

**EFFECTS OF CREDIT POLICY ON THE FINANCIAL
PERFORMANCE OF DEVELOPMENT FINANCE
INSTITUTIONS IN KENYA**

BY

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DECLARATION

This research project is my original work and has not been submitted for examination to any other University.

Signature..... Date.....

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

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DEDICATION

This script is dedicated to my dear parents Elizabeth and Dickson Nthiga who made a lot of sacrifice in ensuring that I got the best education possible within their means; to my siblings for their encouragement in my studies. I greatly value the inspiration and support I received from all of you which made it possible for me to complete the programme without any interruption.

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LIST OF ABBREVIATIONS

AFC	Agricultural Finance Corporation (of Kenya)
ICDC	Industrial & Commercial Development Corporation
IDB	Industrial Development Bank Capital Limited
KIE	Kenya Industrial Estates
TFC	Tourism Finance Corporation
DFI	Development Finance Institution

ABSTRACT

Development Finance Institutions have been in existence in Kenya since the 1950's. The performance of the institutions and achievement of the main objectives of the institutions has been seen to be on a decline with researchers arguing that DFI's have come of age and their objectives should be re-evaluated. The institutions however remain relevant especially in developing countries where there is still need to build on the core industries of the economy. Economies have been seen to grow where governments invest in Small and Medium-sized Enterprises. This is mainly done through loan funding to entrepreneurs who invest in sectors that enhance economic growth. The effectiveness of lending in DFI's however remain unexamined. The aim of this paper is therefore to establish the effects of credit policy on the financial performance of Development Finance Institutions in Kenya. The study is of benefit to these finance institutions and loan seekers to make optimal decisions when choosing a source of finance and to the future researchers who will need information on credit policy and financial performance. The study adopted exploratory and descriptive survey research to identify the effects of credit policy on performance of DFI's. Five Development Finance Institutions in Kenya were studied. These are Industrial and Commercial Development Corporation (ICDC), Kenya Industrial Estates (KIE), Agricultural Finance Corporation (AFC), Industrial Development Bank Capital Limited (IDB) and Tourism Finance Corporation (TFC). The data was collected from credit risk managers of the various institutions. This is because they have the hands on knowledge on all credit policies in the institutions. Secondary sources for a period of 10 years - (2005-2015) was used. Accordingly, data analysis was based on the secondary data collected in this study. SPSS and Excel programs were used in cleaning the data and running the analysis. Descriptive statistics was undertaken then correlation and regression analysis. Based on the regression model predicted 85.5% of the total variation in ROA as indicated by R square. This implies that the model can be used to predict 85.5% ROA while 14.5% is explained by other factors. The coefficient analysis found out that credit terms and collection efforts had negative contribution to ROA. However, their effect was insignificant. Credit standards and capital adequacy had a positive and significant effect on ROA at 95% confidence level. The study therefore, concluded that, credit policy has significant effect on financial performance. It was recommended that the management of these institutions should develop sound credit policies, which will help the institutions foster an increased financial performance. Further study can be done to determine the implementation process and challenges faced in implementing credit policies in development finance institutions.

CHAPTER ONE

INTRODUCTION

1.1 Background

Development Finance Institutions are important in enhancing sustainable development in an economy. The institutions do so through provision of credit facilities to private investors in areas where a country deems important for her development. For any financial institution to perform well, sound credit policies must be institutionalised to manage risks that affect its performance.

Over the years DFI's have faced a number of criticisms. The low interest rates charged by DFI's led to negative interest rates when the interest rate charged to borrowers was lower than the inflation rate. The negative real interest rate then created excess demand for loans leading to allocation of loan to non-viable projects. Further loans were extended to social targets and politically favoured clients whose ideas may not have been the most viable. This led to high default rates and low rate of people seeking out a second loan after the first. The fact that DFI's were state owned led to pressure on the government to forgive loans just before elections, to privilege the powerful with access to cheap funds meant for the poor, and to remove incentives for management to build tight, efficient institutions. The bulk of these weaknesses highly affect the financial performance of DFI's and an efficient credit policy is able to mitigate the risks presented by these weaknesses.

All DFI's in Kenya have in place well written credit policies. However, the financial performance of the institutions and studies done on the institutions indicate that the credit policies have not been applied in their lending activities.

1.1.1 Credit Policy

A credit policy is a set of principles that outline the methodology for analysing credit requests and the decision criteria for lending. It gives specific guidelines in loaning decisions and in shaping the institution overall loan portfolio (Girm`, 1996). It ensures that funds are loaned to credit worthy clients, regulatory standards are met and that the institution makes some profit from the transaction. It is important for every lending institution to have a well written credit policy as it enables the credit staff to easily implement on the policies agreed upon and to ensure uniformity in lending decisions (Khandkar and Khan, 1998). Any exceptions to the policy should be well communicated and documented to avoid irregularities.

A good credit policy helps an institution to manage risks, maintain a good loan portfolio and satisfies regulatory requirements. It encourages full optimization of opportunities in loaning, provides direction to plan credit operations within the scope of the institutional policy, it enhances creation of effective procedures and techniques to implement the policy and creates adequate controls. It ensures that the importance of the credit function in the institution is fully acknowledged.

Institutions should ensure that credit policies in place are not too strict as strict policies chase away potential customers, reduce the size of the loan portfolio and lead to decline in the amount of cash flows to the business. A liberal credit policy will on the other hand attract defaulters, increase loan administration costs, increase the average collection period for outstanding loans and eventually lead to cash flow problems. A good credit policy should thus help management to attract and retain customers while ensuring a positive impact on cash flows (Van Horne, 1994).

1.1.2 Financial Performance

Financial performance refers to the extent to which the financial objectives of a firm have been achieved. It shows how well a firm has utilised its assets to generate revenue for its stakeholders over a given period of time. There are different stakeholders to an entity including shareholders, management, employees, tax authority, trade creditors etc. Each of these stakeholders has its own interest in following on the financial performance of the firm.

According to Stoner (2003), financial performance is the ability to operate in an efficient and profitable manner, survive and grow and react to threats and opportunities. It is the process of measuring an entity's operations, policies and regulations in monetary terms. Financial performance is used to measure a firm's total financial well-being over a given period of time and can be used to compare firms in the same industry or industries in collection.

