"DETERMINANTS OF NON-PERFORMING LOANS IN KENYA: THE CASE FOR COMMERCIAL BANKS"

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JULY, 2001
DECLARATION

This management project is my original research work and has not been presented for the award of any diploma or any degree in any university.

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DATE: 11/1/2001

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

SIGNED: Mr. M. N. ANYANGU
Date: 21/11/01

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DEDICATION

To my family, for being a pillar of strength and especially to my late sister Kendi, whose smile will forever remain an inspiration...
ACKNOWLEDGEMENT

As the compass guides the sailor, so has been the input from the various people in making this project a reality. I wish to extend my gratitude to my supervisor, Mr. Anyangu, for his very valuable guidance and input throughout the period of the project. Special thanks go to the staff of the various banks in Nairobi who took their time to respond to my questionnaire, and all my friends without whom the journey would have been unbearable.
ABSTRACT

Non-performing loans (NPLs) are tending towards a worrying level in Kenya, a trend that could eventually cripple the financial sector in Kenya. As at January 2001, the level stood at 39% of the total loans in the Kenyan Commercial Banks.

This study sets out to inquire into the factors that have been instrumental in the creation of these non-performing loans and the extent to which each of these factors has contributed to this trend.

The population of study was the commercial Banks in Kenya and specifically all the Branches in Nairobi. A sample was drawn from this population – 35 banks with no government shareholding and 20 banks in which the government has shareholdings.

Questionnaires were distributed to the banks that had been sampled. The response rate was 75% and 62.85% for the Banks with government shareholding and those without government shareholding respectively.

The factors that were investigated were: interest rates, government influence, exchange rate fluctuations, decline in economic growth, poor management of businesses, culture, lack of a credit reference bureau, delays in approval, under-financing of projects, misrepresentation of projects and lending that is only based on security.

The respondents resoundingly indicated the decline in economic growth as the most significant cause of NPLs in Kenya. This factor cuts across board for the banks without government shareholding as well as those in which the government has a shareholding.

Another interesting observation from the findings is that whereas government influence has been seen as more influential within those banks that the government has a shareholding, it has no doubt had a significant impact within the banks that the government has no shareholding. This influence has been demonstrated at the policy and political levels. The tourism industry is a case in point.

The other factors were also identified as significant, with varying degrees of impact.
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1.0 INTRODUCTION

1.1 Background

1.1.1 The Structure of Financial Institutions

Financial institutions, like other institutions, exist to acquire and use assets so that the value of their benefits exceeds their costs. The key difference between financial institutions and other businesses is that most of the assets that they hold are financial assets. Unlike real assets, financial assets are those expected to provide benefits based solely on another party's performance – that is, they are claims against others for future benefits.

A bank savings account, for instance, will provide future benefits only if the bank continues to operate and pay interest on the account – the account holder depends on the bank's performance for any benefits from the financial assets. Real assets on the other hand are expected to provide benefits based on their fundamental qualities – for instance a house offers shelter and a car offers a means of transport.

Although financial institutions share operating characteristics and economic functions, they vary in the products and in the financial assets in which they specialise. Gardner (1994) classifies financial institutions into the following categories:

- Depository institutions – This includes Commercial banks, Savings banks such as Kenya Post Office Bank, SACCOs and so on.
- Finance Companies – These institutions specialise in giving loans to businesses and consumers. Their liabilities are different from depositories because they acquire most of their funds by borrowing from commercial banks or selling commercial paper.
- Contractual Intermediaries – This includes Pension funds and Insurance companies among others. These companies invest funds collected from those insured or pensioners.
- Investment funds – These companies provide a means through which small savers can pool funds to invest in a variety of financial instruments.
- Security firms – These companies assist customers with purchasing and selling of stocks. They derive their income from the commissions charged on these transactions.
1.1.2 Assets and Liabilities of a Commercial Bank

The typical structure of a Commercial Bank Balance sheet according to Gardner (1994) should be:

**Assets:**
- Loans: 65%
- Government Securities: 20%
- Cash: 10%
- Other Assets: 5%

**Liabilities:**
- Deposits: 75%
- Equity: 8%
- Other Liabilities: 17%

1.1.3 Income of Financial Institutions

Financial Institutions interact in the financial markets by issuing financial liabilities and purchasing financial assets. One critical element of the financial management of these institutions is managing the spread – that is the shilling difference between the interest earned on assets and the interest costs of liabilities. This spread, expressed as a percentage of total assets, is called the Net Interest Margin (NIM).

If the NIM is high enough, the institutions may use it to offset the non-interest costs of the banks and other intermediaries such as staff salaries and so on. When the spread is negative for an extended period of time and interest costs actually exceed the interest costs earned on assets, few institutions can make up the difference with other sources of income, and many have failed as a result.

In addition to managing the size of the NIM, its riskiness should also be considered in order to achieve successful financial performance.

Thus Commercial Banks derive income primarily from lending and the securities portfolio. The other sources of income are service charge and commissions, income on foreign exchange dealings and so on. The following income figures for KCB and BBK (for the year 1999) depict the typical income structure of Kenyan Banks:
### Financial Sector in Kenya

Kenya's financial sector has acquired some modest level of sophistication since the regulation of the economy in the early 1990s. It has a rich diversity of financial entities. With the diversification of the Nairobi Stock Exchange to start trading in derivatives, the sector is poised to witness even more changes and greater sophistication in its operations.

The structure of the financial sector in Kenya as at February, 2001 was as follows:

- Fifty (49) Commercial Banks
- Seven (7) Non Bank Financial institutions
- Two (2) Mortgage Finance Companies
- Four (4) Building Societies
- Forty seven (47) Forex Bureaux

Two of the forty nine Commercial Banks have gotten an approval for a merger in order to meet the new minimum capital requirements and thus eventually the number of commercial Banks will reduce to forty eight.

