INNOVATIONS AND FINANCIAL INCLUSIVITY AMONG COMMERCIAL BANKS IN KENYA

Zachariah Magoka Oburi

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN ENTREPRENEURSHIP AND INNOVATIONS MANAGEMENT, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

May, 2021

DECLARATION

I, the undersigned, declare that this research project is my original work and has not been presented to any institution or university other than the University of Nairobi for examination.

Signed: ______________________________ Date: _27th April 2021

ZACHARIAH MAGOKA OBURI

D66/87270/2016

This research project has been submitted for examination with my approval as the University Supervisor.

Signed: Date: April 21, 2021________________

Professor Bitange Ndemo

Department of Business Administration

School of Business, University of Nairobi

ACKNOWLEDGEMENTS

My deepest and foremost gratitude is to the most high God for his unending favor of good health, protection and provisions while undertaking this study amidst a raging Covid-19 pandemic.

I thank my immediate family, especially my lovely wife Nilla Kwamboka, for the constant encouragement to stay the course despite many onerous constraints, especially of time and resources.

I am incredibly grateful to my supervisor Prof. Bitange Ndemo who gave me the much needed and invaluable guidance from the proposal phase and throughout the project. I very much appreciate his availability, approachability, patience, humility, intellectual depth and insight and dedication to service.

The research data was obtained from senior managers of commercial banks in Kenya, some of them my former colleagues, friends and acquaintances. This study would have been impossible without their cooperation and support in the context of constraints of time and availability aggravated by a raging pandemic that has disrupted workplaces. I am deeply indebted to the managers.

DEDICATION

To my daughter Talia and son Travis. This project, and eventual graduation, should be a testimony of resilience, persistence and hard work from which to draw inspiration.

To my lovely wife Nilla Kwamboka for her unfailing love, prayers, support and encouragement throughout the entire course.

To my late brother Pius Getakwa Onsongo Oburi, whose life was cut short when he was a year away to attaining his master's degree.

Finally, to my parents Samwel and Cornelia Oburi for the gift of life, prayers, blessings and good wishes.

TABLE OF CONTENTS

DECLARATION .... **ii**
ACKNOWLEDGEMENTS .... **iii**
DEDICATION .... **iv**
LIST OF TABLES .... **vii**
LIST OF FIGURES .... **viii**
LIST OF ABBREVIATIONS .... **ix**
ABSTRACT .... **x**
CHAPTER ONE: INTRODUCTION **1**
1.1 Background of the Study 1
1.1.2 Financial Inclusivity 5
1.1.3 Commercial Banks in Kenya 7
1.2 Research Problem 8
1.3 Research Objective 10
1.4 Value of the Study 10
CHAPTER TWO: LITERATURE REVIEW **11**
2.1 Introduction 11
2.2 Theoretical Foundation 11
2.2.1 Schumpeter's Theory of Innovation 11
2.2.2 Diffusion of Innovations Theory 12
2.2.3 Transaction Cost Theory 13
2.2.4 Innovating for Financial Inclusivity and Profitability 13
2.3 Empirical Review 14
2.3.1 Innovative Factors Impacting Financial Inclusivity 14
2.3.2 Relationship between Innovation and Financial Inclusivity 16
2.4 Conceptual Framework 17
CHAPTER THREE: RESEARCH METHODOLOGY **18**
3.1 Research Design 18
3.2 Population 18
3.3 Data Collection 18
3.4 Data Analysis 19

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION 20
4.1 Introduction 20
4.2 Response Rate 20
4.3 Respondents' Demographic Information 21
4.3.1 Work Experience 21
4.3.2 Position Held in the Bank 22
4.4 Descriptive Statistics 22
4.4.1 Innovations 23
4.4.2 Financial Inclusivity 24
4.5 Correlation Analysis 27
4.6 Regression Analysis 28
4.6.1 Model Summary 28
4.6.2 Analysis of Variance (ANOVA) 29
4.6.3 Regression Analysis 29
4.7 Discussion of Study Findings 30
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 34
5.1 Introduction 34
5.2 Summary of the Study 34
5.3 Conclusion 36
5.4 Recommendations 37
5.5 Limitations of the Study 38
5.6 Suggestions for Further Studies 39
REFERENCES 40
Appendices 45
Appendix I: List of Banks 45
Appendix II: Cover Letter 47
Appendix III: Questionnaire 48

LIST OF TABLES

Table 4.1: Work Experience 21

Table 4.2: Descriptive statistics 23

Table 4.3: Financial Inclusivity 26

Table 4.4: Correlation results between innovation and financial inclusivity 27

Table 4.5: Model Summary 28

Table 4.6: Analysis of Variance 29

Table 4.7: Regression of Coefficients 30

LIST OF FIGURES

Figure 4.1: Response Rate 20

Figure 4.2: Position Held in the Bank...22

Figure 4.3: Extent of Adoption of Financially Inclusive Innovations 25

LIST OF ABBREVIATIONS

CBK	Central Bank of Kenya
KBA	Kenya Bankers Association
KCB	Kenya Commercial Bank
MFI	Micro Finance Institutions
MNO	Mobile Network Operators
M-PESA	Mobile Money service by Safaricom
MSME	Micro, Small and Medium Enterprises
M-SWARI	Mobile money service by Safaricom and NCBA bank
NCBA bank	National Commercial Bank of Africa
PSPs	Payment Service Providers
SACCOs	Savings and Credit Cooperatives

ABSTRACT

Over two billion people worldwide, most from Africa, the Middle East, Asia, and Latin America do not have any access to either formal or semi-formal financial services. Globally, innovation has become a key contributor to increased productivity and financial inclusivity for sustainable economic growth and development. Innovations for financial inclusivity continue to gain great interest in the commercial banking industry.Therefore, the objective of this study was to determine the relationship between innovations and financial inclusivity among commercial banks in Kenya.The target population required to complete this study are all the Kenyan commercial banks, since they are at the center of the study, excluding 2 banks currently "In Receivership". The study used primary data collected using questionnaires after which it was analyzed using the Statistical Package for Social Scientists (SPSS v 25.0). Descriptive and inferential statistics were then employed to analyze and interpret the research data and conclusions. This study established a strong and positive correlation between innovations and financial inclusivity and concludes that innovations enable the production of accessible, affordable, and reliable financial products. This was indicated by the correlation findings which revealed the existence of a positive and important relationship between innovation and financial inclusivity (r=0.812**, p=0.000). The r value of 0.812 depicts a value greater than 0 which therefore indicates bieng a linear variable, innovation has a positive link to financial inclusivity. This fact is further affirmed by R square of 0.659 lower than the adjusted R^2 (0.647), the coefficient of determination. This implies innovations explain 65.9% of financial inclusivity while the remaining percentage is captured by the variables other than innovations in the error term. Besides the regression of coefficients likewise indicates that innovations impose a positive and important influence on financial inclusivity (**β**=0.834, p=0.000). It indicates that improving the aspects related to innovations by 1 unit improves financial inclusivity by 0.834 units. The study, therefore, recommends commercial banks to continue embedding innovation in their business strategies and recommends collaboration among themselves and with other industry players to address gaps and constraints and build synergies to deepen the adoption of innovations and foster reach and depth of financial services. The study suggests further research on innovations and financial inclusivity among other financial institutions to increase the scope of applicability of conclusions and recommendations. It also suggests a study with an expanded model including more independent variables beyond innovations to determine the relationship and/or impact on financial inclusivity.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The absence of a significant percentage of a formal financial services population, has negative social-economic effects for economies (Schumpeter, 1951). Thus the, access to finance, in parallel to being a critical sustainable policy metric as one of the main factors of rapid economic growth, has become a principal priority in the economic strategies of government bodies in many nations around the globe. This acknowledges indications that over 2.1 billion individuals globally lack connection to formal or semi-formal financial services, majority of whom reside in Africa, the Middle East, Asia and Latin America (Demirguc-Kunt, Klapper, Singer & Van Oudheusden, 2015). Cull et al. (2013) note that advances in technologies and goods are critical in enhancing monetary equality. In their study. Aggarwal and Klapper (2013) discuss various barriers of entry to financial inclusivity and advice on employing several policies simultaneously to beat the barriers. Furthermore, they point out that some of the barriers of financial inclusivity are the cost and time of opening and maintaining bank accounts.These include the cost of complying with the requirements of documentation. The authors indicate that to curb these costs, there is need to accelerate the process of embracing technological, institutional and regulatory innovations.

