

**THE INFLUENCE OF LENDING INNOVATIONS ON GROWTH
OF COMMERCIAL BANKS IN KAJIADO COUNTY, KENYA**

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DECLARATION

The research project is my authentic effort and never placed for the award of a degree in any university before.

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This research project has been submitted for examination with my approval as university supervisor.

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DEDICATION

Dedication for my work is for my family and friends for the sacrifice they made for me to complete the project.

ACKNOWLEDGEMENT

I applaud Lord God for the ability, wisdom and health to write the research to completion. Not forgetting my family for providing so much support which is the most needed for this research project. I acknowledge the tireless effort of Dr. Kennedy Ogollah for guiding me in this research project development. Your support is valued.

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ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
CBK	Central Bank of Kenya
CBS	Central Bureau of Statistics
CGK	County Government of Kajiado
FIN-TECH	Financial Technology
GDP	Gross Domestic Product
GOK	Government of Kenya
ICGE	International Centre for Economic Growth
ICT	Information Communication Technology
IEMS	Institute for Emerging Market Studies
IPA	Innovation for Poverty Action
KCB	Kenya Commercial Bank
KIPPRA	Kenya Institute of Public Policy Research Authority
KNBS	Kenya National Bureau of Statistics
MSME	Micro, Small and Medium Enterprises
OECD	Organization of Economic Cooperation Development
R&D	Research and Development
SACCOS	Savings Credit Cooperative Societies

ABSTRACT

Commercial banks have been adopting technological digital banking platforms to improve in serving their customers and one aim of technological advancement is to leverage on credit facilities or finance for businesses and personal bankers. As a result, this research delved to discover the impact of lending innovations and their influence on growth of Commercial Banks in Kajiado. The research employed neoclassical growth theory as well as the lending without access to collateral theory. The design employed was descriptive survey design. The respondents were sampled from 10 Commercial Banks operating within Kajiado County. Stratified sampling was used in the study as it provides accurate results and each subgroup of research gets represented. Data collection was by questionnaires in a Likert scale format. The data was analyzed quantitatively through descriptive and inferential analysis such as means, standard deviation, and regression analysis. The statistical packaged was adopted to streamline study analysis. The regression analysis findings showed that innovations in lending have significant impact to growth of Commercial Banks in Kajiado County which implies that an increase in lending innovations leads to an increase in growth of Commercial Banks in Kajiado County. The findings led to the conclusion that lending innovations have a positive and significant impact growth of Commercial Banks in Kajiado County in Kenya. The impact is also significant since in this era of digital banking, offering loans through digital means is important in enhancing easy access thus readily availing funds to SMEs and for personal use. It was therefore concluded that lending innovations such as extending loans through mobile platforms, loans through software applications (apps) and online loan applications affect commercial banks growth significantly. The study findings led to the recommendations that Commercial Banks should enhance technological adoption of lending which are easily accessible to borrowers so as to use it to boost their operations and enhance their growth. Further, the study recommends commercial banks to provide more digital loan platforms and increase awareness regarding digital loans especially to small businesses and personal users so as to enhance utilization of such platforms which will improve operations and growth of the commercial banks.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Maranville (1992) defines innovation as a means of making something new. In today's world, financial institutions have adopted new ways of doing business with their clients. The traditional banking system such as brick and mortar are on the brink. Banks have adopted these new method basically to capture new markets which were previously considered risky and to increase their business activities. Innovation in banks is manifested in internet banking or online banking where users execute transactions by aid of internet. Users can deposit and withdraw cash at their comfort.

Mobile banking is popular especially in Kenya as it allows customers to perform a number of transactions through a mobile device such as utility bills payment and other mobile payment services and nowadays financial access. Multinational banking is a form of bank innovation where a bank operates other of its branches outside its country of operation. In Kenya there are banks such as Equity which operates branches in East and Central Africa. Individuals and SMEs in Kenya have had challenges around their businesses. Access to finance to grow their businesses and access the business management skills has been elusive but with banking innovations, an increase in the number of businesses overcoming these challenges is on the horizon.

This study adopted two theories such as neoclassical growth theory proposed by Robert Thomas and lending without access to collateral theory by (Sam & Suresh, 2006). The first theory defines innovation as an important idea of economic change and put forth that changes in economy is influenced by entrepreneurship, innovation and skills for a given market. It focuses on how market innovations affect capitalist

systems. It shows how industrial changes such as that of a competitive market to a monopolistic one Reinert (2006). The second theory suggests there are ways such as unsecured loans and loan defaulter control in which financial institutions have adopted in mobile and online banking loaning platform.

The financial and banking sector in Kenya has witnessed a revolution in product development and service delivery mainly through process innovations. Financial institutions and banks are coming up with new ways of capturing the intended markets and to also meet the demands of their specific markets. Financial technology to be specific has been on the rise with financial institutions and telecommunication companies partnering in order to come up with market resilient products and services. The adoption and use of these financial technologies by producers and consumers led the researcher to find out how these innovations have impacted mainly the financial institutions as far as their business growth is concerned.

1.1.2 Lending Innovations

Financial Sector Deepening (2018) indicates that a loan on digital platforms have taken over as source of loans leading in the country today. Individuals, groups, even SMEs usually borrow loans to finance their business activities or for personal use. Furthermore, one in four Kenyans have accessed digital loan. It estimates that 27 percent of Kenyan adults have accessed the loans out of over 6 million loanees. Despite this, a good number of citizens have never employed digital credit. Most non-borrowers explained that they are not aware of the digital credit.

Others explained the reason being they wanted to avert debts out of fear; others did not need the facility or lacked awareness about existence of digital lending platforms. 13 percent indicated that they hardly borrow since they are unqualified for

the loans. Moreover, interview with service providers confirmed, rate of loanees who have low scores in credit are unqualified for the loans is higher (FSD, 2018). The report further indicates that 51 percent of Kenyans have phones but have never borrowed digitally, 10 percent borrowed money in the last 90 days, 17 percent borrowed digital loans in the last 90 days while 23percent do not own personal mobile phone and unlikely to borrow digitally.

Financial Sector Deepening (2018) reported that M-shwari was leading the digital market in credit though other interested entrants were on toes. It has benefitted from early adoption advantage and it has twice as many borrowers than its competitor KCB Mpesa and all offer services through Kenya's telecommunication company Safaricom. Largest banks in Kenya i.e. KCB , Equity limited and Cooperative have their online loan platforms beginning 2016 either by collaborating with Safaricom (KCB), founding own virtual network operator (Equity's Equitel) or establishing own Smartphone application such Coop bank Mcoop cash. Financial technologies have ventured the Kenyan market including Tala and Branch. The recent years has seen the entry of unregulated players.