<table>
<thead>
<tr>
<th></th>
<th>BBK</th>
<th>% OF TOTAL INCOME</th>
<th>KCB</th>
<th>% OF TOTAL INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Interest Income (Ksh. Billion)</td>
<td>6.502</td>
<td>61.03</td>
<td>5.368</td>
<td>43.99</td>
</tr>
<tr>
<td>Fees &amp; Commissions</td>
<td>2.838</td>
<td>26.64</td>
<td>2.658</td>
<td>21.78</td>
</tr>
<tr>
<td>Forex Income</td>
<td>0.918</td>
<td>8.62</td>
<td>0.803</td>
<td>6.58</td>
</tr>
<tr>
<td>Other Operating Income</td>
<td>0.395</td>
<td>3.71</td>
<td>3.373</td>
<td>27.64</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.653</td>
<td>12.202</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is evident therefore that interest from loans constitutes between 40-60% of the Bank's income.
1.1.5 CBK Definitions of Non-performing loans and Provisioning guidelines

a) Definition of NPLs

Under the Central Bank of Kenya classification and provisioning guidelines, advances are classified into five categories:

1. Normal – These are well-documented facilities to financially sound customers where no weaknesses exist. Such advances must not have been rescheduled.

2. Watch – These are good accounts which normally be classified under (1) above but have exhibited some specific weaknesses and hence warrant management attention.

3. Sub-standard – These are facilities, which though still operative, involve some degree of risk, and there exists possibility of some future loss unless close supervision is given and corrective action is taken to strengthen the position. For instance three months' instalments in arrears.

4. Doubtful debts – These are advances where major weaknesses exist. The recovery of the full amount outstanding might need to extended or is doubtful and that loss as yet uncertain will occur. For instance O/D whose turnover has dried up.

5. Loss – These are all those facilities with outstanding arrears which are regarded as being uncollectable and where security is worthless or has been disposed off, the proceeds of which have not covered the total debt and the balance remaining is unlikely to be recovered.

Non-performing loans include substandard, doubtful and loss categories.

b) Provisioning guidelines

1. Normal & Watch – No specific provisions, but general provisions of 1% are made.

2. Sub-standard – No specific provisions are held, but interest is suspended.

3. Doubtful – Specific provisions (Calculated as the outstanding debt) should be made in full, net of interest suspended and realisable value of securities held if any.

4. Loss – Provisions to be calculated as the total amount in full net of interest suspended and realisable value of securities charged if any.
1.1.6 The Current NPL Position in Kenya

The financial sector in Kenya has witnessed an unprecedented growth in the level of non-performing loans in the last decade. As at January 2001 this had reached 39% of the total loans. Diagram 1.1 below indicates this trend. This has had the unfortunate effect (amongst other causes) of greatly exaggerating the cost of credit in this country. This arises from the fact that all costs to a profit making entity must be covered in addition to the expected return on investment.

![THE TREND OF NPLs IN KENYA](image)

Diagram 1.1 Source: CBK Statistical bulletins for 1997-2000

It is evident from diagram 1.1 that the constant growth in the levels of NPLs in Kenya is indeed worrying and is tending to the 50% mark of the total loans in the Kenyan Banking system. Such an enormous level of NPLs could bring the Financial sector into a halt if the trend is not quickly reversed.

The banks in which the government has some controlling effects such as Kenya Commercial Bank, National Bank and others seem to have been particularly vulnerable to this trend. This is evident from the massive provisioning for bad and doubtful debts that the banks have made since 1998 to date.
The table below indicates the provisions for bad and doubtful debts for KCB, SCB, BBK and NBK for the period 1998 - 2000:

<table>
<thead>
<tr>
<th>BANK</th>
<th>1998 (Millions)</th>
<th>1999 (Millions)</th>
<th>2000 (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Chartered Bank</td>
<td>408</td>
<td>325</td>
<td>240</td>
</tr>
<tr>
<td>Barclays Bank</td>
<td>258</td>
<td>440</td>
<td>1641</td>
</tr>
<tr>
<td>Kenya Commercial Bank</td>
<td>2009</td>
<td>5113</td>
<td>4359</td>
</tr>
<tr>
<td>National Bank of Kenya</td>
<td>2036</td>
<td>2741</td>
<td>1568</td>
</tr>
</tbody>
</table>

1.1.7 Explanations Advanced for Non-Performing loans in Kenya

There are a number of factors that could lead to the creation of Non-performing loans. The CBK Monthly Economic Review (March 1999) notes, “One of the major causes of the high level of non-performing loans in the Kenyan Banking sector is poor risk assessment and Management”. In addition to this, the other possible factors that could lead to the creation of Non-performing loans are:

- **Economic decline** – The Kenyan economy has been on the decline since 1997 and this has impacted negatively on businesses. With eroded purchasing power, business turnovers have diminished and this has resulted in reduced profitability. In his article “Factors behind the prohibitive rates”, Daily Nation, 13/4/1997, Mutuma Mathiu argued that the poor fiscal policy had resulted in high inflation rates which had in turn led to high interest rates. It is argued that this could be one of the contributors to Non Performing loans. However the economy’s decline would not impact selectively on the commercial banks. How come a bank like Standard Chartered recorded a decline in Non Performing loans for the year 2000 whereas most of the other banks recorded an increase, yet all these banks operate within the same environment?
High interest rates – It has been severally argued that the high level of interest rates in Kenya has led to the inability of the borrowers to service their facilities. David Ndii in his article, “As interest rates rise, prudent people stop applying for loans”, Daily Nation, 19/11/2000, argues that high interest rates contribute to high default rates in two ways: the cost becomes unbearable and secondly and more importantly, he draws an analogy between the insurance industry and the banking industry – “when premiums are too high, people who know that they are low insurance risks drop out of the market, leaving the insurer with a pool of high risk applicants”. Similarly, when the interest rates are high banks are left with high-risk investors. This has culminated in the passing of the Donde bill to put a ceiling on the interest rates that banks can charge borrowers. The year 2000 witnessed the highest decline in interest rates in the last of couple of years. The base rate by a number of banks had dropped to around 15% and yet the level of Non performing loans continues to increase. Dickson Ogolla, Daily Nation 12/12/2001, in his article, “Curbing interest rates will only dry up credit” observes that the credit needs of most Kenyans are met through informal settings such as ‘shylocks’, Merry-go-rounds, Co-operatives, Women’s groups and friends among others. He argues that “a further look at this credit socialisation indicates that, at these levels, people pay interest rates that are extremely higher than those charged by the banks…” In spite of these high rates, repayment rates average over 90%.