The most robust evidence is provided by the success of M-PESA in Kenya where integrations with commercial banks has fueled mobile banking innovations and accelerated financial inclusivity. Today, MPESA users are able to conveniently save and transact assorted remittances and payments frequently without the limitations of

distance or necessarily visiting the bank facilities. The mobile banking innovations catalyzed by M-PESA has placed Kenya among the top globally in financial services innovations and financial inclusivity. Theoretically, several theories can be used to intimately link innovation and financial inclusivity. Three theories chosen from prior studies are used to articulate the connection. Firstly, Schumpeter Theory of Innovation relates innovation to economic development and argues that innovation is the means by which entrepreneurs conceive business opportunities to generate new profits which then draw followers to make investments that end up shrinking the initially huge profit margins earned by the entrepreneurs. Secondly, the theory of Diffusion of Innovations articulated by Rogers (1962) enunciates the spread of innovations in a populace and envisions the process of social change that characterizes the qualities of innovation and the factors that drive proliferation of innovations in a society. Finally, the study also draws from the Transaction Cost Theory postulated by Ronald Coase in 1937 explaining that the growth of a company is hinged on the cost-effectiveness of its transactions as relates to whether or not they are done within it or outsourced. Hicks and Niehans (1983), who proposed that reducing transaction costs would produce monetary developments and accelerate changes in the financial service delivery, referred to this paradigm and argued that the underlying driver of monetary innovations is the lowering of transactions fees, powered by digital progressions.

1.1.1 Concept of Innovation

Coined from the word "innavatus" in Latin, innovation has the meaning of making something new. Rogers, (2003) considers innovation as an idea, object or behavior considered newfangled by its users. According to Schumpeter (1942), an innovation results from new combinations designed by entrepreneurs leading to new products,

markets, processes, business models or sources of raw materials. An innovation can be a significantly upgraded good, service or process under commercialization. (Roger, 1995). Innovation entails the development of new products and production processes to enhance firm operations whereby new products are yielded from new processes (Lawrence, 2010; Tufano, 2002).

The banking sector takes innovation to be the action of developing and commercializing new technologies, financial tool, markets and bodies that facilitate information availability, trading and modes of payment (Solans, 2003). Nofie (2011) defines financial services' sector innovations as the arrival of new and more advanced products or processes that lower the production cost of the existing financial services. Innovation is often attributed to the desire to make the world a better place to live. According to Denning (2004), innovation is a revolution of activities in a society. This definition of innovation conceptualizes successful innovations as those that are adopted by a society with consequent changes to work procedures. An essential element for innovation is its application in a commercially successful way. This is captured by Carayannis, Alexander, & Mason (2006) who see innovation as a more complex term describing it as the commercialization of an invention.

Karagöz and Albeni (2003) posit that innovations emerge from technological change providing new processes and making new products accessible. The process by which a new idea or a new product is acquired is called adoption and innovations go through several stages before adoption. Consumers pass through five stages during the adoption or rejection of a new product namely; awareness, interest, evaluation, trial and finally adoption (Kibera & Waruingi, 1998).

Rogers (2003) identifies five qualities on the basis of which an innovation is judged. The first quality is relative advantage, which refers to the extent by which an innovation is seen, by a particular user groups, as better than the proposed idea, measured as per the users' perception for example convenience, social prestige, satisfaction or economic advantage. The rate of adoption of an innovation is more rapid when its perceived relative advantage is higher. The second attribute is compatibility with existing practices and values. This denotes the degree of extent the extent a new idea is considered to still be compatible with past involvements and potential adopters' requirements. Therefore, ideas that are compatible with people's norms and cultures will be adopted faster than those that are in compatible. Perceived simplicity and ease of use is the third attribute.

New concepts that are deemed easy to express are implemented quicker than concepts that need comprehension of unique skill set. The degree to which an invention, i.e. triability, can be tested is the fourth characteristic, meaning that an invention that can be explored presents its potential consumer with less confusion. The fifth characteristic on which a new technology is evaluated is measurable results, so that the simpler it is for users to view the results of an innovation, the more probable they are to embrace it. Noticeable outcomes stimulate peer discussion and lower uncertainty of an innovation.

The foregoing five qualities determine 49%-87% of the variation in the adoption of innovations (Rogers, 2003). Wejnert (2002) emphasizes the significance of peer-to-peer conversations and networks by postulating that while impersonal marketing methods may disperse information about innovations, conversations and networks drive the adoption of innovations as they help to manage risk and uncertainty through credible guarantees or references to potential users.

1.1.2 Financial Inclusivity

Financial inclusivity is the process whereby financial services like banking products, credit, insurance and other types of equity products and adequate and timely credit are made available when required by susceptible persons, for instance little income groups or weaker sections at relatively lower costs by key financial institutions players (The Committee on Financial Sector Reforms, Raghuram Rajan, 2009). The three important elements of financial inclusivity are access to affordable and timely credit, access to banking services as well as access to financial literacy programmes that educates the people about a healthy financial life.

The World Bank (2014) claims that monetary inclusivity ensures that people and companies have connection, in a fair and equitable manner, to efficient and flexible financial products and services that satisfy their demands- purchases, transfers, deposits, credit and insurance. Hawkins (2011) sees financial inclusivity as constituting all efforts that increase the availability, accessibility and affordability of formal financial services across the entire population. According to Cámara and Tuesta (2014), financial inclusivity is the process of maximizing as the use of and maximizing access to formal financial services while minimizing unintended barriers experienced by individuals who do not participate in the formal financial system.

A financial scheme is inclusive if it has the capacity to provide credit, payments, savings and remittance services to all bankable individuals and enterprises and insurance to insurable people (ATISG, 2010). Financial inclusivity efforts seek to make formal financial services including payment services, deposit and savings accounts, insurance and loans – readily available to all cadres of people and firms, irrespective of the level of income and businesses, regardless of income level, to meet their specific

needs. The segment of the society unable to access timely financial services in a suitable manner from formal sources is financially excluded. Globally, exclusion from formal financial services of the poor people in the world, is being solved by making and implementing innovations by way of new channels and technologies. This is because financial inclusivity is seen as having great potential to contribute to key objectives such as economic growth, increased welfare and sustainability of financial services.

Traditionally, financial inclusivity was more into microfinance which entailed provision of small loans to low-income earners to enable them engage in productive economic activities. Over a period of time, it was demonstrated that a much diverse category of financial services like money transfers, savings and micro-insurance were necessary in assisting the poor to increase income, reduce their risk vulnerability and build assets (World Bank, 2006). In recent years, the drive to help the poor help themselves has broadened, deepened and elevated the concept of microfinance to the concept of inclusive finance (Rhyne, 2007). Helms et al. (2006) observes that, wirh time, the concept microcredit expanded into microfinance then morphed into the notion of developing entire inclusive financial systems – i.e. financial systems in service of the rich and the poor.

The CGAP envisions a domain with an inclusive financial system whereby poor individuals across the globe enjoy a wide access to different financial services that are offered by various financial service providers via unique financial channels. A financial sector that is inclusive in a country exhibits attributes such as a wide range of financial service providers, competition among financial service providers, access to financial services, regulatory and legal environments that ensure that integrity prevails in the financial sector and sustainability with regards to access to financial services (United

Nations, 2016). The experiences and successes of Kenya's contemporary financial services sector demonstrate that innovation is a major driver of financial inclusivity.

1.1.3 Commercial Banks in Kenya

The CBK Supervision Annual Report (2017) describes Kenya's financial sector as fairly well developed comprising of 42 commercial banks, a mortgage finance company, 73 foreign exchange bureaus, 13 Microfinance Banks, several unlicensed lenders, over 3,000 Savings and Credit Cooperatives (SACCOs), among others (Central Bank of Kenya, 2017). Of the 42 commercial banks, 39 are private institutions and 3 are public institutions. Of the 39 private institutions, 24 are locally owned banks and 15 are foreign owned.

