

**RELATIONSHIP BETWEEN CREDIT APPRAISAL PROCESS AND THE LEVEL OF  
NON-PERFORMING LOANS OF THE WOMEN ENTERPRISE FUND LOANS  
OFFERED THROUGH FINANCIAL INTERMEDIARIES IN KENYA**

**BY**

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**A Management research project submitted in partial fulfillment of the requirement for the  
award of the Degree of Master of Business Administration (M.B.A), School of Business,  
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## DECLARATION

I declare that this project is my original work and has not been presented for award of a degree in any university.

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This management Research project has been submitted with my approval as the University supervisor.

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Date

## **DEDICATION**

This study is dedicated to my loving parents, Mr. and Mrs. Samuel Muriithi, their counsel over the years has been invaluable. My dedication also goes to my sisters, brothers, in laws, niece, nephew and friends who have supported me physically, emotionally and also for their encouragement and patience during the entire period of my study and continued prayers towards successful completion of this course.

May God bless you all.

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## **ABSTRACT**

Granting credit to customers is an important activity for any lending institution thus the importance of credit risk management in these institutions. Lenders must therefore ensure a thorough credit evaluation process to forestall default. Factors that lead to the high levels of NPLs in the lending institutions include; weak credit appraisal process, insider lending, high interest rates and weak credit policies among other factors. Statistics from the Ministry of Gender indicate that only Sh71 million of the Sh265 million of the Women Enterprise Fund loans advanced to women groups since 2007 has been repaid, putting to doubt recovery of the remaining Sh194 million. This shows that there exists a high rate of non performing loans of the women enterprise fund loans.

The purpose of this study was to analyse the credit evaluation process adopted by the financial intermediaries offering WEF loans in Kenya, to analyse the level of nonperforming loans related to the WEF offered through the financial intermediaries in Kenya and to establish whether there is any relationship between the credit evaluation process and the level of nonperforming loans in the WEF loans offered through financial intermediaries in Kenya. This study was a survey of all financial intermediaries offering women enterprise fund loans. The population of interest was all the financial intermediaries that offer the WEF loans. This study used primary data, which was collected by way of questionnaires. Both descriptive and inferential statistics were used to analyze the data.

The study found that most of the organizations get their funds from foreign donors, and existing credit policy is the most important factor in establishing a credit control policy. Further the study concludes that encouraging movement of surplus money is the most important objective in credit policy and that credit risk managers are used in majority of the organizations in approving loans with very high approval limits ceiling. The study further established that credit period of funds do increase the level of loans defaults while credit appraisal through frequency of loan reviews and considerations made during credit approval do decrease the level of non performing loans of WEF. Moral hazard leading to defaults also happens when loans are not subjected to normal objective credit assessment before disbursement. The study recommends the following; financial intermediaries offering the women enterprise fund/ loans should have clear credit policy with proper monitoring and review from time to time in order to reduce the cases of NPL.

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## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

According to Clarke, (1999) awarding credit is a journey, the success of which depends on the methodology applied to evaluate and award the credit. This journey starts from the application for credit through acquisition of credit sales and ends at the time the debt is fully paid.

Credit appraisal is a wholistic exercise which starts from the time a prospective borrower walks into the bank and ends in credit delivery and monitoring with the objective of ensuring and maintaining the quality of lending and managing credit risk within acceptable limits. The quality of credit appraisal processes depends on two factors namely, a transparent and comprehensive presentation of the risks when granting the loan on the one hand, and an adequate assessment of these risks on the other hand,(Seyfried, 2001). Furthermore the level of efficiency of the credit appraisal processes is an important rating element due to the considerable differences in the nature of various borrowers ( private persons, listed companies)and the assets to be financed (residential real estates, production plants, machinery) as well as the large number of products and their complexity, there cannot be a uniform process to assess risks (Seyfried 2001).

Credit risk can be reduced by monitoring the behavior of clients who intend to apply for credit in the business. These clients may be businesses or individuals (Altman, 2002). It is the responsibility of management to set up a credit administration team to ensure that once credit is granted it is properly administered. Procedures for measuring a firm's overall exposure to credit risk as well as stringent internal rating system should be adequate. All companies that do not currently have independent risk management structures must immediately set up units that will concentrate fully on the risk management function. This risk management function within an institution should report directly to the board to ensure independence (Basel, 1999).

Numerous approaches have been developed for incorporating risk into the decision making process by lending organisations.They range from relatively simple methods such as the use of subjective or informal approaches to the use of fairly complex methods like the computer simulation models (Luce and Raiffa,1957).Many lending decisions by the financial institutions

are based on the decision makers subjective feelings about the risk in relation to the expected repayments of the borrower. Lending institutions commonly use this approach in decision making because it is both simple and inexpensive (Mc Grugan, 1993)

The Central Bank of Kenya defines non performing loans (NPLs) as those loans that are not being serviced as per loan contracts and expose the financial institutions to potential losses (CBK, 1997). It is important to note that non-performing loans refer to accounts whose principal or interest remains unpaid 90 days or more after due date.

In recent years a growing number of developing countries including Kenya have embarked on reforming and deregulating financial systems ,transforming their institutions into effective intermediaries and extending viable financial services on a sustainable basis to all segments of the population (Seibel,1996).By gradually increasing the outreach of their institutions some developing countries have substantially alleviated poverty through lending , institutional strategies and financial systems approaches. In the process a new world of funding to the marginalized less privileged groups for including women and the youth has emerged (Omino, 2005).

The formal sector has been unwilling to provide credit to the Medium and Small Enterprises (MSE) because the clients from this sector are largely poor lacking in securities that can be used as collateral in conventional lending .Commercial banks have therefore for a long time perceived such business as highly risky. Moreover the costs associated with administering and monitoring credit services are quite high. The loan value required by client in this sector is low hence proportionately low revenues generated from the loans. This has made commercial banks shy away from lending to these groups of people. This has made the government come up with projects that aim at supporting these groups and women enterprise fund is one of its projects, (Seibel,1996).

Women Enterprise fund was launched in December 2006 as a result of research recommendations about government delivery of subsidized credit to the poor. The women enterprise fund was set up by the government in December 2006. Women Enterprise Fund loans reach the target beneficiaries through partner financial intermediaries and directly through Constituency Women Enterprise Scheme. There are five core mandates of the fund .These are: To Provide money for on-lending to women enterprises through Financial Institutions and

directly to women through Constituency Women Enterprise Scheme. Second is to facilitate investment in commercial infrastructure beneficial to women enterprises for example, business markets or business incubators. Third is to Support women oriented Micro, Small and Medium Enterprises (MSM) to develop linkages with large enterprises. Fourth to facilitate local and external marketing of products made by women MSM. Fifth to Support capacity building of the beneficiaries of the fund and their institutions.

The fund has become an important source of credit for a large number of women across the country both in the rural and urban areas of Kenya. It is worth noting that for the Women Enterprise Fund to sustain viable credit programmes, borrowers should be able to make sustained and regular repayments as agreed in time.

Women, who form the majority of micro and small entrepreneurs in both rural and urban areas, are among the most vulnerable members of society who tend to be marginalized even though they play a major role in economic and social development. Their involvement in the MSE sector is therefore essential if poverty is to be reduced. It is therefore essential that women be given better access to both financial and non-financial resources and this therefore makes the Women Enterprise Fund an important tool in addressing the financial needs of women entrepreneurs.

The criteria for the credit appraisal process is essential .Successful and effective credit appraisal process determines the success of the credit journey and hence reduces the level of NPLs. Therefore an ineffective credit appraisal process would contribute to high levels of nonperforming loans. Weak credit appraisal process is one of the factors that lead to high levels of nonperforming loans (Kányiri,2005).

## **1.2 Statement of the Problem**

Granting credit to customers is an important activity for any lending institution thus the importance of credit risk management in these institutions .Lenders must therefore ensure a thorough credit evaluation process to fore stalk default (Sinkey, 1992). Factors that lead to the high levels of NPLs in the lending institutions includes; weak credit appraisal process, insider lending, high interest rates and weak credit policies among other factors.(Kanyiri,2005).

Statistics from the Ministry of Gender indicates that only Sh71 million of the Sh265 million of the Women Enterprise Fund loans advanced to women groups since 2007 has been repaid,

putting to doubt recovery of the remaining Sh194 million. This shows that there exists a high rate of non performing loans of the women enterprise fund loans. The fund is aimed at alleviating poverty and employment at the grassroots but the increasing cases of default reported could make it difficult to sustain the funds. Therefore there is need to establish what are the causes of the high rate of loan defaults so that appropriate measures could be taken to solve this problem.

Weak credit appraisal process is one of the factors that lead to high levels of non performing loans. This therefore means that there is a possible relationship between the level of non performing loans and the credit appraisal process. Several studies have been conducted on non performing loans in commercial banks. Among them include Kiyai, (2003), Mutugi, (2006) Situme, (2006) and Jacinta, (2009). Studies have also been done on non performing loans in the micro finance institutions by Wanyonyi, (2009) and also in cooperative societies by Mathenge, (2008).

These studies have been done on commercial banks, microfinance institutions and cooperative societies. However among the studies previously done no study has specifically been done on non performing loans of the women enterprise fund loans extended by financial intermediaries. A knowledge gap therefore exists and hence this study seeks to address this gap by establishing if any relationship exists between the non performing loans of the women enterprise fund and the credit appraisal process of the financial intermediaries extending these loans

### **1.3 Objectives of the Study**

- i. To analyse the credit evaluation process adopted by the financial intermediaries offering Women Enterprise Fund loans in Kenya
- ii. To analyse the level of nonperforming loans related to the Women Enterprise Fund offered through the financial intermediaries in Kenya
- iii. To establish whether there is any relationship between the credit evaluation process and the level of non performing loans in the Women Enterprise Fund loans offered through financial intermediaries in Kenya.