Political interference – In a number of cases, the government has been blamed with interfering with banks and arm-twisting them into extending credit to undeserving customers. Mishael Ondieki in his article “Tough Bank rules expected to stem irregular loans”, Daily Nation(6/4/1999), asserts that “Banking sources argue that most of the NPLs in KCB & NBK, most of which were acquired during the single party era, were political”. Such facilities have been neglected by the borrowers and subsequently gone sour. It is worthwhile to note that all the private owned banks operate accounts for politicians either in their individual capacity or for their businesses, the question then is ‘how come most of these banks manage to cushion themselves against political interference?’
Poor regulation by CBK – It has also been argued that the Central Bank of Kenya has watched as banks accumulated massive Non-performing loans due to poor regulation. This poor regulation is said to lead to situations where the value of the security is eroded (due to misclassification) and this causes a delay in taking corrective actions. Identifying a loan likely to go sour early enough ensures that timely action is taken and hence averts the increase in NPLs. The role of CBK could however be viewed as more of a ‘post-mortem’ since the CBK does not participate in the creation of loans and hence can not be blamed for the growth in NPLs.

Exchange rate fluctuations – A number of customers are in the Export/Import trade and are thus affected negatively by the ‘roller coaster’ motions of the Kenya shilling. This is due to the fact that some of the decisions that impinge the exchange rate such as donor decisions cannot be planned for in the Kenyan scenario. Such movements have led to massive losses by a number of traders a fact that is said to have led to the growth of NPLs. A number of commercial banks such as Standard Chartered that deal with corporate customers deal heavily in international trade finance yet there is a decline in the levels of its NPLs and hence the exchange rate fluctuations might or might not lead to the growth in NPLs.

Socio-psychological - The growth in NPLs has also been viewed from a socio-psychological aspect. Dr. Gatere, East African Standard (6/11/2000), argues that “impulsive borrowing from banks in a country where wealth and power are viewed by a majority as the ultimate social goal can be attributed to a panic reaction to insecurity”. Borrowers, therefore, do not borrow with an intention of putting the money into sensible business use but rather with a view to elevating themselves socially. This he argues has greatly contributed to the high level of NPLs.

Weak Judicial System - Another argument advanced to explain the increased level of NPLs is the incredibility of the judicial system. Mohua Mukherjee, Daily Nation (24/11/98), argues that if the legal framework is transparent and there is a tradition of honouring contracts, disputes are not likely to be tied up in courts for years. The loopholes within the judicial system thus provide the immoral borrowers with ammunition to refuse servicing their loans – besides the disputes may be resolved five years after legal proceedings are instituted.
Lack of a Credit Reference Bureau - It has also been argued that lack of Credit reference bureaux is largely to blame for the growth in NPLs. Mishael Ondieki, Daily Nation (2/12/98), and Dominic Ngigi, Daily Nation (25/5/97) argue that had there been sufficient sharing of information by banks, borrowers who move from bank to bank would have been 'clipped at the bud'.

Poor Lending Policies by Banks - G. K. Njue, a development economist and financial consultant, blames the banks themselves as the greatest contributors to NPLs. In his article, “Banks to blame for bad debts”, asserts that banks are to blame for ‘harsh lending terms and conditions’. Some of the factors that he sights as contributory to NPLs are:

- Delays in approval of loans
- Under-financing of projects
- Poor understanding of projects
- Non-visiting of projects
- Lack of concern towards problematic loans – where bankers blindly run to lawyers
- Security lending which attaches more weight to the security offered than to the viability of the project
1.1.8 NPL Costs

Some of the costs that are incurred due to non-performing loans include:

- **Legal fees** – The higher the level of non-performing loans the greater will be the direct legal costs as well as the indirect legal costs of beefing up legal departments, internal consultations as well as consultations with the customers.

- **Auctioneer fees** – In situations where the security has to be eventually auctioned, the auctioneer fees erode the value of the security. The amount of the loan realised or the proceeds that eventually get to the customer are decimated by these costs.

- **Management time** – A substantial amount of management time is wasted on endless consultations with customers, rescheduling of facilities, communication with lawyers and so on.

- **Increased administrative costs** – Hidden administrative costs such as telephone bills, consumables such as printing paper, diskettes, computer space, filing the volumes of correspondence and so on are some of the costs that ultimately borne by the customers.

- **Lost Focus** – Whereas the management would be focused in productive activities that improve value for the customer, they are instead preoccupied with ‘rat and mouse’ games with the customer. Thus whereas attention would have been focused on generating more volumes to achieve the stated business objectives, it is shifted to getting the loans repaid back. The expected profit objective will have to be ultimately met by charging the customers.

From the foregoing, it is evident that non-performing loans have a substantial amount of not-so-obvious costs, which ultimately push up the cost of credit. In order for the banks to remain in business these costs (alongside other costs) have to be financed as well as give shareholders value for their investment.