Although no known cases of fraud or privacy matters have been realized, there exists a need to establish a body that regulates these growing market segments. As finance is a critical catalyst of economic growth. Accessibility to finance for especially by citizens and SMEs is a projection of growth in economy. Notable improvements in finance access since 2006 has been made. Success of Mpesa platform which was introduced by Safaricom Telecommunication Company, there has been a great breakthrough. Formal banking has grown in the country with access rising from 18 percent in 2006 to 22.6 percent in 2009. While these changes have helped individuals,

banks and investors have also been constantly increasing the debt and equity markets for small and medium enterprises accessing finances. The venture capital market financing is expanding. Venture capital invests in early stages of SMEs development from seed capital to startup to expansion are key drivers to innovation in many ways.

1.1.3 Commercial Banks Growth

A total number of banks operating in the country are 40 with charterhouse bank under statutory management and Imperial Bank under receivership operates within the country. Financial inclusivity in the country has been rising with the number of persons in a radius of 3 miles of a access to finance services increasing to 77 percent in 2017 from 23 percent previously. It is ridden by digitization, with financial services through mobiles services increasing to be the priority method (Cyttonn, 2018).

Listed banks in Kenya, recorded a growth of 19 percent in first half of 2018 in comparison to same period in 2017. This was attributed to improvement in net interest profits together with increase in non-funded income with banks adapting to operating under the interest rate cap policy. The sector had improved efficiency as the cost to income ratio improved to 55.7 percent from 59.2 percent in first half of 2017 (Cyttonn, 2018).

The report further highlights growth drivers of the banking sector to adoption of latest technical knowhow for efficiency where banks have been depending on digitization wave to leverage their services. Implementation of mobile, internet and agency banking channels, diversification of revenue streams where banks have capitalized to increase their sources of revenue as they get to operating under interest rate cap. Banks have leveraged fees and charges on loans and ventured into areas such as banc assurance (Cyttonn, 2018).

1.2 Research Problem

Growth of business is a process where the business attains the point of expansion and needs extra options to bring more proceeds. It is a lifecycle, industry growth trends, and the owners' wish for equity value creation (Abdiaziz, 2012). Persons and SMEs have had problems of access to credit facilities or finance from commercial banks and even microfinance institutions. Finance aids in the external growth of a business which is sometimes difficult for a small business to arrange (Abdiaziz, 2012).

Key performance indicators in business include; demand where growth prospects of a business depends largely on need for a business. It helps especially when the business wants to expand. Second, are the profits and losses. Profit is the net income after expenses while losses are expenses that exceed revenue (Hoang & Paul, 2010). Financial records such as income statements and balance sheet are important here. Revenue is also an indicator of growth in business. It is important to check the revenues versus profits to ascertain growth. Sales or turnovers are also an indicator and it is essential to evaluate the sales that are driving business revenue.

Commercial banks provide banking services and improve financial access, and services including remittances, savings and deposits which are critical in poverty reduction. Savings promote investment in profitable assets such as livestock. Credit assists in venture expansion activities and insurance ensures proceeds for a family if the breadwinner becomes sick (Mehrota *et al.*, 2014). Commercial banks need to change their perspective of poor people as productive and prospective clients. Expanding branches is expensive, though technological innovation can provide solutions.

Wambari (2009) notes that mobile phones are now affordable even by the poor. Notable importance is network coverage can reach even the remote areas with portable phones. Fasih (2012) explains that commission free system founded on real assets and the risks are shared between the lender and borrower under the mechanisms of partnerships, sale and lease. According to IEMS 2015 on financing small, medium enterprises in China says, SMEs represents the foundation to Chinas economy but lack access to loans (Fasih, 2012). They depend sources including informal finance, online peer to peer (P2P) platforms, registered NBFIs and underground financiers.

Gamage and Bandula (2015) in their study, concluded that to overcome SMEs constraints in accessing credit, customer friendly loan processes, finance tools that are SMEs friendly, capacity building to bank staff on how to handle SMEs, developing small businesses rating agency and re-engineering cluster based approach in small businesses financing. Deloitte Report (2014) about Digital Banking concluded that incumbent banks benefit via supplier chain financing. They also have access to payments data for better credit risk assessment and payment visibility for credit extension. Most importantly, they will gain SME market leadership in the SME banking industry. Incumbent banks in the region have to innovate business models that perform better and collaborators will see them meet the requisite solutions to serve the unserved and underserved market (Deloitte, 2014).

Njogu (2014) focused on financial performance only and excluded other factors such as time, effectiveness, convenience of the banking innovations and non-financial bit of the banking innovations. It did not focus for instance on latest banking innovations such as GSM SIM tool kit and the fin techs.

The study on Fin techs indicated that the role of technology in finance was the focus in the discussion on how to improve financial inclusivity for lower cadre people in economies that are growing. But the benefits for MSMEs have received little focus so far (Mehrota *et al.*, 2014).

This is why the study on lending innovations and their influence on growth of commercial banks in Kajiado was important. Correlation between these banking innovations and growth are undisputed. The research was worth taking since banking innovation revolution has been happening at the fastest rate. This research sought to study the linkage in lending innovations and growth of Commercial Banks. This led to the research question: what types of lending innovations are there and how have they influenced the growth of commercial banks in Kajiado County of Kenya?

1.3 Research Objective

The research study delved to determine how lending innovations have influenced the growth of Commercial Banks in Kajiado County of Kenya.

1.4 Value of the Study

Study is important to government business policy making. The government through the Central Bank of Kenya shall draft policies in the banking sector that will be beneficial to financial institutions as well as small medium enterprises. Policies on taxation and business regulations shall be crucial in increasing government, financial institutions and also personal and MSME borrowers in Kenya.

Recently, the banking sector witnessed criticism on consumer exploitative digital banking platforms with players such as Central Bank of Kenya calling for creation of policies that regulate the digital loans and savings platform to curb customer exploitation. The study findings benefits both the banking and SME players in Kenya as it highlights the crucial findings that can enable financial institutions know whether they are ahead of competition, giving value to their customers, cutting down on costs while increasing revenues. It will be of significance for players in financial sector to know what their markets prefer or value most among their innovative initiatives.

The results of the study will assist the players know when to carry on with innovations and also asses their impacts and new trends. The small and medium entrepreneurs can also benefit to the level that it can help them understand new trends, the most effective innovation in banking, the cost effective innovations and also minimize cases of loss due to crime, time wastages and also best services providers. The study can also be helpful to future researchers as it gives them hints on what innovation entails areas of study and also future areas of research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Overviews about foundational theory of the research, the empirical theories that inform the basis of this study are analyzed in this section. This section will give an overview on studies that have been undertaken and their outcomes. Studies that revolve around the research topic carried out by other scholars or institutions were crucial in comparing the outcomes and gaps of this study. The study narrows down to two theories: Neo classical theory and lending without access to collateral theory.

2.2 Theoretical Reviews

The study narrows down to two theories including, neoclassical growth theory by Robert Thomas, lending without tying the collateral theory by Sam and Suresh (2016). They will be applied to give an explanation why economies and lending institutions need to adopt change in the financial sector to improve efficiency and cultivating further financial inclusions to segments of the Kenyan society who were previously financially marginalized. The theories will also be used to explain why innovation is critical to the financial sector in order to keep them ahead of the market as they maximize their returns, cut down of operational cost and enhance customer satisfaction in their areas of operation.