## **1.4 Importance of the Study**

### **Financial Institutions**

Financial institutions will be enlightened on the importance of the credit evaluation process and its relation or contribution to NPLs. The institutions will also obtain information on problem of credit management in Kenya and the strategies that need to be put in place to solve these problems and the experience of similar organizations in other parts of the world in solving these problems. This will help them formulate policies that will help minimize the level of NPLS

### **The Government and the Central Bank of Kenya (CBK)**

The government and CBK will find useful information that will help them in formulation of policies that will lead to a reduction in the level of NPLs. This is because as the financial sector grows the government has to come up with policies that address the various challenges within the sector so as to facilitate faster growth with minimum drawbacks. The government will be able to have an indication of the level of NPL of women fund, and this will provide a guide in formulating policies that will help reduce the level of NPL of the women fund.

### **Donors to the Women Fund**

Donors and strategic investors who provide funding for credit need better understanding of the best opportunity to invest their money. Donors should understand if their funds are reaching the desired objectives and whether the financial institutions are putting in place safeguards to reduce default.

### **Scholars**

This area of funding the less privileged or marginalized groups for example women is still suffering from a dearth of information. Research in the various components in this area will help to unearth hitherto unknown information that will go along way in facilitating further understanding of the women fund. It will also contribute to the existing body of knowledge and fill in the gap on the level of non performing loans and the credit evaluation process. It will also act as a source of reference materials to scholars.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2:1 Introduction**

According to Seyfried (2001) Credit appraisal process is a wholistic exercise which starts from the time a prospective borrower walks into the bank and ends in credit delivery and monitoring with the objective of ensuring and maintaining the quality of lending and managing credit risk within acceptable limits. This review chapter will help the researcher to clarify strengths and direct each stage of the research from the formulation of each topic to the mechanism and utilization of research findings in general in regard to the credit appraisal process and the non performing loans in this case in relation to the women enterprise fund loans extended by financial intermediaries. The chapter will also seek to review past studies that have been carried out by other scholars on the same area of study.

### **2.2 Theories**

#### **2.2.1 Financial Intermediation Theory**

Financial intermediation is a process which involves surplus units depositing funds with financial institutions who then lend to deficit units. Matthews and Thompson (2008) identify that financial intermediaries can be distinguished by four criteria: first their main categories of liabilities (deposits) are specified for a fixed sum which is not related to the performance of a portfolio. Second the deposits are typically short-term and of a much shorter term than their assets. Third a high proportion of their liabilities are chequeable (can be withdrawn on demand). And fourth their liabilities and assets are largely not transferable. The most important contribution of intermediaries is a steady flow of funds from surplus to deficit units.

#### **2.2.2 Information Asymmetry Theory**

This strand of theory is based on the notion that the borrower is likely to have more information than the lender about the risks of the project for which they receive funds. This leads to the problems of moral hazard and adverse selection (Matthews and Thompson, 2008). These problems reduce the efficiency of the transfer of funds from surplus to deficit units.



The banks overcome these problems in three respects: First by providing commitment to long-term relationships with customers, Secondly through information sharing and thirdly through delegated monitoring of borrowers. Under direct financing, it is necessary for a lender to collect information to try to redress the information asymmetry.

### 2.2.3 The Theory of Delegated Monitoring of Borrowers

This is one of the most influential in the literature on the existence of banks. Defined broadly, 'monitoring' of a borrower by a bank refers to information collection before and after a loan is granted, including screening of loan applications, examining the borrower's ongoing creditworthiness and ensuring that the borrower adheres to the terms of the contract. A bank often has privileged information in this process if it operates the client's current account and can observe the flows of income and expenditure. This is most relevant in the case of small and medium enterprises and is linked to banks' role in the payments system (Matthews and Thompson, 2008).

## 2.3 Credit Risk Management

Credit risk management is the process of evaluating risk in an investment. When the risk has been identified, investment decisions can be made and the risk vis a vis return balance considered from a better position. Credit risk can be reduced by monitoring the behaviour of clients who intend to apply for credit in business. These clients may be businesses or individuals (Altman 2002).

Credit risk management issues continue to occupy the agendas of boards of directors in companies today. In today's environment companies are looking for assistance in identifying and managing risk throughout their organization (Duffie and Singleton 2003). It is the responsibility of management to set up a credit administration team to ensure that once credit is granted it is properly maintained and administered. Procedures for measuring a firm's overall exposure to credit risk as well as stringent internal rating system should be adequate. All companies that do not currently have independent risk management structures must immediately set up units that will concentrate fully on the risk management function. This risk management function within an institution should report directly to the board to ensure independence (Basel, 1999).

An interesting development in the corporate world over the past decade has been credit risk and specifically the mechanism for transferring and managing credit risk such as credit default swaps, credit linked notes and collateralized loan obligations. Two of the pioneers of research in this area, Duffie and Singleton, have provided an integrated analysis aimed at pricing, measurement and management of credit risk (Acharya, 2005).

An important element of credit risk management is stress testing. This involves identification of possible events or future changes that could have a negative impact on the firm's credit portfolio and the firm's ability to withstand the changes. The areas to examine critically are economic or industry changes, market risks events and liquidity conditions. Credit quality problems, in the worst case result in a firm's insolvency. There can also result in such a significant drain on capital and net worth that they adversely affect a firm's growth prospects and ability to compete with other firms (Saunders, 2002).

The Basle II framework breaks risks into market risk (price risk), credit risk and operational risk and also specifies methods for calculating capital requirements for each of these components.

According to Stanley (2006) corporates face a number of credit risk exposures that could be managed with credit derivatives. As applied to corporate finance, credit risk management is a technique for measuring, monitoring and controlling the financial or operational risk on a firm's balance sheet. Credit risk management literature focuses on identifying equilibrium scenarios in which a firm minimizes the total variability of its cash flows (Smith and Stultz, 1985). The role of risk management is to mitigate the cost associated with cash flow volatility that result from capital market imperfections thus creating value for shareholders.

### 2.3.1 Mitigation of Credit Risk

Lenders mitigate credit risk using various methods which include; risk based pricing, covenants, credit insurance and credit derivatives, credit tightening, diversification, credit insurance, factoring, debt collection, surety bonds and securitization and netting off. (Smith and Stultz, 1985)

In the case of risk-based pricing, Lenders generally charge a higher interest rate to borrowers who are more likely to default. Lenders consider factors relating to the loan such as loan purpose, credit rating, and loan-to-value ratio and estimates the effect on yield (credit spread).

Covenants enables Lenders to write stipulations on the borrower, called covenants, into loan agreements and Periodically report its financial condition, refrain from paying dividends, repurchasing shares, borrowing further, or other specific, voluntary actions that negatively affect the company's financial position and repay the loan in full, at the lender's request.

Credit insurance and credit derivatives allows lenders and bond holders to hedge their credit risk by purchasing credit insurance or credit derivatives. This contract transfers the risk from the lender to the seller (insurer) in exchange for payment. The most common credit derivative is the credit default swap.

Tightening credit enables the lenders to reduce credit risk by reducing the amount of credit extended, either in total or to certain borrowers. For example, a distributor selling its products to a troubled retailer may attempt to lessen credit risk by reducing payment terms from net 30 to net 15.

With diversification, lenders to a small number of borrowers (or kinds of borrower) face a high degree of unsystematic credit risk, called concentration risk. Lenders reduce this risk by diversifying the borrower pool. Deposit insurance is established by many governments to guarantee bank deposits of insolvent banks. Such protection discourages consumers from withdrawing money when a bank is becoming insolvent, to avoid a bank run, and encourages consumers to holding their Savings in the banking system instead of in cash.

Credit insurance enables the corporate to purchase a contract from a multiple insurance company that provides for reimbursement of losses if the firm's customers prove unable to meet its payables. (Smith and Stultz, 1985). A factoring company might be willing to adopt the credit risk associated with receivables outright. However the price the factoring company will pay represents a significant discount from their present value (Singleton and Duffile, 2003).

Debt collectors also known as credit controllers or collection agents are responsible for recovering bad debts or late payments. Credit controllers usually work in the credit control department of a business chasing late payments from the company customers (Singleton Duffile 2003). Surety Bonds and Securitization effectively involve the sale of the firm's receivables to a

financial intermediary that in turn packages them into a security for other investors (Smith and Stultz, 1985). Netting off is where loans are netted off against deposits of the same counter party. This is especially good at mitigating against foreign intercompany debts (Smith and Stultz, 1985).

## **2.4 Credit Appraisal Models**

Lending institutions need to measure the probability of default of borrowers. The ability to do this largely depends on the amount of information the financial institution has about the borrowers. At the retail level, much information needs to be collected internally or purchased from external credit agencies. At the wholesale level the information sources include publicly available information such as certified accounting statements, stock and bond prices and analysis reports. The availability of more information along with lower average cost of collecting such information allows financial institutions to use more sophisticated and usually more quantitative methods in assessing default probabilities for large borrowers compared to small borrowers. (Saunders, 2002).

Advances in technology and information collection are making quantitative assessments of even smaller borrower increasingly feasible and less costly. Financial institutions have therefore employed many different models to assess the default risk on loans. These vary from the relatively qualitative to highly quantitative models. These models are not mutually exclusive, in that, more than one model may be used to reach a credit pricing or loan quantity rationing decision. (Gardener, Mills and Cooperman, 2000).

### **2.4.1 Qualitative Models**

In the absence of publicly available information on the quality of borrowers, the financial institution manager has to assemble information from private sources such as credit and deposit files and or purchase such information from external sources such as credit rating agencies. The amount of information assembled varies with the size of potential debt exposure and the cost of collection. A number of key factors enter into the credit decision. These include borrower's specific factors which are particular to the individual borrowers as well as market specific factors that have an impact on all borrowers at the time of the credit decision (Thygeson, 1995). Also

the Cs of credit which include collateral, character, capacity, condition, contribution, and common sense.