The financial statements are the main sources of financial performance data. These include the statement of financial performance, statement of financial position, the cash flow statement and the statement of changes in equity. Analysis is done on the financial statements to inform on the financial performance of the firm. Such analysis includes working capital analysis, financial structure analysis, activity analysis and profitability analysis. Analysis is done through tools such as financial ratios which include liquidity measurement ratios, profitability ratios, debt ratios, operating performance ratios and cash flow indicator ratios (George & Lydia, 2014)

1.1.3 Credit Policy and Financial Performance

A credit policy guides credit administration in a firm. The credit policy of an institution affects the asset quality, management quality, capital adequacy and earnings and liquidity of a financial position either positively or negatively depending on how efficiently the policies are formulated and implemented. An optimum credit policy should therefore properly adjusted for credit standards, credit terms and collection efforts to ensure that the benefits of lending outweigh the costs (Kimondo, 2013).

The financial performance for financial institutions is determined by the various credit policies employed to increase coordination and efficiency of assets invested in. credit policies ensure needy customers are effectively identified, timely allocation of credit facilities to needy customers and timely and optimal returns from allocated resources. These returns translate to the financial performance of the firm (Mraba, 2009).

1.1.4 Development Finance Institutions in Kenya

Development finance institutions (DFIs) are specialised development banks established to support the private sector through financing in areas which a country deems important to its development. Development Finance Institutions seek to enhance high development while still maximising on profits. The main objectives of DFI's include: to invest in sustainable private sector, projects; to maximise impacts on development; to remain financially viable in the long term; and to mobilise private sector capital. There are five DFI's in Kenya established by different Acts of Parliament. These Acts of Parliament together with parent ministries and the State Corporations Act regulate the institutions. The DFI's in Kenya include Industrial and Commercial Development Corporation (ICDC), Kenya Industrial Estates (KIE), Agricultural Finance Corporation

(AFC), Industrial Development Bank Capital Limited (IDB) and Tourism Finance Corporation (TFC).

All DFI's in Kenya have written down credit policies in place. The policies have clearly laid down credit standards, credit terms and collection efforts to be used whenever a loan facility has been given. Critics of DFI's in Kenya have characterized the institutions with functional weaknesses in the credit policies. Further, the credit policies are not adhered to leading to high default rates which affect their financial performance negatively. This has led to high dependency on government grants to sustain operations. The study paper sought to evaluate the effectiveness of the credit policies in contributing to financial performance of Development Finance Institutions.

The financial performance of DFI's in Kenya has been poor compared to other financial institutions. Although some of the institutions have been seen to perform well, a few are making losses and highly depend on government grants to fund operations. The poor performance and failure to provide long term and sustainable finance products to key industries led to a call to merge of the institutions. This was envisaged to enhance their performance and objectivity.

1.2 Research Problem

Various studies have been carried out that show that weak credit management is a major cause of many business failures. In a study done by Hempel et al (1994) of national banks that failed in the mid 1980's in the USA, concluded that the banks failed due to inadequacy in credit management systems. According to Qingyu (2013), the ratio of non-performing loan book, which is a product of credit policy, has a positive influence on the financial performance of a financial institution. In their book, *The Economics of*

Microfinance (Beatriz & Jonathan, 2010) outlined that state owned banks have failed due lack of good credit policy in the institutions. This is evidenced by credit being allocated on the basis of political and social concerns, lack of effective and efficient incentives to collect, pressure to forgive loans, high default rates, high credit costs and lack of effective appraisal systems.

DFI's in Kenya have received a number of criticism in regard to credit policies institutionalised and their performance. A paper on Stakeholders' Forum on Financial Sector Reforms by Roe (2004) noted that DFI's in Kenya had failed to provide sustainable long term finance to the industrial sector and the agricultural sector. He noted that huge operating losses and non-performing loans had marred the institutions and the lending capacities of the institutions had been highly affected. He identified a number of weakness in the institutions such as low capital adequacy ratios, weak loan appraisal processes, poor asset quality, poor contract enforcement, high dependence on political patronage/corruption, weak regulation and supervision and high interest rate and exchange rate risks. In his study Kahindi (2009) observed that DFI's in Kenya had failed to compete effectively with other financial institutions due to lack of credit risk diversification and high credit costs. He observed that the performance of DFI's had been on the decline for the period 1999-2006. The total assets of the institutions was decreasing over the years, lending and investment figures were growing while the non-performing loan book and provisions for bad debts were increasing. The shareholder capital was seen to have declined drastically during the period with two of the DFI's close to technical insolvency.

According to a paper on Banking Sector Faces Challenges, (June 23rd 2017), state-owned commercial and specialised banks in Bangladesh are characterised by low profitability, high levels of non-performing loans, balance sheet weaknesses and capital

shortfalls. The paper identified the main causes of these weaknesses as poor loan appraisal systems, high default rates, lack of penalisation of defaulters and poor risk management. The high level of non-performing loans in state owned banks was seen to highly affect their profitability. According to Yaron (2004), poor credit appraisal and targeting, inadequate loan pricing, poor credit risk evaluation, writing off debts and laxity in debt collection has led to poor performance in state owned financial institutions.

There have been numerous studies done on Development Finance Institutions. However, most studies done have focused on the sustainability and performance of the institutions. In Kenya various studies have been done on sustainability, performance and restructuring of the existing DFI's. Very few studies have focused on the credit policies and the structures in place in these institutions. This paper therefore examined the various credit policies adopted by DFI's and how these policies affect the performance and sustainability of the institutions. It sought to answer the question, how do credit policies affect the financial performance of DFI's in Kenya?

1.3 Research Objective

To establish the effects of credit policy on financial performance of Development Finance Institutions in Kenya.

1.4 Value of the Study

Development Finance Institutions is a financial sector that has been neglected for long across many economies yet the sector plays a major role in economic and financial

development. There are scanty studies done in the operations and policies that safeguard the operations of DFI's.

The findings of the study will be relevant to prospective loan seekers to make optimal decisions when choosing a source of finance. This is because the study will inform on credit policy for DFI's as a comparison to credit policies in commercial banks and SACCO's.