Banking today is understood as creative banking. The monetary innovation affiliated with ict transition has completely modified the paradigm of banking and is also attuned to rivalry in Kenya's banking sector. According to the FinAccess Survey (2016), further development in the product, process and market areas has been generated by a competitive economic climate within the financial sector. In the banking and finance sectors, technology has resulted in modern developments in product specification and distribution. Their primary function is consumer support and customer loyalty. There have been several projects in the existing banking sector aimed at delivering improved product offerings with the aid of emerging technology (Intermedia, 2015).

Internet banking has surfaced as a logistical weapon to achieve greater output, operational control and cost savings by substituting paper work and labor-intensive techniques with automation, resulting in greater profit maximization. Central Bank of Kenya (2017) further indicates a slowdown in physical bank branches expansion

between 2014 and 2017 partly attributing the slump to the adoption of financially inclusive innovations described as alternative delivery channels for instance mobile banking, agency banking and internet banking. These alternative delivery channels constitute some of the major innovations in the banking sector over the last decade.

It is evident that over the past decade, there has been continuous evolution in the banking industry with the introduction of a mixed portfolio of new products, driven by intensified competition, adoption of ICT and changing regulatory and customer needs. The dynamism of the banking industry is expected to expand as banks explore new opportunities and adopt innovative products and delivery channels in the face of legal, political and regulatory pressures to reduce cost of banking services and expand inclusive outreach in the provision of banking services (Sutton, 2014).

1.2 Research Problem

Over half of the populace in several third world nations don't have a bank account (Demirguc-Kunt, Singer, Van Oudheusden & Klapper, 2015). Such exclusion has been described as among the biggest barriers to a poverty-free society and financial inclusiveness developments across different distribution platforms, like agent banking, online and phone banking, have drawn tremendous attention across the global banking sector (Van Hove & Dubus, 2019). However, the relationship between innovations and financial inclusivity among commercial banks has received limited scholarly attention, especially in Kenya and across Africa in the third world.

Karmakar et al. (2011) look deep into the barriers of financial inclusivity in India. They collected study data from secondary sources published by the Reserve Bank of India (RBI) and the Central Statistical Organization to build a composite index of financial

inclusion and used multiple regression analysis to identify factors influencing the index. The review identifies resources and systemic limitations on the expansion and widening of accessibility to a variety of services amongst underprivileged communities, particularly rural communities and financially disadvantaged categories, and proposes different developments, such as the adoption of digital identification technologies and transfers to encourage monetary inclusivity.

Shaoyi et al. (1999) examined the factors that can predict the adotion of alternative delivery channels in an empirical study of retail banking in Hong Kong. They used the term "virtual banking" to describe the delivery of financial services through non-physical channels such as mobile phones, ATMs and the Internet. They applied the Theory of Planned Behaviour (TPH) and the Theory of Diffusion of Innovations in the study and used convenience sampling method and sent out 200 questionnaires to the target respondents who were professionals in various corporate entities. They determined that adoption of virtual banking was dependent on attitude, ease of use, visibility, relative advantage, critical mass, efficacy and risk perception and that widespread adoption of alternative banking delivery channels have made banking services more convenient to bank customers.

Notwithstanding the fact that the foregoing researches have been conducted in developed and developing economies, the results may be inapplicable in Kenya due to certain demographic, political, legal, regulatory and other environmental disparities. In Kenya, while Otunya (2006) assessed consumer uptake of mobile banking, Kisia (2006) delved into the factors influencing banking service provision to global businesses among Kenya's commercial banks. It is on this basis that the study sought to establish the relationship between innovations and financial inclusivity among commercial banks

in Kenya. The study was guided by the following research question: What is the relationship between innovation and financial inclusivity among commercial banks in Kenya?

1.3 Research Objective

The objective of the study is to establish the relationship between innovations and financial inclusivity among Kenya commercial banks.

1.4 Value of the Study

Results from this project will provide information to various stakeholders such as the theories of the study, policy makers and entrepreneurship practice. To the theories of the study, the study will help how certain theories link between innovation and financial inclusivity in efforts to justify a strategic focus on expanding and deepening of financial services to customer segments traditionally classified as high risk.

To the policy makers, the research will help stimulate a discussion on probable strategies and solutions to constraints in financial inclusivity innovations in the banking industry. Such a strategic focus will be in alignment with the current economic, legal and regulatory policies of the government mainly focused on expanding access and cutting down the cost of financial services.

Regarding entrepreneurship practice, this study will help in determining the link between innovation and financial inclusivity and how innovations have influenced financial inclusivity in Kenya. As such, commercial banks will be able to assess their ability to foster a conducive environment for institutionalizing financially inclusive innovations and develop customized frameworks for adoption. The research findings will assist to monitor the growth and development of financial inclusivity innovations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Chapter two constitutes of assorted theories and an empirical review on innovation and monetary inclusivity and draw from theories developed by scholars to enable an understanding of innovation and financial inclusivity among commercial banks in Kenya.

2.2 Theoretical Foundation

This research leverages 3 theories of innovation as would be relevant to financial services and the factors influencing financial inclusivity. The theories are: Schumpeter's Theory of Innovation, Diffusion of Innovations Theory and Transaction Cost Innovation Theory.

2.2.1 Schumpeter's Theory of Innovation

Schumpeter maintained that investors envision commercial prospects for new income via inventions. Eventually, rich rewards draw entrants that trigger a multitude of new companies that erase away the profits of the pioneer's inventions. Even so, new needs crop up and new technologies evolve to meet the needs that trigger another series of market cycle in the system until the economy hits balance. Innovativeness is seen by Schumpeter (1934) as a cyclical mechanism consisting of constant hail storms of disruptive innovation and is critical driver for development in a capitalist system.

The Theory of Innovation by Schumpeter is important to this study as it illustrates the crucial position of the innovative quest for incentives to establish value-generating operations that contribute to the revolutionary extension of the circular revenues.

Nonetheless, one of the drawbacks of the thesis is that the philosophy of Schumpeter was that creativity relied primarily on exceptional individuals/entrepreneurs, who were prepared to take on exceptional dangers as an expression of will. Presently, his initial thought has been altered by some researchers.

2.2.2 Diffusion of Innovations Theory

Rogers (1962) postulated the Diffusion of Innovations Theory and explained the uptake of innovations in a population offering three relevant justifications into the process of social change that focus on the qualities that make innovations spread, the importance of peer networks, peer-peer conversations and understanding different consumer segment needs. This concept perceives transition as essentially linked to the reimagining or development of goods and services in order to satisfy customer requirements more effectively. The concept describes the innovations as the mechanism by which creativity is transmitted within a social structure and people play a significant role in the diffusion process. This theory would be applicable to this work as it illustrates how critical initiatives are implemented that usually seek to improve a social system's actions.

The Theory, nevertheless, has many drawbacks, including the following; most of the proof for this hypothesis has not been established to directly refer to the implementation of new habits or health developments; it does not encourage a proactive attitude to the incorporation of a policy; it fits best with the adaptation of habits instead of the avoidance or removal; it does not promote a collaborative approach to the implementation of a program (or innovation) (or innovation).

2.2.3 Transaction Cost Theory

This theory was put forth by Ronald Coase in 1937. The success of a firm relies on if it is cost-effective to carry out its operations in its operational framework, as per Coase (1937), rather than outsourcing. Transaction fees arise as goods or services pass via technical processes through levels. As shown by Hicks & Niehans (1983), reducing processing costs will create significant developments and drive changes in financial service provision. Niehans & Hicks (1983) identified a decrease in transaction costs, powered by technology breakthroughs, as the dominant cause of financial innovations, alluding to the Transaction Cost Theory. Hicks & Niehans (1983) argued, from the perspective of modifications in the economic system, that economic developments are essentially driven by the need to minimize processing costs and financial firms to pursue profit margins.

The Transaction Cost Principle is also important to this report, as it offers the impetus for monetary innovation to improve the efficiency of transactions. Coming from a different viewpoint, the view emphasizes that the financial institution's goal of gaining rewards is the revolutionary motivation of wealth creation.