The credit manager then weighs these factors to come to an overall credit decision. Because of their reliance on the subjective judgment of the manager these models are often called expert systems. (Saunders, 2002).

The main areas of focus in qualitative models are borrower's specific factors, market specific factors and the Cs of credit. Among the borrower specific factors are reputation, leverage, volatility of earnings and collateral

Reputation involves the borrowing and lending history between applicant and the financial institution. If overtime, the borrower has established a reputation for prompt and timely repayment, this enhances the applicant's attractiveness to the financial institution. A long term customer relationship between a borrower and a lender forms an implicit contract regarding borrowing and repayments that extends beyond the formal explicit legal contract on which borrower lender relationship are based. The importance of reputation, which can be established only over time through repayments and observed behavior works to the disadvantage of small and newer borrowers (Thygerson, 1995).

A borrowers leverage or capital structure affects the probability of default .the loans increase the borrower's interest charges and pose a significant claim on its cash flow. The higher the leverage the higher the probability of default (Thygerson, 1995).

A highly volatile earnings stream increase the probability that the borrower cannot meet fixed interest and principal charge for a given capital structure. Consequently, new firms or firms in high -tech industries with high earnings variance over time are less attractive due to credit risks than those with long standing and more stable earnings histories. (Thygerson, 1995).

The degree of collateral or assets forming the security of the loan is a key feature in any lending and loan pricing decision. Subordinated debentures are riskier because their claims to the assets of a defaulting borrower are junior to those of both mortgage bondholders and debenture holders. (Thygerson, 1995).

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Market specific factors encompass the business cycles and the level of interest. The position of the economy in the business cycle phase is enormously important to financial institutions in assessing the probability of default of the borrowers. During recession, firms in the consumer durable goods sector that produce luxurious goods do relatively badly compared to those in the non-durable goods sector producing non luxurious goods. People cut back on luxuries during recession but are less likely to cut back on the necessities such as food. These corporate borrowers in the consumer durable goods sector of the economy are especially prone to default risk because of cyclical concerns, financial institutions are more likely to increase the relative degree of credit rationing in recessionary phases. This has especially adverse consequences for smaller borrowers with limited or no access to alternative credit markets (Thygeson, 1995).

The level of interest rates is an important market factor. High interest rates are an indication of restrictive monetary policy actions by the Central Bank of Kenya. Financial institutions not only find funds to finance their lending decisions scarcer and more expensive but also must recognize that high interest rates are correlated with higher credit risk in general (Thygeson, 1995).

The C's of credit are a common reference to the major elements of a financial institutions analysis when considering a request for a loan. According to Abedi (2000), the 6 C's are character, capacity, condition, collateral, contribution and commonsense. While adverse record on each one is enough, to reject an application; good reports on all the aspects improve the probability of success. Therefore these elements can be used individually or in combination, depending on the level of quality of credit appraisal required of the amount of credit involved (Abedi, 2000).

Capacity to repay is the most critical of the six factors. It is the primary source of repayment - cash. The prospective lender will want to know exactly how the borrower intends to repay the loan. The lender will consider the cash flow from the business, the timing of the repayment, and the probability of successful repayment of the loan. Payment history on existing credit relationships - personal or commercial- is considered an indicator of future payment performance. Potential lenders also will want to know about other possible sources of repayment (Abedi, 2000).

Capital is the money a borrower has invested in the business and is an indication of how much the borrower has at risk should the business fail. Interested lenders and investors will expect the borrower to have contributed from their own assets and to have undertaken personal financial risk to establish the business before asking them to commit any funding (Rose, 1991).

Collateral or guarantees are additional forms of security the borrower provides to the lender. Giving a lender collateral means that the borrower pledges an asset they own, such as a home, to the lender with the agreement that it will be the repayment source in case they are not able to repay the loan. A guarantee, on the other hand, is a situation where someone else signs a guarantee document promising to repay the loan if the borrower cannot. Some lenders may require such a guarantee in addition to collateral as security for a loan (Rose, 2000).

Conditions describe the intended purpose of the loan. Will the money be used for working capital, additional equipment or inventory? The lender will also consider local economic conditions and the overall climate, both within your industry and in other industries that could affect your business (Rose, 1991).

Character is the general impression the borrower makes on the prospective lender or investor. The lender will form a subjective opinion as to whether or not the borrower is sufficiently trustworthy to repay the loan or generate a return on funds invested in the company. The educational background and experience in business of the borrower and knowledge of the industry will be considered. The quality of the borrowers' references and the background and experience levels of the employees will also be reviewed (Rose, 1991).

Common sense is the natural ability to make good judgment and behave in a practical and sensible way. It refers to being prudent and reasonable in analyzing, presenting, using and interpreting financial data and other related business information. In addition common sense is the reasonableness of the financial information provided to support the case for financing a project as an indication of the ability of the project to pay itself (Rose, 1991).

The C's of credit is meant to help financial institutions to thoroughly evaluate and assess the creditworthiness of existing potential customers before awarding new or further credit, hence

enabling them to avoid Non Performing Loans. The C's of credit model covers the entire area of credit risk and hence its application in credit risk appraisal will ensure that lending institutions protect their assets against loss (Abedi, 2000).

#### 2.4.2 Quantitative Models

Quantative models involve the use of sophisticated computer simulation as well as other statistical technique to assess the credit worthiness of a customer. Many advantages accrue through the use of quantitative methods for credit management. First there are obvious benefits from optimally making decisions. More credit worthy applicants are granted credit (or addition credit )thus increasing profits while more non worthy applicants are denied credit or given reduced credit thus decreasing losses and optimal collection policies minimizes the cost of administering collections or maximizing the amount recovered from the delinquent account (Galtz, 1983).

In addition there are indirect advantages including quick processing of applications, decisions made are objective and not based on human biases or prejudices; the profitability of the lender can be tied explicitly to the credit decisions, management has easy control over the system. So that changes in policy can easily be incorporated into the software rather than disseminated through meetings and papers and fewer people are needed to administer credit granting and the most experienced people can concrete on difficult cases (Galtz, 1983).

#### 2.4.3 Credit Scoring Models

Credit scoring models use data on observed characteristics either to calculate the probability of default or to sort borrowers into different default risk classes. To employ credit scoring models in this manner, the manager must identify objective economic and financial measures of risk for any particular class of borrower (Gardner 2000). For corporate debt, financial ratios such as debt equity ratio are usually key factors. After data are identified a statistical technique quantifies or scores the default risk probability of default risk classification. Credit scoring models include linear probability models, logit models, and linear discriminant models (Saunders 2002).



The linear probability model uses past data such as accounting ratio as inputs into a model to explain repayment experience on old loans. The relative importance of the factors used in explaining past repayment performance are used to forecast probabilities on new loans. According to this model old loans are divided into two observable groups: those that are defaulted ( $Z_i=1$ ) and those that did not default ( $Z_i=0$ ). The observations are then related by linear regression to determine the relationship set of casual, variables ( $X_{ij}$ ) reflect quantitative information about the  $i$ th borrower. The model is estimated by linear regression of the form.

$$Z_i = \sum_{j=1}^n \beta_j X_{ij} + \ell_i$$

Where  $\beta_1$  is the estimated importance of the  $i$ th variable in explaining past repayment experiences. Where two factors influence the past default behavior of borrowers; the leverage (D/E) and the sales – asset ratio (S/A) are input in the model and based on the past default (repayment) experience, the linear probability model is estimated as

$$Z_i = 0.5 (D/E_i) + 0.1 (S/A_i)$$

This technique is straight forward as long as current information on the  $X_{ij}$  is available for the borrower. However its major weakness is that the estimated probabilities of default can often lie outside the interval 0 to 1. The logit model overcomes this weakness by restricting the estimated range of default probabilities to lie between 0 and 1. (Saunders,2002)

Linear discriminant models categories borrowers into good and bad borrowers. While linear probabilities and logic models project a value for the expected probability of default if a loan is made, discriminant models divide borrowers into low or high default risk classes, contingent on their observed characteristics. An example of such a model is one developed by Edward Atman in 1968.

He used discriminant analysis to come up with the following index of credit worthiness.

$$Z = 0.72X_1 + 0.85X_2 + 3.1X_3 + 0.42X_4 + 1.0X_5$$

Where

$X_1$  = Net working capital / Total assets

$X_2$  = Retained earning /Total assets

$X_3$  = EBIT/Total assets

$X_4 = \text{Shareholders equity} / \text{Total liabilities}$

$X_5 = \text{Sales} / \text{Total assets}$

The higher the value of  $Z$ , the lower the default risk classification of the borrower. Thus low or negative values of  $Z$  may be evidence of the borrower being a member of a relatively high default risk class. According to Altman's credit scoring model, any firm with a  $Z$  score of less than 1.18 should be placed in the high default risk region. Thus the financial institution should not make a loan to such a borrower until he/she improves his/her earning (Saunders, 2002).

There are however a number of problems using this discriminant analysis models to make credit risk evaluations (Gardner, 2000). This model usually discriminates only two extreme cases of borrower behavior while ignoring the others. There is no obvious economic reason to expect the weights in the discriminant function or more generally, the weights in any credit scoring models to be constant over any but very short periods. These models ignore qualitative factors that may play a crucial role in the default or no default decision. There is no default records kept by financial institutions.

#### 2.4.4 Default Risk Models

This is a typical credit analysis performed by lending institutions which focus on determining the underlying relationship between a borrowers characteristics, both financially and non financial and the expected probability of default. This relationship is given by the following equation.

$$D = d \{I(c) Cf, NW, G\}$$

Where

$I$  = Information quality i.e. timelessly accuracy

$C$  = Character

$CF$  = The level and stability of cash flow

$NW$  = Real net worth

$G$  = Guarantees

As each of these factors deteriorates, borrower expressed probability of default increase and vice versa .It is important to note that the customers risk cannot be considered in isolation .Its contribution to portfolio risk is important as well (Sinker, 1999).

