

**EFFECTS OF BUSINESS CREDIT AVAILABILITY ON ECONOMIC
GROWTH IN KENYA**

BY

DANIEL KIMAU KIOKO

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DECLARATION

I hereby declare that this research project is my original work and it has not been submitted to any other college or university for academic credit.

Signature Date.....

DANIEL KIMAU KIOKO

D61/60898/2013

This research project has been submitted for examination with my approval as the candidate's university supervisor.

Signature Date.....

Dr. Mirie Mwangi

Lecturer, Department Of Finance and Accounting

School of Business

University of Nairobi

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DEDICATION

To my family and to the entire finance profession

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LIST OF ABBREVIATIONS

GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GoK	Government of Kenya
LR	Lending Rate
MFI	Micro Finance Institution
PSC	Private Sector Credit
SME's	Small Medium Enterprises
SPSS	Statistical Package for Social Sciences

ABSTRACT

Finance is a key input in the development and growth of business enterprise. One of the reasons why firms form linkages and relations with one another as well as with financial institutions is to access credit for business growth. Credit contributes to enterprises development in a number of ways. Access to external resources allows for flexibility in resource allocation and reduces the impact of cash flow problems on firm activity. Firms with access to funding are able to build up inventories to avoid stocking out in periods of crisis, while in conditions of macroeconomic instability, use of credit increases growth of surviving firms. A significant portion of credit in Kenya is extended through the banking system, though there are some other institutions such as savings and credit cooperative societies, finance companies and micro finance institutions that provide credit, mainly targeting small and micro enterprises. However, availability of data for the latter is very limited. The study sought to examine the effect of business credit availability on economic growth in Kenya. A descriptive design was selected for this study where time series data was collected from 1980 to 2014 on GDP in local currency, private sector credit as a percentage of GDP, bank lending rates, and industrial production as a percentage of GDP. The analysis was done using descriptive analysis, correlation analysis and regression analysis. The regression results showed that private sector credit had a negative and significant effect on GDP, $p < .05$. The results also showed that lending rates had a positive but insignificant effect on GDP, $p > .05$. Further, the results showed that industrial production had a negative but insignificant effect on GDP, $p > .05$. The study concludes that business credit availability influences economic growth while lending rate and industrial productivity do not affect Kenya's economic growth. This study recommends that business credit to the private sector needs to be increased in order to improve how it affects economic growth as higher levels of business credit are desired in the economy.

CHAPTER ONE:INTRODUCTION

1.1 Background of the Study

The role of financial sector in promoting economic growth is well acknowledged, dating back to the early economists like Schumpeter (1911) who strongly argued in support of finance-led growth. Financial sector plays a key role in channelling savings into productive investment, especially in the formal sectors of the economy. The banking sector in particular is well recognised as a key conduit for financial intermediation in the economy. Access to credit enhances the productive capacity of businesses. Businesses and enterprises with adequate financial access have greater potential to grow. Studies have shown that a number of business enterprises in Africa, particularly the small and medium manufacturing firms are credit-constrained (Loening et al., 2008).

The theoretical relationship between access to financial services and growth is not straightforward. According to the theoretical literature, there are several mechanisms through which the two may be related – and this also varies depending on which financial services we are talking about. Investment is the active redirection of resources by an economic entity (e.g. an individual or a firm) from being consumed today, to creating benefits in the future. The hope is that the investment will yield greater benefits in future than would be yielded by consuming those resources today. The investment may take the form of savings, of a financial instrument (e.g. an equity investment), of physical capital (e.g. a new tool or piece of equipment that improves productivity such as agricultural machinery), or of human capital (e.g. education) (Favara, 2003).

The Kenyan economy, East Africa's largest, has experienced considerable growth in the past few years, driven by several key factors. The country enjoys some particular advantages: a reasonably well-educated labour force, a vital port that serves as an entry point for goods destined for countries in the East African and Central Africa interior, abundant wildlife and kilometres of attractive coastline and above all, a government that is committed to implementing business reforms (GoK, 2010).

1.1.1 Business Credit Availability/Access

Access to credit refers to the possibility that individuals or enterprises can access financial services, including credit, deposit, payment, insurance, and other risk management services. Those who involuntarily have no or only limited access to financial services are referred to as the unbanked or under banked, respectively (Adamopoulos, 2010). According to worldbank (2008) access to credit is the absence of price and non-price barriers in the use of financial services.

In a review of finance literature, the study opined that better functioning financial systems ease the external financing constraints that impede firm and industrial expansion. Banks accept deposit from individuals and institutions thus transferring funds from the surplus sector to the deficit sector of the economy (Mishkin, 2007). Though they are subject to certain regulations by the regulatory authorities, financial intermediaries still determine the rules for allocating funds, and as such they play a significant role in determining the type of investment activities, the level of job creation and the distribution of income (Gross, 2001).

Transaction costs are also believed to decline with the emergence of financial institutions. It is widely accepted that they assist in collecting and processing information about investment opportunities more efficiently and at lesser cost (King and Levine, 1993) than what obtains under the barter system. Thus economies of scale

are enjoyed with the existence of banks. This action reduces the cost of investment. In essence, a low financial development distorts growth and increases the cost of financial transaction.

Asymmetric information between borrowers and lenders which causes adverse selection and moral hazard often prevent market adjustment from operating between demand and supply through the price mechanism. However banks are able to minimise these risks through screening and monitoring of potential customers. According to Gross (2001) financial intermediaries determine the allocation of capital by diminishing (but not totally eliminating) the level of risk through information gathering and special contract design. This implies that banks make use of the imperfect nature of the market to determine who to allocate funds to.

