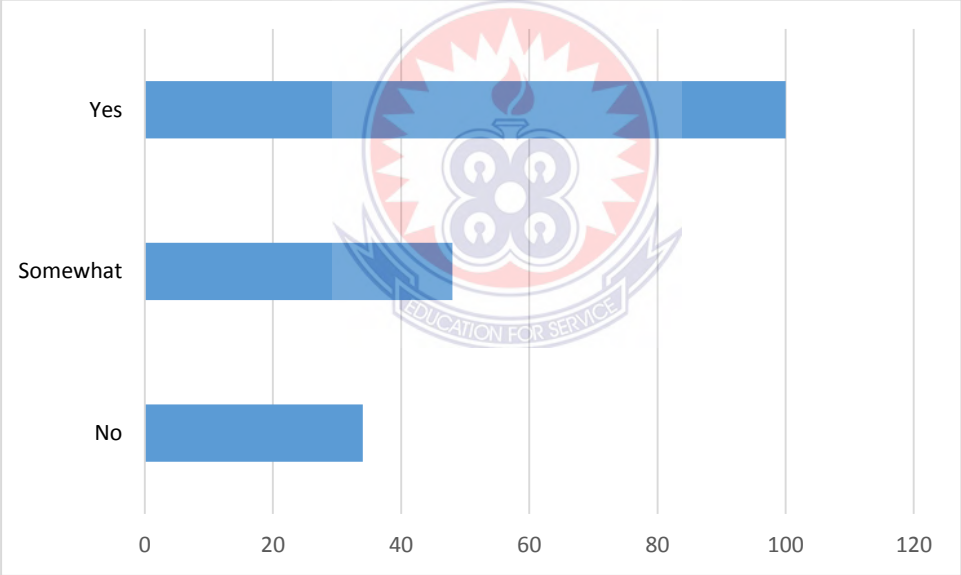


Figure 4.1: Involvement in Implementation of Bank Innovations of Respondents

Source: Field data, 2023.

4.2.3 The relationship between bank innovations and bank performance

This section delves into a comprehensive analysis of the relationship between bank innovations and the performance of these financial institutions. By examining path coefficients, effects, and factor loadings, the researcher seeks to unveil the intricate

dynamics at play within this multifaceted relationship. The outcomes of this analysis offer crucial insights into the pivotal role of innovation in shaping the performance of universal banks, shedding light on the varying degrees of influence held by digital and non-digital innovations. With these findings, the study aims to contribute to a deeper understanding of how innovative strategies impact the financial outcomes of these institutions, ultimately informing strategic decisions within the banking sector.

4.2.3.1 Path coefficients

Table 4.2 presents the path coefficients, offering essential insights into the relationships between variables in the research model. The path from Digital Innovation (DIN) to Performance (Prof) demonstrates a positive but non-significant relationship, with a coefficient of 0.059 and a p-value of 0.546. This suggests that, in this context, the direct impact of digital innovation on performance is not statistically significant. On the other hand, the path from Non-Digital Innovation (NDI) to Digital Innovation (DIN) is highly significant, with a coefficient of 0.903 and a p-value of 0.000, indicating a substantial and positive relationship between non-digital innovations and digital innovations. This implies that non-digital innovations which relate to business strategies positively influence digital innovations. Similarly, the path from NDI to Prof reveals a strong and highly significant positive relationship, with a coefficient of 0.764 and a p-value of 0.000. This signifies that non-digital innovations significantly influence the performance of universal banks.

Table 4.2: Path Coefficient

	Coefficient	Mean	SD	T values	P Values
DIN -> Prof	0.059	0.058	0.099	0.603	0.546
NDI -> DIN	0.903	0.902	0.021	42.279	0.000
NDI -> Prof	0.764	0.763	0.096	7.983	0.000

Source: Field data (2023)

Effects

The effects presented in Table 4.3 provide a more comprehensive perspective on the relationships within the research model. While the effect of Digital Innovation on Performance is positive (0.059), it is not statistically significant (p-value = 0.546), suggesting that the direct effect of digital innovation on performance is not significant in this study. Conversely, the effects of Non-Digital Innovation on Digital Innovation (0.903) and Non-Digital Innovation on Performance (0.818) are highly significant (p-values = 0.000), highlighting the substantial impact of non-digital innovations on both digital innovation and overall bank performance. However, the combined effect of Non-Digital Innovation on Digital Innovation and Performance (0.054) is not statistically significant (p-value = 0.548), indicating that the combined influence of non-digital innovations on digital innovation and performance may not be significant in this context.

Table 4.3 Effect

	Effects	Mean	SD	T values	P values
DIN -> Prof	0.059	0.058	0.099	0.603	0.546
NDI -> DIN	0.903	0.902	0.021	42.279	0.000
NDI -> Prof	0.818	0.816	0.043	18.973	0.000
NDI -> DIN -> Prof	0.054	0.052	0.089	0.601	0.548

Source: Field data (2023)

4.3 Factor Loading.

The Factor Loading presented in Table 4.4 plays a pivotal role in validating the measurement model of our study. These loadings measure the strength and significance of the relationship between observed variables and their respective latent constructs, ensuring the reliability and validity of our model.