2.2.1 Neo-Classical Growth Theory

A theory about economy which analyzes how constant economic rate of growth can be attained with the factors of production: technology, labor and capital. It reiterates, changing levels of capital and labor in the productivity aspect, an equilibrium form can be attained. It suggests that technological change has an effect on economy, and economic growth will fail without evolution and revolution in technology (Antonietta, 1987).

It further indicates, equilibrium temporality and growth can be met by factoring the right mix of the production factors .It further provides clarity that temporary equilibrium varies from long term equilibrium, which is achieved without the technology, labor and capital factors required for immediate prosperity. Theoretical function of productivity argues that the accumulation of capital within an economy and the function that capital is critical for growth in economy. The relationship between labor and capital of an economy contributes to its output. Technology augments labor productivity and improves the output capabilities of labor (Antonietta, 1987).

Its criticism emanates from entrenching some normative biasness. Alfred & Jan (1975) further explain that this means it does not focus on analyzing actual economies instead it focuses on describing a theoretical world in which pareto optimally applies. Pareto optimally, is a state of resource allocation from which resource reallocation is impossible in order to create criteria preferred without making the other worse off.

2.2.2 Lending Without Access to Collateral Theory

Microfinance and micro loans sectors are coming up as platforms where lower income households can accumulate savings and access to loans. On the contractual features, administrative and monitoring expenses are inclusive upon loan disbursement. Sometimes administrative expenses are high but assist in keeping rates of non-payment low but rendering cost of loaning high. GAP (2003) noted that an administrative cost varies from 18 percent in Asia to 38 percent in Africa.

Credible penalties upon nonpayment is where the lender must be able to communicate credibly ,ex ante ,that no payment by the group or individual leads to extra costs to the group or individual including non-access to further loans (Sam & Suresh 2006).

This is done in two ways where defaulters are selected and they have limited access for formal credit and institutions such as Credit Reference Bureaus in place so that lenders share information about defaulters and enforce penalties. Often the strategies borrowers are promised more credit if they pay the existing loan facilities.

The critic of this theory is that it fails to study or monitor subsequent borrowing by borrowers. There could be some factors that affect subsequent borrowing such as death of the borrower or some incapacitation such as terminal diseases. There needs to be an analysis of the fate of subsequent borrowings by individuals after payment and clearance of the first loan facility.

2.3 Empirical Review

Karambu *et al.* (2015) notes that majority of SMEs utilize internet banking and alternative channels to a moderate extent. In addition, MSEs had set aside a moderate budget for adoption, maintaining and upgrading banking, M-Banking and alternative channels. The study however does not indicate budget estimations set aside for the above banking models bearing in mind those SMEs are always faced with finance challenges let alone budgeting for internet banking. Karanja *et al.* (2013) noted that the incentives for innovative employees influence growth of SMEs to a large extent. While it points out staff motivation as a factor in SMEs growth, it's good to note that innovation and business growth may not always be dependent on staff motivation.

Study about interrelationship of financial inclusion and growth in economy within different regions in Spain conclude that in many countries there are institutions that finance small, medium businesses and households and also their capital markets. There is a significant interrelationship in financial inclusivity and growth of gross

domestic product. Entrepreneurship innovations contribute positively to GDP, investments and growth in savings. The study was however not specific to the type of innovations that facilitate business growth as there is positive and negative innovations i.e. innovations that work and those that fail (Carbo *et al.*, 2001).

A study by Ibrahim (2016) on product innovation in Islamic Banking and Growth of SMEs in Nairobi concludes that various financial innovations in Islamic Banking have positively affected the growth of SMEs. SMEs have embraced products designed the Islam way of faith (Ibrahim, 2016). The innovations in agency banking, mobile banking tailored towards growing SMEs addressed generating, branding, access, customer needs, security, communication, customer segments and customer satisfaction. Ibrahim's study focused on Islam community and SMEs leaving out the other faith in the area. The study was limited to Muslims locking out SMEs of non-Muslim who would otherwise give out valuable information for the research study.

Kenya Bankers Association (2013) noted that Kenyan banking industry has proven to be innovative when it comes to financing SMEs. It denotes that although this may be little known fact, the industry's leadership has manifested itself in the increasing number of SMEs that are now able to access funding from commercial banks. Much as Kenyan banking industry boasts of growth in SMEs out of their financial services its critical to note that many SMEs still cannot access credit facilities due to high interest rates and collaterals which are critical when it comes to borrowing. Increasing fraud cases even by bank staff themselves pose a threat to the banking industry and financial services they offer.

Ndikubwimana (2016) conclude that, in Rwanda, SMEs are still using traditional and informal practices applications to their businesses. This is because many SMEs still lack modern skills in entrepreneurship and innovation which implies they lack capacity building in their area of specialization. To achieve this, financial institutions have to be involved by allowing subsidized loans, guarantees and specialized loans to customers. This study fails to recognize that most financial institutions are private and as such cannot offer free services or subsidized financial products. It is government responsibility to facilitate the favorable climate for small businesses to flourish and not private businesses (Ndikubwimana, 2016). Organization of Economic Community Development (2014) proposes that SMEs growth should be part of the national policy and framework development. Developing market institutions should be reinforced through training of relevant institutional infrastructure.

Mellon (2015) concludes that it is important for financial institutions to re-engineer their SME business processes intentionally to deliver superior services that the SMEs customers anticipate. Obsolescence in lending is no choice in irreversible progress of alternative SME lenders. Finance institutions should innovate to grow organically in their SME lending business and wherever possible formulate joint ventures with leading alternative lenders as a strategic tool (Mellon, 2014). Mellon (2014) indicated that adopting a fintech-friendly strategy in a timely manner can drive banks into digital world and put them at the centre of the modern game, enabling them provide up-to-date tailor made solutions that brings out value and meet the changing needs of their customers. SMEs have not been left behind in using the latest modes of payments in financial industry even though it has led into temptations of over borrowing or under borrowing by SMEs which leads to poor business management practices.

2.4 Summary of Literature Review and Gaps in Knowledge

Theories of neo classical growth theory by Robert (1960s) that examined the importance production factors such as capital, labor and technology are critical for economy growth of a country. The study influence of lending innovation on growth of commercial banks in Kajiado County utilized this theory as it analyses and argues on how technology and capital factors are critical for growth of an economy. Financial institutions have adopted modern technologies to avail capital to borrowers which were previously considered high risk. This has promoted financial inclusion of this category and thereby enhancing economic growth. In addition to neo classical growth theory, the theory of lending without access to collateral Sam and Suresh (2016) explains the category of the targeted market. Small businesses were initially considered high risk when it came to lending. One of the reasons was they cannot afford collateral for loans. Financial institutions through their lending innovations have tried to mitigate this and allow borrowers access loans without necessarily providing collateral.