1.1.2 Economic Growth

Economic growth is defined as a positive change in the national income or the level of production of goods and services by a country over a certain period of time. This is often measured in terms of the level of production within the economy. Other possible measures include total factor productivity, factors of production such as technological change, human capital termed the Schumpeterian approach, other measures of growth ranges from real per capita GDP; the rate of physical capital accumulation etc. According to Bencivenga & Smith (1991) consumption goods in the economy are produced from capital and labour. An entrepreneur who owns the capital invested in the business uses it to employ labour in order to produce goods. This result in the production function made up of labour and capital which can be used in estimation.

Economic growth literature underscores the role of finance in promoting long run economic growth and hence, provides a good starting ground for analysing and understanding the impact of credit on economic performance. The usual two factor

neoclassical growth model developed by Solow (1957) and others is extended by incorporating the role of credit. In the finance-growth literature, financial sector services such as credit availability influence economic growth through their impact on capital accumulation and technological innovation (Trew, 2006).

Levine, Loayza and Beck (2000) argued that whereas a farmer could provide own savings to increase the usage of commercial fertilizer, it was a virtual impossibility of a poor farmer financing from current savings, the total amount needed for investment in order to adopt the new technology. Favara (2003) observe that financial institutions produce better information, improve resource allocation (through financing firms with the best technology) and thereby induce growth. It has also been argued that financial institutions like the banking sector are much better placed to evaluate prospective entrepreneurs and hence, likely to finance the promising ones thereby increasing the probability of successful innovation which accelerate economic growth (Kasekende, 2008).

1.1.3 Business Credit Availability and Economic Growth

According to growth theory, Romer (1990), growth depends on the stock of human and physical capital in the economy, as well as technological progress. Investment at the level of the firm or the individual can contribute to all of these things, and thus plays an important role in facilitating long run economic growth. In practical terms this means that the provision of a bank account that enables an individual to accumulate funds in a secure place over time more easily than they would otherwise have been able to, (perhaps because the money is safe from being stolen or plundered by other family members), or access to credit which enables them to borrow funds, can strengthen their productive assets. It does this by enabling them to invest in

micro-enterprises, in productivity-enhancing new technologies such as new and better tools, equipment, or fertilizers, or in education (Beegle, Dehejia & Gatti, 2003).

Ghosh, Mookherjee & Ray (1999) argue that credit is essential in allowing capital investments among producers (such as farmers) who are not able to save, as well as giving households the ability to obtain money in an emergency. The availability of credit also increases risk taking with the adoption of new technologies or productivity enhancing investments for poorer households or producers, hence contributing to increases in production and income. Galor & Zeira (1993) find that access to household credit can have a positive impact on growth through its impact on human capital accumulation, and that this is affected by the initial distribution of wealth; richer families are better able to invest in human capital accumulation leading to increased growth.

Another channel through which access to financial services, (or more specifically, access to credit), may affect economic growth is by facilitating the entry of new firms (Klapper, Laeven and Rajan, 2004) and the Schumpeterian process of “creative destruction”. They argue that access to credit permits greater market entry by talented new entrants, who would otherwise be constrained by their lack of inherited wealth and absence of connections to the network of well-off incumbents. To the extent that access to credit is limited to only privileged groups, or preferred sectors, this will reduce the value of the investments undertaken, reducing growth. So wider access to credit for individuals as well as firms (given that small and micro enterprises are often financed by individual borrowers), will increase the productivity returns to investment.

Another channel of impact relates to the effect of access to credit on savings, and this provides a more complicated story. The level of savings is an important determinant

of the overall level of investment in an economy, and thus is directly linked to growth. Given that savings may be considered less of a necessity when credit is available, Jappelli and Pagano (1994) argue that alleviating credit constraints on households reduces the savings rate, with negative repercussions for economic growth, and they provide empirical evidence to support this argument, based on a sample of middle and high income countries. Beck, Beck, Rioja & Valev (2008) also provide empirical evidence showing that while access to credit for enterprises does increase growth in GDP per capita, increasing access to credit for households does not have a positive impact on growth.

1.1.4 Economic Growth in Kenya

Kenya's economy is market-based, with a few state-owned infrastructure enterprises, and maintains a liberalized external trade system. The country is generally perceived as Eastern and central Africa's hub for Financial, Communication and Transportation services. There is a high level of computer literacy, especially among the youth. The government, generally perceived as investment friendly, has enacted several regulatory reforms to simplify both foreign and local investment. An increasingly significant portion of Kenya's foreign inflows is from remittances by non-resident Kenyans who work in the US, Middle East, Europe, Asia and Antarctica. Compared to its neighbours, Kenya has a well-developed social and physical infrastructure. It is considered the main alternative location to South Africa, for major corporations seeking entry into the African continent (GoK, 2010).

Economic growth in Kenya has been hampered by corruption and by reliance upon several primary goods whose prices have remained low. Low infrastructure investment threatens Kenya's long-term position as the largest East African economy. In the key December 2002 elections, Daniel Arap Moi's 24-year-old reign ended, and

a new opposition government took on the formidable economic problems facing the nation. After some early progress in rooting out corruption and encouraging donor support, the Kibaki government was rocked by high-level graft scandals in 2005 and 2006. In 2006, the World Bank and IMF delayed loans pending action by the government on corruption. The international financial institutions and donors have since resumed lending, despite little action on the government's part to deal with corruption. Unemployment is very high (GoK, 2010). The country has experienced chronic budget deficits, inflationary pressures, and sharp currency depreciation - as a result of high food and fuel import prices. The discovery of oil in March 2012 provides an opportunity for Kenya to balance its growing trade deficit if the deposits are found to be commercially viable and Kenya is able to develop a port and pipeline to export its oil.

In Kenya there is a widespread concern that banking systems are not providing enough support to new economic initiatives and in particular to the expansion of SMEs and agriculture sector (Sacerdoti, 2005). It is argued that faster economic growth will not be possible without deepening of the financial system and in particular, more financial support from the banking sector to the various sectors of the economy such as the SMEs in the country. Banks remain highly liquid and reluctant to expand credit other than to most credit worthy borrowers therefore most businesses are locked out.