2.2.4 Innovating for Financial Inclusivity and Profitability

Prahalad (2005), introduced the concept of the Bottom of the Pyramid to advocate the business case for innovations that specifically target the underserved two-thirds of the world's poor population. He postulated twelve principles of innovation that can enable commercial banks and companies to seek the Bottom of the Pyramid mass market segment and address poverty profitably. Among others, the twelve principles of Prahalad (2005) seek to exhort banks, companies and entrepreneurs to see and exploit

profitable opportunities in the Bottom of the Pyramid by focusing on the combination of price and performance, exploring ways of innovating using the newest technologies, building capacity through consumer education and ensuring that solutions, products and delivery infrastructures targeting the Bottom of the Pyramid are simple, scalable, responsive, adaptable, reliable and promote sustainable development.

2.3 Empirical Review

This section reviews empirical literature on innovation, financial inclusivity and the relationship between innovation and financial inclusivity.

2.3.1 Innovative Factors Impacting Financial Inclusivity

Wambua and Datche (2013) used a Case Study of Equity Bank Mombasa County, Kenya to delve into the innovative factors that affect financial inclusivity in the banking industry with key focus on the perceived risk, user friendliness, trust and confidence and anti-money laundering requirements on innovative delivery channels. The research sampled 2000 customers from a target population of 20,585 customers of 5 branches of equity bank in Mombasa County. The descriptive survey research design with both qualitative and quantitative approaches was applied for the study. Data was analyzed using both correlation and descriptive analysis using the Statistical Package for Social Scientists (SPSS). The study established that innovated distribution channels are underutilized, banks rolling out new distribution channels including Agency banking, M-banking and E-Banking still have to make long queues in the banking halls especially at customer service and inquiry counters the existence of innovated channels.

In an exploratory work on market-based factors affecting monetary inclusivity, Ghatak (2013) states that current banking activities are oriented to monetary exclusivity rather

than equality guided by supply and inclusivity, despite the proliferation of financial products. The author extracts and studies a subset of 500 institutions using a simple random sampling process, acknowledging the insufficient attention provided to the detection and resolution of market-based factors of monetary inclusivity. The research shows that availability, community, properties, education and earnings are the major factors of financial inclusivity on the consumer side.

Kalunda (2014) did an empirical study on small scale tea farmers in Nyeri County, Kenya with the objective of establishing the degree and impact of financial inclusivity programs on the farmers. Using the Pearson Chi square method to examine the link between age and gender, the results showed that innovative initiatives in financial inclusivity have targeted Kenyan small-scale tea farmers due to their massive contribution to the economy. The results depict that whereas there is a high degree of credit access, farmers receive inadequate financial education which hampers financial inclusivity. The research therefore recommends that consumer education and counseling need to be integrated in the delivery processes to train the farmers on the utilization of financial services and products issued through innovative financial inclusivity programs.

Ngugi (2012) researched innovations in mobile banking and financial inclusivity in Kenya using a descriptive method. The secondary information between 2006 and 2014 was collected. He applied regression analysis to examine the association between financial inclusivity and innovations in phone banking and concluded that there's a positive linkage and that innovations in phone banking services have resulted in the deepening of financial services in Kenya.

2.3.2 Relationship between Innovation and Financial Inclusivity

Saliu (2015) evaluated the influence of innovative mobile banking services on the financial inclusivity and social-economic status of the mobile money dealers in Kumasi City, Ghana. His study sample was 104 participants selected using the SPSS from among the population of mobile money dealers in Ghana's Kumasi City. The outcome pointed to a significant influence of innovative mobile banking services on financial access, earnings levels, employment status, and general social-economic status of the dealers in Kumasi City. The study depicted a strongly positive correlation between innovative mobile phone bamkng and financial inclusivity.

Nwankwo, Odi and Ogonna (2014) used descriptive study and content analysis to critically investigate the sustainability of financially inclusive innovations to Nigeria's rural population and noted that financial inclusivity innovations are the drivers of inclusive economic growth in any Nation. The research signifies that the economic growth rate of a country depends on innovations that drive sustainable achievement of financial inclusivity among rural masses. The study recommends partnerships between banks and outreach communications agencies to educate the rural population on innovative banking services to attain the financial inclusivity objectives.

Dangi and Kumar (2013) analyzed the status of monetary inclusiveness in India utilizing information and statistics on policy and regulatory measures and reform steps and found that the socioeconomic foundations are strong commercial banks that provide sophisticated banking solutions, accessible and suitable. The study states that by establishing advanced subsidiaries and ATMs and utilizing information and communications technologies to improve operational excellence and providing new and economically inclusive services, the Reserve Bank of India has urged the banking

sector to adopt a network system. The review supports creative business models to drive economic equality in the financial sector and workforce preparation.

2.4 Conceptual Framework

A conceptual framework indicates how the study variables are related. For this research, innovations constitute the independent variable while financial inclusivity will be the dependent variable. Theoretically, and as detailed in the empirical studies above, consumer-centric innovations are expected to increase the level of financial inclusivity. Figure 2.1 shows the conceptual framework for the study.

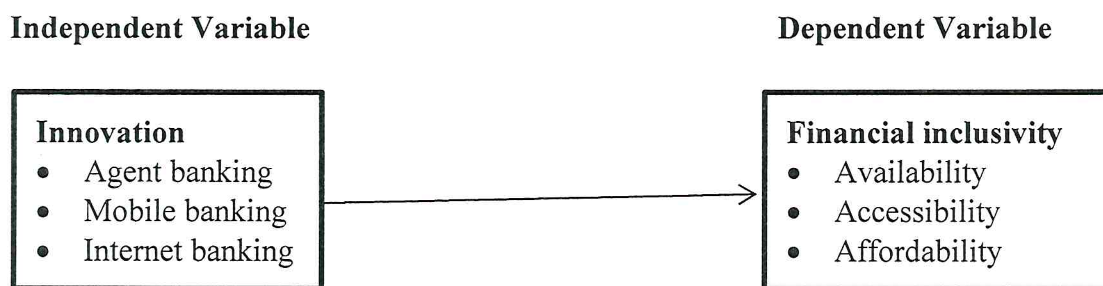

Figure 2.1: Conceptual Framework
Source: Researcher (2020)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, research design, population of the study, data collection and data analysis are presented.

3.2 Research Design

The project utilized design that is descriptive to establish the relationship between innovation and financial inclusivity and determining how innovations have influenced financial inclusivity among Kenyan based banks. A descriptive study mainly describes the relevant components of the phenomena being discussed from an individual, organization or industry perspective. A census survey design was employed by use of a questionnaire sent out to the respondents.

3.3 Population

The intended population on for the study was all Kenyan based banks (excluding 2 banks indicated by CBK as "In Receivership") based on the CBK Supervision Annual Report (2017). With a population of only 43 banks, a census study was undertaken, given the small size of the population. CBK Supervision Annual Report (2017) was used as the source because all commercial banks are regulated by the CBK and its annual bank supervision report is authoritative in this respect.

3.4 Data Collection

Questionnaires with structured and semi-structured questions were Utilized in primary data gathering. The structured questions utilized Likert scale of 1 to 5. Part 1 was mainly comprised of the banks and the respondents' basic information. Part 2 covered aspects

depicting the relationship between innovation and financial inclusivity. It also sought to determine how innovations have influenced financial inclusivity among commercial banks in Kenya.

The target respondents were one senior management officials working as Leaders in Alternative Delivery Channels in every bank. The researcher supplied the questionnaires to respondents and questionnaires were collected later.

3.5 Data Analysis

Data analysis was carried out using the SPSS version 25. Descriptive statistics and linear regression analysis were utilized to analyze the research data. Descriptive statistics expound quantitatively key aspects of the data collected using methods such as percentages, frequency tables, standard deviation and arithmetic mean. The mean measures central tendency and could be used to represent data of the entire population. Standard deviation is widely applied in measuring probability theory and variability in statistics. It depicts the variation from the mean response. High standard deviation (SD) shows that the data are varied over a wide range of values whereas a low SD specifies that the proximity of the data points to the mean is close. The link between financial inclusivity and innovations was established using a regression analysis.