#### 2.4.5 Functional Expression of Credit Risk

Credit risk is the uncertainty associated with a borrower's loan repayment. If the expected probability of default is  $d$ , then the expected probability of receiving payment is  $(1-d)$ . A profitable loan contract rate  $r^*$  must, compensate the lender for the time value of money as reflected by the risk free rate of interest  $r$ , and the risk of default expressed by the following equation

$$r^* = \frac{1+r}{1-d} - 1$$

The above equation captures the fundamental notion of a risk –return trade off specifically the financial institutions profitable loan contract rate increases with its perceptions of the borrowers probability of default ( $d= 0$ ) then  $r^* = r$

In contrast when a borrower is certain to default ( $d= 1$ ) then the loan contract rate is undefined (i.e. lender cannot be compensated for the risk). For a particular borrower, the difference between the profitable loan contract rate  $r^*$  and the risk free rate  $r$  is the default risk premium by the lender (Sinkey, 1992).

In theory the typical credit analysis performed by a financial institution focuses on determining a borrowers probability of loan repayment  $(1-d)$  where  $d$  is the probability of default (Sinkey, 1992).

#### 2.4.6 Newer Models

The newer groups of credit risk models uses financial theory and more widely available financial market data to make inferences about default problems on debt and loan instruments. Consequently these models are most relevant in evaluating lending to larger borrowers in the corporate sector .These includes among others the risk adjusted return on capital, the term structure of credit risk approach and the mortality rate approach. (Saunders 2002). One market

based method of assessing credit risk exposure default probabilities is to analyze the risk premium inherent in the current structure of yields on corporate debt or loans to similar risk rated borrowers (Saunders 2002).

The newer groups of credit risk models uses financial theory and more widely available financial market data to make inferences about default problems on debt and loan instruments. Consequently these models are most relevant in evaluating lending to larger borrowers in the corporate sector. These includes among others, the risk adjusted return on capital (RAROC), the term structure of credit risk approach and the mortality rate approach (Saunders 2002).

## **2.5 Process of Credit Appraisal**

In order to assess the credit risk, it is necessary to take a close look at the borrowers' economic and legal situation as well as the relevant environment (e.g. industry, economic growth) (Seyfried 2001).

### **2.5.1 Overview of the Credit Appraisal Process**

The quality of credit appraisal processes depends on two factors namely, a transparent and comprehensive presentation of the risks when granting the loan on the one hand, and an adequate assessment of these risks on the other hand, (Raaij, 2005). Furthermore the level of efficiency of the credit appraisal processes is an important rating element due to the considerable differences in the nature of various borrowers ( private persons, listed companies)and the assets to be financed (residential real estates, production plants, machinery) as well as the large number of products and their complexity, there cannot be a uniform process to assess risks (Raaij 2005) .

The vast majority of credit institutions serve a number of different customer segments. This segmentation is mostly used to differentiate the services offered to individualize the respective marketing efforts (Seyfried 2001). As a result, this segmentation is based on customer demands in most cases. Based on its policy a financial institution tries to meet the demands of its customers in terms of accessibility and availability, product range and expertise as well as personal customer service (Raaij 2005).

In practice linking sales with the risk analysis on it is not an issue in many cases at first. The sales organization often determines the process design in the risk analysis units. Thus the existing variety of segments on the sales side is often reflected in the structure and process design of the credit analysis units (Bessis 2002).

While classification in terms of customer segments are for example complimented by product specific segments there appears to be no uniform model. Given the different sizes of the financial institutions, the lack of volume of comparable claims in small financial institutions, the lack of volume of comparable claims in small financial institutions vendors such as model inadequate also for reasons of complexity, efficiency and customer orientation (Bol 2003) Irrespective of a financial institutions size, however it is essential to ensure a transparent and comprehensive presentation as well as an objective and subjective assessment of the risks involved in lending in all cases (Raaij 2005). Therefore the criteria that has to be taken into account in presenting and assessing credit risks determine the design of the credit appraisal process.

Johnson and Johnson (1985), Hempel and Simonson (1999) and Kuch and MacDonald (2000) all pointed out that the activities in the process of commercial and industrial (C&I) loans follow eight steps. These steps are application, credit analysis, decision, document preparation, closing, recording, servicing and administration and collection. These activities and the primary tasks for those responsible for these activities must be well documented. The first step of the (C&I) loan process is the application which is conducted by a loan officer. This step covers the initial Interview and screening of a loan request (consultative group to assist the poorest, CGAP, 2000).

Secondly the credit analysis from the information gathered from the borrower is conducted by the credit department. The analyst then prepares a recommendation report for the loan officer about whether the loan should be granted, rejected or qualified. In the third step the loan officer obtains the credit analysis report and determines whether the report accurately describes the borrowing capacity and characteristics of the borrower. If Collateral is required the amount of collateral additional collateral documentation are indicated (Coopestake, 2001).

In the fifth step the loan officer obtains the borrower's signatures and receives collateral. Then the loan operation is closed and the loan proceeds. The sixth step is the recording of the loan conducted by the loan operation and credit department staff. A loan operation clerk classifies and codes the loan for entry into the commercial loan system, and he or she reviews the loan for compliance with the banks loan policies. Finally the loan operation clerk and credit department staff member file the loan notes, authorization and receipts in designated files.

The seventh step is loan servicing and administration conducted by a loan operation operator, a loan officer, a credit department staff member and financial analyst. The loan operation staff person prepares the loan payment notices to notify the borrower and is responsible for receiving periodic payments. The loan officer makes periodic visits and customer calls to obtain new financial statements from the borrower and provides that information to credit department and reviews the loan for compliance with the loan agreement. A credit department financial analyst also receives and reviews the borrowers periodic financial statements (Demirag 2004).

In the eighth stage the loan officer may receive periodic delinquency information and need to follow up on this with borrowers. The loan officer also needs to adjust loans terms and conditions as deemed necessary to take legal action if non-collectible procedures and fore closure on the loan are required. After analyzing these lending activities, a value chain of lending activities can be identified and the rationale for determining how values are created can be determined (Demirag, 2004).

#### 2.5.2. Steps Leading up to the Credit Review

The execution of the credit review is based on external and internal data on the credit applicant (Raaij 2005). Especially for extensive exposures, considerable resources may be tied up in the process of collecting the data, checking the data for completeness and plausibility and passing on the data to people in charge of handling, analyzing and processing the exposure within the bank. These steps can also lead to a large number of procedural errors. As the data included form the basis for the credit review, errors in collecting, aggregating and passing them on are especially relevant also from a risk perspective (Bessis, 2002).

The first step is data collection. The assessment of a credit applicant, credit standing is based on different data sources by data types in accordance with the type of borrower (Raaij 2005).

In any case, a bank must always be interested in being comprehensive and current data on the economy and personal situation of the borrower. In order to ensure consistent customer service, the respective account manager will typically coordinate the gathering of information. The credit review incorporates not only economic data but also qualitative information concerning the borrower. The account manager should thus include a complete for critical picture of the borrower (Bessis 2002). In order to ensure that all the information gathered by the account manager is passed on to the person in charge of the credit review it would be advisable to prepare standardized and structured reports on customer visits. In practice, this has proven effective in directing conversations with customers as desired (function as conversation guide). This procedure ensures that information gathered in its entirety and in an efficient manner. The layout of the visits report should be specified for each segment and should be included in the internal guidelines (Raaij 2005).

To make sure that the data collected is complete, mandatory lists showing what data are required to be used. These lists then have to be adapted to the requirements of the credit review process conforming to the type of borrower in each case (Stomper 2004). In addition to individual borrower data, many cases will require general information on the economic situation of a region or an industry to allow a comprehensive assessment of credit application. Here the bank can make use of external sources.

If a bank's credit portfolio shows a focus on certain industries or regions, banks are advised to conduct their own analyses of the economic situation in these fields. This is particularly true if the available external information lacks the necessary detail and or currency (Raaj 2005).

With regard to the credit review, it is particularly important to constantly update customer data, and the bank should include procedures and time frames in its internal guidelines. In terms of individual processes, it should be ensured that periods should be compared at regular intervals in assessing the exposure. Therefore the relevant data should be available for at least the previous two, but preferably the last three years

The second step is plausibility check and preliminary review. Before a credit exposure is subjected to a comprehensive credit review, the employee initially in charge should conduct a plausibility check and a preliminary review (Bol 2003). This check should look at the completeness and consistency of the documents filed by the borrower to minimize any process loops and the need for further inquiries with the customer. In addition sales should carry out an initial substantive check based on a select few relevant criteria. The objectives include the creation of awareness and active assumption of responsibility for credit risk on the part of the sales department (Raaij, 2005).

The preliminary check is especially significant in segments with high rejection rates, as a comprehensive credit review ties up considerable resources in these segments. The preliminary check should prevent exposures which will most likely be rejected from typing up capacities in risk analysis. The resulting reduction in number of cases dealt with by risk analysis allows a more detailed scrutiny of promising exposures and is thus desirable in terms of risk as well as efficiency (Raaij 2005).

In practice, the distinction between two types of check criteria has proven successful; red criteria which if fulfilled lead to an outright rejection of the exposure (also referred to as knock out criteria) and yellow criteria, which if fulfilled require the sales staff to present a plausible and well documented justification of the respective situation. If this justification cannot be made the exposure also has to be rejected. In terms of efficiency it may be necessary in certain customer segments not to consider an exposure any further if two or more yellow criteria are fulfilled at the same time (Raaij 2005).

Passing on data is the third stage. Making sure that information is passed on in its entirety is relevant from a risk perspective and concerns those process in which the credit approval process is not concluded by the account manager himself. If the internal guidelines provide for a transfer of responsibility or if the credit review is conducted by two or more people it is necessary to ensure that the complete set of relevant documents is handed over. It would be advisable to prepare hand over reports for this purpose ((Raaij 2005).