The empirical review on studies done by Kenya Bankers Association (2012) denotes that Kenyan banking sector has been innovative when it comes to financing. This is manifested by the increasing number of businesses that are capable of accessing credit from commercial banks. Mongare (2017) concluded that influencing growth of innovative financial institutions; factors such as entrepreneurial competencies and access to finance have to be given priority. There are knowledge gaps that need address such as cases of loan default and also the extent to which financial institutions have adopted these lending innovations.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

It analyses methods adopted in this study. It entails design of the research, data collection, techniques in sampling and population which was adopted and also data analysis. The descriptive research design is more effective as it allows for in depth study of research problem hence reliable and credible outcomes.

3.2 Research Design

Mohamed (2013) defined design of the research as a methods and procedures of gathering and variables analyzing measures employed in research problem. The design employed was descriptive survey design. The method is effective since it describes variables by achieving in-depth information and the selected items can be described fully by being examined.

Specifically it aimed at allowing researcher achieve detailed study of the problem. The design also facilitated the use of open and close ended questions. It is therefore found appropriate for the research because of the variables in employed. Furthermore, the study employed quantitative techniques.

3.3 Population

This was sampled from ten Commercial Banks in Kajiado County. Kenya has 42 licensed commercial banks (Central Bank of Kenya, 2016).The selected bank staff in credit, finance and customer care departments are believed to have experience with lending innovations in their organizations including their performance. These staff was also instrumental in providing reliable information regarding the innovations.

Furthermore, their feedback was analyzed to give satisfactory outcome for the study report. Table 3.1 shows the population.

Table 3.1: Target Population

Unit	Staff Number	Percentage
Customer care executives	15	16.67
Credit Risk Evaluators	10	11.11
Finance managers	10	11.11
Relationship managers	16	17.78
Accounts Officers	19	21.11
Loan recoveries officers	20	22.22
Totals	90	100

Source: Researcher (2019)

3.4 Sampling and Sampling Techniques

According to Mugenda and Mugenda, (1999) sample refers to a smaller group obtained from the accessible population. This subgroup is carefully selected so as to be representative of the whole population with the relevant characteristics. On the other hand, Sampling is a procedure, process or technique of choosing a sub-group from a population to participate in the study (Ogula, 2005). It is the process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they were selected.

Sampling aids in making inferences on statistics about respondents. The study influence of lending innovations on the growth of commercial banks in Kajiado County was centered on employees in 10 commercial banks that continue to offer services and loan products within in Kajiado County. Stratified sampling was used in the study as it provides accurate results and each subgroup in the study gets represented.

3.5 Data collection

This is a method of collecting data on concentrated category using a well-organized form that allows one to respond to important questions and evaluate outcome (Burns & Grove, 2003). There are two usual approaches of gathering information. They include primary and secondary methods of data collection. Gathering primary data refers to collection of information from the first hand respondents. For Secondary information, is gathered from documents, published journals, periodicals, published financial statements and libraries.

In this study, both primary and secondary methods of data collection were employed. For the sake of primary data collection a questionnaire of closed and open ended questions was used to target 90 respondents. The question was divided into three main sections. Section one discussed the general information of the respondents or the organizations. The second section captured lending innovations, and finally the third section established the impact of lending innovations on growth of commercial banks. Questionnaires were used in the study. As a result the responses were analyzed quantitatively.

3.6 Data analysis

Effectiveness and consistency were used create questionnaires to ensure that respondents gave their feedback precisely. Data collected was corrected of any anomalies. It was coded and fed into SPSS (V.22) to form a sheet for analyzing. It employed statistics in descriptive form including mean scores and percentages and standard deviation to decide varying degrees of responses on various questions used.

In addition, inferential statistics of correlation and regression were used to find the study's quantifiable variables relationship. Accordingly, correlation in Pearson's and univariate regression analysis established the interrelationship between lending innovations and growth of commercial banks in Kajiado County, Kenya. Statistical tests were at 5 percent level of significance. Feedbacks were values in numbers that are in line with codes in numeracy. Below equation indicates the regression linear model of the independent variable against the dependent variable.

$$Y = \alpha + \beta_1 X + \varepsilon$$

Where: Y is Growth of commercial bank

α is constant (Y intercept)

X is lending innovations

ε is the error term

CHAPTER FOUR : DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

Analyzed data, presentation of outcome and discussion of the outcome are made in this section. It contains results on general information, descriptive results and inferential statistics of correlation and analysis of univariate regression done to evaluate the relationship of dependent and independent variables. 90 questionnaires were given to respondents who were given ample time to fill them. All of them were properly filled and returned representing 100% in feedback. This rate confirms theory by Kothari (2011) who argued that a 50 percent rate or more was significant for a research study in descriptive format.

4.2 General Information

It established general information regarding respondents and some aspects on lending innovations before conducting inferential and descriptive analysis of the data collected. This section therefore provides detailed information regarding the department respondents worked in, type of lending innovation, range or limit of loan amounts a client can access, criteria used by the organization in awarding loans, digital loans covered by the organization to mitigate against default, the most utilized form in accessing loans, the cost of the loan as pertains interest rates, uptake rate of digital loan facilities provided by the commercial banks to borrowers and whether the digital loans facilities provided have defaulters.

4.2.1 Respondents Department

Research established the respondents departments. As shown in the findings presented in Table 4.1, it was established that majority of the respondents, 76.7%, were from the customer care department followed by 20% of the respondents who were from the credit department. Only 3.3% of the study's respondents were from the public relations department. The findings of the study imply that departments that were targeted were well represented. The findings also imply that information was collected from the right target group and that there was no bias on who participated.

Table 4.1: Respondents Department

Department	Frequency	Percent
Credit	18	20
Customer care	69	76.7
Public relations	3	3.3
Total	90	100

Source: Research Data (2019)

4.2.2 Meaning of Lending Innovation

The study also established how the respondents comprehended the meaning of the concept of lending innovation among commercial banks. The outcome in Table 4.2 showed that most of the respondents, 65.6%, understand lending innovations as a new loan product and service while 34.4% understand lending innovations as a new loan service. The findings of the study imply that the concept of lending innovation is well understood among commercial banks.

Table 4.2: Meaning of Lending Innovation

Lending Innovations definition	Frequency	Percent
New loan service	31	34.4
New loan product and service	59	65.6
Total	90	100

Source: Research Data (2019)

4.2.3 Type of Lending Innovation

The study also established the type of lending innovation offered by the commercial banks to clients. Table 4.3 indicated most commonly administered type of lending innovation is digital, 74%, while analogue is 16%. The findings imply presence of lending innovations among the financial institutions offering loans since majority of them have adopted the digital platform.