The study will also help DFI's in determination and improving on their credit policies to ensure valuable credit services to their clients while still ensuring that development is attained in the economy. This will help to inform the institutions on what policy is working and which policy to abolish in order to meet their objectives. In addition, the donors of the institutions will find the study helpful in monitoring, evaluation and regulation of the institutions considering the credit policies in place.

Finally the study will provide background information to other researchers who would like to investigate more on credit policy adopted by Development Finance Institutions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section will look at the background information that will assist the researcher to have a deep and wide understanding of the research area. It will therefore explore the theories that anchor credit policies and the determinants of financial performance in development finance institutions.

2.2 Theoretical Review

This is a review of theories designed to explain and understand situations or behaviour with a view of predicting future occurrences. The following credit theories show how credit policy of Development Finance Institutions are formulated in order to ensure good financial performance.

2.2.1 Z-Score Model

The Altman's Z-Score model is an output of credit strength test designed to predict the likelihood of a firm entering bankruptcy within one or two years. Edward I. Altman developed the model in 1968 by evaluating 66 publicly traded manufacturing companies. The model was later modified for private manufacturing companies, Z-Score-Model A and Z-Score Model B for non-manufacturers. For the purpose of this study, the Z Score Model B will be used. The model has been reported to have a 95% accuracy level of predicting bankruptcy. There are a number of various bankruptcy predictor models that have come up in recent times including Ohlson O-Score,

Shumway Model of 2001 and Chava and Jarrow Model of 2004. However, none of these models have been thoroughly tested and widely accepted as the Altman Z-Score.

The Altman Z-Score Model B uses the variables; current assets, current liabilities, total assets, retained earnings, earnings before interest and book value of equity to predict the financial strength of a firm. The value of Z is as follows:

$$Z = 6.56X_1 + 3.26X_2 + 6.72X_3 + 1.05X_4$$

Where,

$$X_1 = (\text{current assets} - \text{current liabilities}) / \text{total assets}$$

$$X_2 = \text{retained earnings} / \text{total assets}$$

$$X_3 = \text{earnings before interest and taxes} / \text{total assets}$$

$$X_4 = \text{book value of equity} / \text{total liabilities}$$

When the Z-Score of the firm is more than 2.6, the firm is said to be in a safe zone based on the financial figures analysed. Bankruptcy is not predicted in this score although economic recession, fraud, mismanagement and other factors may cause an unpredicted reversal. A score between 1.1 and 2.6 indicates a grey zone. In this zone, the firm is predicted to probably survive although it is below the threshold of being safe. Slight negative changes in the financials of the firm may lead to bankruptcy. Where the Z-Score is below 1.1, the firm is said to be in distress zone and is likely to enter bankruptcy within two years. For a firm to come out of this zone dramatic action may be required. However, very few firms have managed to come out of this situation. This theory uses credit strength of institutions to determine the likelihood of a firm entering bankruptcy.

2.2.2 Credit Metrics Model

Credit metrics model was developed by Morgan (1995) for evaluating credit risks in banks. The model has however been widely accepted and is used by companies globally to evaluate their credit risks. The objectives of the model were; to create a standard for credit risk measurement, to encourage credit risk transparency and better risk management tools, promote a regulatory framework that more closely reflects economic risk and to complement other elements of credit risk management decisions. The model has three components; to develop a Value at Risk framework usable by all institutions globally that evaluate credit risks in their business, develop a model that showed a full portfolio view addressing credit event correlations which can identify the costs of over concentration and benefits of diversification in a mark-to-market framework and to use the model in making investment decisions, evaluating risk mitigating actions, developing consistent risk-based credit limits and making rational risk based capital allocations.

Credit metrics is a portfolio approach to credit risk analysis that allow credit risk managers to control and quantify risks arising from one class of borrowers, classify borrowers into various classifications, interpret credit risks in comparable terms, evaluate lending decisions, investment decisions and risk moderating actions more accurately based on quantitative measures and set consistent risk based credit limits and capital allocations. The model considers changes in debt value as a result of changes in borrower credit quality.

The Credit Metrics Model evaluates portfolio value at risk in three steps. The first step evaluates the exposure profile by assessing the risks of the various assets that form the portfolio, the second step involves computing the volatility in value of each asset in the portfolio in case of any upgrade, downgrade or default and the third step takes into

consideration the correlation between volatility of assets in the portfolio and aggregate volatility of the portfolio. The model helps to evaluate the credit risks arising from the credit policy adopted in an institution and the effect on profitability.

2.2.3 The 5 C's Model of Client Appraisal

The 5 C's of credit appraisal are components of credit appraisal use to gauge the credit worthiness of a borrower. The lender analyses five characteristics of the borrower in an attempt to estimate the probability of default. These characteristics are capacity, character, collateral, condition and capital.

Capacity refers to the borrower's ability to generate sufficient cash flows from invested funds to sustain the business and repay the loan. The lender will consider factors such as borrower's debt to income ratio, job stability, time to retirement, etc. to determine borrower's capacity to pay the loan.

Character in credit refers to the impression made by the lender on the prospective borrower. The lender looks at factors such as the background, education, experience and borrowers' history in repaying debts to determine the credit worthiness of the borrower. The creditor's history in repaying debts can be obtained from credit reports from financial institutions where the borrower has had credit transactions with. It can also be obtained from the Credit Reference Bureau. The credit report contains detailed information on the amount borrowed and whether the borrower met all the obligations set by the lending agreement.

Collateral refers to the security offered by the borrower to guarantee the loan. Security includes assets such as homes, land and motor vehicles and is given to the lender with the agreement that in case the borrower is not able to pay the loan, the security will be

the source of repaying the loan. A guarantee can also be used as collateral, where someone else promises to repay the loan in case the borrower is not able to. The collateral offered must be equal to or more than the amount of the loan.

Condition refers to the environment that the company borrowing the money operates in. A lender will look at factors such as the purpose of the loan, amount of the loan, terms of repayment and local and world economic conditions in assessing the loan condition. The condition must be constructive and practical such that the borrower has reasonable chance of repaying the loan.

Capital refers to the money that the borrower has personally invested in the business for which loan facilities are needed. It gives an assurance to the lender that in case of downturns, the investor has sufficient motivation to stick by the company and work hard to turn around the situation. A higher contribution of capital by the borrower towards the investment decreases chances of default.