Handover reports should fully reflect changes in responsibility in the course of credit appraisal process as well as any interface occurring in the process. In practice, a modular structure has proven particularly effective for such forms. If possible they should be kept electronically or alternatively as the first page of the respective credit folder.

Raaij (2005) points that sales employees have to use the module (table or text module) provided for handing over the exposure to the respective process. This contains among other things an enumeration of the documents required for the respective risk analysis segment (completeness checklist). On the other hand this ensures a smooth transfer of the documents and on the other, it prevents incomplete files from being handed over to risk analysis. In addition, further modules e.g. notes taken during customer appointments, should be included in the handover reports. Furthermore appropriate modules should be included for all other interfaces but sales and risk analysis or between different persons in processing.

### 2.5.3. Accounting for Risk Aspects

The quality of the credit appraisal process from a risk perspective is determined in the best possible identification and evaluation of the credit risk resulting from a possible exposure (Raaij 2005). The loans officer uses visiting report to help him understand the borrowers associated problems. The factors for evaluation generally used in this situation are in line with the 6 (principles of basic lending. These 6 C's are character, capacity, capital, collateral, conditions and control (Rose, 1991) which are also important references indexes for banks when making a credit analysis to decide whether or not a borrower is worthy of a loan.

The credit risk can be distributed among four risk components which have found their way into the new Basel capital accord (referred to as Basel II). (Bessis 2002) notes that the probability of default (PD) loss given default (LGD) exposure at default (EAD) and maturity (M) are variables that are interrelated. The most important components in credit appraisal processes are PD, LGD and EAD while maturity is required to collocate the required capital, it plays a minor role in exposure review (Raaij 2005).

probability of default; Reviewing a borrower's probability of default is basically done in evaluating the borrower's current and future ability to fulfill its interest and principal repayment obligations. This evaluation has to take into account various characteristics of the borrower which should lead to a differentiation of the credit appraisal processes in accordance with the borrowers served by the financial institutions (Raaij 2005). Furthermore it has to be taken into account that for certain finance transactions interest and principal repayments should be financed exclusively from cash flow of the object to be financed without the possibility for recourse to further assets of the borrower (Seyfried 2001). In this case the credit review must address the viability of the underlying business model, which means that the source of the cash flows required to meet interest and principal repayment obligations has to be included in the review.

By analyzing the borrowers situation using the 6C's principles the comparatively more difficult situations encountered by a loan officer become capacity and condition because in addition the understanding and analysis of the information about capacity and condition. It is also necessary to determine whether any future changes will affect the financial situation and the loan repaying ability of an enterprise. Therefore if an excellent professional loan officer can accurately and completely collect information in these capacity and condition, the value of the visiting report will be high. (Dunaghue, 2004; Ebrahim, 2003; 2005; Goddard, 2004).

Loss given default (LGD); LGD is affected by the collateralized portion as well as the cost of selling the collateral. This is where the collateral fetches a lower value on sale and the cost of selling e.g. advertising is high. Therefore, the calculated value and type of collateral have to be taken into account in designing the credit appraisal processes.

Exposure at Default (EAD); In the vast majority of the cases described here, the EAD corresponds to the amount owed to the financial institution (Bessis 2002). Thus besides the type of claim, the amount of the claim is another important element in the credit appraisal process. Thus four factors should be taken into account in the segmentation of credit appraisal process; type of borrower, sources of cash flows, value and type of collateral, amount and type of claim.

In general the type of borrower is used as the highest layer in credit appraisal processes. This is due to the higher priority of reviewing legally economic conditions within the substantive credit review process (Bessis 2002). The way in which the economic situation is assessed greatly depends on the available data. The following segments can be distinguished; sovereigns, other

public authorities e.g. (regional governments local authorities), financial services including credit institutions such as Banks building societies, mutual funds and insurances company) and corporate and retail entities. Usually at least the segments of corporate and retail customers are differentiated further.

The distinction of so called specialized lending from other forms of corporate finance is based on the fact that the primary, If not the only source of reducing the exposure is the income from the asset being financed and not so much the unrelated solvency of the company behind it which operates on a broader basis (Seyfried 2001). Therefore the credit review has to focus on the asset to be financed and the expected cash flow (Raaij 2005). In order to account for this situation the segmentation of the credit appraisal processes should distinguish between credits to corporations, partnerships or sole proprietors and specialized lending.

Value and type of collateral have a significant impact on the risk involved in lending of particular relevance .In this context are those types of collateral which afford the lender a claim on the collateral and those products constructions under which the lender has legal and economic ownership of the asset to be financed (Raaij 2005).

Two forms of finance are particularly relevant in practice mortgage finance and leasing finance. Mortgage finance and leasing are those forms of finance which often give the lender a substantial degree of control over the asset being financed (Bol, 2003). The strong legal position resulting from such collateral may warrant special treatment of the relevant forms of finance.

#### 2.5.4. Valuation of Collateral

The valuation of the collateral provided by the credit applicant is an essential element in the credit approval process and thus has an impact on the overall assessment of the credit risk involved in a possible exposure (Raaij, 2005). The main feature of a collateralized credit is not only the borrowers personal credit standing which basically determines the probability of default (PD) but the collateral which the lender can realize in case of customer defaults and which thus determines the banks loss via the risk component of loss given default (LGD) and other requirements concerning credit risk mitigation techniques, the value of the collateral is included

in calculating the capital requirement under Basel II (Kamp, Pfingsten and Porath, 2005). In order to calculate the risk parameters under Basel II correctly it is important for the valuation of the collateral to be effected completed, independently of the calculation of the borrowers PD in the credit rating process. This should ensure that the probability of default and the loss given default are shown separately in order to meet the Basel requirements of splitting up the review into a customer rating which reflects only the PD on the one hand and a transaction valuation which also contains a valuation of the collateral to support the credit decision on the other hand (Raaij 2005).

Collateral is generally divided into personal and physical collateral. In the case of personal collateral the provider is basically liable with his entire fortune. Examples of personal collateral are the surety ship, guarantee and letter of support and collateral promise. In the case of physical collateral the bank receives a specific security interest in certain assets of the borrower of the collateral provider. Examples of physical collateral are the following: mortgage pledge of movable assets (on securities, goods, bills of exchange) security assignment and retention of title of an asset .

The internal guidelines (collateral catalogue) should lay down the type of collateral which each bank generally accepts. Banks should take a close look at that collateral whose value is subject to particularly strong fluctuations and or whose realizations is long winded or often cumbersome liens for example, usually pose relatively few problems for their holders and provide them with a rather strong creditor position as the related value of the collateral given is generally easier to assess/value than the personal liability fund of a guarantor (Raaij, 2005).

The collateral catalogue has to include appropriate instructions on assessing the collateral potentially accepted by the bank as well as determining its collateral value (Raaij 2005). A description of the processes and principles in determining the collateral value for each type of collateral will primarily have to been drawn up in accordance with the business orientation of each bank and the complexity of the approved collateral (Hellwig, 1998). General principles governing the valuation of collateral such as accounting for sustainable value or valuing the collateral based on the liquidation principle should be included in the determination of collateral

value; similarly, it should also include general risk deductions as well as deductions for procedural cost (e.g. long time required to sell the collateral). This allows a more accurate estimate of the potential realization proceeds.

All forms of the collateral have one thing in common in that while the application of credit risk mitigation techniques reduces credit risks, it also creates new risks for the bank. In particular it will be up to each bank's capabilities to identify and measure the risk involved with collateral in order to derive an objective assessment of the total risk inherent to a secured exposure (Bessis, 2002). Among other measures, Basel II takes this into account by stipulating special requirements answering the way in which all collateral arrangements can be enforced and realized. (Raaij 2005). Furthermore the new capital accord requires the use of sound procedures and processes to control and monitor these risks. This should be achieved by establishing collateral management in line with business volume which uses computer aided processes (Collateral database valuation) what still has to be noted is that, as a rule the valuation of collateral should be carried out by specialized employees and possibly in separate organizational units which do not belong to the front office or by external providers (e.g. real estate appraisers) (Bessis 2002).

#### 2.5.5. Credit Disbursement Check

Prior to disbursing the credit, the individual credit exposure should be subjected to a final check. This check should cover at least the following points; compliance with internal guidelines, completeness of the credit application, receipt of confirmation that the credit applicant has complied with the conditions imposed, and signing of the credit and collateral agreement in accordance with decision making structure (Raaij, 2005).

Check list should be used to achieve a risk mitigating standardization of the process, suitable samples (Segment, specific, if necessary) should be included in the internal guidelines. Various models may be provided to carry out the credit disbursement check for segments with a large number of comparable credit applicants. In many cases however, the credit disbursement check is carried out by the immediate superiors of the employees responsible for the exposure. Risk

aspects require the specific design of the process to make sure that the employee performing the check arrives at a decision independently of the employees responsible for the exposure working in sales risk analysis or credit approval processing (Raiij,2005).

## **2.6 Non-Performing Loans (NPLs)**

Greuning and Bratonork (2000) described non performing loans as those assets that are no longer generating income. NPLs in general terms refer to bad debts, whose recovery is highly doubtful, because they are not being serviced as required (CBK, 1997).

The problem of NPL is not unique to Kenya alone. Gupta (1998) observed that banking problems precipitated by NPLs are not confined to the developing world alone. Sweden, Japan and USA have at one time faced severe banking crisis. However he points out that it is in the developing world that the problem wrecks the greatest havoc. This undermines the banks' financial intermediation.

In 1989, the USA invented the Resolution Trust Corporation (RTC) to deal with its own bad debt. Ten years later RTC was credited with having retrieved US £ 347.6 billion (about 90%) of the NPLs. Similarly in 1998, the Chinese government wrote off 100 billion Yuan loan from the poor state banks through injection of new capital. The government thereafter decided to try the American approach by establishing the Cinda Assets Management Corporation to mop up an estimated 200 billion Yuan in NPLs (Wen 1999).