Firstly, with regard to Digital Innovation (DIN), it is evident that all observed variables, namely DIN1, DIN2, DIN3, and DIN4, exhibit notably high factor loadings, all with p-values of 0.000. These findings indicate that these observed variables effectively capture the essence of digital innovation within the context of our research. The robust factor loadings reinforce the model's reliability in measuring the latent construct of digital innovation. Similarly, for Non-Digital Innovation (NDI), the observed variables NDI1, NDI2, NDI3, and NDI4 display substantial factor loadings, all with p-values of 0.000. This signifies that these observed variables are dependable indicators of non-digital innovation. Their high factor loadings attest to the model's validity in measuring the latent construct of non-digital innovation.

Turning to the Performance (Prof) latent construct, it is evident that the observed variables Prof 1, Prof 2, Prof 3, Prof 4, and Prof 5 all exhibit impressive factor loadings, with p-values of 0.000. These high factor loadings underline the reliability of these observed variables in representing performance within our model.

In summary, the consistently high factor loadings, all statistically significant, for both observed variables and their respective latent constructs reflect the robustness of our measurement model. These factor loadings confirm that the observed variables effectively capture the essence of their underlying constructs, providing a solid

foundation for subsequent analyses of relationships and effects within the structural model.

Table 4.4: Factor Loading

	Loading	Mean	SD	T values	P values
DIN1 <- DIN	0.959	0.958	0.01	96.195	0.000
DIN2 <- DIN	0.928	0.928	0.025	37.862	0.000
DIN3 <- DIN	0.935	0.934	0.015	60.75	0.000
DIN4 <- DIN	0.944	0.943	0.014	67.489	0.000
NDI1 <- NDI	0.934	0.932	0.019	48.366	0.000
NDI2 <- NDI	0.951	0.951	0.012	80.698	0.000
NDI3 <- NDI	0.936	0.934	0.018	50.94	0.000
NDI4 <- NDI	0.901	0.899	0.022	41.774	0.000
Prof 1 <- Prof	0.944	0.943	0.012	75.855	0.000
Prof 2 <- Prof	0.955	0.954	0.01	91.854	0.000
Prof 3 <- Prof	0.893	0.891	0.024	36.698	0.000
Prof 4 <- Prof	0.944	0.944	0.015	61.469	0.000
Prof 5 <- Prof	0.902	0.902	0.023	38.679	0.000

Source: Field data (2023)