Table 4.3: Type of Lending Innovation

Type of lending	Frequency	Percent
Digital	74	82.2
Analogue	16	17.8
Total	90	100

Source: Research Data (2019)

4.2.4 Form of Lending

There was a need to establish the form of execution of the loans offered through the digital platforms. The findings presented in Table 4.4. It was established that most of the loans offered through digital platforms, that is 44.4%, are executed through mobile virtual network, followed by stand-alone application, 40%, and lastly through partnerships at 15.6%. The findings imply that mobile virtual network was the most used form of executing digital loans by the financial institutions which is also one of the most advanced form of lending.

Table 4.4: Form of Lending

Form of Lending	Frequency	Percent
Partnership	14	15.6
Mobile virtual network	40	44.4
Stand-alone application	36	40
Total	90	100

Source: Research Data (2019)

4.2.5 Range of Loan Amounts

The study further established the range or limit of loan amounts a client can access at a go. The findings presented in Table 4.5 indicated that majority of the respondents, 32.2%, agreed that their institutions offer loans between Ksh. 50,000 and Ksh.100,000, 26.7% indicated that a loan above Ksh.100,000 was the most offered by their institutions while 38.9% indicated a loan below Kshs.50,000. The findings imply that most commercial banks extend loans below Kshs.100, 000 to their customers. This is due to the fact that majority of the commercial banks customers such as SMEs require less capital to run and operate businesses.

Table 4.5: Range of Loans Amounts

Range of Loan Amount (Kshs)	Frequency	Percent
500-10,000	15	16.7
10,000-50,000	20	22.2
50,000-100,000	31	32.2
Above 100,000	24	26.7
Total	90	100

Source: Research Data (2019)

4.2.6 Criteria Used to Award Loans

The study established the criteria used by the organizations in awarding loans to clients. Table 4.6 indicated most commonly used criteria to award loans was looking at the credit history of the borrower whereby 84.4% of the respondents agreed. Only 15.6% agreed that business cash flow analysis was used.

Table 4.6: Criteria Used to Award Loans

Criteria Used to Award Loans	Frequency	Percent
Credit History of Borrower	76	84.4
Business Cash Flow Analysis	14	15.6
Total	90	100

Source: Research Data (2019)

4.2.7 Loans Security

The study established the means used to secure the loans offered to commercial bank customers against defaults and the findings are as shown in Table 4.7. It was established that collateral was the most used instrument to secure the loans (62.2%) while credit guarantee was the least used instrument (8.9%). Only 28.9% of the respondents indicated that they offer unsecured loans. The findings imply that most of the loans offered by commercial bank to customers are secured by collateral to avoid defaults.

Table 4.7: Loan Security

Loan security	Frequency	Percent
Credit is secured by collateral	56	62.2
Credit guarantee	8	8.9
Credit is unsecured	26	28.9
Total	90	100

Source: Research Data (2019)

4.2.8 Cost of the Loans

The costs of the loan as pertains interest rates for the organizations was also established and presented in Table 4.8. The findings indicated most of the commercial banks offering loans to customers, that is 57.8%, charge interest rate between 1 and 5% monthly, 30% of the respondents indicated that their institutions charged in interest between 6-14% while 12.2% charged above 14%. The findings imply that the average interest rate charged on loans was below 5% per month.

Table 4.8: Cost of Loans

Interest on Loans	Frequency	Percent
1-5%	52	57.8
6-14%	27	30
Above 14%	11	12.2
Total	90	100

Source: Research Data (2019)

4.2.9 Repayment Period

The study further established the repayment periods categories for digital loans offered by the commercial banks. It was established as shown in Table 4.9 that the most preferred repayment period was after two weeks (51.1%) followed by weekly (17.8%) then semi-annually (15.6%). Only 6.7% indicated the repayment period was on a daily basis. The findings imply that paying the loans borrowed after two weeks was the most preferred repayment period for loans offered by commercial banks.

Table 4.9: Repayment Period

Repayment Period	Frequency	Percent
Daily	6	6.7
weekly	16	17.8
Bi-weekly	46	51.1
Monthly	8	8.9
Half Yearly	14	15.6
Total	90	100

Source: Research Data (2019)

4.2.10 Loans Uptake Rate

The study also established the uptake rate of the digital loan facilities provided by the commercial banks. The findings are presented in Table 4.10. The findings indicated that the highest rate of uptake was daily (56.7%) followed by weekly (22.2%). Only 5.6 %indicated a monthly uptake rate of digital loans by customers. The findings imply that there is a high demand for digital loans by commercial bank clients who borrow it regularly.

Table 4.10: Loans Uptake Rate

Uptake duration	Frequency	Percent
Daily	51	56.7
Weekly	20	22.2
Monthly	5	5.6
Bi-monthly	14	15.6
Total	90	100

Source: Research Data (2019)

4.2.11 Loan Defaults

The study finally established the presence of loan defaulters for the digital loan facilities provided by the commercial banks. The findings are presented in Table 4.11. The outcome showed most of the respondents of the study agreed that there were defaulters of the digital loan facilities extended by the commercial banks, 66.7%, while 33.3% disagreed. The findings imply that commercial banks face defaults from the digital loans extended customers.

Table 4.11: Loan Defaults

Loan Defaulters	Frequency	Percent
Yes	60	66.7
No	30	33.3
Total	90	100

Source: Research Data (2019)

4.3 Descriptive Statistics

The respondents were asked to rank statements on a five point Likert scale to establish the extent of adoption of the various lending innovations by commercial banks as well as to rate the perceived impact of the lending innovations on growth of commercial banks. A five point Likert scale questions were adopted for the sections as discussed below.

4.3.1 Descriptive Statistics of Lending Innovations

The study sought to establish to what extent the financial institutions had adopted various lending innovations. The response was in a likert scale ranging from 1= Very Low Extent, 2= Low Extent, 3= Moderated Extent, 4= High Extent to 5= Very High Extent. The responses presented in Table 4.12 indicates that bigger proportion of the respondents expressed that loans through mobile phone platform was practiced to a high and very high extent (47.8%), loans through mobile apps and software's was also

practiced to a high and very high extent (50%) and those who agreed that they practice online loan applications to a high and very high extent 58.9%. The findings imply that the most practiced lending innovation by commercial banks was online loan application, followed by mobile apps and software and lastly mobile phones.

Table 4.12: Descriptive Statistics of Lending Innovations

Statement	1	2	3	4	5	Mean	Std Dev.
Application and processing of loans through mobile phones	24.40%	2.20%	25.60%	28.90%	18.90%	3.16	1.43
Access to loans through mobile apps and software	24.40%	2.20%	23.30%	31.10%	18.90%	3.18	1.43
Application and processing of loans online (Internet/web)	18.90%	22.20%	0.00%	6.70%	52.20%	3.51	1.70
Average						3.28	1.52

Source: Research Data (2019)

4.3.2 Descriptive Statistics on Impact of Lending Innovations on Growth Commercial Banks

The study sought to establish how lending innovations have impacted growth of commercial banks. The response was in a likert scale spreading from 1= strongly disagree, 2 = disagree, 3 = not sure, 4 = agree and 5 = strongly agree. The responses presented in Table 4.13. The study findings indicated that majority of the respondents, 82.2%, agreed that their respective commercial banks have experienced increased sales and revenues, 63.3% agreed that the commercial bank had experienced an increase in number of employees, 75.5% agreed that the commercial banks had experienced improved efficiency, 87.8% indicated that there was increased customer base, all the respondents also agreed that their respective commercial banks had

recorded an increase in profits and that they granted their customers easy access to loan facilities. The findings imply that on average, lending innovations involving digital lending has improved the performance of commercial banks.