The Philippian government passed a new law known as the Special Purpose Vehicle Act (SPVA) in October 2003 to enable it sell some 14 billion worth of non performing housing loans of the National Home Mortgage Finance corporation (NHMFC).NHMFC's bad debts were estimated at 30% of total loans (Vanzi, 2003).In thailand facing the 1997 currency crisis, the NPLs ratio was as high as 47.7% as at May 1999. Consequently, the Thai Asset Management Company (TAMC) was set up to promote financial restructuring at the recommendations of the World Bank (Keiichiro, 2002).

Japan's real estate mortgage boom in the 1980's saw the value of land shoot up nearly six times to 817.3 trillion. Many banks set up finance companies known as non banks to handle riskier loans for speculation in real estate, which they were not otherwise allowed to lend. This helped inflate property and stock market values. But in 1989 the governor of Central Bank of Japan was forced to intervene in order to curb the resultant inflation. Interest rate rose from 4.9% to 8.9% which adversely affected the real estate market. Consequently banks found themselves with huge NPL portfolios as debtors would no longer keep up with repayments. The Ministry of Finance estimated that non-banks had lent Y90 trillion (€40 b) by the end of March 1991 (Holden, 1991).

NPLs have been cited as the primary cause of bank failures in Kenya. Between 1984 and 1991 there were a total of 29 bank failures reported. This is an alarming rate given that it represents on average two or more bank failures per year during that period. Though this trend has been reversed, NPL continue to be a major challenge among banks (Njuguna and Ngugi 2000). Banks that collapsed during that period include Trust Bank, Kenya Finance Bank, Reliance Bank, Prudence Banks and Bullion Bank. Further National Bank of Kenya almost folded following a run on the bank on two separate occasions by panicky customers (Oloo, 2000). The most recent was Euro Bank Ltd which was placed under liquidation in February 2003 following substantial losses as a result of huge NPLs among other things (Kanyiri, 2005).

When a bank classifies a facility as non-performing, CBK guidelines indicated that banks should start to make specific provisions (CBK, 2002). The specific provisions require banks to forego interest received besides allocating provisions for the NPLs for their own resources. Provisions for bad debt eat into banks profits. But the problem of NPL goes beyond mere loss of income on the part of banks. Njuguna and Ngugi (2000) observed that to reduce credit risk, Kenyan banks charge a premium. This tends to increase the interest rates to borrowers which in turn reduces the demand for loans. These factors produce an unstable macro economy environment which serves to widen the interest spread between the deposit taking and lending rates.

NPLs in Kenya stood at Ksh 107.4 billion at the end of 2001. This represented 38% of the total loans of 281.7 billion in the banking sector. Such a high ratio of NPL to advances is a reflection of imprudent lending practice and poor credit management (Oloo, 2003).

The ratio of NPLs to advances had improved as at June 2006. "NPL stood at Ksh 102 billion or 23.1% of gross loans. NPLs net of loan loss provisions however stood at Kshs 24 billion. The asset quality measured by the ratio of net NPL to gross loans was 5.4% (CBK, 2006). Former NPLS made a dramatic improvement by July 2007, according to CBK (2007) to an estimated Ksh 70.7 billion. The sharp reduction in the level of NPL was attributed to write offs against provisions held recoveries by some of the banks during the period under review. Further the level of NPL net of loan less provision and stood at Ksh 22.5b. and accounted for 4.7% of gross loans. The asset quality therefore improved marginally from 5.4% to 4.7% during the period.

Oloo (2001) traced the genesis of NPLs in Kenya to the external event in which the Kenyan banks operate. The author argues that when the government was faced by the clamor for multiparty, it held an election in 1992 for which it was ill prepared, but out of desperation, the CBK was compelled to imprudently print money ostensibly to fund the election. The result was a sharp increase in interest rates as the government thereafter sought to mop-up the excess liquidity.

The domestic debt rose from Ksh 48 billion in 1992 to Ksh. 166 billion in 1993. The interest rates on Treasury Bills rose from 23% in early 1992 to 76% in 1993. This argument is an indication that the external environment had an influence on the level of NPL in the banking industry in Kenya.

Kabiru (2002) found that the government owned bank had asset quality ratio of 30% above the industry average of 28%. This was attributed to the high level of NPLs. By contrast three of the major foreign owned banks had an asset quality of less than 10%. Ultimately he concluded that banks that use qualitative credit assessment had higher incidences of NPLs as compared to those that used quantitative methods.

Kalani (2004) argued that some banks factors that related to risk management structures put in place by banks were to blame for NPLS. These banks factors include lax procedures used in



credit risk assessment. Negligence in monitoring NPLs, insider loans, lack of trained personnel and unaggressive credit collection methods.

Mutwiri (2003) concluded that when loans are not performing the quality of assets declines and can affect the asset base of a bank and affects the banks ability to lend further. These NPLs scenarios would reduce the banks interest income. On the customers liability side a bank is under pressure to honour contractual obligations to pay depositors, the promised interest in time as they fall due.

## **2.7 Causes of Non-Performing Loans**

According to Gorter and Bloem (2002) non-performing loans are mainly caused by an inevitable number of wrong economic decisions by individuals and plain bad luck (inclement weather, unexpected price changes for certain products, etc.). Under such circumstances, the holders of loans can make an allowance for a normal share of nonperformance in the form of bad loan provisions, or they may spread the risk by taking out insurance. The problem of NPL's is widespread. Nishimura, Kazuhito, and Yukiko, (2001) state that one of the underlying causes of Japan's prolonged economic stagnation is the non-performing or bad loan problem. They explain that some of the loans made to companies and industries by financial institutions during the bubble era became non-performing when the bubble burst. This delayed structural reforms and prevented the financial intermediary system from functioning properly.

In their study, Fernández, Jorge and Saurina, (2000) state that the growth of bank credit in Spain and its prudential implications is an ever-present item on the agenda of banking supervisors, since most banking crises have had as a direct cause the inadequate management of credit risk by institutions. They further assert that even though bank supervisors are well aware of this problem, it is however very difficult to persuade bank managers to follow more prudent credit policies during an economic upturn, especially in a highly competitive environment. They claim that even conservative managers might find market pressure for higher profits very difficult to overcome. According to a World Bank Report (1994) in Uganda the country's banking industry was described as extremely weak, with huge non-performing loans and some banks teetering on the verge of collapse. Mukalanzi (1999) notes that reeling from years of economic

mismanagement and political interference, Uganda's banking industry posted huge losses in the early 1990s. To help address credit risk management in Ugandan banks, the government has introduced a statute that deals with several issues such as insider lending, following the recent scandal in which billions of shillings were lent without sufficient collateral to Greenland Bank by the newly privatized Uganda Commercial Bank Ltd. The statute further seeks to reduce owner concentration (Mukalazi, 1999).

According to a study by Brownbridge (1998), most of the bank failures were caused by non-performing loans. Arrears affecting more than half the loan portfolios were typical of the failed banks. Many of the bad debts were attributable to moral hazard: the adverse incentives on bank owners to adopt imprudent lending strategies, in particular insider lending and lending at high interest rates to borrowers in the most risky segments of the credit markets.

According to Brownbridge (1998), the single biggest contributor to the bad loans of many of the failed local banks was insider lending. In at least half of the bank failures, insider loans accounted for a substantial proportion of the bad debts. Most of the larger local bank failures in Kenya, such as the Continental Bank, Trade Bank and Pan African Bank, involved extensive insider lending, often to politicians. The threat posed by insider lending to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached large-loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centers'), with the result that the maturities of the bank's assets and liabilities were imprudently mismatched. The author sites three forces behind insider lending and lists them as political pressure, under-capitalization, over concentration in ownership. He further observes that second major factor contributing to bank failure were the high interest rates charged to borrowers operating in the high-risk segments of the credit market. This involved elements of moral hazard on the part of both the banks and their borrowers and the adverse selection of the borrowers.

Other causes of non performing loans include; unprofessional credit risk evaluation, moral hazard on part of management, lack of supervision of projects, lengthy litigation process and intentional default. Poorly unprofessional credit risk evaluation; Lending decision are made in the past by lending institutions put a lot of emphasis on security than other similar important considerations. There are instances in the past when it was easier to get a loan from a financial institution as long as the borrower had security to be charged rather than the ability to service the

loan. Cash flow projections, viability of the project, character of the borrower, previous loans completion and ability to repay were not considered as important. This way a number of lending institutions ended up with many NPLs due to incomplete, poor and unprofessional credit risk assessment and valuation particularly using all the c s of credit appraisal model.

Moral hazard on the part of senior management, credit officers and borrowers arises when loans are not subjected to normal objective credit assessment before disbursement. This may include extending credit to business they own or with which they are affiliated to, personal friends and relatives among others. On the part of borrowers this will arise when the borrowed funds are not put to the use for which they are borrowed but rather the funds are diverted to other personal use. Lack of supervision of projects arises when update of customer information and borrowers circumstances is not done frequently as a result the lending institution employees' inability to be close to their customers.

Lending institutions have in many occasions been frustrated when pursuing loan defaulters due to lengthy litigation process. The required statutory notices to the defaulters which are usually three in number take seven months. Although lending institutions give sufficient notices to sell securities, costly and inefficient delays are occasioned by court injunctions given usually on the day of sale, stopping the realization (Hempel, 1994).

Intentional default arises when a client borrows funds with no intention to repay, possibly because they are well connected politically and may feel protected by the political powers. Political patronage was a major cause of failures of financial institutions in Kenya in the 1990 arising from NPLs (C.B.K Annual supervision report, 2000).