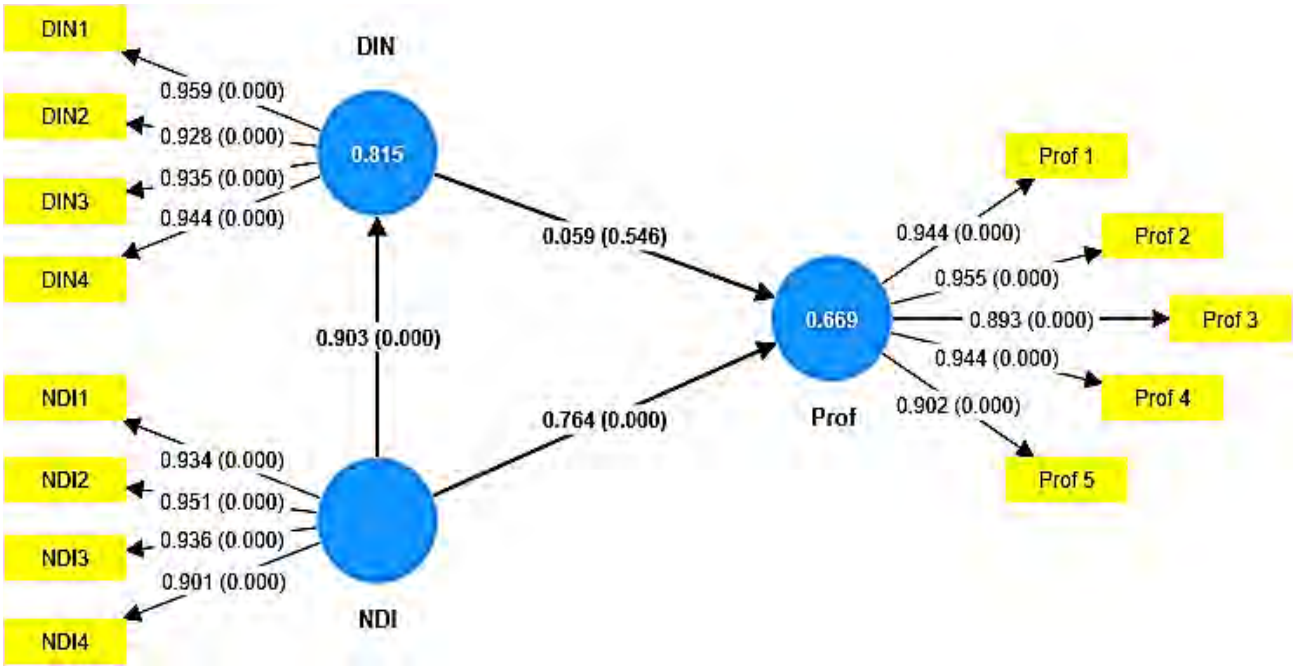


Figure 4.2: Measurement Model

Note: Outer model = loadings & p values; Inner model = path coefficients & p values; Constructs = R-squared; DIN= Digital Innovation, NDI = Non-digital Innovation; Prof = performance

Source: field data (2023)

4.4 Validity and Reliability of Data

Table 4.5 below offers a robust assessment of the validity and reliability of the data within the research model. To begin with, Cronbach's alpha values for the constructs are notably high, with DIN at 0.957, NDI at 0.948, and Prof at 0.960. These high alpha values signify exceptional internal consistency and reliability for the constructs, indicating that the included items consistently measure the latent variables. Furthermore, the composite reliability values (rho_a and rho_c) reinforce the reliability of the model. All constructs exhibit strong composite reliability, underlining the internal consistency of the items within each construct. The Average Variance Extracted (AVE) values are also impressive, with all three constructs (DIN, NDI, and Prof) exceeding the 0.50 threshold. These AVE values confirm that the

constructs effectively capture a significant portion of the variance in their respective items. The Effect Size (f square) and Variance Inflation Factor (VIF) values provide insights into the impact of each construct and the potential for multicollinearity. Notably, the VIF values are high for DIN and Prof but are not a cause for concern. Importantly, the AVE values and the low VIF for NDI suggest that there is no multicollinearity with other constructs.

Table 4.5: Validity and Reliability of Data

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)	f square	VIF
Non-Digital Innovation (NDI)	0.957	0.958	0.969	0.886	0.002	5.413
Digital Innovation (DIN)	0.948	0.949	0.963	0.866	4.413	1.000
Performance (Prof)	0.96	0.96	0.969	0.861	0.326	5.413

Source: Field data (2023)

4.4.1 Descriminant Validity - Fornell-Larcker Criterion

The Fornell-Larcker Criterion examines the discriminant validity of our constructs. By comparing the square root of AVE values with the correlations between constructs, the study confirms that the constructs are distinct and do not overlap in terms of what they measure. This criterion reveals that the square root of AVE for each construct (DIN, NDI, Prof) is greater than the correlations between constructs, reinforcing their discriminant validity.

Table 4.6 Descriminant Validity - Fornell-Larcker Criterion

	DIN	NDI	Prof
Digital Innovation (DIN)	0.941		
Non-Digital Innovation (NDI)	0.903	0.931	
Performance (Prof)	0.749	0.818	0.928

Source: Field data (2023)

Model Fit

The Model Fit statistics in table 4.7 below provide insight into how well the study's estimated model aligns with the saturated model. The Standardized Root Mean Residual (SRMR) values for both models are 0.035, which is below the common threshold of 0.08, indicating a good model fit. The d_ULS and d_G values are also identical for both models at 0.114, suggesting a reasonable fit. The chi-square values are identical at 338.75 for both models, which, despite the chi-square's sensitivity to sample size, demonstrates an acceptable model fit. Additionally, the Normed Fit Index (NFI) for both models is 0.899, signifying a good model fit.

In conclusion, the data analysis reveals a robust measurement model characterized by high internal consistency, strong reliability, and substantial discriminant validity among the constructs. Moreover, the model fit statistics indicate that our estimated model aligns well with the saturated model. These findings collectively underscore the trustworthiness and credibility of our research model, strengthening the validity and reliability of our results.

Table 4.7 Model Fit

	Saturated model	Estimated model
SRMR	0.035	0.035
d_ULS	0.114	0.114
d_G	0.307	0.307
Chi-square	338.75	338.75
NFI	0.899	0.899

Source: Field data (2023)

4.4.2 The factors that influence the adoption of bank innovations by universal banks.

Table 4.8 below offers valuable insights into the factors that play a pivotal role in shaping the adoption of bank innovations within the realm of universal banks. This dataset summarizes four distinct factors, and reflects the perspectives of 182 respondents. The data signify the diverse and multifaceted viewpoints held by respondents concerning the influence of these factors on innovation adoption.

The minimum and maximum values observed for each factor showcase the entire range of responses from our sample. For example, FIA 1 spans from a minimum of 3 to a maximum of 5. This divergence in responses underscores the heterogeneous nature of opinions among our participants. The mean values provide a central reference point around which respondent opinions tend to cluster. Notably, factors such as FIA 1 with a mean of 4.21 suggest that this factor is regarded with significant importance in the context of innovation adoption by respondents. Conversely, factors with lower means, such as FIA 2 with a mean of 3.56, signify relatively lesser importance as perceived by the respondents. The standard deviation values offer insights into the dispersion or variability in these opinions. Factors with higher standard deviations, such as FIA 2 with a standard deviation of 0.724, reflect a

broader range of viewpoints and a greater degree of variability in respondents' perceptions regarding the influence of these factors on innovation adoption.