Table 4.13: Descriptive Statistics of Lending Innovations on Growth of Banks

Statement	1	2	3	4	5	Mean	Std Dev.
Increased sales and revenue	0.00%	11.10%	6.70%	63.30%	18.90%	3.90	0.84
Increased number of employees in the business	3.30%	5.60%	27.80%	38.90%	24.40%	3.76	1.00
Improved efficiency	0.00%	0.00%	24.40%	41.10%	34.40%	4.10	0.77
Increased customer base	0.00%	0.00%	12.20%	67.80%	20.00%	4.08	0.57
Increased profits	0.00%	0.00%	0.00%	48.90%	51.10%	4.51	0.50
Ease of access to loans by customers	0.00%	0.00%	0.00%	72.20%	27.80%	4.28	0.45
Average						4.10	0.69

Source: Research Data (2019)

4.4 Inferential Analysis

The study carried out inferential analysis that is correlation and regression to establish the association as well as the variables.

4.4.1 Correlation Analysis

Analysis of correlation used to establish association between the variables in study. This study made use of correlation coefficient to come up with the relationship between lending innovations and growth of commercial banks which were the variables used . The correlation results outcome in table 4.14 indicate, lending innovations and growth of commercial banks in Kajiado County were positively and significantly correlated as confirmed by Pearson correlation coefficient of 0.471 and a level of significance of 0.000 which is below the level of significance threshold for this study (0.05). This implies that an increase in lending innovations results to an increase in the growth of commercial banks in Kajiado County, Kenya.

Table 4.14: Correlation Analysis

Correlations		Lending Innovations	Growth
Lending Innovations	Pearson Correlation	1	
	Sig. (2-tailed)		
Growth	Pearson Correlation	.471**	1
	Sig. (2-tailed)	0.000	
	N	90	90

** Correlation is significant at the 0.05 level (2-tailed).

Source: Research Data (2019)

4.4.2 Regression Analysis

Research employed univariate regression to examine association between lending innovations and growth of commercial banks in in Kajiado County, Kenya. The summary results presented in Table 4.15 indicated, coefficient of determination (R squared) was 0.222 which implies that 22.2% of the variation in growth of Commercial Banks in Kajiado County is explained by the lending innovations.

Table 4.15: Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.471	0.222	0.213	0.33068

a Predictors: (Constant), Lending Innovation

Source: Research Data (2019)

The study established the model significance through ANOVA. The findings are shown in Table 4.16. The findings indicated that the regression model linking lending innovations to growth of commercial banks in Kajiado County was significant (Sig = 0.000). This implies that lending innovations can predict growth of commercial banks in in Kajiado County significantly.

Table 4.16: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.743	1	2.743	25.085	.000
Residual	9.622	88	0.109		
Total	12.365	89			

a Dependent Variable: Growth of Commercial Banks

b Predictors: (Constant), Lending Innovations

Source: Research Data (2019)

The findings also established the regression coefficients as shown in Table 4.17. The findings reveal lending innovations have significant impact on growth of commercial banks in Kajiado County, Kenya (Beta = 0.124, Sig = 0.000). This means that an increase in lending innovations by a unit results in 0.124 increase in growth of commercial banks.

Table 4.17: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.696	0.088		41.771	0.000
Lending Innovations	0.124	0.025	0.471	5.008	0.000

a Dependent Variable: Growth

Source: Research Data (2019)

The optimal Regression Model for the study thus

Growth of Commercial Banks = 3.696 + 0.124 (Lending Innovations)

4.5 Discussion of the Findings

Inferential results of the research indicated a significant and positive influence of lending innovations on growth of Commercial Banks in Kajiado County, Kenya. In particular, correlation findings indicated that lending innovations have had a positive and significant impact on the growth of commercial banks in Kajiado County in Kenya. These findings imply an increase in lending innovations results to a significant increase in growth of Commercial Banks in Kajiado County, Kenya.

The findings are consistent with the findings of a study by Ibrahim (2016) which concludes that various financial innovations in Islamic Banking have positively the growth of the institutions. The regression analysis findings indicated that 22.3% of the variation in the growth of Commercial Banks in Kajiado County was explained by the lending innovations. Furthermore, lending innovations have a significant and positive impact on growth commercial banks in Kajiado County which implies that an increase in lending innovations doubles growth of commercial banks in Kajiado County. The findings are consistent with Ndikubwimana (2016) who indicated that the innovations in agency banking and mobile banking have resulted to expansion of commercial banks.

In relation to the theory of neo classical growth theory, this highlights the importance of labor, capital and technology in maintaining constant economic growth. In particular technology has played a key role in this study because financial institutions such as commercial banks are adopting new technology i.e. providing loans to borrowers who were previously considered high risk through mobile phone technological channels thereby promoting financial inclusion.

A significant proportion of businesses and individual commercial bank clients have and are slowly adapting to the new lending technologies that are being used by commercial banks. These kind of loan facilities often do not require collateral which means that the businesses are able to borrow loans through mobile platforms and use the loan as working capital. Lack of working capital has often seen small businesses going under. But with commercial banks offering mobile loans, most businesses and individual commercial bank customers now have access to loan facilities with the commercial banks also expanding their customer base resulting to growth.

Comparing with the empirical literature of the study, Karambu (2015) concluded that majority of businesses have utilized internet banking and alternative channels to a moderate extent. This in relation to the findings of this study indicate that modern or digital forms of lending innovations are to an extent playing a key role in the growth of commercial banks. It shows that majority of businesses and individual customers are slowly adapting the new lending platforms which are at their disposal. Carbo *et al*, (2001) while studying financial inclusivity and economical growth within different regions in Spain, concluded that there are institutions that finance small businesses and that there is a significant correlation in financial inclusion and economy growth. This is no different with the situation in Kenya and Kajiado County where commercial banks are innovating in lending and providing loan facilities without security that were previously considered high risk which has resulted to growth of the commercial banks.