Accessing credit is considered to be an important factor in increasing the development of the economy. It is thought that credit augment income levels, increases employment and thereby enable poor people to overcome their liquidity constraints and undertake some investments. However the lack of access to credit to start or expand small scale enterprises has often plagued this sector of the economy. Most

businesses tend to rely on the personal resources of their owners, and or loans from friends and relatives to fund the enterprises. The expectation has been that, after initial take off of the small scale enterprises, the business should be able to raise funds from the formal sector especially MFIs or banking industries to expand its operations. The credit facilitates the enterprise growth, increases incomes and creates job (GoK, 2010).

1.2 Research Problem

Finance is a key input in the development and growth of business enterprise. One of the reasons why firms form linkages and relations with one another as well as with financial institutions is to access credit for business growth (McCormick and Atieno, 2002). Credit contributes to enterprises development in a number of ways. Access to external resources allows for flexibility in resource allocation and reduces the impact of cash flow problems on firm activity (Bigsten et al., 2000). Firms with access to funding are able to build up inventories to avoid stocking out in periods of crisis, while in conditions of macroeconomic instability, use of credit increases growth of surviving firms. Firms without access to bank funding have also been found to be vulnerable to shocks (Nkurunziza, 2005). Studies have therefore shown that businesses with access to financial credit are able to create more jobs and increase production which in turn leads to increases in GDP and thus economic growth in the country.

A significant portion of credit in Kenya is extended through the banking system, though there are some other institutions such as savings and credit cooperative societies, finance companies and micro finance institutions that provide credit, mainly targeting small and micro enterprises. However, availability of data for the latter is very limited. The rest of this section explores the developments in Kenya's banking

sector. The banking sector is made up of 44 institutions comprising of 42 commercial banks, 2 mortgage finance companies. There has been a significant rise in bank credit to the private sector relative to public sector credit, particularly since 2003. The proportion of private sector credit relative to public sector credit increased particularly since 2003. For instance, private sector accounted for 80 percent and 76.5 percent of total credit in 2008 and 2009, respectively. A further decomposition of private sector credit into credit for businesses (private enterprises) and private households shows that the later has increased rapidly (from 3 percent in 1997-1999 to 13 percent of total private sector credit in 2009), mainly on account of stiff competition within the industry that saw an expansion of a range of credit products including personal unsecured loans. That notwithstanding, at 27 percent of GDP, bank credit to the private sector still remain relatively low by international standards. Holding other factors constant, there is still potential for credit growth (Mwalungo, 2011).

A search for previous studies attempting to investigate the effects of business credit on economic growth revealed various studies. Hondroyiannisa, Lolos & Papapetroua (2005) empirically examined the relationship between the development of the banking system and the stock market and economic performance for the case of Greece over the period 1986–1999. The empirical results, using VAR models, suggest that there exists a bi-directional causality between finance and growth in the long run. The findings, using error-correction models, show that both bank and stock market financing can promote economic growth. Abu-Bader & Abu-Qarn, (2008), examined the causal relationship between financial development and economic growth in Egypt during the period 1960–2001 within a trivariate vector autoregressive (VAR) framework. The results strongly support the view that financial development and economic growth are mutually causal, that is, causality is bi-directional. Mwalungo

(2011) evaluated the effects of credit on economic growth in Kenya. Were, Nzomoi & Rutto (2012), investigated the impact of access to bank credit on the economic performance of key economic sectors using sectoral panel data for Kenya. They found a positive and significant impact of credit on sectoral gross domestic product measured as real value added. The review presented above shows that there is a relationship between credit access and economic growth in a country. In Kenya, this relationship has not been examined exhaustively and this is the gap that this study seeks to fill by answering the following question: what is the effect of business credit availability on economic growth in Kenya?

1.3 Research Objective

The objective of this study is to investigate the effect of business credit availability on economic growth in Kenya.

1.4 Value of the Study

The study will also have great benefit to the government and other regulatory bodies: It will help the regulators to understand the concepts of credit availability to the private sector in the Kenyan context and the impacts it has on the national economic growth.

Researchers and policy-makers: would have expended enormous efforts attempting to examine alternative schemes to promote economic growth. Since a great majority of these analysts believe that financial credit availability is a catalyst for economic growth and the issues involved have important policy implications to the national economic development.

Academia: this project proposal hopes to contribute to the body of knowledge in areas of credit availability and economic development in the Kenyan context.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of both theoretical and empirical literature on business credit availability and its effects on economic growth. First, the chapter will present a theoretical framework which will consist of the various the theory relevant to the study. Secondly, the chapter will present an empirical review of previous studies that have attempted to evaluate the effects of credit on economic growth both internationally and locally. Then a summary of the review will be presented where the gaps in literature to be filled by this study are identified.

2.2 Theoretical Review

This section presents a review of three theories of economic growth. These are Keynesian economics theory, financial inclusion theory, and financial liberalisation theory.

2.2.1 Keynesian Economic Theory

Keynes (1936) in his *Treatise on Money* also argued for the importance of the banking sector in economic growth. He suggested that bank credit "is the pavement along which production travels, and the bankers if they knew their duty, would provide the transport facilities to just the extent that is required in order that the productive powers of the community can be employed at their full capacity".

In the same spirit Robinson (1952) argued that financial development follows growth, and articulated this causality argument by suggesting that "where enterprise leads finance follows". Both, however, recognized this as a function of current institutional structure, which is not necessarily given. Bank credit can therefore be used to improve

business productivity in a country which in turn will result in increased rates of GDP and economic growth.

2.2.2 Financial Inclusion Theory

Financial inclusion refers to the process of ensuring access to appropriate financial products and services needed by all sections of the society in general and vulnerable groups such as weaker sections and low income groups in particular, at an affordable cost, in a fair and transparent manner, by mainstream institutional players (Chakrabarty, 2011).