In their article, Benston and Smith (1976) argue that the financial institutions exist due to the existence of transaction costs. Non-performing loans therefore increase the same costs that Financial institutions are there to reduce.
1.2 Problem Statement

It is evident from the foregoing that the exact nature and mix of the factors contributing to the growth of NPLs is not known with certainty. There is therefore need to inquire into the factors that contribute to the increasing level of Non performing loans within the commercial banks in Kenya.

1.3 Objectives of the Study

The primary objectives of this study are:

- To identify the factors that have contributed to the high level of Non-performing loans in the Kenyan commercial banks.

- Establish the extent to which each of these factors has contributed to Non-performing loans in the Kenyan commercial banks.

1.4 Importance of the Study

- The findings of this study will help the government identify the variables that are critical in the creation of Non-performing loans. Consequently, the fiscal policy developed will be clearly scrutinised with respect to these critical variables.

- The study will help banks in zeroing in on how sensitive the various loan applications are to these critical variables and hence price risk appropriately.

- The study will also be useful to the loan applicants in helping them identify those factors that are most critical to their kind of businesses and hence help them plan accordingly.

- As indicated above, the level of Non-performing loans has greatly pushed up the cost of credit in Kenya, and the general public stands to benefit if the key factors can be identified.
2.0 LITERATURE REVIEW

2.1 The Role and Mode of Operation of Financial Institutions

The essential service provided by financial institutions such as banks is the reduction of contracting costs. These contracting costs are:

- The cost of becoming informed
- The costs of structuring, administering and enforcing financial contracts
- The costs of physically transferring financial claims

Banks and other financial intermediaries potentially have a comparative cost advantage due to the following reasons:

- Due to specialisation in the business of 'selling and buying' money, banks are able to achieve scale economies.
- The continued presence of banks in the market allows the development of 'reputation capital' that allows them to demand proprietary information useful in assessing the borrower's credit risk while credibly promising to keep the information confidential.
- Banks also reduce search costs through economies associated with centralised information production.

Bank loans are a form of debt in which the lender obtains information about the firm not available publicly. Access to this information helps in reducing information costs that other creditors incur. This is especially critical if a bank has to create quality assets. The banks thus have a comparative advantage in making and monitoring loans.

Benston and Smith have indicated that:

- Transaction costs reduce the amount of the consumers' present and future consumption should he want to consume in a period other than the current one.
- Although in a perfect market it is never optimal to hold a portfolio with no risky assets, the existence of transaction costs may result in the optimal portfolio containing only riskless assets.
- Where a consumer can achieve a higher level of utility by purchasing risky assets even though he must incur transaction costs, the nature of these costs will affect the nature of his portfolio.
The demand for the commodities, such as loans, produced by financial intermediaries is generally derived from the consumers' ability to achieve a higher level of utility by incurring lower levels of these transaction costs.

The existence of Non-performing loans increases the transaction costs and hence reduces the level of utility customers could otherwise achieve in their absence.

2.1.1 The costs of producing financial Commodities

The production of financial commodities, like the production of any good requires the use of various forms of labour and capital goods. In the production of financial commodities, these inputs are more extensively employed in the tasks of:

- Documentation;
- Information and
- Monitoring

Extensive documentation is necessary because financial commodities are claims that can be easily converted into generalised purchasing power. And this is especially the case with loans.

2.1.2 Pricing of financial services

Black (1975) has suggested that in the absence of government regulation and in the presence of efficient markets, financial intermediaries would unbundle charges for their products. For instance, there would be cost for each Cheque processed, each transaction on the loan account. Thus in equilibrium, given competitive markets, banks would charge the consumers the marginal cost of producing the commodities and services demanded. Charges would be levied for each Cheque processed, each deposit made, each statement prepared and so on.

The cost of bundling each service demanded by consumers becomes prohibitive and hence the total cost of, say, non-performing loans is aggregated and shared by all the customers either in the form of higher interest rates or increased charges.
2.2 Principles of choosing Bank Assets (Loans) and Liabilities (Deposits)

Fischer Black has indicated that if the market for financial services is efficient, then any bank that uses optimal methods of fund management (and has good management practices of other kinds) will make normal profits. One characteristic of an efficient market is that the price of any security reflects everything that more than a few people know about the issuer of the security.

In an efficient market it will not pay for a bank to take actions that increase reported earnings but have no effect on the bank’s cashflows. Thus when competition is not restricted, we expect to find each product or service offered by a firm priced at marginal cost, including the required profit on the investment needed to provide the product or service.

Black evaluates an unregulated and a regulated market.

2.2.1 Individual borrowers in an unregulated environment

In the case of borrowers, a bank would set up an account that can either have a positive or negative balance. When the account has a positive balance, it will earn interest at the wholesale money rate and when it has a negative balance it is charged interest at a rate that depends on:

- Amount of the loan;
- The financial condition of the borrower;
- The nature of the collateral that might be assigned to the loan

The loan will therefore not involve a fixed schedule of payments. Whenever an individual borrower receives a salary payment, he will use it to reduce his loan. As the amount of loan changes, the interest rate on the loan will change, reflecting changes in the default risk and in the cost of administering the loan per shilling of the loan.

Black notes that if the bank has more and better credit information about an individual, it will be able to offer him lower rates on his loan. The prospect of lower rates may even induce the individual to supply complete credit information to the bank at regular intervals.

He further argues that if financial assets are held as collateral with a value substantially greater that the amount of the loan, then it can charge an
interest only slightly higher than the wholesale money rate plus the cost of keeping track of the collateral.
The interest charged on loans will generally depend on the general level of interest rates, the credit record of the individual, the costs of administering the loan and the likelihood of default.