The five C's of credit appraisal are important in determination and implementation of a credit policy. Effective use of the five C's of credit appraisal enhances the performance of loans.

2.3 Determinants of Financial Performance

The financial performance of any institution is of high importance to its stakeholders. Good financial performance translates to higher returns to investors, higher income for employees, quality services and products to customers and higher gross domestic product to the economy. For Development Finance Institutions, good financial performance means more future investments in development projects, increase in employment opportunities and better income for employees. There are various financial

and non-financial factors that can affect the financial performance of any institution (Mirza& Jared, 2013). Some of the factors that affect the financial performance of Development Finance Institutions include credit policy, interest rates and capital adequacy.

2.3.1 Credit Policy

According to Pandey (2000) credit policy is a combination of three decision variables, credit standards, credit terms and collection efforts. These variables are used to manage credit risks in lending institutions.

Credit standards refer to a set of criteria used by a lending institution to determine whether a borrower is credit worthy or not. A good credit standards should help management to attract and retain customers while ensuring a positive impact on cash flows. This will in turn translate to good performance of the institution. Credit terms refer to the requirements included in the loan agreement that specify the amount of the loan, interest rate, payment period, security of the loan and other enforceable conditions agreed to by both parties to the loan. Efficient credit terms should be optimal in ensuring that loan products offered are attractive to potential borrowers and that the products are offered at low risks and costs. Such terms ensure that holding all other factors constant, the financial institution reports good performance. Collection efforts refer to the steps taken by a lending institution to collect on money owed by borrowers. A collection policy is necessary for any lending institution as some borrowers do not pay loans on time. Institutions should however be careful and ensure that collection efforts are efficient in order to maintain customers. A good collection policy saves on costs while ensuring acceleration of recovery.

2.3.2 Interest Rates

The Business Dictionary defines interest rates as “The annualized cost of credit or debt-capital computed as the percentage ratio of interest to the principal”. It refers to the rate charged for debt. Khan, (2014) indicated that higher rates to borrowers increases the profitability of an institution. However, there is need to have an optimal interest rate charged to borrowers to ensure that clients are maintained as high interest rates will chase away clients.

2.3.3 Capital Adequacy

A business requires substantial amount of resources depending on its industry for it to generate income for its shareholders (Mirza& Jared, 2013). Capital refers to the amount of resources available for business and as a buffer in case of a recession (Athanasoglou et al. 2005). Studies have shown that institutions which have high levels of capital report better financial performance (Murerwa, 2015). Critics of Development Finance Institutions have argued that the institutions are characterized by low financial performance due to capital inadequacy.

2.4 Empirical Review

This section will explore international and local studies done in relation to credit policy and financial performance of a financial institution. The studies will indicate the author, the year of study, the methodology used to conduct the study and the conclusion made from the study.

2.4.1 International Evidence

Byusa & Nkusi (2012) studied the effects of credit policy on bank performance in commercial banks in Rwanda. The study adopted exploratory research method and data was collected from questionnaires and review of financial statements. The study established that six factors influence credit policy formulation and development in Rwanda. These include earnings, deposit variation, capital position, the macroeconomic environment, competitive position and experience of loan officers and responsiveness to shock events. The researchers concluded that credit policies certainly affected the performance of commercial banks in Rwanda. The study was however based on a few commercial banks in Rwanda and may not have fully represented the whole population.

Svitlana (2011) studied the “Credit Policy of Commercial Banks and its Effect on Banking” in Ukraine. In his works, the researcher studied existing approaches to the development of credit and investment strategies in banking, factors affecting the balance of credit policies in banks and the definite stages of credit policy of banks. The researcher concluded that a financial institution should consider the market of credit resources, loan term and risk levels in determination of a credit strategy that would ensure returns to the institution. The researcher however failed to show how the various credit policies adopted by commercial banks would impact on their financial performance.

Ayodele & Alabi (2014) examined “The Impact of Credit Policy on the Performance of Nigerian Commercial Banks”. Data was obtained through questionnaire and from financial statements. From the data collected, the researchers concluded that a good credit policy enhances growth of the financial performance of a financial institution.

The finding was however based on a case study of one commercial bank in Nigeria. A larger sample may have different results.

Zidan (2014) conducted a study on “Impact of Credit Risk Policies on Profitability of Commercial Banking Sector in Palestine.” The researcher obtained data from the financial statements of commercial banks in Palestine and through interviewing officials from the banks. The data obtained was analysed through a multiple regression model. The study concluded that the credit risk management policy adopted by a bank affects its profitability.

A study by World Bank (2012) in Latin America indicated that State owned financial institutions can play a major role in development as they provide stable and reliable source of financing especially in economies where commercial banks are undercapitalized and deleveraged and where economies are unstable. In order to do so, state corporations should adopt smart lending strategies and credit policies that will cushion against the identified risks such a political interference. These policies will be successful as long as they are cautiously applied and complement other measures to restore economic stability. The study however failed to evaluate how credit policies adopted by the institutions would impact on profitability.

2.4.2 Local Evidence

DFI's in Kenya have been associated with poor performance, unsustainability, high levels of non-performing loans. In a study on “Credit Risk Assessment practices and the Level of Nonperforming Loans in Development Finance Institutions in Kenya”, (Kahindi, 2012), the total assets of the five DFI's was seen to be on a decline for the period 1999-2006. While the gross lending and investment figures were seen to be

growing, the performing loans were seen to be on a decline. The researcher (Kahindi, 2012) concluded that DFI's use credit models, the 6C's of credit, credit scoring models and computer simulation models all of which are an integral part of credit policy. The study established that the level of loan default in DFI's increased with the use of computer simulation, credit scoring models and financial ratios. The use of the C's of credit on the other hand was seen to be a useful credit policy measure which decreased the level of non-performing loans in DFI's and thus essentially improving on the performance of DFI's. He further conclude that the level of non-performing loans in DFI's may be affected by other factors other than the credit risk assessment practices. The study however failed to evaluate the effects of non-performing loans on the financial performance of DFI's in Kenya.

A study on strategic responses of public Development Financial Institutions in Kenya to challenges facing the sector (Njirithia (2007), the researcher concluded that DFI's face a number of challenges in dispensing their mandate. These challenges include; stiff competition from commercial banks, microfinance institutions and foreign DFI's, difficulties in raising capital, poor customer satisfaction, poor government policies, keeping up with technological advancement, retaining market share and staff training.