Price Waterhouse Coopers (2018) denotes that financial institutions have to adopt new products and processes and re-energize in order to stay ahead of competition. It further states that changing in the banking atmosphere –with regulations, technological, demographics and new market demand will influence such adoptions. Most commercial banks in Kajiado County of Kenya have adopted the technological changes in order to include the marginalized category especially lending to small businesses to improve their coverage. Most people now have bank accounts and can save and in turn use it to borrow loans from the commercial banks without providing security or collateral which most cannot afford.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

It analyzes the outcomes on examined variables including departments in which the respondents work within the commercial banks, understanding of lending innovations, type of lending innovation, form of lending innovation, range or loan limit, criteria for loaning, collateral for the loan, interest rate, repayment period, uptake rate, defaulters, the lending innovations and their impact on growth of commercial banks. It captures the conclusions and recommendations of the study. It also presents recommendation of further studies.

5.2 Summary

Chapter one presented problem statement, background, objectives as well as the value of the study. The objective was to find out how lending innovations have influenced the growth of commercial banks in Kajiado County, Kenya. Chapter two presented a review on literature on the study theme. Both empirical and theoretical literature was presented. Chapter three of the study detailed the methodology of the study. It employed descriptive survey design. Primary data was used for analysis. A regression model linking lending innovations to growth of commercial banks was developed. The study detailed the use of mean to present descriptive statistics. Inferential statistics analysis involving the use of correlation and regression were the main inferential techniques used for analysis.

Chapter four provided the correlation analysis which showed the interrelationship in lending innovations to growth of commercial banks in Kajiado County. Correlation findings indicated that lending innovations have significant and positive impact on growth of banks in Kajiado County in Kenya. These findings imply that increased lending innovations leads to impactful significance in growth of Commercial banks in Kajiado County. The analysis of regression indicated, 22.3% of the variation in growth of commercial banks is explained by the lending innovations. Furthermore, lending innovations have positive impact on growth of Commercial Banks in Kajiado County which implies increment in lending innovations leads to growth of commercial banks within Kajiado County.

5.3 Conclusion

This study concludes, lending innovations have a positive impact on growth of Commercial Banks in Kajiado County in Kenya. The impact shows significance since in this era of digital banking, offering loans through digital means is important in enhancing easy access to loan facilities. It can therefore be comprehensively concluded that lending innovations such as offering mobile phones loans, loans through apps and software and loans application online affect growth of commercial banks significantly.

The examined lending innovations have also promoted financial inclusion for segments previously discriminated in access to loan facilities. Commercial banks are slowly accepting that small businesses that were previously not bankable are now bankable further improving the growth of commercial banks.

Commercial banks now offer small amounts of loans through mobile platforms to individuals with no requirement of collateral. Access to collateral is among the challenges that had previously limited access to credit facilities by small businesses.

5.4 Recommendations for Practice and Policy

The study findings led to the recommendations that commercial banks should enhance utilization of digital loans which are easily accessible to small businesses so as to enhance their growth. Further, the study recommends commercial banks to adopt the use of digital loans based on the findings established by this study that use of digital loans significantly improves growth of the commercial banks in Kenya.

There is a need for the commercial banks to provide more digital loan platforms and increase awareness regarding digital loans especially to small businesses so as to enhance utilization of such platforms which will improve the growth of commercial banks. The study also recommends commercial banks to consider use of mobile phones as well as online (Internet/web) platforms for loan application and processing. There is also need to develop mobile apps and software that support loan application and processing for small businesses to enhance consumption of digital loans.

Further, the study recommends the need for regulation of lending innovations by commercial banks as some of the commercial banks studied were found to exploit borrowers through offering high monthly interest rate. There is also need to educate the borrowers on the cost of these loans to avoid such exploitations. It was also found that there were defaulters of these digital loans that might negatively affect the performance of commercial banks. The study thus recommends commercial banks to thoroughly examine the credit history of borrowers so as to determine their creditworthiness.

5.5 Limitations of the Study

During data collection, a section of respondents felt the issue of confidentiality was a hindrance to their response to the questionnaire. The researcher however assured the respondents that the study was for academic purpose only. They were not requested to indicate their names on the questionnaires in order to enhance confidentiality. As a result, the respondents felt comfortable and contributed to the survey.

Some respondents were not ready to fill the questionnaires as it was a period of end month and they were busy compiling reports and making returns for their employer. Some requested to be met later which would have affected data collection process and reporting in time.

5.6 Recommendations for Further Research

One of the recommendation is future study should focus on the extent to which the lending innovations have been adopted by commercial banks in Kenya. This is due to the fact that during data collection, it was established that some commercial banks were yet to adopt the digital lending innovation platforms. This has led to borrowers having hard time accessing credit facilities hence hindering growth of the commercial banks.

The study recommends future scholars to look into other factors that contribute to the growth of commercial banks since lending innovations has been established to contribute up to 22.3% of the variation in the growth of commercial banks. Future studies should also focus on commercial banks in other counties other than Kajiado County for the purposes of comparison.

REFERENCES

- African Development Bank. [ADB] (2013). *African Development Bank Report*.2013. Retrieved from African Development Bank. Retrieved from <http://www.adfdb.org/fileadm/upload documents>.
- Abdiaziz. Y. (2012). *Islamic banking and its impact on SMEs around Nairobi*. An Introduction to Economics with Emphasis on Innovation, POI, E. Carrol, P, 2006.
- Ayugi, W. (2016): *Eight banks in Kenya that are transforming how SMEs manage their money*. <https://covered.co.ke/blog/20>.
- BNY Mellon. (2014). 'Innovations in payment: the future is fintech'. Retrieved from https://www.bnymellon.com/_global_assets/pdf/our-thinking/innovation-in-payments-the future is fintech.pdf.
- Central Bank of Kenya. [CBK] (2015). *Laws of Kenya. Central Bank of Kenya Act*. Retrieved from <https://www.centralbank.go.ke/reports>.
- Clayton, C. (1995). Disruptive Technologies Catching the wave'. Harvard Business Review. P3
- Carbo *et al.* (2001). Interrelationship of Financial Inclusion and Growth in Economy within Different Regions in Spain. *Unpublished Thesis*. University of Granada, Spain.
- Carbo, S., Lopez, R., & Rodriguez, F. (2001). Interrelationship of Financial Inclusion and Growth in Economy within Different Regions in Spain. *Unpublished Thesis*. University of Granada, Spain.
- Fasih, I. (2016). Product Innovation in Islamic Banking and Growth of Small Medium Enterprises in Nairobi. *Unpublished Thesis*. University of Nairobi, Kenya.
- Hoang, P. (2010). *Business Management*. (Melton, VIC)IBID Press. 686 ISBN 978-1876659639. *International Education Journal for Innovation Education and Research* Vol.45, No.5, pp.47-58.
- ING Economics Department. (2016). *Fintech for micro small medium sized Enterprises; creating jobs at the bottom of the pyramid through financial and*