An inclusive financial sector that provides ‘access’ to credit for all ‘bankable’ people and firms, to insurance for all insurable people and firms, to savings and payment services for everyone (United Nations, 2006). Inclusive finance does not require that everyone who is eligible use each of the services, but they should be able to choose them if desired. An inclusive finance sector will ensure that businesses and entrepreneurs have access to the finances they need to expand their businesses through credit and thus contribute to the overall output of the economy. This is expected to result in improved living standards and economic growth in the long run.

2.2.3 Financial Liberalization Theory

The liberalization of the capital account is captured by the regulations on offshore borrowing by financial institutions and by non-financial corporations, on multiple exchange rate markets and on capital outflow controls. In a fully liberalized capital account regime, banks and corporations are allowed to borrow abroad freely. They may need to inform the authorities but permission is granted almost automatically. Reserve requirements might be in place but are lower than 10 per cent. In addition,

there are no special exchange rates for either the current account or the capital account transactions; nor are there any restrictions to capital outflows (Husain, 2005).

A fully liberalized domestic financial system is characterized by lack of controls on Lending and borrowing interest rates and certainly, by the lack of credit controls, that is, no Subsidies to certain sectors or certain credit allocations. Also, deposits in foreign currencies are permitted. In a fully liberalized stock market, foreign investors are allowed to hold domestic equity without restrictions and capital, dividends and interest can be repatriated freely within two years of the initial investment (Levine, 2005).

According to Kaminsky & Schmukler (2003), financial liberalization theory, then, argues for improved economic growth through financial sector reforms. The supporters of financial liberalization base their arguments on the works of McKinnon and Shaw. According to the theory, positive real deposit rates raise the saving rate, thus increasing the flow of financial savings. Developing countries with repressed financial systems thus mounted financial reforms aiming at: mobilization of financial resources with increased amounts of domestic savings channelled through the formal financial sector, reducing the role of direct controls in determining the allocation of credit, increasing reliance on market based system of monetary control and broadening the range of domestic sources of finance.

2.3 Determinants of Economic Growth

This section reviews three determinants of economic growth mainly domestic credit, lending rate and industrial production.

2.3.1 Credit Access

Empirical evidence on the impact of finance on economic growth has been mixed and remained a debated subject. A theoretical literature exploring the nature of the correlation between the banking sector and economic growth suggests that the financial system could impact positively on real economic performance by affecting the composition of savings, providing information, and affecting the scope for credit rationing.

Mwalungo (2011) found that credit had a positive effect on economic growth in Kenya. Were, Nzomoi & Rutto (2012) also found a positive effect of credit on sectoral GDP in Kenya. In Ethiopia, Murty, Sailaja & Wondaferahu (2012) found a positive effect of bank credit on economic growth. Banu (2013) revealed that credit offered to households contributed to a greater extent to the formation of the GDP than credits offered to public administration. Modebe, Ugwuegbe & Ugwuoke (2014) found that bank credit had a negative effect on the growth of Nigerian economy.

From the above discussion, it is clear that domestic credit is one of the determinants of economic growth and has been examined by various scholars in Kenya and outside Kenya. As such, it is expected that credit will have an impact on the economic growth of Kenya and is therefore modelled in the study as the main independent variable.

2.3.2 Lending Rate

Koivu (2002) analysed the finance-growth nexus using a fixed-effects panel model and unbalanced panel data from 25 transition countries during the period 1993-2000. His results showed that the interest rate margin was significantly and negatively related to economic growth. Akpansung & Babalola (2012) also found that lending

interest rate impeded growth of Nigerian economy. Bosworth (2014) revealed a weak relationship between interest rates and economic growth.

The results discussed above suggest that lending rate has been modelled as a determinant of economic growth and can therefore be used in the present study as one of the control variables. The results as revealed from the discussion have been mixed but largely tend to show that lending rates have an inverse relationship with economic growth of countries.

2.3.3 Industrial Production

Akpanung & Babalola (2012) in a study on the relationship between credit and economic growth in Nigeria found that industrial production did not significantly affect the economic growth of Nigeria. According to Ojo & Ololade (2014) who examined whether Nigerian manufacturing sector production influences its growth, the level of production does not affect economic growth. Khan & Siddiqi (2011) on a study in Pakistan found significant effects of manufacturing industry production on economic growth. Al-Awad (2010) found that manufacturing is strongly linked to non-oil economic growth in the GCC over the long run but not in the short-run.

These studies revealed mixed effects of industrial production on economic growth of countries. Since the variable has been linked to growth, this study uses the variable to control for the level of production. Thus, as used in previous studies, the industrial production will be assessed as one of the determinants of economic growth in Kenya for the period under review.

2.4 Empirical Studies

Dey & Flaherty (2005) used a two-stage regression model to examine the impact of bank credit and stock market liquidity on GDP growth. They found that bank credit

and stock market liquidity are not consistent determinants of GDP growth. Banking development is a significant determinant of GDP growth, while turnover is not. Chang et al (2008) used branch panel data to examine bank fund reallocation and economic growth in China and found a positive association between bank deposits and growth.

Oluitan (2009) examined the significance of bank credit in stimulating output within the real sector and the factors that prompt financial intermediation within the economy. Evidence from this work shows that real output causes financial development, but not vice versa. According to the seminal work by Bayoumi & Melander (2008), a 2½% reduction in overall credit causes a reduction in the level of GDP by around 1½%. Similarly, findings have also revealed that economic growth can also be a causal factor for financial development. This often occurs when the level of development within the economy is responsible for prompting the growth of the financial system

Vazakidis & Adamopoulos (2009) employed a Vector Error Correction Model (VECM) to investigate the relationship between credit market development and economic growth for Italy for the period 1965-2007 taking into account the effect of inflation rate on credit market development. The empirical results indicated that economic growth had a positive effect on credit market development, while inflation rate had a negative effect. Cappiello et al (2010) in their study of European Area found that in contrast to recent findings for the US, the supply of credit, both in terms of volumes and in terms of credit standards applied on loans to enterprises, have significant effects on real economic activity. In other words, a change in loan growth has a positive and statistically significant effect on GDP.