2.2.2 Corporate Borrowers in an unregulated environment

A corporate bank account might have very large negative balances. In a perfect market, if the corporation has a loan from the bank, there is no reason for it to keep any other account with the bank.

It can use its receipts to reduce the amount of the loan and the payments it makes can automatically increase the loan. Black argues that when the bank is making a loan to a corporation, the basic protection that the bank has is the value of the corporation and its assets, not the Corporation's cashflows or its ability to make payments on the debt at a specific point in time. The ultimate protection is the ability of the owners to sell equity shares in the corporation to get the money to reduce the size of the loan.

The easiest kind of loan to make is a loan to a corporation with outstanding common stock that trades regularly. The price of the stock is the primary piece of credit information. In an efficient market, there is no reason for the bank to try and obtain information about the such a customer since all information will have been incorporated into the common stock.

The interest on the loan can be made to depend on the price of the Company's common stock, as well as on the size of the loan and other factors. The interest should also depend on the risk of the organisation, as measured by the variability of the value of the firm.

2.2.3 Dealing With Regulation

One of the stated purposes of regulation of financial institutions is to keep depositors from bearing any losses when a bank fails. The simplest way to ensure that depositors do not bear losses when a bank suffers losses on its loans or investments is to require that a substantial portion of a bank's liabilities be in the form other than deposits. The regulators should insist, for instance, that the value of the bank's non deposit liabilities be at least equal to the value of the deposits.
Black argues that the cash-ratio requirement by the Central Banks is simply a way of taxing demand deposits. Since banks do not earn interest on these reserves, the amount of interest they can pay on deposits is greatly reduced.

No matter what methods the government uses, short of direct control of the amount of loan administration done by a bank, it seems that a bank can virtually eliminate the impact of the regulation on its loan administration. The bank can make decisions on loans almost as if it were in an unregulated banking environment.

2.3 Research Finding on the Kenyan Banking environment

In his research, Okutoyi, P. G.(1988) came to the conclusion that the level of strategic marketing in a bank affects the overall level of profitability. However, she discovered that the level of strategic marketing does not affect the level of deposits within the institutions. He attributes this to the role of government in the Kenyan money market.

Matata Munyeke (1996) concludes that the clients failure to supply audited or management accounts to the bank makes the monitoring exercise frustrating and even fruitless. Therefore officers may not notice early enough any failing projects. He summarises the following as the possible causes of possible causes of poor investment portfolio of Development Financial Institutions:

- Engagement in risky business
- Over emphasis of developmental role
- Oversights by officers during the appraisal process
- Corruption
- Undue influence by promoters during the appraisal process
- Weak research departments
- Delays in project realisation
- Impediments in the monitoring exercise
- Failure to identify symptoms of failing projects
- Inefficient management of the project
- Unfavorable or adverse government policies and government interferences
- Insufficient raw materials
- Lack of generous dividend policy.
3.0 Research Methodology

3.1 Population

There are currently 49 commercial Banks in Kenya. These Banks and their respective branches formed the population of study. However, this was only restricted to Nairobi branches due to the limitations in time. The branches in Nairobi total to 120. Nonetheless, the Head offices' responses were representative of the situations in a substantial number of the branches.

3.2 Sampling

The method of sampling used was stratified sampling. This is due to the diversity of the Kenyan Banking sector and the need to have a representative sample. The branches were thus classified into two categories:

- Banks with government shareholding
- Banks with no government shareholding

A sample of 20 Banks was drawn from the ‘with government shareholding’ strata and 35 from the ‘no government shareholding’ strata.

3.3 Data Collection

This study was done through a survey of credit departments within the Kenyan commercial Banks. Through this survey, it was possible to collate the views of the various credit officers, based on their experience with the customers and with their respective loan books, as to what the causes of Non Performing Loans in their respective books could be.

The Banking sector has a wide variety of players – ranging from those that deal purely with corporate customers to those that deal with both corporate and retail customers. Some Banks have a strong global presence whereas other indigenous Banks have no offices outside Kenya. The first category of data that was collected was the identity of the various respondents, which definitely has an impact on the management style, as well as the quality of risk management.

Having identified the nature of the institutions, the second category of data to be collected was the profile of the institutions’ customer base. It was important to identify the proportions that are in each of the various
categories such as Manufacturing, Agriculture, tourism, parastatals and so on.

The next crucial information that was to be collected was the proportion of credit extended to each of these sectors and the proportion of the credit that was non-performing. With this information, it is possible to identify the sectors that have been most vulnerable and link it with the variations in the sector performance.

Factors were then identified that are thought to be contributory under each of the sectors (where the sectors can be identified) or for the entire portfolio where the sectors could not be distinctly identified.

The factors identified above were then weighted using a scale of 0-5. A weight of 5 denotes that the factor is very significant and the lowest weight of 0 indicates that the factor is completely insignificant.

The questionnaires were dropped and picked, but in other instances there was an opportunity to discuss it with the respondents during which time they elaborated on their responses.

Secondary data was also collected to indicate the trend of the key economic indicators for the period 1998 to 2000 in order to establish any correlation with non-performing loans.
3.4 Data Analysis
The data collected was analysed by the use of a computer spreadsheet - EXCEL.

The data collected for the various banks was analysed by use of multiple regression analysis.

The model derived is of the form:

$$Z = C + a_1X_1 + a_2X_2 + \ldots + a_nX_n$$

Where

$X_1, X_2, \ldots, X_n$ represent the various factors such as government influence, bad management and so on based on the responses received from the various banks.

$Z$ is the proportion of Non performing loans as a percentage of the total loan portfolio and $C$ is a constant.
4.0 DATA ANALYSIS & FINDINGS

4.1 Introduction

Response Rate
The response rate for the ‘with government shareholding’ strata was 75% - 15 of the 20 questionnaires sent out were received back. For the second strata, 22 of the 35 questionnaires were received back – a response rate of 62.85%.