According to the study, (Njirithia, 2007), these challenges led to decline in profits, decline in the value of the portfolio, loss of market share and loss of customers. In order to counter these challenges, the researcher found that offering attractive interest rates to clients would increase performance of DFI's by 71.4% holding all other factors constant. Other credit policy related factors that were seen to improve the performance of DFI's include improving customer service (57.1%), training staff (42.9%), cost cutting (42.9%), efficient management of funds (28.6%) and use of technology

(42.9%). This study did not however consider credit policy as a factor affecting financial performance of DFI's.

A paper on Stakeholders' Forum on Financial Sector Reforms (Roe, 2004) noted that DFI's in Kenya had failed to provide sustainable long term finance to the industrial sector and the agricultural sector. He noted that huge operating losses and non-performing loans had marred the institutions and the lending capacities of the institutions had been highly affected. He identified a number of weakness in the institutions such as low capital adequacy ratios, weak loan appraisal processes, poor asset quality, poor contract enforcement, high dependence on political patronage/corruption, weak regulation and supervision and high interest rate and exchange rate risks. The researcher recommended detachment of the institutions from parent ministries, professional regulation and supervision and a cautious strategy for recapitalization. The researcher however failed to evaluate the level at which the weaknesses stated contributed to the operating losses.

Kimondo (2013) conducted a study on "The Effect of Credit Policy on the Financial Performance of Deposit Taking Microfinance Institutions in Kenya". The researcher collected data from secondary sources and analysed the data in a multiple linear regression model. The study concluded that credit policy was not a significant variable in the financial performance of deposit taking Micro Finance Institutions in Kenya. The study, having been based on secondary data may not have been effective in evaluating the effect of credit policy on financial performance of deposit taking microfinance institutions in Kenya.

Wanja (2013) conducted a study to establish the "Effects of Credit Policy on Performance of Commercial Banks in Kenya". The researcher used questionnaires to

collect the data which was analysed through Statistical Packages for Social Sciences. The study concluded that credit policies indeed affect the performance of commercial banks and banks should have in place well-structured credit policies to enhance their competitiveness in the market. The study however only studied commercial banks disregarding all other financial institutions.

2.5 Conceptual Framework

The dependent variable in this study will be financial performance measured using Return on Assets (ROA). The independent variable will be credit policy composed of credit standards measured using the cost of bad debts, credit terms measured using the cost per loan asset and collection efforts measured using the default rate.

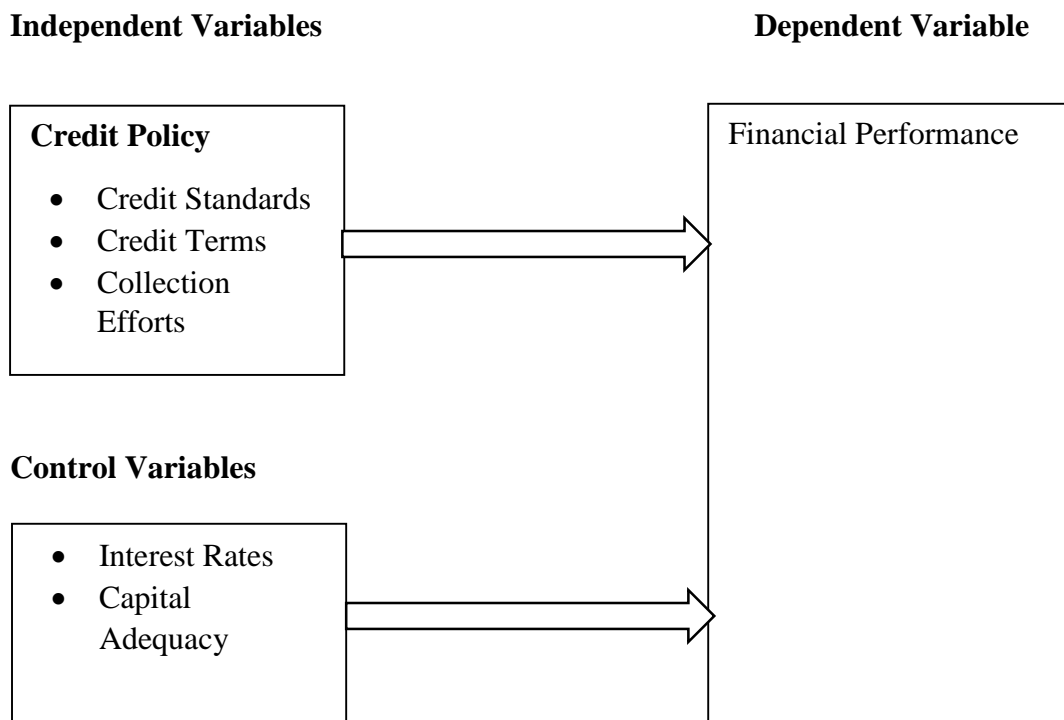


Figure 2.1: Conceptual Model

2.6 Summary of Literature Review

A credit policy is an important tool in lending institutions. Various studies have indicated that institutions should institute optimal credit policies to enhance financial performance. Too strict credit policies have been seen to chase away existing and potential customers, reduce the size of the loan portfolio and lead to decline in the amount of cash flows to the business. Liberal policies on the other hand attract defaulters, increase loan administration costs, increase the average collection period for outstanding loans and eventually lead to cash flow problems.

Studies done have indicated that credit policy affects the financial performance. The studies have however been based on commercial banks. There was no study evident on effects of credit policy on financial performance of DFI's and therefore the findings of the various study may not be applicable to the DFI's which are diverse and unique to other financial institutions due to their developmental nature. The study thus aims at establishing if any relationship exists between the credit policy adopted by DFI's and their performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explore the design and procedure that was used during the research. It specifically addresses the research design, population of the study, sample used and data collection and analysis methods.

3.2 Research Design

The study adopted exploratory and descriptive survey research to identify the effects of credit policy on performance of DFI's. These approaches were used because the subject was not extensively explored and an in depth grasp of the phenomenon was sought. The designs also allowed use of multiple tools for data collection such as questionnaires that gave the researcher a rich background in the area of study.