In conclusion, Table 4. 8 reveals a diverse array of factors that hold varying degrees of influence on the adoption of bank innovations by universal banks. This dataset serves as a foundational exploration, inviting further analysis and interpretation to gain a deeper understanding of the nuanced dynamics at play in the banking sector's innovation adoption landscape.

Table 4.8 Factors Influencing the Adoption of Bank Innovations by Universal Banks

S/N	Factors	N	Min	Max	Mean	SD
FIA 1	The regulatory environment in Ghana encourages the adoption of bank innovations in our bank	182	3	5	4.21	.586
FIA 2	Customer demand and preferences play a significant role in driving our bank to adopt innovative banking services	182	3	5	3.56	.724
FIA 3	Competition with other banks is a key motivator for our bank to adopt new innovations	182	3	5	4.09	.543
FIA 4	The availability of technology infrastructure in Ghana facilitates the adoption of bank innovations	182	3	5	3.48	.703

Extraction Method: Principal Component Analysis

Source: Field data (2023)

4.4.3 The challenges and opportunities that arise from implementing bank innovations in the context of universal banks.

In this section, the study explored the challenges and opportunities that surface in the context of implementing bank innovations in universal banks, employing Principal Component Analysis as our extraction method. The data encompasses five distinct factors and represents the voices of 182 respondents who have provided their insights on this dynamic landscape.

A perusal of the data reveals a diverse range of opinions, from a minimum value of 1 to varying maximum values. Mean values serve as central reference points around which the perceptions of respondents tend to cluster. Factors such as challenges 2 and opportunities 1, both with means of 3.01, highlight that respondents attribute a significant degree of importance to specific challenges and opportunities. In contrast, challenge 1, with a mean of 2.32, suggests a relatively lower level of significance attributed to this factor. The standard deviation values reveal the degree of diversity in these opinions. Notably, opportunities 2, with a higher standard deviation of 1.973, signifies a broader range of viewpoints among respondents regarding the challenges and opportunities encapsulated within this factor.

Table 4.9 Challenges and Opportunities that arise from Implementing Bank Innovations

		N	Min	Max	Mean	SD
The bank faces challenges related to regulatory compliance when implementing bank innovations.	Chal1	182	1	4	2.32	1.137
Ensuring data security and privacy is a challenge when adopting digital financial services	Chal2	182	1	5	3.01	1.122
Implementing bank innovations provides opportunities for our bank to differentiate itself from competitors and overcome challenges	Opp1	182	1	5	3.01	1.239
Enhancing customer experience through innovation creates opportunities to attract and retain customers	Opp2	182	1	5	2.95	1.973
Bank innovations offer opportunities to expand our market share and customer base.	Opp3	182	1	5	2.75	1.280
Valid N (listwise)		**182**				

Extraction Method: Principal Component Analysis

Source: Field data (2023)

4.5 Discussion

This section delves into the discussion of the relationship between bank innovations and the profitability of universal banks, aiming to explore the intricate relationship between bank innovations and the performance of universal banks in Ghana. The analysis found that the majority of respondents have been involved in the implementation or management of bank innovations within their respective institutions. This suggests that there is a significant level of engagement and experience within the dynamic realm of bank innovations among the sampled population.

4.5.1 Relationship between Bank Innovations and Profitability of Universal Banks

In dissecting the path coefficients, the study uncovered significant relationships between various variables within the research model. It was observed that digital innovations, represented by Digital Innovation (DIN), had a positive relationship with the banks' performance (Prof). However, this relationship was not statistically significant, indicating that the direct impact of digital innovation on performance was not substantial within the Ghanaian banking context. This result may suggest that other factors could be at play, or a more extended timeframe is needed to realize the full impact of digital innovations on performance. On the other hand, a noteworthy finding was the highly significant relationship between non-digital innovations (NDI) and both digital innovation and performance. Non-digital innovations had a strong and positive influence on digital innovation, as well as on the overall performance of universal banks in Ghana. This underscores the significance of non-digital innovation in shaping the financial outcomes of these institutions, suggesting that a broader spectrum of innovative strategies goes beyond digital technologies and contributes

significantly to the banks' performance. The effects analysis reinforced these relationships. While the direct effect of digital innovation on performance was positive but not statistically significant, the effects of non-digital innovations were highly significant for both digital innovation and overall bank performance. These results suggest that while digital innovations play a role, the combined influence of non-digital innovations is pivotal in shaping the performance of universal banks in Ghana. Additionally, the factor loading analysis validated the measurement model of the study. It was revealed that observed variables for digital innovation (DIN), non-digital innovation (NDI), and performance (Prof) exhibited high factor loadings, underscoring the reliability and validity of these variables within the research model.