Oluyombo (2011), examined the contribution of microfinance bank to the economic development of Nigeria for fifteen years by using secondary data collected from the

Central Bank of Nigeria records, annual reports and statistical bulletin. The ordinary least square estimation technique was adopted using linear regression model. The study found a weak positive relationship between microfinance banks' finance and long run economic growth in Nigeria, and between microfinance banks' finance and capital formation. There was large positive correlation between microfinance banks' finance and penetration ratio. The results suggest a net outflow of finance from the microfinance banks that may jeopardize the economic development of the nation.

Mwalungo (2011) evaluated the effects of credit on economic growth in Kenya. Both qualitative and quantitative methods were used to achieve the objective of the study. A regression model was used to carry out the empirical analysis. The study used secondary data that was collected from the supervision department of the Central bank of Kenya for a period of 15 years. The study used a simple regression model, descriptive statistics and correlation analysis to establish the effect of credit on economic growth in Kenya. The model equated economic growth as a function of credit. The results obtained from the regression model show that there is a positive correlation between credit and economic growth in Kenya.

Were, Nzomoi & Rutto (2012) investigated the impact of access to bank credit on the economic performance of key economic sectors using sectoral panel data for Kenya. They found a positive and significant impact of credit on sectoral gross domestic product measured as real value added. However, the magnitude of the impact is smaller once factors such as the labour employed and past economic performance of the sectors are taken into account. Policies aimed at financial sector deepening and increasing access to credit are of essence to enhancing economic performance. Such policies should, however, be complemented with strategies that enhance efficiency of the key sectors of economy.

Akpansung & Babalola (2012) examined the relationship between banking sector credit and economic growth in Nigeria over the period 1970-2008. The causal links between the pairs of variables of interest were established using Granger causality test while a Two-Stage Least Squares (TSLS) estimation technique was used for the regression models. The results of Granger causality test show evidence of unidirectional causal relationship from GDP to private sector credit (PSC) and from industrial production index (IND) to GDP. Estimated regression models indicate that private sector credit impacts positively on economic growth over the period of coverage in this study. However, lending (interest) rate impedes economic growth.

Murty, Sailaja and Demissie (2012), examined the long-run impact of bank credit on economic growth in Ethiopia is examined via a multivariate Johansen co-integration approach using time series data for the period 1971/72-2010/11. More importantly, the transmission mechanism through which bank credit to the private sector affects long-run growth is investigated. The results supported a positive and statistically significant equilibrium relationship between bank credit and economic growth in Ethiopia. Deposit liabilities also affect long-run economic growth positively and significantly through banks services of resource mobilization. A major finding is that bank credit to the private sector affects economic growth through its role in efficient allocation of resources and domestic capital accumulation.

Banu (2013) attempted to establish whether there is a connection between credit and economic growth, the economy being unable to develop in the absence of credit. With the aid of statistic software they tried to determine the supposed existence of a connection between the GDP, credits offered to public administration and credits offered to households. The results of the analysis show that credits offered to

households contribute to a greater extent to the formation of the GDP than credits offered to public administration

2.5 Summary of Literature Review

It is not difficult to comprehend the concrete way in which the growth of credit influences economic growth. When credit grows, consumers can borrow and spend more, and enterprises can borrow and invest more. A rise of consumption and investments creates jobs and leads to a growth of both income and profit. Furthermore, the expansion of credit influences also the price of assets, thereby increasing their monetary value. The rise of asset prices offers the owner the chance to borrow more, due to the increase of wealth. This cycle of credit expansion leads to increased costs, investments, to the creation of new jobs, to prosperity, followed by a new loan, which produces the sensation of increased wealth, and which makes people feel happier as long as they are moving within the realms of this circle. Finally, all economic expansion induced by credit comes to an end when one or more important economic sectors become incapable of paying off their debt

Although the literature regarding the role of financial development on economic growth has grown rapidly in recent times, studies that examine bank credit or access to private sector credit and how it impacts on the economic performance of industries or economic sectors have been overshadowed by the increasing number of empirical studies that largely focus on financial development and growth at the cross-country levels. In a survey of recent literature on finance and growth, Ang (2008) observes that although these studies have contributed to the understanding of finance-growth nexus, the results are subject to a number of criticisms, such as failure to account for the significant differences among countries and hence, points to the need for country-specific studies to inform the policy debate. Moreover, whereas broad measures such

as broad money (to Gross Domestic Product (GDP)) are often used as a proxy of financial development, they can conceal the real effects of finance on growth since not all the money is channelled or used for investment. This study therefore specifically focused on Kenya in order to determine the effects of business credit availability on economic growth.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology. First, a presentation of the research design is provided. This is followed by an explanation on the data collection procedures and a description of data analysis procedures.

3.2 Research Design

The study used a descriptive design. This is because this method most captures the objectives of the study. In this manner, the study was able to establish the relationship between the variables in the study. This was therefore the appropriate research design in this study. According to Mugenda & Mugenda (1999) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study.

3.3 Data Collection

For this study, secondary data was collected from the supervision department of the Central bank of Kenya for a period of 35 years (1980 -2014). Secondary data was also collected from the websites of other credit regulation authorities in the country. The data collected was data on credit availability to businesses in the country as well as data on economic performance for the past 35 years. Specifically, the data collected was on GDP, domestic bank credit to private sector as a ratio of GDP, the lending rate of commercial banks, and the industrial production.