3.3 Target Population

The study was based on the five Development Finance Institutions in Kenya. These are Industrial and Commercial Development Corporation (ICDC), Kenya Industrial Estates (KIE), Agricultural Finance Corporation (AFC), Industrial Development Bank Capital Limited (IDB) and Tourism Finance Corporation (TFC).

3.4 Data Collection

In order to conduct the research, the summary of loan statements from the institutions was analysed to evaluate the level of bad debts. Financial statements from these

institutions was be used to assess the cost per credit asset, financial ratios and the financial performance of the institutions.

The data was collected from credit risk managers of the various institutions. This is because they have the hands on knowledge on all credit policies in the institutions. Secondary sources for a period of 10 years, (2005-2015), the financial statements were used as the statements have quantified data on financial performance.

3.5 Data Analysis

Data analysis was based on the secondary data collected in this study. SPSS and Excel programs were used in cleaning of the data and running the analysis. Descriptive statistics was undertaken then correlation and regression analysis performed on the data. Measures of dispersion will be used to evaluate the changeability of the effect of credit policy on the financial performance of Development Finance Institutions.

3.5.1 Model of Analysis

A regression model was used to analyse the effects of credit policy on the financial performance of DFI's. The model was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

Y represent Financial Performance

α represent Constant Term

X_1 represent Credit Standards

X_2 represent Credit Terms

X_3 represent Collection Efforts

X_4 represent Interest Rates

X_5 represent Capital Adequacy

ε represent the error term with a normal distribution about the mean

Y was the dependent variable, α regression constant and β_1 , β_2 and β_3 coefficients of the regression. The ANOVA test was used to test the significance of the variables to financial performance.

3.5.2 Operationalization of Variables

Variable	Description	Indicator	Explanation
Y	Financial Performance	Return on Assets	This is the ratio that shows the percentage of profits of a company before interest and tax against its total assets.
X ₁	Credit Standards	Cost of Bad Debts	Bad debts occur where a borrower fails to meet his obligation towards the loan. In such circumstances the lender incurs costs in a bid to recover the funds. These costs include provisions for bad debts and write offs. The Bad Debt Cost Ratio is given by Bad Debt Cost/ Total Amount of Loans
X ₂	Credit Terms	Cost per Loan Asset	Cost per Credit Asset is the average cost per loan given. It shows the efficiency in allocation of loans to borrowers. The ratio is given by Total Cost of Loans/Total Amount of Loans
X ₃	Collection Efforts	Rate of Default	The rate of default is the rate at which borrowers fail to meet their obligations as per the credit terms. The Default Rate Ratio is given by Total of Non-performing Loans/ Total Loan Book
X ₄	Interest rates	Interest Rates	This will be the interest rates used by the institutions.
X ₅	Capital Adequacy	Capital Adequacy Ratio	This is the ratio that shows the amount of a financial institution core capital as a measure of its risk weighted assets. The Capital Adequacy Ratio will be given by Total Capital/Risk weighted assets

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Introduction

This chapter covers data analysis, presentation and interpretation on the effects of credit policy on the financial performance of development finance institutions in Kenya. The study used exploratory and descriptive survey research design with financial ratios of credit policy deemed to have effect on financial performance. The chapter presents descriptive statistics and inferential statistics notably correlational and regression analysis.

4.2 Response Rate

The study focused on five Development Finance Institutions in Kenya for 11 years. The researcher managed to obtain 100% of the data sought. According to Mugenda & Mugenda (2013), any response rate that is more than 50% is sufficient and represents the population and may be used for purposes of data analysis.

4.3 Descriptive Statistics

The table 4.1 below shows the descriptive statistics of the study variables. The dependent variable which is the financial performance of development finance institutions in Kenya was measured by return on Assets. The minimum value was 0 while the maximum value was .5634 with a mean of .098 and a standard deviation of .0866. The data is positively skewed with a skewness of 2.93 and a kurtosis of 14.476. The independent variable X1 on the other hand represents total cost of obtaining loans referred to as credit terms. The minimum on this ratio is .238 while the maximum is

.5777 with a mean of .371 and a standard deviation of .103. The data is also positively skewed but with a negative kurtosis value at .358 and at -.852 respectively.

The other independent variable X2 has a minimum value of .0115 and a maximum value of .3372 with a mean of .137 and a standard deviation of .098. The data is positively skewed with skewness value at .428 and kurtosis at -1.435.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. error	Statistic	Std. Error
Y= ROA	55	.0000	.5634	.097646	.0866828	2.903	.322	14.476	.634
X ₁ = Credit Terms	55	.2380	.5777	.370877	.1033303	.358	.322	-.852	.634
X ₂ = Collection Efforts	55	.0115	.3372	.137306	.0977746	.428	.322	-1.435	.634
X ₃ = Credit Standards	55	.0115	.0383	.020917	.0071398	.726	.322	-.413	.634
X ₄ = Capital Adequacy	55	.1100	12.5000	.387176	1.663831	7.412	.322	54.959	.634
Valid N (Listwise)	55								

Source: Author, 2017

X3 represents credit standards and has a minimum of .0115 and .0383 as the maximum with a mean of .0209 and a standard deviation of .0071. The data is positively skewed and has a negative kurtosis at .726 and -.413 respectively.

X4 represents Capital Adequacy, the data has a maximum value of 12.5 and a minimum value of .11 with a mean of .387 and a standard deviation of 1.66. The skewness and kurtosis of this data is 7.412 and 54.96 respectively.

4.4 Correlation Analysis

Correlation analysis is a statistic used to determine the level relationship between any pair of variables and how they move in association. In this study Pearson correlation was used where the coefficient of correlation r used indicate the strength of the relation as well as the direction of the relation. Tested at 95% confidence level, the analysis determine the relationship between the study variables. Correlation coefficients range from -1 to 1 where a coefficient close to either -1 or 1 indicates a strong relationship while closer to zero indicates a weak relationship.