The findings from the data analysis correlate with existing literature on the impact of bank innovations on financial performance in the banking sector. Previous research, such as Agyei and Asante (2020), has shown that digital banking innovations positively affect the financial performance of banks by enhancing profitability, efficiency, and customer satisfaction. The data underscores this, with respondents indicating a notable positive impact on the financial performance of universal banks in Ghana due to innovations such as mobile banking, online banking, and electronic payments.

However, it is essential to recognize that banking innovations encompass a spectrum of strategies beyond just technological advances. Process improvement, product differentiation, and superior customer service also play critical roles. Research by Wang and Huang (2018) support the idea that banks can enhance their financial performance by adopting product differentiation strategies. The personalized services and robust complaint management systems highlighted in the data align with Lin and Wu (2014) research, which indicates that these practices have a direct and positive

impact on the financial performance of universal banks. Research by Hasan et al. (2020) indicates that the adoption of mobile banking technology positively affects the financial performance of Malaysian banks, primarily by reducing operational costs and enhancing customer satisfaction.

The findings however do not align with the study by Hamao & Miyakawa (2019) on Japanese banks which found that banks that invested heavily in technological innovations, such as online banking and ATM machines, had lower profitability than those that did not.

It is important to acknowledge the challenges associated with innovation adoption. Regulatory compliance, cybersecurity risks, and resistance to change from employees and customers have been noted as barriers in both our findings and in empirical studies. Nonetheless, the benefits of adopting these innovations outweigh the challenges.

4.5.2 Factors Influencing the Adoption of Bank Innovations

This discussion centres on the interplay between the factors influencing the adoption of bank innovations in Ghana. The analysis of data collected from 182 respondents provides substantial insights into this complex relationship, guided by the research model that considered various factors.

In relation to market demand and customer expectations, the factor is considered highly influential by the respondents, with a mean value of 4.21. The importance of this factor is likely associated with customer expectations and market demand for innovative products and services. Empirical studies from Rogers (2003) and Kianto, Sáenz, and Aramburu (2015), indicate that banks that effectively respond to customer demands for digital innovations tend to achieve higher customer satisfaction and,

subsequently, increased profitability. Competition within the banking industry is another significant factor. Research conducted by Lin and Wu (2014) has indicated that higher levels of competition often drive banks to adopt innovations more readily. In a competitive environment, banks seek to differentiate themselves by introducing new and innovative products and services. As such, competition acts as a catalyst for the adoption of innovations in banking.

The regulatory environment also exerts considerable influence. Studies, such as that by Kianto, Sáenz, and Aramburu (2015), have underlined the importance of regulations and policies that promote innovation and competition. Environments that foster innovation tend to witness higher rates of adoption of bank innovations. Conversely, regulatory barriers can impede innovation adoption, underscoring the role of regulations in shaping the innovation landscape. Internal factors within the bank, including organizational culture and management support, have a pronounced impact on innovation adoption. Huang (2018) found that banks with a culture that values innovation and strong management support are more inclined to adopt innovations. Banks that embrace change and are willing to invest in innovation tend to be at the forefront of adoption.

The Diffusion of Innovation theory offers a valuable perspective on the adoption of innovations. This theory suggests that several factors influence the likelihood of an innovation's adoption. The complexity of the innovation is one such factor, with more complex innovations potentially facing longer adoption timelines. Especially, in regard to regulatory and compliance factors. This factor has been indicated as highly influential by respondents, with a mean value of 4.12. Studies conducted by Abiodun et al. (2021) support the idea that regulatory changes have a substantial impact on innovation adoption in the banking sector. Regulatory mandates can drive banks to

adopt innovations such as Know Your Customer (KYC) technologies and data security measures. These innovations are essential for compliance and can enhance operational efficiency, ultimately impacting profitability. The relative advantage of an innovation, emphasizing its benefits compared to existing solutions, also plays a role in adoption. Furthermore, the theory highlights the significance of communication channels used to disseminate information about innovation, suggesting that the choice of channels, such as industry conferences or trade publications, can impact adoption.

4.5.3 Challenges and Opportunities in Implementing Bank Innovations

Implementing bank innovations comes with its price. This is not a mere symbolic cost but a tangible financial investment that universal banks must make in hardware, software, and training. Cheng and Chien (2018) confirm that the cost of integrating new technologies presents a substantial hurdle to adoption, particularly for smaller banks. While not explicitly noted in the data, this challenge likely contributed to the variations in responses among respondents, as the financial capacity of banks may influence their perception of these costs. The fear of job loss and the need for employees to adapt to new technologies can generate resistance from within the organization. Moreover, customers may resist new technologies due to concerns regarding security and privacy. Dey et al. (2018) emphasize that addressing these concerns through education and training is essential to mitigate resistance to change. It is plausible that these concerns found their way into the diverse range of opinions captured in the data, particularly within challenges and opportunities2 and challenges and opportunities3.