3.4 Data Analysis

The data was analysed using descriptive analysis, correlation analysis and regression analysis. The descriptive statistics was the minimum, maximum, mean, and standard deviation. Correlation analysis was used to test for any serial correlations between the

independent variables. Strength of the model was tested using R^2 . The analysis was done using Statistical Package for Social Sciences (SPSS) version 20. The results are presented in tables and graphs where necessary.

3.4.1 Analytical Model

The following model was used in this study

$$GDPT = \beta_0 + \beta_1PSC_{t-i} + \beta_2LR_{t-i} + \beta_3IND_{t-i} + \varepsilon_1$$

Where GDP is the gross domestic product at current basic prices, PSC is the annual domestic bank credits to private sector as a ratio of the GDP, LR is the lending rate of commercial banks, IND is the annual growth rate for industrial value added on constant local currency, β_0 is the constant or intercept term, ε_1 is the disturbance terms, β is the estimated coefficients, t is the time period, i is the number of lags and $t-i$ are the time lags.

3.4.2 Test of Significance

A correlation and a multiple regression analysis was carried out. A correlation matrix was used to show the interrelationships within the variables under study. This helped show any serial correlations. The coefficients showed how each of the variables influence profitability. The results of significance were interpreted at 5% level of significance using the p-values. R squared was used to determine the variation in the dependent variable due to changes in the independent variables.

CHAPTER FOUR: RESULTS AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the results of the study. The study uses World Bank data from 1980 to 2014. The chapter is organised as follows. The next section presents the findings where the descriptive results, correlation results and regression results are presented. The final section is the discussion of findings.

4.2 Findings

Figure 1 shows the trend of GDP from 1980 to 2014. The results show an upward trend in the movement of GDP in Kenya shillings over the period of study from Sh. 53.91 billion in 1980 to Sh. 5.4 trillion in 2014.

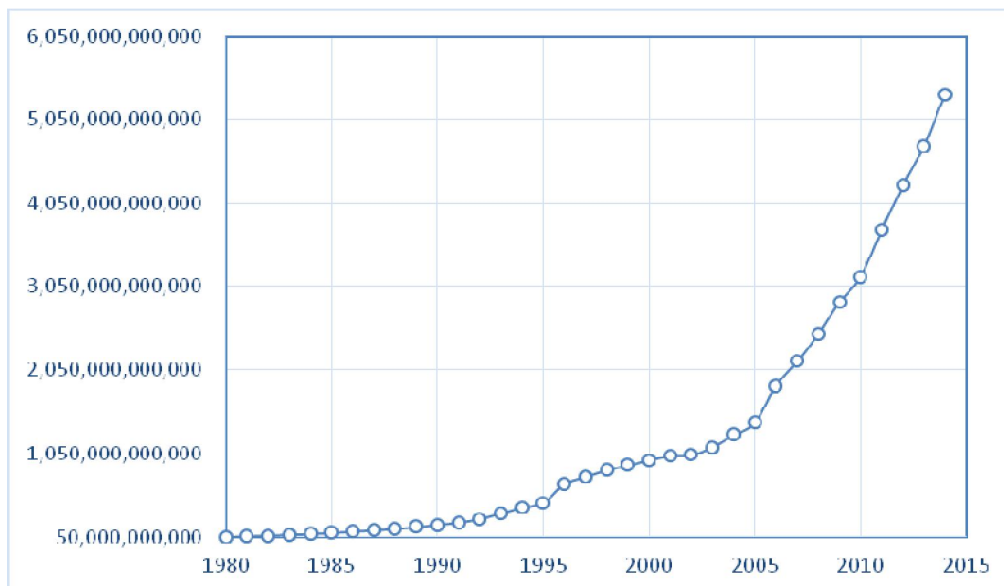


Figure 1: Kenya's GDP trend from 1980 to 2014

Figure 2 shows the trend of public sector credit, lending rate and industrial value added growth rate from 1980 to 2014. The results show that PSC (% of GDP) has remained almost the same from 29.5% in 1980 to 34.4% in 2014. The lending rates have risen from 10.6% in 1980 to the highest of 36.24% in 1994 and fell thereafter to

the current position of 16.5% in 2014. The industrial productivity has also remained within similar ranges from 5.3% in 1980 to 6.5% in 2014.

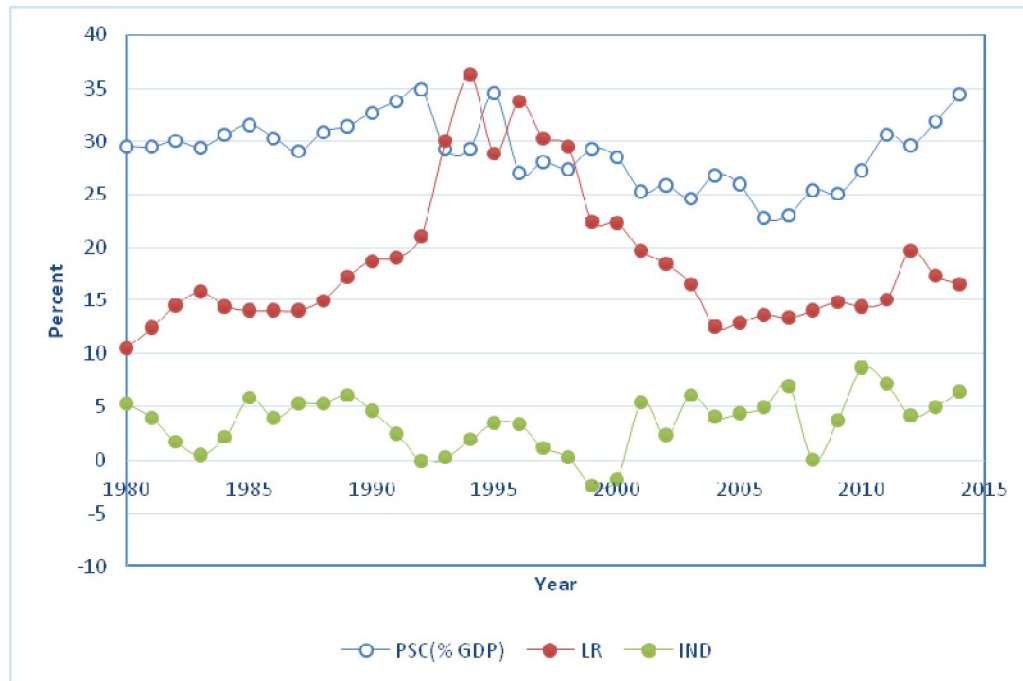


Figure 2: Trend of private sector credit, lending rate and industrial productivity