4.2 Data Analysis & Findings

The results of the analysis are as set out on pages 22-23
## Analysis for Banks Without Government Shareholding

### Regression Statistics
- **Multiple R**: 0.999
- **R Square**: 0.997
- **Adjusted R Square**: 0.995
- **Standard Error**: 0.008
- **Observations**: 22.000

### ANOVA

<table>
<thead>
<tr>
<th>Df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
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<td>Total</td>
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### Coefficients

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<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
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<td>0.013</td>
<td>0.039</td>
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### SUMMARY OUTPUT

#### ANALYSIS OF BANKS WITH GOVERNMENT SHAREHOLDING

#### Regression Statistics

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>Multiple R</td>
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<td>Standard Error</td>
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<td>Observations</td>
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#### ANOVA

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<tr>
<td>Regression</td>
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<td>0.007</td>
<td>10.031</td>
<td>0.041</td>
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<td>Residual</td>
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#### Coefficients

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<th>t Stat</th>
<th>P-value</th>
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<th>Upper 95%</th>
<th>Lower 95.0%</th>
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<td>-0.494</td>
<td>0.201</td>
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The factors in the table are:

Z – The proportion of non performing loans as a percentage of the total loan portfolio
C – Represented by the y-intercept

The X variables 1 to 11 are:
X_1 – Interest rates
X_2 – Government Influence
X_3 – Exchange rate fluctuation
X_4 – Decline in economic growth
X_5 – Poor management of businesses
X_6 – Cultural
X_7 – Lack of a credit reference bureau
X_8 – Delays in approval
X_9 – Under-financing
X_{10} – Misrepresentation
X_{11} – Security based lending
SECONDARY DATA FINDINGS FOR THE PERIOD 1997-2000

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<td>1999</td>
<td>0.343</td>
<td>0.18</td>
<td>0.014</td>
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<td>0.3</td>
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<tr>
<td>1997</td>
<td>0.3</td>
<td>0.26</td>
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SUMMARY OUTPUT

Regression Statistics
- Multiple R: 0.9816
- R Square: 0.9635
- Adjusted R Square: 0.8905
- Standard Error: 0.0139
- Observations: 4

ANOVA

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<td>Total</td>
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Coefficients

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<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
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<td>21.679</td>
<td>-34.03</td>
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From the analysis the equations derived are:

**BANKS WITH NO GOVERNMENT SHAREHOLDING:**

\[ Y = 0.012 + 0.013X_1 + 0.011X_2 + 0.013X_3 + 0.03X_4 + 0.026X_5 + 
0.012X_6 + 0.04X_7 + 0.031X_8 + 0.009X_9 + 0.002X_{11} \]

**BANKS WITH GOVERNMENT SHAREHOLDING:**

\[ Y = 0.261 + 0.02X_1 + 0.097X_2 + 0.031X_3 + 0.042X_4 + 0.007X_5 + 
0.019X_6 + 0.006X_7 + 0.014X_8 + 0.022X_9 - 0.147X_{11} \]

**The Constant - C**
The constant indicates the percentage of non-performing loans that cannot be explained by the 11 factors. These are 1.2% and 26.1% for the banks with no government shareholding and banks with government shareholding respectively.

**Interest rates (X_1)**

**Strata 1 (No government shareholding)**
This has a coefficient of 0.013 indicating that its effects are medium in comparison to the other factors, but nonetheless indicating that rising interest rates are contributory to non-performing loans.

**Strata 2 (With government shareholding)**
Similar to the case of banks with no government shareholding, the impact of rising interest rates is medium with a coefficient of 0.02.

**Government influence (X_2)**
The respondents viewed the scope of government influence from a very broad perspective – not just mere interference at the approval stage but also interference at the policy and political level.

**Strata 1**
The banks with no government interference do not seem to have been severely hit by interference from the government. Nonetheless there is some effect, which could probably be attributed to the second view of government interference – that is at the policy level. This variable has a coefficient of 0.011.
Strata 2
Government interference appears to be the most contributory factor for non-performing loans in the banks in which the government has a shareholding. This variable has a coefficient of 0.097.

**Exchange rate fluctuation (X3)**

Strata 1
The contribution to non-performing loans of exchange rate fluctuations is minimal. It has a coefficient of 0.013.

Strata 2
Fluctuations in interest rates appear to be quite significant for banks in which the government has a shareholding. With a coefficient of 0.031, the hedging strategies of these banks appear to be lacking which could lead to massive foreign exchange exposures.

**Decline in economic growth (X4)**

Strata 1
This was identified as a very critical factor in the creation of non-performing loans. It has a coefficient of 0.03.

Strata 2
After government influence, this appears to be the second most critical factor in the creation of non-performing loans for the banks in which the government has a shareholding. With a coefficient of 0.042 it follows closely that of government influence at 0.097.

**Poor Management (X5)**

Strata 1
The respondents identified this as one of the most critical factors in the creation of non-performing loans. Most small and medium sized businesses have extremely poor management. The respondents explained that these managers do not differentiate between profitability, cash flows and turnover – in fact most mistake turnover for profitability. This inability to manage the businesses’ cash flows makes it difficult to service the facilities granted, even when the projects undertaken are viable. This is clearly indicated by a coefficient of 0.026.
Strata 2

Like in the case of strata 1, poor management of the customer businesses has been a contributor to non-performing loans. This is indicated by a coefficient of 0.007.

Cultural Influences (X₆)

Though not identified as very critical for both strata, it was nevertheless sighted as contributory to non-performing loans. It has coefficients of 0.012 and 0.019 for strata 1 and strata 2 respectively.