## **2.8 Women Enterprise Fund in Kenya**

Women Enterprise Fund (WEF) was conceived by the Government of Kenya in 2006 and officially launched in 2007. The principal objective of the fund is economic empowerment of women. Women Enterprise Fund loans reach the target beneficiaries through partner financial intermediaries and directly through Constituency Women Enterprise Scheme (C-WES). As at February, 2009 a total of Kshs.586 Million had been loaned to women, broken down as kshs.449 Million through Financial Institutions (FIs) and Kshs. 137 Million through C-WES. A total of

67,180 women have benefited from the WEF through both the financial intermediaries and the C-WES. (g.o.k,ministry of gender; <http://www.gender.go.ke>)

Although women constitute 52% of the total Kenyan population, majority of them have been excluded from the formal financial services – for example, few have bank accounts, can access loans, money transfer services, etc. The rural women are more disadvantaged than their urban counterparts. (g.o.k, ministry of gender; <http://www.gender.go.ke>)

The fund is designed to address the perennial challenges women face in their desire to venture in income generating activities (enterprise development), namely: Cultural factors – Our society does not allow women to own assets which are required by banks to access credit and Some widows are disinherited by in-laws. High transaction costs such as interest rates and bank charges and high access costs including transport costs, limited access to funds, the society's negative perception about banks for example repossession of assets incase of default and not "poor" friendly. For those women already in business, they face challenges that stifle their growth and survival including marketing, (lack of market information, leading to exploitation by middlemen, high transport costs because of poor roads e.t.c.),low standards of products (They use rudimentary tools and technology making their products uncompetitive) and affordable and suitable premises (Business premises in suitable locations are too expensive).(g.o.k,ministry of gender; <http://www.gender.go.ke>)

There are five core mandates of the fund .These are: To Provide money for on-lending to women enterprises through Financial Institutions and directly to women through Constituency Women Enterprise Scheme (C-WES). Second is to facilitate investment in commercial infrastructure beneficial to women enterprises for example, business markets or business incubators. Third is to Support women oriented Micro, Small and Medium Enterprises (MSM) to develop linkages with large enterprises. Fourth to facilitate local and external marketing of products made by women MSM.Fifth to Support capacity building of the beneficiaries of the fund and their institutions. (g.o.k, ministry of gender; <http://www.gender.go.ke>)

The achievements of the fund to date are; through the financial intermediaries, kshs.648.5 million has been disbursed to over 19,000 women entrepreneurs across the country. Through

Constituency Women Enterprise Scheme (C-WES), Kshs.265.5 million has been disbursed to all the constituencies, benefiting over 166,440 individual women who are organized in self help Groups. Training of the Divisional Constituency WEF Committees. Women entrepreneurs have been able to expand and start new businesses thereby creating jobs for themselves, families and other Kenyans. (g.o.k, ministry of gender; <http://www.gender.go.ke>)

## **2.9 Conclusion of Literature Review.**

Credit appraisal is carried out for various reasons, these are; as a Selection Tool, to quantify Risk, to aid in decision making, and to ensure good quality business with excellent credit worthiness. This makes the credit appraisal process an important activity among the lending institutions.

Causes of non performing loans include; unprofessional credit risk evaluation, moral hazard on part of management, lack of supervision of projects, lengthy litigation process and intentional default incomplete, poor and unprofessional credit risk assessment and valuation particularly using all the c s of credit appraisal model. An inefficient credit appraisal process is one of the causes of non performing loans of various lending institutions. This study aims to establish if any relationship exist between the credit appraisal process by financial intermediaries offering the women enterprise fund loans and the level of non performing loans of the women und loans.

DIWIPATI, J. K. (2008)  
BUNYEN KADETE LIBRARY

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section discusses the methodology that was employed in carrying out the study. It includes the research design, population of the study, sampling, data collection, data analysis and data reliability and validity.

### **3.2 Research design**

This study was a survey of all financial intermediaries offering women enterprise fund loans. The study aimed at determining the credit appraisal process by the financial intermediaries offering women enterprise fund loans and establishing whether a relationship exists between the credit appraisal process and the level of non performing loans related to the women enterprise fund. A survey was used since the specific financial intermediaries offering the women enterprise funds are few in number.

### **3.3. Population**

The population of interest was all the financial intermediaries that offer the Women Enterprise Fund loans. These institutions are 34 in number as per the list in the Ministry of Gender Children and Social Development. See appendix II.

### **3.4 Sampling**

Sampling was not used. This is because all the 34 financial intermediaries offering the women enterprise fund loans were surveyed.

### **3.5 Data Collection method /Instruments**

This study used primary data, which was collected by way of structured and semi structured questionnaires with both open and closed ended questions, see (Appendix I). This was done on the credit managers/officers. The questionnaires were administered by multiple approaches that included drop and pick later method and use of email to contact the respondents. To increase the response rate, a follow up was done by use of telephone calls.

**3.5.1 Validity and Reliability**

A pilot study was carried out to pretest and validate the questionnaire. To establish the validity of the research instrument the opinions of experts in the field of study especially the researcher’s supervisor and lecturers in the department of business was sought. This facilitated the necessary revision and modification of the research instrument thereby enhancing validity. A pilot group of 7 individuals from the target population was done to test the reliability of the research instrument.

The pilot data was not included in the actual study. The pilot study allowed for pre-testing of the research instrument. The clarity of the instrument items to the respondents was established so as to enhance the instrument’s validity and reliability. The pilot study assisted in being familiar with research and its administration procedure as well as identifying items that require modification. The results helped to correct inconsistencies arising from the instruments, which ensured that they measured what was intended.

**3.6 Data Analysis and Presentation**

The data was analyzed by use of summary statistics, including percentages, means and standard deviation to measure interrelationships between the variables. Graphs were also used to display the information to improve presentation of the analyzed results for ease of interpretation.

Data from the completed questionnaires was coded to facilitate statistical analysis. Both descriptive and inferential statistics were used to analyze the data, including mean deviation and frequency distribution. The SPSS version 17 and MS excel were also used to analyze the collected data. To establish the link between credit appraisal process and non-performing loans, the study used regression model below:

$$NPL = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon$$

Whereby NPL was the level of non-performing loans,  $\beta_0$  is the regression constant,  $\beta_1, \dots, \beta_3$  are the coefficients of regression model,  $X_1$  is the lending period of the loans,  $X_2$  is frequency of loan review and  $X_3$  is the considerations in credit approval. The study also checked the model significances (f and t-significances) for statistical reporting.

**CHAPTER FOUR: DATA ANALYSIS, INTERPRETATIONS AND PRESENTATION  
OF THE RESULTS**

**4.1 Introduction**

This chapter presents the data that was found on relationship between the credit appraisal process and the level of nonperforming loans of financial intermediaries offering the women enterprise fund loans. The research was conducted in various organizations that included NGO's, Sacco, Constituency funded organizations among others from which 35 of them were provided with questionnaires, however, only 28 questionnaires were returned duly filled-in by the respondents. This makes a response rate of 77.1% which is within Mugenda and Mugenda's (2003) prescribed significant response rate for statistical analysis which they established at a minimal value of 50%. This commendable response rate was made possible after the researcher personally administered the questionnaire and made further visits to remind the respondents to fill-in and return the questionnaires.

This study made use of frequencies (absolute and relative) on single response questions. However, on multiple response questions, the study used Likert scale in collecting and analyzing where a scale of 5 points were used in computing the means and standard deviations there-to computed. These were then presented in tables, graphs and charts as appropriate with explanations being given in prose. Findings from open-ended questions were also presented in prose.

**4.2 Company Information**

**Table 4.1: Form of Institution**

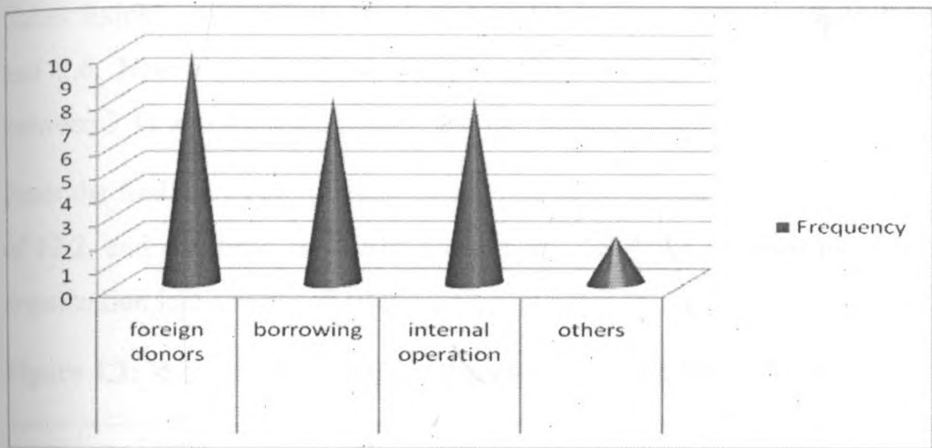
<b>Institution</b>	<b>Frequency</b>	<b>Percentage</b>
NGO	8	28.6
SACCO	10	35.7
Constituency Fund	2	7.1
Others	2	7.1
Bank	6	21.4
<b>Total</b>	<b>28</b>	<b>100</b>



Source; Research Data

The respondents were asked to state the form of their respective organization; results of which were presented in table 4.1. From table 4.1, 35.7% of organizations were SACCO's, 28.6% were NGO's, 21.4% were banks while only a small proportion of 7.1% were constituency fund and other entities. This depicts that majority of the organizations were SACCO's which could point to their competence as financial intermediaries in the country.

Figure 4.1: Sources of Funds



On the question of the source of funds for the organization, the data finding were as presented in figure 4.1. According to the figure 4.1, 10 out of 28 organizations got their funds from foreign donors, 8 from borrowing, and 8 from internal operations while only 2 got their funds from other sources.