A significant challenge in implementing bank innovations lies in navigating the intricate web of regulations governing data privacy and security. This regulatory compliance can pose a substantial roadblock to the integration of new technologies

(Nwakanma et al., 2019). The higher standard deviation observed in challenges and opportunities4 implies a wider range of perspectives, reflecting the complexities associated with regulatory compliance, which can vary significantly based on the regulatory environment and the scope of innovations.

Despite these formidable challenges, implementing bank innovations presents a wealth of opportunities. New technologies have the potential to streamline operations and reduce costs, leading to increased efficiency. Tello-Gamarra & Reyes-Mercado (2019) underline that these technologies can lead to cost savings through improved efficiency and the elimination of manual processes. Although not explicitly examined in the data, the prospect of enhanced efficiency and cost savings likely influenced the perceptions of the respondents. Embracing new technologies can provide customers with faster, more convenient access to banking services, ultimately enhancing their satisfaction (Kamaludin & Subramaniam, 2018). The data findings, particularly in challenges and opportunities2 and challenges and opportunities3, may reflect the positive impacts on customer satisfaction.

These empirical challenges and opportunities align with institutional theory, which suggests that regulations play a pivotal role in the adoption of new technologies. This may be why regulatory compliance stands out as a significant challenge. Furthermore, the Technology Acceptance Model (TAM) suggests that perceived usefulness and ease of use are key determinants of technology adoption. Universal banks can employ TAM to design strategies aimed at overcoming the challenges highlighted in the data, facilitating the adoption of bank innovations.

In conclusion, the challenges and opportunities entwined with implementing bank innovations are both complex and multifaceted. While the challenges of cost,

resistance to change, and regulatory compliance are evident, the opportunities for increased efficiency, cost savings, and enhanced customer satisfaction are equally compelling. Bridging these challenges and opportunities, universal banks must consider strategies rooted in institutional theory and TAM to effectively navigate the dynamic landscape of bank innovations.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study assessed the impact of bank innovations on the financial performance of universal banks that operate in Ghana. The study examined the digital and non-digital innovations of these banks have implemented and analysed their effects on performance. The study has the potential to influence industry best practices, shape regulatory frameworks, and eventually create a banking environment that is responsive, resilient, and supportive of sustainable economic development. This study also fits into a larger story about how innovation drives advancement in the banking industry in the face of a quickly changing financial world. Understanding the relationships between bank innovations and financial success is a crucial necessity for determining the direction of Ghana's financial destiny as it positions itself as a regional financial hub.

5.2 Summary of the study

The banking crisis which necessitated a clean-up that resulted in the folding up of some indigenous Ghanaian banks was met with mix feelings. Some scholars, Civil Society Organisations, financial experts all expresses their views and suggested other alternatives. That notwithstanding, there was a need for innovation. The ability to innovate help a firm, organisation and even individuals to be competitive and abreast with time. Our sister nation Nigeria did introduce banking reforms in their financial sector and that has led to boom in their banking sector. To the extent that Nigerian banks are classified as some of the best performing banks in Ghana. Ghana has made strides in financial sector, this is has paved the way for the use of ATM cards, mobile

banking, e-banking, tec. However, we still have a long way to go. As already asserted, the banking industry is one of the most dynamic sectors in any economy, as it plays a vital role in the financial intermediation process. Banks are important players in the economy as they mobilize funds from surplus sectors of the economy and channel them to deficit sectors for investment purposes. The ability to innovate is viewed as an important factor in ensuring the sustained success of businesses in today's highly competitive. Over the years, banks have developed various innovative products, services, processes, and technologies with the aim of improving efficiency, effectiveness, and cost-effectiveness in their financial performance. Recent competition and advancement has necessitated that banks conduct research to know what product will woo customers and increase profitability. Nonetheless, innovation comes with a price to pay. This often bring in its wake challenges which often shake businesses to their foundations. Resistance to change is often one of the negating factors to innovation.

In view of this, the purpose of the study was to identify the effect of bank innovations on the financial performance of the Ghanaian Universal Banks. In order to achieve the purpose of the study, three (3) specific objectives guided the study. The objectives were to investigate the relationship between bank innovations and financial performance of universal banks, to explore the factors that influence the adoption of bank innovations by universal banks and to evaluate the challenges and opportunities that arise from implementing bank innovations in the context of universal banks.

The study was grounded on Diffusion of Innovation theory, Technology Acceptance Model theory and Institutional theory. The gist of the Diffusion of Innovation theory is how new technologies diffuse or spreads and gains acceptance or are adopted by individuals or organisations. Technology Acceptance Model theory states in a nut

shell, how individuals behave or how their behaviour is determined by their intention to perform or do what they have intended to do. Institutional model theory talks about how organisations are shaped or affected by the outside environment they operate within.