Lack of a Credit Reference Bureau (X₇)

This factor was not considered contributory to non-performing loans. It has a coefficient of 0.004 for the banks with no government shareholding and 0.006 for banks in which the government has a shareholding. The need for a credit reference bureau appears more for the latter stratum.

Delays in approval (X₈)

This came out as a critical for banks without government shareholding, with a coefficient of 0.031. For the other strata the coefficient is 0.014 indicating that it was not considered very significant.

Under financing of Projects (X₉)

This did not come out as crucial for strata 1. It has a coefficient of 0.009. It however appears quite substantial under strata 2, with a coefficient of 0.022.

Misrepresentation of Projects (X₁₀)

This was found to have no effect at all for the banks in which the government has no shareholding, with a coefficient of 0 (zero). This is perhaps due to more stringent credit appraisals. It however is quite significant for strata 2 with a coefficient of 0.014.
Security based lending (X_{11})

This factor did not come out as significant for either of the strata. It has a coefficient of 0.002 for strata 1 and a negative 0.147 for the second strata, indicating that the greater the level of security-based lending - that is adequacy and suitability of the security offered, the lower the level of non-performing loans.

Other factors & classification of sectors
None of the respondents included any additional factors to those in the questionnaire. The banks indicated that they had no accurate figures for the classification of their portfolio by sectors.

Secondary data
Secondary data was collected for the interest rates and Gross Domestic Product for the period 1998 – 2000. This data was collected from the Central Bank of Kenya statistical bulletins and from the CBK’s website, WWW.centralbank.go.ke.

The analysis of this data is as indicated on page 25. The resultant model from this analysis is:

Model for the entire sector using the variables measurable from the secondary data as indicated by the data and analysis on page 25:

\[ Y = 0.3543 + 0.3501X_i - 6.175X_g \]

Where
\( Y \rightarrow \) Non Performing Loans as a Percentage of the total loans
\( X_i \rightarrow \) Interest Rates
\( X_g \rightarrow \) Gross Domestic Product
5.0 SUMMARY & CONCLUSIONS

5.1 SUMMARY

It is evident from the findings that the mix of factors contributing to non-performing loans for banks in which the government has a shareholding differs from the mix of factors within banks in which the government has no shareholding. Nonetheless a number of factors cut across the entire banking sector.

Banks with no government shareholding

From the analysis on page 22, the following emerge as the three most significant factors in order of importance:

- Delays in approval were sighted as quite critical in the creation of non-performing loans. Project timing is important especially on continuing projects that need extra funding.
- Decline in economic growth – This is the second most critical factor that was identified. The decline in economic growth has impacted on the purchasing power of the customers that the various businesses serve and this has adversely affected the businesses’ ability to repay their loans.
- Poor management of businesses was identified as the third most critical factor. Several respondents explained that a number of businesses lacked the requisite management skills to manage the businesses optimally.

Banks with government shareholding

The following were identified as the four most critical factors as indicated on page 23:

- Government Influence – This was identified as the most critical factor in the creation of non-performing loans. The influence, some respondents explained, ranged from interference at the appraisal stage, documentation of securities and even at the realisation of those securities when the facility goes sour. The judicial systems were seen as being neither effective nor efficient.
- Decline in economic growth was again identified as the second most significant factor in the creation of non-performing loans. This, as explained above, arises due to the reduction in purchasing power with a resultant reduction in the turnovers of borrowers – hence rendering them unable to service the facilities granted.
• Exchange rate fluctuations – This was the third most crucial factor identified. This probably emanates from inadequacy by these banks to prudently hedge against foreign exchange exposures. Consequently, heavy losses are incurred in the trade finance related borrowings.

‘NICHE MARKET’ BANKS

A number of the banks that essentially serve the corporate market and high net-worth individuals have less than 1% in non-performing loans. A senior manager in one of these banks identified the following as the reasons contributing to this performance:

• Extremely stringent lending policies – It was explained that these banks identify their ‘credit appetite industries’ within which to operate. An application must thus fall within the chosen industries and evaluated against the respective top players in those industries.

• Accumulated experience and skills – A number of these banks have operated for over two hundred years and have branches spanning the entire globe. Consequently there is a wealth of credit-related lessons that have been learnt over the years, and this becomes extremely useful in the evaluation and monitoring of facilities.

• Due to the low number of customers that are served, the relationship managers for the various customers are able to closely monitor the facilities and take quick corrective action when the need arises. For instance, if the relationship manager foresees an impending exchange rate fluctuation, he will be able to advise the customer on the appropriate hedging products.

• A strict reward/punitive system that rewards for good facilities granted (as well as good relationship management) and heavily punishes for facilities that are poorly appraised/managed. An employee could easily lose their job if they approve a facility that does not subsequently perform.
MODELS DERIVED FROM THE DATA

Model for Banks with no government shareholding:

\[ Y = 0.012 + 0.013X_1 + 0.011X_2 + 0.013X_3 + 0.03X_4 + 0.026X_5 + 0.012X_6 \\
+ 0.004X_7 + 0.031X_8 + 0.009X_9 + 0.0048X_{11} \]

Model for Banks with government shareholding:

\[ Y = 0.261 + 0.02X_1 + 0.097X_2 + 0.031X_3 + 0.042X_4 + 0.007X_5 + 0.019X_6 \\
+ 0.006X_7 + 0.014X_8 + 0.022X_9 + 0.014X_{10} + -0.147X_{11} \]

Model for the entire sector using the variables measurable from the secondary data:

\[ Y = 0.3543 + 0.3501X_1 - 6.175X_g \]

Where

\( Y \) → Non Performing Loans as a Percentage of the total loans
\( X_i \) → Interest Rates
\( X_g \) → Gross Domestic Product
The problem of non-performing loans in Kenya is real and if not checked could ultimately bring turmoil in the financial sector in Kenya. The solution to this problem lies with the different players in the economy, all of whom are interdependent on each other. The following are some of the ways in which this trend can be checked:

- The Banks need to develop sufficient internal capacities in order to ensure existence of sound credit policies and adherence to such policies. This can be achieved through acquisition of appropriate skills in the credit departments and the bank at large and prudent management that constantly monitors the portfolio and is proactive in its decision making. This will ensure a near-flawless appraisal system that nips the problem at the bud is in place. In situations where an application erroneously passes through this stage or a facility develops problems later in its lifecycle, the management can be quick in identifying such problems and in quickly instituting appropriate corrective action.