The regression equation model is shown:

$$\mathbf{Y} = \beta_0 + \beta_1 \mathbf{X}_1 + \varepsilon$$

Whereby; Y=Financial inclusivity

β_0= Constant

β_1=Regression coefficient

X_1= Innovations

ε=Probabilistic error term

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The study relied on primary data which was collected using structured questionnaires, and coded into SPSS Version 25 for analysis and presentation. The study findings are presented by way of Tables and Figures.

4.2 Response Rate

The staff serving in senior management positions in commercial banks operating in Kenya, except 2 banks that are currently in receivership, were given 41 questionnaires by the researcher. 31 respondents completed and returned their questionnaires to the researcher representing a satisfactory response rate of 76%. The response rate is depicted in Figure 4.1.

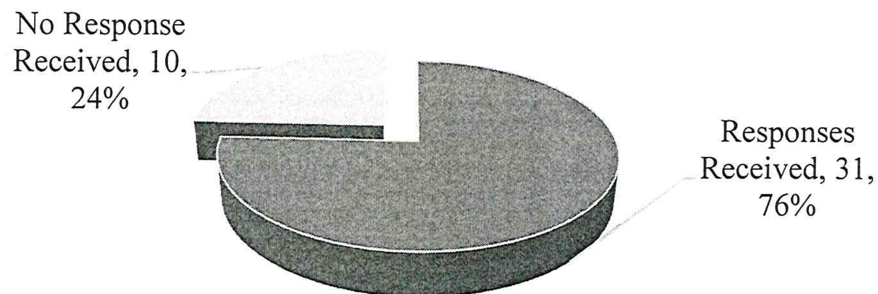

Figure 4.1: Response Rate

Source: (Field data, 2020)

Figure 4.1 indicates that the research study had a response rate of 76% which, according to The University of Texas at Austin Center for Teaching and Learning (2007), is regarded very highly for the study. This response rate was achieved as a result of professional and career relationships and networks that the researcher has developed

within the banking industry which enabled personalized engagement with the respondents to complete the questionnaires.

4.3 Respondents' Demographic Information

To determine the suitability of the respondents in participating in the study, the researcher required respondents to provide relevant demographic information relating to their work experience, as well as their job position in the bank. The study findings are shown in the following sub-sections.

4.3.1 Work Experience

The researcher sought details of the respondents' length of service with their respective banks. The findings are as indicated in Table 4.1.

Table 4.1: Work Experience

Length of Service with the Bank	Frequency	Percentage
Up to 5 years	5	16.1%
6-10 years	18	58.1%
Over 10 years	8	25.8%
Total	**31**	**100%**

Source: (Field data, 2020).

The findings in Table 4.1 indicate that most of the respondents (83.9%) had served their banks for a reasonably long period of time of 6 or more years, split into 58.1% of the respondents having served for between 6 and 10 years and 25.8% of the respondents having been employed in the banks for over a decade. Only 16.1% of the respondents had worked for 5 years or less. These findings demonstrate that the respondents were sufficiently experienced in their banking roles and so equipped with the requisite exposure and skills in their respective banks for purposes of the study.

4.3.2 Position Held in the Bank

For purposes of determining and confirming that respondents were at a decision making senior managerial level in their respective banks, the researcher requested respondents to select one of 3 checkboxes indicating their position. The findings are as shown below in Figure 4.2.

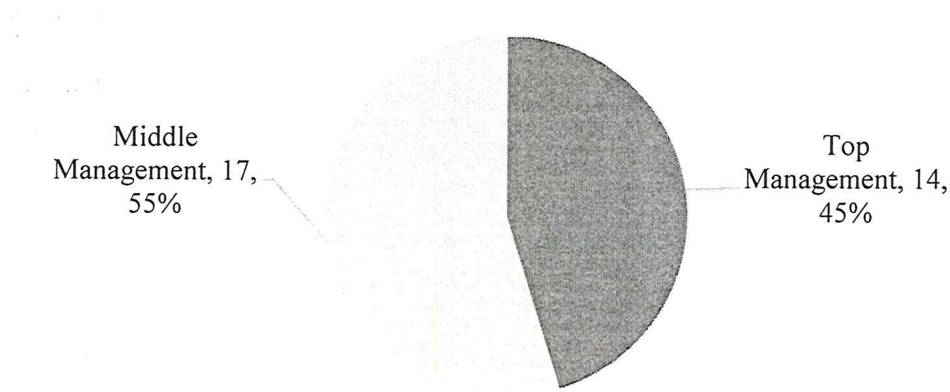

Figure 4.2: Position Held in the Bank

Source: (Field data, 2020).

The findings show that respondents were members of either middle management (55%) or top management (45%) in their respective banks which confirms the researcher's singular reliance on respondents at senior management level with the decision-making capacity and requisite information for the purpose of the study.

4.4 Descriptive Statistics

The objective of the study was to determine the relationship between innovations and financial inclusivity among commercial banks in Kenya. Based on the set objective, this section highlights the findings in terms of basic data characteristics such as mean and standard deviation.

4.4.1 Innovations

Respondents were asked to indicate the extent to which they agreed with each of 6 statements as regards the adoption of innovations such as agent banking, mobile banking and internet banking in their respective banks. A Likert scale of 1-5 where 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree was used. Table 4.2 summarizes the findings.

Table 4.2: Descriptive statistics on the Adoption of Innovations for Financial Inclusivity

Statements	1	2	3	4	5	Mean	Standard Deviation
Adoption of the channels has expanded access to the bank's services by the underserved/unbanked.	3%	6%	13%	61%	16%	3.81	0.91
Adoption of the channels has reduced the cost of delivering financial services.	6%	10%	10%	29%	45%	3.97	1.25
The channels require investments to innovate, for example, infrastructure, people, processes and products.	3%	6%	13%	48%	29%	3.94	1.00
Adoption of the channels has enabled delivery of financially inclusive products.	6%	6%	35%	32%	19%	3.52	1.09
Existence of regulatory guidelines on the channels has enabled adoption.	0%	6%	19%	26%	48%	4.16	0.97
The level of the bank's risk appetite has influenced adoption of the channels.	6%	13%	19%	26%	35%	3.71	1.27
Average						**3.85**	**1.08**

Source: (Field data, 2020).

The findings in Table 4.2 revealed that commercial bank adoption of innovations such as agent banking, mobile banking and internet banking has expanded access to bank services by the underserved (μ=3.81, σ=0.91). The study also showed that the adoption of the innovative delivery channels has reduced the cost of delivering financial services

(μ=3.97, σ=1.25). These results are supported by Onuorah (2013) whose empirical enquiry into the effect of digital banking innovations on the performance of Banks in the Nigeria's banking industry found that channel innovation in financial service delivery improved bank Cost-To-Income (CTI) ratios and profitability. The senior management respondents agreed that such delivery channels require investments to innovate, in terms of infrastructure, people, processes and products (μ=3.94, σ=1.00). The respondents also agreed that the adoption of the innovations has enabled delivery of financially inclusive products (μ=3.52, σ=1.09). These results align with the findings of Ngendakuriyo (2014) arising from his research on the role of alternative delivery channels on financial inclusivity in Rwanda and concluded that digital delivery channels positively impact financial inclusivity.

Further, the respondents indicated their concurrence that the existence of regulatory guidelines on the channels has enabled adoption of the innovations (μ=4.16, σ=0.97). Karjaluoto et al. (2002) agrees with this finding after determining that regulatory and administrative rules strongly influenced uptake of online banking in Finland. The research also shows that the level of the bank's risk appetite has influenced adoption of the channels (μ=3.71, σ=1.27).

4.4.2 Financial Inclusivity

Respondents were asked the extent to which their respective banks have adopted financially inclusive innovations such as agent banking, mobile banking and internet banking. A Likert scale of 1-5 where 1=No extent, 2= To a limited extent, 3= To a moderate extent, 4=To a great extent, 5=To a very great extent was used. Figure 4.3 summarizes the findings.