Table 4.2: Correlation Analysis

	Y= ROA	X ₁ = Credit Terms	X ₂ = Collection Efforts	X ₃ = Credit Standards	X ₄ = Capital Adequacy
Y= ROA	1				
X ₁ = Credit Terms	0.161949	1			
X ₂ = Collection Efforts	0.470163	-0.000218017	1		
X ₃ = Credit Standards	0.108409	0.896241845	-0.207423142	1	
X ₄ = Capital Adequacy	0.738052	0.089963832	-0.087997301	0.171583051	1

Correlation analysis presented in table 4.2 shows that the dependent variable and all the independent variables are positive. This means that an increase in any of the independent variable increases the dependent variable. Variable X2 and X4 have strong correlations to Y at .47 and .74 respectively while X1 and X3 have weak correlations with Y at values.16 and .11 respectively.

4.5 Regression Analysis

Table 4. 3: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918 ^a	.842	.829	.0358259

a. Predictors: (Constant), X₄ = Capital Adequacy, X₂= Collection Efforts, X₁= Credit terms, X₃= Credit standards

The model shows an R squared value of .842 which shows that 84.2% of the variation on performance of development finance institutions of Kenya is attributed to changes in the independent variables under study (X₁, X₂, X₃ and X₄).

Table 4.4: Analysis of Variance

Model	Sum of Squares	Df	Mean Square	F	Sig
1 Regression	.342	4	.085	66.532	.000 ^b
Residual	.064	50	.001		
Total	.406	54			

a. Dependent Variable: Y = ROA

b. Predictors: (Constant), X4 = Capital Adequacy, X2= Collection Efforts, X1= Credit terms, X3= Credit standards

The Anova table shows the significance of the model by the use of calculated F value as shown in the table as 66.532 and comparing this value with F Critical Value from the F distribution table. The F critical is 2.54. This shows that the value of F calculated > than the value of F critical.

P value calculated above is .000^b the value of alpha on the other hand is 0.05 and this shows the p value is less than alpha. It therefore implies that we should reject the null hypothesis and conclude that there is a significant relationship between the independent and dependent variables.

Table 4. 5: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.012	.019		-.632	.530
1 X1 = Credit Terms	.056	.119	.067	.474	.638
X2= Collection Efforts	.482	.056	.544	8.555	.000
X3= Credit Standards	.342	1.772	.028	.193	.848
X4= Capital Adequacy	.040	.003	.775	13.430	.000

a. Dependent Variable: Y = ROA

The table above shows the coefficients of study variables and our model represented as

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Becomes; $Y = -.012 + 0.056 X_1 + .482 X_2 + .342 X_3 + .04 X_4 + 0.019$

4.6 Interpretation and Discussion of the Results

The results of this study shows that a significant relationship existed between financial performance of development finance institutions in Kenya and credit policy. The R squared shows that the model developed in this study explains 84.2% of financial performance in this institutions is explained by the credit policy as explained by X₁, X₂, X₃ and X₄ variables.

The p value also indicates that it is less than the alpha value of 0.05, which shows that it falls under the acceptance region. It shows that the relationship between the variables is significant.

The model thus becomes; $Y = -.012 + 0.056 X_1 + .482 X_2 + .342 X_3 + .04 X_4 + 0.019$.

All the independent variables have also been shown that they have positive correlations to the dependent variable. This implies when the elements of credit policy are increased, then the financial performance of the development finance institutions in Kenya also increases. It was however clear that some independent variables have a stronger relationship to the dependent variable than others.

This study sought to establish the effects of Credit Policy on the Financial Performance of Development Finance Institutions in Kenya. Specifically, data analysis aimed at establishing if there is any significant relationship between credit policy variables and financial performance measured by ROA. The correlation analysis in this study established that credit policy variables, credit standards and capital adequacy have a very strong, positive and significant relationship with ROA. This means that, in a test of association, more reliable standards coupled with increased capital adequacy lead to increased financial performance.

The regression model was found to predict 84.2% of the total variation in ROA as indicated by R square. This implies that the model can be used to predict 84.2% ROA while 15.8% is explained by other factors. The model was found significant at 95% confidence level. This is contrary to the finding of Wachira (2014) who found very minimal relation between credit policy and financial performance of deposit taking Sacco's in Kenya.

The coefficient analysis found out that credit terms had a negative coefficient of -0.169 indicating an inverse relationship with ROA. However on significance test, the variable was insignificant at 95% confidence level. This is in agreement with Wachira (2014) who found insignificant effect of credit terms on financial performance.

Credit standards and capital adequacy are the two credit policy variables that indicated positive and significant effect on ROA. Therefore, as a significant observation, lending institutions should understand the effect brought by credit standards and capital adequacy. According Van Horne (1994) liberal credit standards will attract defaulters, increase loan administration costs, increase the average collection period for outstanding loans and eventually lead to cash flow problems. Good credit standards should thus help management to attract and retain customers while ensuring a positive impact on cash flows.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

Summary of the findings, conclusion and recommendations are covered in this chapter. The chapter also tackles the limitation of the study and suggestion for further research on the effect of credit policy on the financial performance of development finance institutions in Kenya.

5.2 Summary of the Findings

This study sought to establish the effects of Credit Policy on the Financial Performance of Development Finance Institutions in Kenya. Specifically, data analysis aimed at establishing if there is any significant relationship between credit policy variables and financial performance measured by ROA. The data analysis established that credit policy variables, credit standards and capital adequacy have a very strong, positive and significant relationship with ROA. This means that, in a test of association, more reliable standards coupled with increased capital adequacy lead to increased financial performance.

The regression model was found to predict 84.2% of the total variation in ROA as indicated by R square. This implies that the model can be used to predict 84.2% ROA while 15.8% is explained by other factors. All the credit policy variables were found to be positively correlated to the dependent variable ROA. The significance test also showed that the model was significant at 95% confidence level.

The p value indicated that it is less than the alpha value of 0.05, which shows that it falls under the acceptance region. This showed that the relationship between the variables is significant.

Credit standards and capital adequacy are the two credit policy variables that indicated positive and significant effect on ROA. Therefore, as a significant observation, lending institutions should understand the effect brought by credit standards and capital adequacy.

Murerwa (2015) posits that institutions which have high levels of capital adequacy report better financial performance. In fact, critics of Development Finance Institutions have argued that the institutions are characterized by low financial performance due to capital inadequacy.