- The treasury, Central bank and parliament need to constantly seek the opinion of the various players in the market before putting in place any policies that affect the financial sector. Such consultations should form a critical input into any of these policies. The macro and micro economic policies need to be managed in a way that stimulates growth in the economy. The growth of the economy, needless to say, will be reflected in reduction of unemployment and in the growth of businesses with a direct impact of increased ability to service their facilities.

- As has been reiterated time and again, the government should not be a player in the market but a regulator and facilitator. If the government ceases to be a player in the market and has sufficient goodwill to fully privatise the banks in which it has an interest, then there is a likelihood of institutions in which it has had a hand in ruining ultimately returning to good health. Secondly the government needs to develop a cushion for the private sector against politics - bad politics will have similar effects on the economy as those that have nearly crippled the tourism industry in Kenya.

- The ideas and vision upon which most of the small and medium businesses in Kenya are founded are very viable. Most of these businesses however lack or do not recognise the importance of good management in their operations. Such businesses usually have a sterling performance in the formative stages but operations begin to deteriorate once the owners achieve a certain level of 'comfort feel'.
The curbing of the problem of non-performing loans in Kenya requires concerted efforts from all the players in the economy: the banks, the government and the customers.

None of them can single-handedly eliminate the problem and yet the malaise affects all.

5.3 Limitations of the study

The fundamental limitation of this study has been the mixing of qualitative findings (expert opinions) with factual information - such as the percentage of non-performing loans in the development of the models. This is due to the fact that the expert opinions are subjective and are laced with specific correspondents’ shortcomings as well as their loyalty to the institutions they represent.

In spite of these shortcoming however, this study develops an insight into the factors that have almost led to the crippling of the financial sector.

5.4 Recommendations for further research

In view of the shortcoming identified in 5.3 above, proxies could be developed for the various factors. These proxies can be used in further refining the models.
5. CBK Monthly Economic Review, March 1999
18. Ogolla Dickson, “Curbing interest rates will only dry up credit”, Daily Nation (12/12/2001).
APPENDIX

QUESTIONNAIRE

NAME OF BANK
(Optional)

BRANCH
(Optional)

BANK SCOPE
INTERNATIONAL □ LOCAL □ (TICK THE CORRECT RESPONSE)

WHAT IS THE LEVEL OF GOVERNMENT OR GOVERNMENT RELATED SHAREHOLDING?

0-10% □ 11-20% □ 21-40% □ OVER 40% □

1. WHAT IS YOUR MARKET SEGMENT

CORPORATE □

CORPORATE & RETAIL □

RETAIL □

2. DO YOU HAVE A PROFILE OF YOUR CUSTOMERS BY INDUSTRY? (e.g. Manufacturing, Agriculture and so on)

YES □ NO □

3. IF THE ANSWER TO 2 ABOVE IS YES, WHAT ARE THE APPROXIMATE PERCENTAGES UNDER EACH OF THE FOLLOWING CATEGORIES

AGRICULTURE □

MANUFACTURING □

BUILDING & CONSTRUCTION □

SERVICES □

INFRASTRUCTURE SERVICES □
APPENDIX

(Transport, Communications etc)

OTHER
(Please specify below)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

4. WHAT IS YOUR OVERALL LEVEL OF NON-PERFORMING LOANS AS A PERCENTAGE OF YOUR TOTAL PORTFOLIO?


5. WHAT ARE THE PROPORTIONS OF NPL UNDER EACH OF THE CATEGORIES IN 3 ABOVE:

AGRICULTURE

MANUFACTURING

BUILDING & CONSTRUCTION

SERVICES

INFRASTRUCTURE SERVICES
(Transport, Communications etc)

OTHER
(Please specify below)

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

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APPENDIX

6 IN YOUR OPINION WHAT IS THE IMPACT OF THE FOLLOWING FACTORS IN THE CREATION OF NON-PERFORMING LOANS WITHIN YOUR PORTFOLIO. (Tick against the correct position on the respective scales below – Very high for most significant None for no impact)

- HIGH INTEREST RATES
- GOVERNMENT INFLUENCE
- EXCHANGE RATE FLUCTUATIONS
- DECLINE IN ECONOMIC GROWTH
- POOR MANAGEMENT
- CULTURAL (e.g. A show-off culture)
- LACK OF A CREDIT REFERENCE BUREAU
- DELAYS IN APPROVAL
- UNDERFINANCING OF PROJECTS
- MISREPRESENTATION OF PROJECTS BY CUSTOMERS
- LENDING THAT IS ONLY BASED ON SECURITY
## APPENDIX

### OTHERS (PLEASE SPECIFY AND TICK APPROPRIATELY)

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APPENDIX

7 IN YOUR OPINION WHAT IS THE IMPACT OF THE FOLLOWING FACTORS IN THE CREATION OF **NON-PERFORMING LOANS IN THE KENYAN COMMERCIAL BANKS**, (Tick against the correct position on the respective scales below – Very high for most significant None for no impact)

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APPENDIX

☐ OTHERS (PLEASE SPECIFY AND TICK APPROPRIATELY)

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