Table 1 shows the descriptive results for all the four variables used in the study in terms of the mean, standard deviation, minimum and maximum values. The results show that the mean GDP was Sh. 1,240 billion. The private sector credit had a mean of 28.97% with a minimum of 22.72% and a maximum of 34.84%. The lending rate ranged from a low of 10.58% to a high of 36.24% with the mean lending rate being 18.66%. Industrial productivity had a low of -2.36% and a high of 8.68% with a mean of 3.53%.

Table 1: Summary descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
GDP (Ksh)	1,240 billion	1,460 billion	53,900 billion	5,360 billion
PSC (%)	28.97	3.14	22.72	34.84
LR (%)	18.66	6.61	10.58	36.24
IND (%)	3.53	2.65	-2.36	8.68

Table 2 provides the results of the correlation analysis for the independent variables in the study. The results show that there were very low correlations among the independent variables. This suggest lack of multicollinearity in the data and, therefore, the independent variables can be entered into the model without transformations.

Table 2: Correlation matrix

	PSC (% GDP)	Lending Rate	Industrial Productivity
Private Sector Credit (% GDP)	1		
Lending rate (%)	0.13	1	
Industrial productivity (%)	-0.0722	-0.4589	1

Table 3 shows the regression results summary model. The results show that the model accounted for 20.6% of the variance in economic growth.

Table 3: Summary model

R	R Square	Adjusted R Square	Std. Error of the Estimate
.454 ^a	0.206	0.130	1.314689831342729

In Table 4, the ANOVA results show that the model was fit to explain the relationship between business credit and economic growth, $F = 2.687$, $p = 0.064$.

Table 4: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	13.933	3	4.644	2.687	0.064 ^b
Residual	53.581	31	1.728		
Total	67.514	34			

Table 5 shows the coefficients of the regression model. The study found that PSC had a negative and significant effect on economic growth, $\beta = -0.169$, $p = 0.026$. The study also found that lending rate had a positive but insignificant effect on economic

growth, $\beta = 0.054$, $p = 0.175$. The results also showed that industrial productivity had a positive but insignificant effect on economic growth, $\beta = 0.144$, $p = 0.143$.

Table 5: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	30.436	2.233		13.632	0.000
PSC(% GDP)	-0.169	0.072	-0.377	-2.336	0.026
LR	0.054	0.039	0.252	1.389	0.175
IND	0.144	0.096	0.271	1.504	0.143

4.3 Discussion of Findings

The study sought to examine the effect of business credit availability on economic growth of Kenya. The study found that business credit availability, measured as the bank private sector credit (% of GDP), had a negative effect on GDP. This effect was significant at 5% level. Thus, business credit availability significantly influences economic growth in Kenya. These results are consistent with those of Modebe et al., (2014) who found that bank credit had a negative effect on the growth of Nigerian economy.

The study also examined the effect of lending rate on economic growth as a control variable. This had been measured as the annual rate of bank lending. The results showed that lending rate had a positive effect on GDP. However, the effect was insignificant. This is consistent with Bosworth (2014) who revealed a weak relationship between interest rates and economic growth.

The study also examined the effect of industrial production on economic growth in Kenya. The results show that industrial production had a positive but insignificant effect on economic growth. This is consistent with the findings of Akpansung &

Babalola (2012) and Ojo & Ollade (2014) who found that industrial production did not significantly affect the economic growth of Nigeria.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter is organised as follows. The next section presents the summary of research findings followed by the conclusions of the study. Then, the limitations of the study are elucidated. The study then provides recommendations for policy and practice and, finally, concludes with suggestions for further research.

5.2 Summary of Findings

The study sought to examine the effect of business credit availability on economic growth in Kenya. Time series data was collected from 1980 to 2014 on GDP in local currency, private sector credit as a percentage of GDP, bank lending rates, and industrial production as a percentage of GDP. This data was sourced from World Bank. The analysis was done using descriptive analysis, correlation analysis and regression analysis.

The descriptive results showed that mean GDP was Sh. 1,240 billion. The private sector credit had a mean of 28.97%, the lending rate had a mean of 18.66% while industrial productivity had a mean of 3.53%. The correlation analysis showed that there were very low correlations among the independent variables. Thus, there was no multicollinearity in the data.

The regression results showed that private sector credit had a negative and significant effect on GDP, $p < .05$. The results also showed that lending rates had a positive but insignificant effect on GDP, $p > .05$. Further, the results showed that industrial production had a negative but insignificant effect on GDP, $p > .05$.

5.3 Conclusion

This study sought to examine the effect of business credit availability on economic growth in Kenya. Business credit was measured as the private sector credit as a percentage of GDP. The results revealed that private sector credit had a negative and significant effect on GDP. This suggests that GDP is influenced by private sector credit. The study concludes that business credit availability affects Kenya's economic growth.