The study adopted the descriptive survey design. The study area was Ghana, a West African nation with a burgeoning and dynamically evolving banking sector. The study area was Ghana and the target population is Universal Banks in Ghana. Purposive sampling technique was used to sample 15 Universal Banks as the sample frame. Within the sample frame a sample size of 250 participants for the study. The participants were banking staffs who were made up of junior, senior staffs and senior members. The instruments for the data collection was a self-design questionnaire that was made up of five parts, A-E.

The initial steps of the data analysis journey comprised the computation of descriptive statistics, including mean values, standard deviations, as well as the minimum and maximum data points for each variable. This foundational analysis provided an informative glimpse into the central tendencies and the dispersion of data. Subsequently, a meticulous Pearson correlation analysis was conducted, unearthing the subtleties within the relationships between bank innovations and various financial performance metrics. To embark on an in-depth exploration of the influence of bank innovations on financial performance, while considering potential confounding factors, the researchers harnessed the power of Ordinary Least Squares (OLS) regression analysis. Constructing a robust regression model with financial performance as the dependent variable and a spectrum of bank innovations as independent variables, the study aimed to discern the significance and magnitude of these relationships.

The findings from the study reveal that banks that effectively respond to customer demands for digital innovations tend to achieve higher customer satisfaction and, subsequently, increased profitability. Another finding revealed the challenges including, customers being resistant to change, preferring to stick with the familiar products and services they are accustomed to. Additionally, customers may be hesitant to use new innovations if they perceive them as risky or insecure. Despite the challenges, implementing bank innovations also presents opportunities for banks. One significant opportunity is the potential to attract and retain customers.

5.3 Conclusion

For Universal Banks to be innovative, there is a need to:

1. They must include respondents' in the adoption of bank innovations, provides important new information about how they operate in the ever-changing banking.
2. Digital innovation does not necessarily influence or does not lead to performance but non-digital innovations is key to performance.
3. They should place huge emphasis on the regulatory environment and customer demand.
4. Competition with other banks should not move them to adopt innovative strategies that would not be in consonance with their operational environment and customers.
5. Regulatory compliance emerged as a significant challenge. Therefore, they must put in place measures where compliance will be easier.
6. Negotiating the intricacies of regulatory requirements poses hurdles for banks, necessitating strategic approaches to streamline compliance processes.

7. Similarly, ensuring data security and privacy proves to be another formidable challenge.
8. Therefore, there is a need to underscore the importance of robust cybersecurity measures and ongoing staff training to address concerns related to data protection, a critical aspect in the era of digital financial services.

5.4 Recommendation

Based on the comprehensive analysis of the relationship between bank innovations and the profitability of universal banks in Ghana, along with the factors influencing the adoption of bank innovations, challenges, and opportunities, several recommendations can be derived to enhance the impact and effectiveness:

1. **Strategic Emphasis on Non-Digital Innovations:** Given the highly significant relationship observed between non-digital innovations and bank performance, it is recommended for universal banks in Ghana to strategically emphasize and invest in a broader spectrum of innovative strategies. This could include process improvement, product differentiation, and superior customer service alongside technological advancements.
2. **Customer-Centric Innovation Strategies:** Acknowledging the significant influence of market demand and customer expectations on the adoption of bank innovations, it is recommended that universal banks focus on customer-centric innovation strategies. Understanding and responding to customer needs, preferences, and expectations will contribute to higher customer satisfaction, retention, and ultimately increased profitability.
3. **Comprehensive Regulatory Assessment:** Considering the challenges associated with regulatory compliance, it is crucial for banks to conduct a

comprehensive assessment of the regulatory landscape. This includes staying abreast of regulatory changes, fostering a proactive compliance culture, and investing in technologies that align with and facilitate adherence to regulatory requirements.

4. **Organizational Culture and Change Management:** Recognizing the impact of internal factors such as organizational culture and management support on innovation adoption, it is recommended for universal banks to cultivate an organizational culture that values innovation. Additionally, implementing robust change management strategies will help address resistance from employees and ensure a smooth transition to innovative practices.
5. **Continuous Monitoring and Evaluation:** In light of the multifaceted challenges and opportunities associated with implementing bank innovations, it is essential for universal banks to establish a system of continuous monitoring and evaluation. Regularly assessing the impact of innovations, adjusting strategies based on evolving market dynamics, and staying agile in the face of challenges will contribute to sustained success.
6. **Integration of Technology Acceptance Model (TAM):** Drawing from the Technology Acceptance Model (TAM), it is recommended to integrate TAM principles into the design and implementation of strategies aimed at overcoming challenges and fostering the adoption of bank innovations. Paying attention to perceived usefulness and ease of use will enhance the acceptance and utilization of innovative technologies.

5.4.1 Recommendations for future research

1. **Long-term Impact Assessment of Digital Innovations:** Recognizing the non-statistically significant direct impact of digital innovation on performance,

it is advisable to conduct a longitudinal study to assess the long-term impact of digital innovations on the profitability of universal banks in the Ghanaian context. This will provide a more comprehensive understanding of the time dynamics associated with the influence of digital innovations.