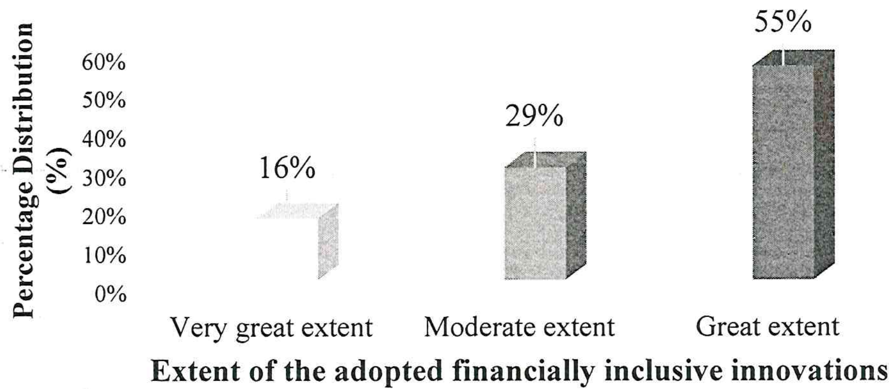

Figure 4.3: Extent of Adoption of Financially Inclusive Innovations

Source: (Field data, 2020).

Figure 4.3 shows that all banks in Kenya have adopted financially inclusive innovations in their delivery channels albeit to varying degrees where 55% of them indicated adoption to a great extent, 29% indicated adoption to a moderate extent while 16% indicated adoption to a very great extent. Banks that have greatly adopted financially inclusive innovations include KCB Bank, Equity Bank, Cooperative Bank, Family Bank and NCBA Bank. These results seem agreeable with the research findings of Oburu (2018) whose study of investments in innovative alternative delivery channels by banks in Kenya found that 89% of these investments are concentrated in 3 banks namely; KCB Bank, Equity Bank and Cooperative Bank, especially with respect to off-branch banking. Whereas inclusivity of Family Bank in the category of banks that have adopted the financially inclusive innovations to a very great extent could also be for reason of its investment in agent banking, inclusion of NCBA Bank is largely attributed to its M-Shwari product.

Respondents were further asked to indicate the extent to which they agreed with each of 4 statements as regards financial inclusivity innovations such as agent banking, mobile banking and internet banking in their respective banks. A Likert scale of 1-5 where

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree was used. Table 4.3 summarizes the findings.

Table 4.3: Financial Inclusivity

Statements	1	2	3	4	5	Mean	Standard Deviation
Financial inclusivity aids the provision of affordable, accessible and relevant financial products to individual and firms.	3%	0%	10%	39%	48%	4.29	0.90
Financially included individuals and firms enjoy certain benefits such as smooth income transaction.	0%	6%	13%	19%	61%	4.35	0.95
Financially included individuals and firms enjoy growing the business with external financing.	3%	0%	19%	48%	29%	4.00	0.89
Financially included individuals and firms enjoy financial security through savings accumulation.	6%	32%	29%	10%	23%	3.10	1.27
Average						**3.94**	**1.00**

Source: (Field data, 2020).

The findings in Table 4.4 showed respondents' agreement that financial inclusivity aids the provision of affordable, accessible and relevant financial products to individuals and firms (μ=4.29, σ=0.90). This finding is validated by Olugbenga and Olankunle (1998) whose study in Nigeria established that a strategic focus on financial inclusivity in payment services drives depth and reach through affordably priced consumer products. Respondents also agreed that financially included individuals and firms enjoy certain benefits such as smooth income transactions (μ=4.35, σ=0.95).

Further, respondents indicated that both firns and invudividuals who were been financially enjoy growing their business with external financing (μ=4.00, σ=0.89). Significantly, they both enjoy financial security through savings accumulation as expressed by respondents (μ=3.10, σ=1.27). A similar finding was reached by Kama and Adigun (2013) in their study of Nigeria's progress in financial inclusivity.

4.5 Correlation Analysis

The analysis to test the correlation was tested by use of the Pearson coefficient which is either positive of negative and denoted by an "r". the coefficient is used to test the direction of one variable on another without showing the magnitude. That is, it tells the researcher is the variables are linearly correlated or not. measures the strength of two variables that in a linear association, with a denotation of r. A value of more of +1 indicates that the relationship is positive, the –1 indicates a negative relationship while a value of 1 implies no relationship (Taylor, 1990; Gogtay & Thatte, 2017) as shown in table 4.4.

Table 4.4: Correlation results between innovation and financial inclusivity

Correlations		**Financial Inclusivity**	**Innovations**
Financial Inclusivity	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	31	
Innovations	Pearson Correlation	0.812**	1
	Sig. (2-tailed)	0.000	
	N	31	

** Correlation is significant at the 0.01 level (2-tailed).
Source: (Field data, 2020).

The results in the table 4.4 revealed that there was a positive and significant association between innovation and financial inclusivity (r=0.812**, p=0.000). The r value of 0.812 indicates a value of greater than 0 which implies that innovation as a linear variable has a positive association with financial inclusivity. The findings corroborate those of Saliu (2015) who found a significant effect of innovative mobile banking services on financial access, income levels, employment characteristics, general living standards and the social-economic status of the mobile money dealers in Kumasi City. The study depicted a strongly positive correlation between innovative mobile banking and financial inclusivity.

4.6 Regression Analysis

Inferential statistics were used to establish the relationship between innovations and financial inclusivity among commercial banks in Kenya. This section highlights the results in terms of the Model Summary, Analysis of Variance (ANOVA) and Regression Analysis.

4.6.1 Model Summary

The Model Summary in Table 4.6 details the results of the coefficient of correlation R and coefficient of adjusted determination R^2.

Table 4.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.812a	0.659	0.647	0.26548

a Dependent Variable: Financial Inclusivity
b Predictors: (Constant), Innovations
Source: (Field data, 2020).

Table 4.5 depicts the results presenting the fitness model of regression which is then used to explain the phenomena of study. It was established that innovations were satisfactory for explaining the outcome of financial inclusivity. Thebsame is further supported by the coefficient of determination, R square of 0.659 which is greater than the adjusted R^2 (0.647). This is evident that, innovations explain 65.9% of financial inclusivity while the remaining percentage is captured by the variables other than innovations in the error term.

4.6.2 Analysis of Variance (ANOVA)

ANOVA is applied ina quest to establish the suitability of the model used. F-statistics is used as the basis of determining model fitness. Table 4.7 below provides the ANOVA summary.

DF = (n-1)

Table 4.6: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.952	1	3.952	56.076	.000b
Residual	2.044	29	0.070		
Total	5.996	30			

a Dependent Variable: Financial Inclusivity
b Predictors: (Constant), Innovations
Source: Field data, 2020

Table 4.6 shows that the model was statistically significant implying that innovations is a good linear predictor of financial inclusivity. This implies that the model used was fit for the purpose of the research study. This is further supported by the F statistic 56.076 where the value was greater than the critical value at 0.05 significance level, $F_{statistic} = 56.076 > F_{critical} = 4.183\ (1, 29)$.

4.6.3 Regression Analysis

The estimates of the regression coefficients arising from the study's regression analysis are tabulated in Table 4.8.

Table 4.7: Regression of Coefficients

	Standardized Coefficients		Unstandardized Coefficients	t	Sig.
Independent variable	β	Std. Error	Beta		
(Constant)	0.726	0.431		1.684	0.103
Innovations	0.834	0.111	0.812	7.488	0.000

a Dependent Variable: Financial Inclusivity

Source: (Field data, 2020).

The model results in Table 4.8 indicates that innovations are positively and significantly influence financial inclusivity (β=0.834, p=0.000). This implies that improvement in 1 unit of the aspects related to innovations leads to an improvement in financial inclusivity by 0.834 units (vice versa is also true). These findings align with the findings of Ngendakuriyo (2014) arising from his research on the impact of delivery channel innovations on financial inclusivity in Rwanda.