The study examined the effect of lending rate on economic growth of Kenya. Lending rate was measured using the annual bank lending rate. The results showed that lending rates had a positive but insignificant effect on GDP. This means that lending rates do not influence economic growth in Kenya. The study thus concludes that lending rate does not affect the economic growth in Kenya.

This study examined the effect of industrial production on the economic growth in Kenya. Industrial production was measured as the annual growth rate for industrial value added on constant local currency. The results showed that industrial production had a negative but insignificant effect on GDP. This shows that industrial production did not influence economic growth. The study concludes that industrial production does not affect economic growth in Kenya.

5.4 Limitations of the Study

The study used time series annual data spanning 35 years from 1980 to 2014. While this is a fairly long time, it would have been relevant to use quarterly data. Thus, the results are limited to the period of analysis and the annual perspective of the dataset.

The model used in this study explained only 13% of the variance in economic growth. This suggests that a number of predictors were left out of the model that could have

helped improve it. Thus, the study's model limits the results as most of the variance is explained by other factors.

The study is specifically based on Kenya. Thus, the results are only limited to Kenya and any attempts to apply these results to other countries should be approached with utmost care and with specific reference to the context of this study.

5.5 Recommendations

The study makes a number of recommendations. First, the study recommends that business credit to the private sector needs to be increased in order to improve how it affects economic growth. This was found to affect the economic growth thus, higher levels of business credit are desired in the economy. Thus, commercial banks in Kenya should devise strategies that will help improve the loan uptake by small and medium enterprises in Kenya for business consumption.

Secondly, the study recommends that the Central Bank of Kenya should work on lowering the lending rates in Kenya further in order to improve the credit market. While the current levels are not the highest in history, they are high enough to impede uptake of more loans by businesses. Keeping the base interest rates lower would help improve the lending rates in the market. Further, the Central Bank of Kenya should reduce on its domestic borrowing appetite which pushes the interest rates high and thus impede on business growth.

Finally, the study recommends that there is need for the industrial production levels to be improved. Currently, the levels as a proportion of GDP are low and have not been effective in enhancing growth in Kenya. There is a chance that once these levels rise, the economy would grow much faster than is currently growing. With the recently

launched industrialisation blueprint anchored on Vision 2030, the levels of industrial production should improve and thereby improve the economic growth of Kenya.

5.6 Suggestions for Further Research

There is need for more studies to focus on other factors to use in modelling the relationship between business credit and economic growth. Thus, future studies interested in this area should use more control variables in order to ascertain the relationship between business credit availability and economic growth.

The study also suggests that cross-country studies targeting Sub-Saharan Africa should be carried out to test the effect of business credit availability on economic growth. Such a study would improve the understanding of how the region is improving in terms of business credit and whether such improvements, if any, have led to better economic growth.

Finally, there is need for future studies to model the relationship between business credit availability and economic growth using quarterly data in order to improve the number of observations and, therefore, improve the predictive ability of the model. This way, a sound model will be achieved which can be used for purposes of modelling economic growth.

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APPENDICES

Appendix I: Data

Year	GDP(LCU)	PSC(% GDP)	LR	IND	LNGDP(LCU)
1980	53,910,002,000	29.483935	10.583333	5.3316234	24.710582
1981	62,016,000,000	29.402219	12.416667	4.0006958	24.850658
1982	70,247,800,000	29.989224	14.5	1.6892456	24.975295
1983	79,592,200,000	29.347109	15.833333	0.4720486	25.100182
1984	89,242,600,000	30.554533	14.416667	2.1297565	25.214624
1985	100,811,600,000	31.525539	14	5.8737015	25.336519
1986	117,460,200,000	30.257142	14	3.9771314	25.489365
1987	131,155,800,000	28.952665	14	5.2890681	25.599652
1988	148,283,780,000	30.8323	15	5.3601135	25.722394
1989	170,404,100,000	31.381052	17.25	6.1794509	25.861439
1990	196,433,610,000	32.667933	18.75	4.6652492	26.00359
1991	224,230,069,300	33.747704	18.9975	2.5345459	26.135938
1992	264,471,872,700	34.840567	21.0675	-0.0518337	26.301001
1993	333,611,292,400	29.207554	29.989167	0.2005278	26.533242
1994	400,657,837,200	29.270537	36.24	1.9046524	26.716374
1995	465,250,740,000	34.546828	28.795833	3.5349488	26.865842
1996	687,998,000,000	26.97199	33.786667	3.3957245	27.257052
1997	770,313,000,000	27.942317	30.245	1.1918129	27.370063
1998	850,808,200,000	27.33943	29.49	0.2355552	27.469453
1999	906,927,630,000	29.257407	22.38	-2.3636116	27.533328
2000	967,836,930,000	28.430347	22.339167	-1.8320337	27.598329
2001	1,020,221,000,000	25.219601	19.665833	5.4973557	27.65104
2002	1,035,373,000,000	25.863241	18.453333	2.346471	27.665783
2003	1,131,782,000,000	24.600271	16.573333	6.119219	27.754814
2004	1,274,329,000,000	26.79153	12.531667	4.0727663	27.873441
2005	1,415,725,000,000	25.931828	12.8825	4.3880418	27.978663
2006	1,862,041,000,000	22.722399	13.635534	4.9643235	28.252694
2007	2,151,349,000,000	22.949013	13.340344	7.0702632	28.397116
2008	2,483,058,000,000	25.380612	14.016939	-0.0474881	28.540512
2009	2,863,688,000,000	25.02161	14.804541	3.6959784	28.683131
2010	3,169,301,000,000	27.228415	14.3715	8.6816187	28.784532
2011	3,725,918,000,000	30.572643	15.04676	7.2452269	28.946334
2012	4,261,151,000,000	29.537675	19.723407	4.1773262	29.08056
2013	4,730,801,000,000	31.808839	17.313458	5.0235525	29.185116
2014	5,357,672,000,000	34.420288	16.513931	6.5135096	29.309551