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APPENDIX

QUESTIONNAIRE

This research examines the effect of bank innovations on the financial performance of the universal banks in Ghana. The study is for academic purposes only. Therefore, your objective responses will increase the reliability of the study. The responses received will be kept confidential while your anonymity is guaranteed by excluding person identification variables. Please read the instruction(s) under each section carefully to assist you in your answers.

Section A: Respondent Background Information

1. Please indicate your gender ☐ Male ☐ Female

2. What is your age range?

☐ 15- 30 years ☐ 31-40 years ☐ 41-50 years ☐ 51-60 years ☐ above 60 years

3. Please indicate your highest education level achieved

☐ Basic education ☐ SHS ☐ First Degree ☐ Masters ☐ PhD.

☐ Other/ HND

4. Have you personally been involved in the implementation or management of bank innovations in your institution?

☐ Yes ☐ No ☐ Somewhat

PART B: Bank innovations

5. Please tick **(√)** the appropriate response that best answers each question from a scale of 1 to 5 ***[where 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree]***

S/N	Digital innovations	5	4	3	2	1
DIN1	My bank has digital banking platforms that provide user-friendly interfaces that are easy to navigate and use					
DIN2	My bank has Innovations in payment systems (e.g., mobile payments, peer-to-peer transfers)					
DIN3	My bank has Integrated artificial intelligence and automation in banking processes					
DIN4	My bank has integrated banking services across various platforms (e.g., web, mobile, desktop) enhancing the overall banking experience					

S/N	Non-digital Innovations	5	4	3	2	1
NDI1	My bank is effectively incorporating sustainable and eco-friendly practices through innovative solutions					
NDI2	My bank has introduced innovative paperless initiatives to reduce their environmental impact (e.g., reducing paper usage for statements, forms, etc.)					
NDI3	My bank has innovative customer engagement strategies, beyond digital platforms, have been implemented to enhance customer satisfaction and loyalty.					
NDI4	My bank has implemented innovative community outreach programs to address societal needs and contribute positively to local communities.					

PART C: Bank innovations on performance

8. Please tick **(√)** the appropriate response that best answers each question from a scale of 1 to 5 ***[where 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree]***

S/N		5	4	3	2	1
Prof 1	The bank's adoption of electronic banking services has a positive impact on our profitability.					
Prof 2	The introduction of digital financial services has increased our bank's revenue streams.					
Prof 3	Technology-driven cost reduction strategies have enhanced our bank's cost efficiency and overall profitability					
Prof 4	I believe that bank innovations play a significant role in improving the profitability of our bank					
Prof 5	Digital innovations have led to better customer support and issue resolution in the banking sector.					

Source: Gichungu, Z. N. (2015). *Relationship between Bank Innovations and Financial Performance of Commercial Banks in Kenya*. *3*(5). Sujud, H., & Hachem, B. (2017). Effect of Bank Innovations on Profitability and Return on Assets (ROA) of Commercial Banks in Lebanon. *International Journal of Economics and Finance*, *9*, 35. https://doi.org/10.5539/ijef.v9n4p35

PART D: Factors Influencing the Adoption of Bank Innovations and Their Impact on Profitability

9. Please tick (√) the appropriate response that best answers each question from a scale of 1 to 5 ***[where 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree]***

S/N	Factors Influencing Adoption	1	2	3	4	5
FIA 1	The regulatory environment in Ghana encourages the adoption of bank innovations in our bank					
FIA 2	Customer demand and preferences play a significant role in driving our bank to adopt innovative banking services.					
FIA 3	Competition with other banks is a key motivator for our bank to adopt new innovations.					
FIA 4	The availability of technology infrastructure in Ghana facilitates the adoption of bank innovations.					

Source: Domeher, D., Frimpong, J. M., & Appiah, T. (2014). Adoption of financial innovation in the Ghanaian banking industry. *Department of Banking and Finance, Ghana*, 1–114

PART E: Challenges and Opportunities in Implementing Bank Innovations

10. Please tick (√) the appropriate response that best answers each question from a scale of 1 to 5 ***[where 1= Strongly Disagree 2=Disagree 3=Neutral 4=Agree 5=Strongly Agree]***

S/N	Challenges and Opportunities	1	2	3	4	5
Chal1	The bank faces challenges related to regulatory compliance when implementing bank innovations.					
Chal2	Ensuring data security and privacy is a challenge when adopting digital financial services					
Opp1	Implementing bank innovations provides opportunities for our bank to differentiate itself from competitors and overcome challenges					
Opp2	Enhancing customer experience through innovation creates opportunities to attract and retain customers					
Opp3	Bank innovations offer opportunities to expand our market share and customer base.					

Source: Kitsios, F., Giatsidis, I., & Kamariotou, M. (2021). Digital Transformation and Strategy in the Banking Sector: Evaluating the Acceptance Rate of E-Services. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(3), 204. https://doi.org/10.3390/joitmc7030204