Thus, the model can be stated as follows:

$$\mathbf{Y = 0.726 + 0.834X_1 + \varepsilon}$$

Where; Y=Financial inclusivity

X_1= Innovations

ε=Probabilistic error term

4.7 Discussion of Study Findings

The study sought to establish the relationship between innovations and financial inclusivity among commercial banks in Kenya. From the summary of descriptive statistics, the study showed commercial bank adoption of innovations such as agent banking, mobile banking and internet banking has expanded access to bank services by the underserved (μ=3.81, σ=0.91). The senior management respondents agreed that

such delivery channels require investments to innovate, in terms of infrastructure, people, processes and products (μ=3.97, σ=1.25). The respondents also agreed that the adoption of the innovations has enabled delivery of financially inclusive products (μ=3.94, σ=1.00). These results align with the findings of Ngendakuriyo (2014) arising from his research on the role of alternative delivery channels on financial inclusivity in Rwanda and concluded that digital delivery channels positively impact financial inclusivity.

Further, the respondents indicated their concurrence that the existence of regulatory guidelines on the channels has enabled adoption of the innovations (μ=3.52, σ=1.09). Karjaluoto et al. (2002) agrees with this finding after determining that regulatory and administrative rules strongly influenced uptake of online banking in Finland. The study also showed that the adoption of the innovative delivery channels has reduced the cost of delivering financial services (μ=4.16, σ=0.97). These results are supported by Onuorah (2013) whose empirical enquiry into the effect of digital banking innovations on bank performance in Nigeria's banking industry found that channel innovation in financial service delivery improved bank Cost-To-Income (CTI) ratios and profitability. The research also shows that the level of the bank's risk appetite has influenced adoption of the channels (μ=3.71, σ=1.27).

Further, the study findings show that all banks in Kenya have adopted financially inclusive innovations in their delivery channels albeit to varying degrees where 55% of them indicated adoption to a great extent, 29% indicated adoption to a moderate extent while 16% indicated adoption to a very great extent. Top banks that are leading in the adoption of financially inclusive innovations are KCB Bank, Equity Bank, Cooperative Bank and NCBA Bank. These findings are supported by Oburu (2018) who found that

89% of investments for financial inclusivity innovations are concentrated in KCB Bank, Equity Bank and Cooperative Bank, especially as regards off-branch banking. Besides, the study indicated that investments in such financial inclusivity innovations help the unbanked to enjoy financial security through savings accumulation as supported by Kama and Adigun (2013) in their study of Nigeria's progress in financial inclusivity.

This was supported by the findings that indicated financial inclusivity aids the provision of affordable, accessible and relevant financial products to individuals and firms (μ=4.29, σ=0.90). This finding is validated by Olugbenga and Olankunle (1998) whose study in Nigeria established that a strategic focus on financial inclusivity in payment services drives depth and reach through affordably priced consumer products. Respondents revealed that financially included individuals and firms enjoy certain benefits such as smooth income transactions (μ=4.35, σ=0.95). Further, respondents indicated that financially included individuals and firms enjoy growing the business with external financing (μ=4.00, σ=0.89). Significantly, financially included individuals and firms enjoy financial security through savings accumulation as expressed by respondents (μ=3.10, σ=1.27). A similar finding was reached by Kama and Adigun (2013) in their study of Nigeria's progress in financial inclusivity.

The correlation findings revealed that there was a positive and significant association between innovation and financial inclusivity (r=0.812**, p=0.000). The r value of 0.812 indicates a value of greater than 0 which implies that innovation as a linear variable has a positive association with financial inclusivity. This is also supported by the coefficient of determination, R square of inancial inclusivity while the remaining percentage is captured by the variables other than innovations in the error term. These findings align with the findings of Ngendakuriyo (2014) arising from his research on

the impact of delivery channel innovations on financial inclusivity in Rwanda. Besides the model was found to be statistically significant implying that innovations is a good linear predictor of financial inclusivity among commercial banks in Kenya {$F_{statistic} = 56.076 > F_{critical} = 4.183$ (1, 29)}. The regression of coefficients likewise indicates that innovations are positively and significantly influence financial inclusivity (**β**=0.834, p=0.000). This implies that improvement in 1 unit of the aspects related to innovations leads to an improvement in financial inclusivity by 0.834 units. These findings align with the findings of Ngendakuriyo (2014) arising from his research on the impact of delivery channel innovations on financial inclusivity in Rwanda.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter constitutes of a summary of the research findings pursuant to its main objectives, followed by the conclusions and recommendations which are directly derived from its reserach findings. At the end of the chapter, there are given suggestions for further future scholarly studies to develop knowledge in furtherance of the study objective i.e., to establish the relationship between innovations and financial inclusivity among commercial banks, in particular, and innovations and financial inclusivity, in general.

5.2 Summary of the Study

Chapter one started by introducing the basic concepts of the research, that is, innovations and financial inclusivity among Kenya commercial banks. The chapter discussed financial inclusivity, performance and the commercial banks in Kenya. Besides the section presented the research proble, the objective of the study and the value of the study. Chapter two constitutes of assorted theories and an empirical review on innovation and monetary inclusivity and draw from theories developed by scholars to enable an understanding of innovation and financial inclusivity among commercial banks in Kenya. Capter three, then discusses the methos and procedures that guide the research towards data collection and anlysis. This includes the research design pursued, the population chosen for the study, the data collection procedures and instruments as well as the methods used to analyze the collecte data. Thereafter by relying on the collected primary data using structured questionnaires, chapter four presents the

findings which were analyzed by use of SPSS Version 25. Descriptive and inferential statistics were used to analyze and interpret the research data and findings.the findings were presented by way of Tables and Figures. Chapter five finally constitutes of a summary of the research findings followed by the conclusions and recommendations which are directly derived from its reserach findings.

The study, therefore, based on the findings established that commercial bank adoption of innovations such as agent banking, mobile banking and internet banking has expanded access to bank services by the unbanked. The study further indicated that innovations for financial inclusivity require infrastructural, human, process and product investments in order to implement and that investments in such innovations help the unbanked to enjoy financial security through savings accumulation. The research also highlighted that the adoption of delivery channel innovations has reduced the cost of delivering financial services to the underserved segments of the Kenyan population thus fostering financial inclusivity. Further, the study showed that financial inclusivity innovations drive the provision of affordable, accessible and relevant financial products and that all commercial banks in Kenya have adopted various innovations to drive financial inclusivity albeit to varying degrees, with 71% of the banks having adopted above moderate innovations in delivery channels and 29% having adopted moderate innovations.

The regression of coefficients likewise indicates that innovations are positively and significantly influence financial inclusivity (β=0.834, p=0.000). This implies that improvement in 1 unit of the aspects related to innovations leads to an improvement in financial inclusivity by 0.834 units. These findings align with the findings of

Ngendakuriyo (2014) arising from his research on the impact of delivery channel innovations on financial inclusivity in Rwanda.

5.3 Conclusion

The research study aimed focused on establishing the relationship between innovations and financial inclusivity among commercial banks in Kenya. Based onnth findings of the study, several conclusions can be made. First, it concludes that commercial bank adoption of innovations, particularly in product, process and delivery channels, has enhanced financial inclusivity, besides reducing the cost of delivering financial services to the underserved segments of the Kenyan population. Its finding that investments in innovations for financial inclusivity help the unbanked to enjoy financial security through savings accumulation also leads to the conclusion that continued investments in such innovations will not only deepen financial inclusivity, but also increase financial security and the stock of savings in Kenya's wider population.

The study further concludes that innovations for financial inclusivity enable the provision of affordable, accessible and relevant financial products and that all commercial banks in Kenya have adopted various innovations to drive financial inclusivity, even though to varying levels, with most of the banks having made above average adoptions. Moreover, from the study findings, it is concluded that innovations and financial inclusivity among Kenya's commercial banks are positively and significantly correlated such that increase in innovations would increase financial inclusivity. This is especially so with regard to product, process and delivery channel innovations. Similarly, the existence of regulations on innovations foster adoption by commercial banks which further drives financial inclusivity.

5.4 Recommendations

Several recommendations can be drawn from the results and ultimate conclusions of this study. The first recommendation of this study is for commercial banks to continue embedding innovation in their business development, growth and expansion strategies, with a particular focus on investments in product, process and delivery channel innovations, with the aim of fostering reach and depth of financial services. This will help the commercial banks deliver relevant and affordable financial services at scale while also expanding financial inclusivity and increasing financial security and savings accumulation in Kenya's wider population.