Therefore, based on the findings of this study, credit policy has a significant effect on financial performance. The study concur with a number of studies that agree there is indeed a relationship between credit policy and financial performance. Byusa & Nkusi (2012) studied the effects of credit policy on bank performance in commercial banks in Rwanda. The study adopted exploratory research method and data was collected from questionnaires and review of financial statements. The study established that six factors influence credit policy formulation and development in Rwanda. These include earnings, deposit variation, capital position, the macroeconomic environment, competitive position and experience of loan officers and responsiveness to shock events. The researchers concluded that credit policies certainly affected the performance of commercial banks in Rwanda.

The study also agrees with Svitlana (2011) who studied Credit Policy of Commercial Banks and its Effect on Banking in Ukraine. In his works, the researcher studied

existing approaches to the development of credit and investment strategies in banking, factors affecting the balance of credit policies in banks and the definite stages of credit policy of banks. The researcher concluded that a financial institution should consider the market of credit resources, loan term and risk levels in determination of a credit strategy that would ensure returns to the institution.

Further, Ayodele & Alabi (2014) examined the Impact of Credit Policy on the Performance of Nigerian Commercial Banks. Data was obtained through questionnaire and from financial statements. From the data collected, the researchers concluded that a good credit policy enhances growth of the financial performance of a financial institution.

Locally, Wanja (2013) conducted a study to establish the Effects of Credit Policy on Performance of Commercial Banks in Kenya. The researcher used questionnaires to collect the data which was analysed through Statistical Packages for Social Sciences. The study concluded that credit policies indeed affect the performance of commercial banks and banks should have in place well-structured credit policies to enhance their competitiveness in the market.

On the contrary however, the study disagrees with Kimondo (2013) who conducted a study on the Effect of Credit Policy on the Financial Performance of Deposit Taking Microfinance Institutions in Kenya. The researcher collected data from secondary sources and analysed the data in a multiple linear regression model. The study concluded that credit policy was not a significant variable in the financial performance of deposit taking Micro Finance Institutions in Kenya.

5.3 Conclusion

The aim of this study was to establish the effect of credit policy on the financial performance of development finance institutions in Kenya. The findings of the study revealed that there is significant relationship between credit policy and financial performance.

The findings indicated that all the credit policy variables are positively correlated with financial performance as measured by the ROA. Credit terms and capital adequacy showed a strong correlation with the ROA. It shows that these variables strongly relate and influences the dependent variable return on Assets.

The findings are coherent with findings done by Svitlana (2011), Ayodele & Alabi (2014), Wanja (2013) among others. The findings however are in disagreement with findings by Kimondo (2013). This shows that more research need to be conducted out more so in the financial sector of deposit taking institutions in Kenya.

5.4 Recommendations

The findings of the study indicate a positive and significant effect of credit policy on financial performance. These findings can be employed to ensure that variables opted for in credit policy contribute to positive impact on financial performance. It should be understood therefore that credit policy in development finance institutions has a higher influence on financial performance. Thus, the management of these institutions should develop sound credit policies which will help the institutions foster an increased financial performance.

The study also recommends that, in implementing credit policy in organizations, they should also factor the 15.8% aspect covered by other variables. This will help correct

their effect if they have any negative contribution to financial performance. Therefore the study recommends development finance institutions to put emphasis on credit standards which will in turn promote profitability of the institutions.

5.5 Limitations of the Study

The study depended on secondary data to providing findings on effect of credit policy on financial performance. Secondary data is associated with reliability issues in sense that, any error in the secondary data not disclosed will reoccur in the study findings hence present biased data.

Obtaining secondary data for this study was a challenge given that, some of the institutions have not post their financial reports on the public domain. Thus, it took more efforts to visit their offices. In addition, the data available on websites has some gaps, notably obtaining 10-year period data on interest rate was not available.

The study was limited to 5 development finance institutions. Therefore, adding more institutions might maintain the same findings or change the findings presented in this study.

5.6 Suggestion for Further Research

Upon establishing that credit policy has a significant effect on financial performance of development finance institutions in Kenya, further study can be done to determine the implementation process and challenges faced in implementing credit policies in these institutions.

The study was done to determine the effect of credit policy on financial performance. The findings of these study can only be replicated in development finance institutions in Kenya. Therefore, the study recommends a further study on other financial institutions holding to the study variables of credit policy.

Not only credit policy affects financial performance in development finance institutions. The study unveiled that 14.5% is explained by other factors. Therefore, there is need to conduct another research on these other factors which have an impact on financial performance.

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APPENDICES

Appendix 1: Development Finance Institutions in Kenya, Year of Establishment and Activities.

Institution	Year of Incorporation	Activities
Industrial and Commercial Development Corporation (ICDC)	1954	Equity and Loans in Medium and Large scale Industrial and Commercial projects.
Agricultural Finance Corporation (AFC)	1963	Equity and loans to farmers
Kenya Industrial Estates (KIE)	1967	Development of industrial estates
Tourism Finance Corporation (TFC)	1965	Equity & Loans in Tourism projects and Hotel Management.
Industrial Development Bank Capital Limited (IDB)	1973	Promotion, establishment, expansion and modernization of medium and large scale industrial enterprises

Sources:

<http://www.icdc.co.ke/>

<http://www.kie.co.ke/>

<http://www.agrifinance.org/>

<http://www.tourismfinance.go.ke/>

<http://www.idbkenya.com/>

Appendix 2: Letter of Introduction

Doris Nthiga

Tel no. 0704147387

Email:dorisanthiga@gmail.com

5th October 2017.

The Auditor General,

Kenya National Audit Office,

P.O. Box 30084,

Nairobi.

Dear Sir,

REF: REQUEST FOR DATA FOR MY RESEARCH

My name is Doris Nthiga from the University of Nairobi. I am currently undertaking a degree in Master of Science in Finance. I am writing to request for financial statements for the following Development Finance Institutions which you audit.

1. Industrial and Commercial Development Corporation (ICDC)
2. Agricultural Finance Corporation (AFC)
3. Kenya Industrial Estates (KIE)
4. Tourism Finance Corporation (TFC)
5. Industrial Development Bank Capital Limited (IDB)

The information will be valuable in completion of my study.

Your assistance will be highly appreciated.

Thanks.

Yours Faithfully,

Doris Nthiga

Appendix 3: Budget Estimates

Item	Amount (Kes)
Printing and Photocopying	1,000
Travelling & Lunch	1,500
Internet Costs	2,000
Binding of final copies	3,000
Total cost	7,500