- Digital innovation. (2016). Retrieved October, 2016, from ING Economics Department Website: <https://www.ing.nl/media/ING-fintech> for MSMEs.
- Karanja, J., Otieno, M., & Mwangi, J. (2013). Influence of innovation on growth of SMEs in Kenya. *Unpublished Thesis*. University of Nairobi. Kenya.
- Kenya National Bureau Statistics. (2016). *Micro Small Medium Enterprises Survey*. Basic Report. Nairobi. Government Printer.
- KNBS, CGK. (2015). *County Statistical Abstract; SMEs survey*. Nairobi. Government Printer.
- Kenya Bankers Association [KBA] (2012). *Writing the next Chapter of Africa's Success Story*'. Retrieved from www.kbs.co.ke.
- Kumar, A., & Kothari, C. (2018). *Banks it's time to change your game in SMEs lending*'. Retrieved from <https://www.infosys.com/industries/financial-Services/whitepapers/banks-change-game-SME-pdf>.
- Maranville, S. (1992). Entrepreneurship in the Business Curriculum. *Journal of High Technology Management Research*. Vol.20, No.1, pp.40-51.
- Mehrota, M., Tan, A., & Ng, J. (2014). *Digital Banking for Small Medium Sized Enterprises; improving access to finance for the underserved*; Deloitte South East Asia.
- Ndikubwimana, P. (2016). The role of financial institution in promoting innovation of SMEs in Rwanda: An Empirical Review. *Unpublished Thesis*. University of Rwanda.
- Njogu, T. (2014). The Effects of Innovation on Financial Performance of Small Medium Enterprises in Kenya. *Unpublished thesis*. University of Nairobi.
- Organization of Economic Cooperation Development. [OECD] (2012). Promoting Entrepreneurship and Innovative SMEs in Global Economy. Retrieved from <https://www.oecd.org/cfe/smes/31919590>.
- Price Water House Coopers [PWC] (2018). Retail Banking 2020 Revolution or Evolution. Retrieved from [www.goldnews .com.cy/en/retail-banking-2020—evolution-or-revolution](http://www.goldnews.com.cy/en/retail-banking-2020—evolution-or-revolution).

- Reinhert, H., & Erik, S. (2006). *Creative Destruction in economics: Nietzsche, Sombart, and Schumpeter*.
- Schumpeter, J. (1943). *Capitalism, Socialism and Democracy* (6e.d) Routledge.pp.81-84.
- Tsai, K. (2015). *Financing Small Medium Enterprises in China: Recent Trends and Prospects beyond Shadow Banking*.
- United Nations Centre for Trade and Development. [UNCTD] (2016). *The Role of Development Banks in Promoting Growth and Sustainable Development in South*. Retrieved from nctad.org/en/PublicationsLibrary/gdsecidc2016d1_en.pdf
- Wanjohi, M. (2009). *Challenges facing SMEs in Kenya*. Retrieved July10, 2010 from [https://www.buzzle.com/articles/challenges facing SMEs in Kenya.html](https://www.buzzle.com/articles/challenges_facing_SMEs_in_Kenya.html)
- Wanjohi, M. (2012). *Challenges facing SMEs in Kenya and Efforts in Progress*. Retrieved from www.Kenpro.org
- Wind, J., & Mahajan, V. (1997). *Issues and opportunities in New Product Development*, *Marketing Research*, 34(1):1-12.Feb 1997.Retrieved from <https://www.researchgate.net>
- White, M., Braczyc, H.J., Ghobadian, A., Neibuhr, A., & Neibuhr, J. (1998). *Small firms' Innovation: Why Regions Differ*. Policy Studies Institute of Westminster.
- Wambari, A. (2009). *Mobile Banking in Developing Countries; Case study on Kenya*. *Unpublished Thesis*. University of Nairobi
- Wachira, E. (2013). *Effects of Technological Innovation on financial performance of commercial banks in Kenya*. *Unpublished thesis*. University of Nairobi.

APPENDICES

Appendix I: Letter of Introduction



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Appendix II: Questionnaire

SECTION 1 A: GENERAL INFORMATION

1. Put a tick against the department you are working in your organization

- A. Credit ()
- B. Finance ()
- C. Customer care ()
- D. Public relations ()

2. What do you understand by the term ‘lending Innovations’? Tick against appropriate answer.

- A. New loan product ()
- B. New loan service ()
- C. New loan product and service ()
- D. Not sure ()

3. What type of lending innovation do you offer your SMEs customers? Tick against your answer

- A. Digital ()
- B. Analogue ()

4. If it is digital, in what form is it executed? Tick against your answer

- A. Partnership ()
- B. Mobile virtual network ()
- C. Stand alone application ()

5. What is the range or limit of your loan amounts a client can access at a go? Tick against your answer

- A. 500-10000 ()
- B. 10000-50000 ()
- C. 50000-100000 ()
- D. Above 100000 ()

6. What are the criteria used by your organization in awarding loans to SMEs through these innovations?

- A. Credit history of borrower ()
- B. Business cash flow analysis ()

7. How are the digital loans secured in your institution to mitigate against default?
Tick appropriately

- A. Credit is secured by collateral ()
- B. Credit guarantee ()
- C. Credit is unsecured ()

8. What are the limits for the cost of loans by your institution interest rates?

- A. 1-5% ()
- B. 6-10% ()
- C. 11-14% ()
- D. Above 14 ()

9. How is the repayment period for digital loans offered to your customers?

- A. Daily ()
- B. weekly ()
- C. Bi-weekly ()
- D. Monthly ()
- E. half Yearly ()
- F. yearly()

10. How would you rate the uptake of these digital loan facilities by your customers?

- A. Daily ()
- B. weekly ()
- C. monthly ()
- D. bi-monthly ()

11. Do you have defaulters for this category of loans?

A. Yes ()

B. No ()

SECTION B : LENDING INNOVATIONS

14. To what extent has the organization adopted the following lending innovations

(1= Very Low Extent, 2= Low Extent, 3= Moderated Extent, 4= High Extent, 5= Very High Extent)

	1	2	3	4	5
Application and processing of loans through mobile phones					
Access to loans through mobile apps and software					
Application and processing of loans online (Internet/web)					

SECTION C: IMPACT OF LENDING INNOVATIONS ON GROWTH OF COMMERCIAL BANKS INKAJIADO COUNTY

16. By your observation, how has this lending innovations impacted the commercial banks growth?

Select one of the following feedbacks below using the parameters shown

(1= strongly disagree 2=disagree 3=not sure 4= agree, 5= strongly agree)

	1	2	3	4	5
Increased sales and revenue					
Increased number of employees in the business					
Improved efficiency					
Increased customer base					
Increased profits					
Ease of access to loans by customers					

Thank you

Appendix III: List Of ten Sampled Financial Institutions in Kajiado County

FINANCIAL INSTITUTION	BRANCH
KCB BANK	Kitengela
EQUITY BANK	Kitengela
FAULU MICROFINANCE	Kitengela
KWFT	Kitengela
NIC BANK	Kitengela
CREDIT BANK	Kitengela
NATIONAL BANK	Kitengela
CONSOLIDATED BANK	Kitengela
BANK OF AFRICA	Kitengela
JAMAII BORA BANK	Kitengela

Source: Research data (2019)