Secondly, the study recommends that the government, through the relevant institutions responsible for financial services regulation, provides clear and comprehensive regulations for existing, emerging and new innovations in financial services with the potential of deepening and expanding financial inclusivity. For instance, detailed regulations covering innovations such as blockchain technology, digital onboarding of customers (eKYC), digital savings, investments and loans, among others, will provide clarity, improve transparency and foster adoption by commercial banks which will in turn increase financial inclusivity.

Finally, the study recommends that there is need for collaboration among participants in Kenya's commercial banking industry with the objective of harnessing and optimizing existing and emerging opportunities for innovations for financial inclusivity. Collaboration will help to remove various bottlenecks, harmonize rules, protocols and risk appetites, agree on standards, adopt a common approach to regulatory engagement and build synergies and capacities for a unified and seamless adoption of the innovations across the commercial banking industry. This will quicken

the pace of adoption of innovations and meaningfully deepen and expand financial inclusivity.

5.5 Limitations of the Study

Thus research was conducted amidst the ravaging Covid-19 pandemic which significantly disrupted the availability, attention and participation of the targeted respondents. Therefore, it is possible that the Covid-19 disruptions occasioned workplace exigencies and working arrangements which might have constrained the senior management respondents' ability to provide detailed, well-though-out and objective responses to the questionnaires. Moreover, the study relied on qualitative data, which may be a source of weakness if respondent biases and opinions ended up in the questionnaires as objective responses.

Further, limited time available for this study meant that only a limited analysis of the study variables was feasible. It is possible that more study time would have enabled better modelling and an in-depth analysis including more independent variables beyond innovations in determining financial inclusivity among commercial banks in Kenya, and thus yielding richer, fuller and more extensive findings, conclusions and recommendations.

Finally, the research is solely focused on Kenya's commercial banks, to the exclusion of other financial service providers, such as Microfinance Institutions (MFIs), Savings and Credit Cooperative Societies (SACCOs), financial technology providers (Fintechs), Payment Service Providers (PSPs), etc., all of which are major players in Kenya's financial services industry within the context of innovations and financial inclusivity. Whereas the same findings might apply to other financial institutions undertaking

banking business, such as Microfinance Banks (MFBs) and deposit taking SACCOs in Kenya, it is neither possible nor logical draw any overarching conclusions or recommendations considering this limitation of scope of the researchs.

5.6 Suggestions for Further Studies

This research suggests further research on innovations and financial inclusivity among other financial institutions, including Microfinance Institutions (MFIs), Savings and Credit Cooperatives (SACCOs), financial technology providers (Fintechs), Payment Service Providers (PSPs), among others, to increase the scope of applicability of conclusions and recommendations.

In addition, the study recommends an expanded study with a model including more independent variables beyond innovations to determine the relationship and/or impact on financial inclusivity. This will serve to further inform strategies and action plans of financial sector actors with respect to financial inclusivity.

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Appendices

Appendix I: List of Banks

Serial No.	Banking Institution
1	Access Bank Kenya Plc
2	Africa Banking Corporation Ltd
3	Bank of Africa Ltd
4	Bank of Baroda Ltd
5	Bank of India
6	ABSA Bank Kenya Plc
7	CFC Stanbic Bank Ltd
8	Citibank N.A. Kenya
9	Consolidated Bank of Kenya Ltd
10	Co-operative Bank of Kenya
11	Credit Bank Ltd
12	Development Bank of Kenya Ltd
13	Diamond Trust Bank Ltd
14	Dubai Islamic Bank Ltd
15	Faulu Bank Ltd
16	Ecobank Ltd
17	Equity Bank Ltd
18	Family Bank Ltd
19	Guaranty Trust Bank Ltd
20	First Community Bank Ltd
21	Guardian Bank
22	Gulf African Bank Ltd
23	Habib AG Zurich
24	Housing Finance Bank Kenya Ltd
25	I & M Bank Ltd
26	Kenya Commercial Bank Ltd
27	Kingdom Bank Ltd
28	M-Oriental Bank
29	Mayfair Bank
30	Middle East Bank Kenya Ltd
31	National Bank of Kenya Ltd
32	NCBA Bank Kenya Plc
33	Oriental Commercial Bank
34	Paramount Universal Bank
35	Prime Bank Ltd
36	SBM Bank Kenya Limited
37	Sidian Bank Ltd
38	Spire Bank Ltd

39	Standard Chartered Bank Ltd
40	UBA Kenya Bank Ltd
41	Victoria Commercial Bank Ltd

Source: www.centralbank.co.ke

Appendix II: Cover Letter

Zachariah Magoka Oburi

C/O University of Nairobi

NAIROBI

23rd Sep 2020

TO WHOM IT MAY CONCERN

Dear respondent,

REQUEST FOR RESEARCH DATA ON INNOVATIONS AND FINANCIAL INCLUSIVITY AMONG COMMERCIAL BANKS IN KENYA

I am a post-graduate student at the University of Nairobi's School of Business. I am currently conducting a research on Innovations and Financial Inclusivity Among Commercial Banks in Kenya. This is necessary in partial fulfillment of the requirements for the award of a Master of Science Degree in Entrepreneurship and Innovations Management.

To enable me to accomplish my research, I am conducting a survey to collect relevant data. Therefore, I request for your kind help in completing the attached questionnaires to the best of your knowledge. The information given by you will be treated with utmost confidence and is solely for academic purposes. Whereas giving of a name is optional, you are assured that, even where a name is given, neither will it appear in the final report, nor will it be disclosed to anyone. Upon request, a copy of the final report will be availed to you.

Your cooperation and assistance in this regard will be highly appreciated. Thank you.

Yours Sincerely,

Zachariah Magoka Oburi

Appendix III: Questionnaire

Section One: Demographic Information

1. What is the name of your bank ………………………………………?

2. How many branches does your bank have in Kenya? ……………………………………………

3. How old is your bank?

   0 -10 Years

   11 – 20 Years

   21 – 30 Years

   Above 30 years

4. What is your position in the bank?

   Top management

   Middle management

   Lower management

5. How long have you worked in the bank?

   Up to 5 years

   6-10 years

   Over 10 years

Section Two: Innovations

6. Are there any innovations in your organization?

   Yes

   No

7. If yes in question 8, kindly state some of the innovations that have been implemented in your organization.

1) ____
2) ____
3) ____
4) ____
5) ____

8. Kindly give any other comments you may have about innovations such as agent banking, mobile banking and internet banking in relation to financial inclusivity.

   ....

   ....

   ....

9. Kindly indicate the extent to which you agree with each of the following statements as regards the adoption of innovations such as agent banking, mobile banking and internet banking.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Adoption of the channels has expanded access to the bank's services by the underserved/unbanked.					
Adoption of the channels has reduced the cost of delivering financial services.					
The channels require investments to innovate, for example, infrastructure, people, processes and products.					
Adoption of the channels has enabled delivery of financially inclusive products.					
Existence of regulatory guidelines on the channels has enabled adoption.					
The level of the bank's risk appetite has influenced adoption of the channels.					

Section Three: Financial Inclusivity

10. To what extent has your bank adopted financially inclusive innovations such as agent banking, mobile banking and internet banking?

    Not applicable (No extent)

To a limited extent

To a moderate extent

To a great extent

To a very great extent

11. Kindly state the main reasons for adopting financially inclusive innovations such as agent banking, mobile banking and internet banking.

1) ______________________________

2) ______________________________

3) ______________________________

4) ______________________________

5) ______________________________

12. Please rate your level of agreement with each of the following statements as regards the financial inclusivity innovations (agent banking, mobile banking and internet banking).

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Financial inclusivity aids the provision of affordable, accessible and relevant financial products to individual and firms.					
Financially included individuals and firms enjoy certain benefits such as smooth income transaction.					
Financially included individuals and firms enjoy growing the business with external financing.					
Financially included individuals and firms enjoy financial security through savings accumulation.					

Your participation and assistance is highly appreciated!