4.3 Credit Control Policy

Table 4.2: Factors Considered in Establishing Credit Control Policy

	No Extent	Small Extent	Some Extent	Large Extent	Very Large Extent	Mean
Existing credit policy	28.6	14.3	0	7.1	50	12.4
Overhead costs	0	28.6	35.5	21.4	14.3	11.9
General trend of credit extended to your organization	21.4	28.6	14.3	14.3	21.4	10.6

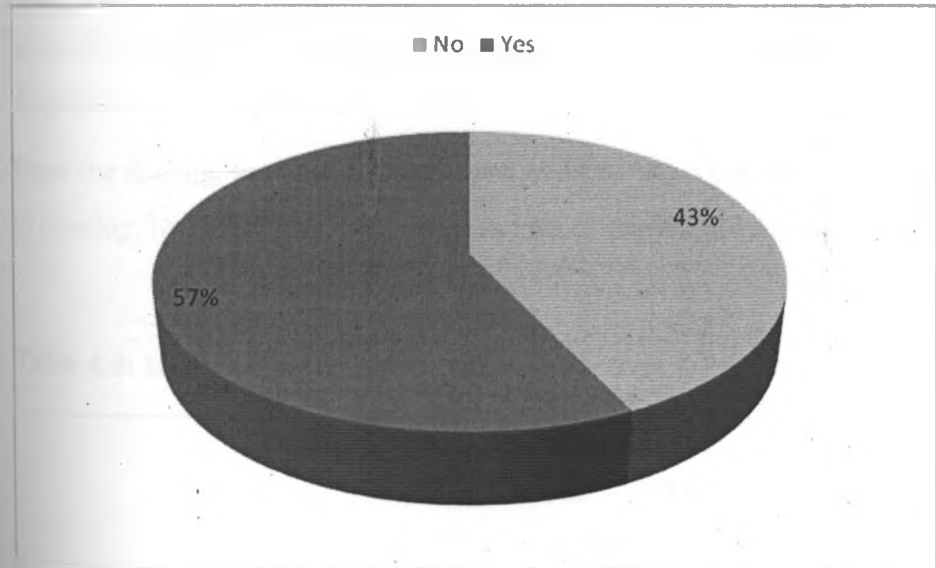
State of economy	28.6	0	7.1	42.9	21.4	12.2
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**Source; Research Data**

The study sought to establish how the following factors are considered in establishing a credit control policy. The study used likert scale in collecting and analysing the data on a scale of 1 to 5 with 1 point being assigned to very low extent, and 5 points to very high extent. The results were then presented in figure being the scales ranged from 1 to 5 making an interval of 4 between the two extremes, the following allocationary keys can be developed:Where Strongly disagree = Never Exhibit ranged between 1 and 1.8,Disagree = Very Rarely Exhibit ranged between 1.81 and 2.6, Neutral = Rarely Exhibit ranged between 2.61 and 3.4 ,Agree = Exhibits ranged between 3.41 and 4.2 and Strongly Agree = Always Exhibit ranged between 4.21 and 5.

From the finding, existing credit policy had mean a mean of 12.4, state of economy had a mean of 12.2, and overhead costs had a mean of 11.9 while General trend of credit extended to the organization had a mean of 10.6.

**Figure 4.2: Whether the Organization has a Credit Policy Manual**



On whether the organization had a credit policy manual, the study found that 57% of the organizations had an operational credit policy manual, 43% of the organizations did not have a credit manual. This depicts that majority of organizations surveyed used conventionally accepted practices.

**Table 4.3: Barriers to Credit Manual**

	No Extent	Small Extent	Some Extent	Large Extent	Very Large Extent	Mean
Too complicated to develop	28.6	21.4	0	21.4	28.6	11.1
Not necessary	57.1	0	0	42.9	0	8.5
Too costly	0	21.4	14.3	35.7	28.6	13.8
Too rigid	0	7.1	28.6	57.1	7.1	13.5

**Source; Research Data**

The study also sought to identify the extent to which the following reasons make the organization not to have a credit manual. The study also used likert scale in collecting and analysing the data on a scale of 1 to 5 with 1 point being assigned to very low extent, and 5 points to very high extent. The results were then presented in figure being the scales ranged from 1 to 5 making an interval of 4 between the two extremes, the following allocationary keys can be developed:Where Strongly disagree = Never Exhibit ranged between 1 and 1.8,Disagree = Very Rarely Exhibit ranged between 1.81 and 2.6, Neutral = Rarely Exhibit ranged between 2.61 and 3.4 ,Agree = Exhibits ranged between 3.41 and 4.2 and Strongly Agree = Always Exhibit ranged between 4.21 and 5.

From the finding, too costly had a mean of 13.8, too rigid had a mean of 13.5, too complicated to develop, had a mean of 11.1, while not necessary had a mean of 8.5.

**Table 4.4: Importance of Credit Policy Objectives**

	No Extent	Small Extent	Some Extent	Large Extent	Very Large Extent	Mean
A competitive tool to gain competitive advantage	0	0	14.3	28.6	57.1	16.4
Minimizing credit cost	0	0	57.1	21.4	21.4	13.5
Encouraging movement of surplus money	0	0	64.3	35.7	35.7	19.0

Earn interest from surplus money	0	0	7.1	64.3	28.6	15.6
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**Source; Research Data**

The study sought to establish the level of importance of the following credit policy objectives From the finding, encouraging movement of surplus money had mean a meanof 19.0, a competitive tool to gain competitive advantage had a mean of 16.4, earn interest from surplus money had a mean of 15.6 while minimizing credit cost had a mean of 13.5.

**Table 4.5: Loans Approval with Regards to Approval Limit Ceilings**

	No Extent	Small extent	Some Extent	Large Extent	Very Large Extent	Mean
Management level	0	0	28.6	50	21.4	14.5
Credit analyst/officer	0	0	42.9	35.7	21.4	14.0
Credit risk manager	7.1	0	35.7	0	57.1	14.8
Credit committee	7.1	35.7	21.4	35.7	0	10.6

**Source; Research Data**

On the question of the persons who approves loans and their approval limits ceilings, majority of the organizations used credit risk managers to approve loans shown by a mean of 14.8 while credit analyst/officers had a mean of 14.0.Credit committees were rarely used in approving loans as shown by a mean of 10.6.

**Table 4.6: Categories through which Organization Lend Funds to Customers**

	Frequency	Percentage
Groups	4	14.3
Direct to Individuals	16	57.1
Individual through a Group	8	28.6
<b>Total</b>	<b>28</b>	<b>100</b>

**Source; Research Data**

To the question on the categories through which organization lend funds to customers, the data findings were presented in table According to the table, 57.1% of the organization lend funds

direct to individuals, 28.6% by lending to individual through a group, while 14.3% lent money through groups.

**Table 4.7: Types of Operations Financed the Organization**

	Frequency	Percentage
Initial capital	18	64.3
Working capital	10	35.7
Total	28	100

**Source; Research Data**

The respondents were required to state the types of operations financed by their organization;; results of which were presented in table .From the table, 64.3% of the organizations surveyed financed initial capital while 35.7% of the organizations did it through working capital.

**Table 4.8: Average Lending Period**

	Frequency	Percentage
Between 1 and 2 yrs	10	35.7
Over 4 yrs	8	28.6
Between 2 to 3 yrs	10	35.7
Total	28	100

**Source; Research Data**

The respondents were also required to state the average lending period applied by their companies. The study found that periods of either between 1 and 2 years or between 2 to 3 years were the periods applied by majority of the companies as shown by 35.7%. A small proportion of companies gave their clients an average period of over 4 years shown by 28.6%. Further, all the respondents indicated that lending period differed between different individual groups.

4.4 Credit Appraisal

Table 4.9: Rank of the Method Used by the Organization in Process of Credit Appraisal

	Frequency	Percentage
Qualitative	18	64.3
Quantitative	10	35.7
Total	28	100

Source; Research Data

The respondents were to required state their opinion on the method used by their respective organizations in the process of credit appraisal. Majority of the respondents with 64.3% were of the opinion that the process was qualitative while 35.7% said that it was quantitative.

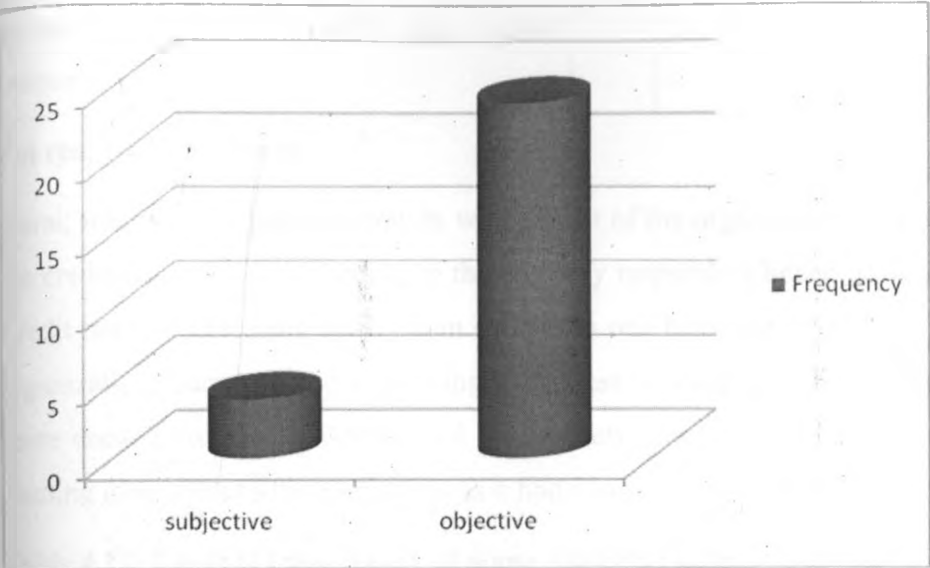
Table 4.10: Number of Times Credit Policy is Reviewed Per Year

	Frequency	Percentage
Quarterly	14	50
Half yearly	2	7.1
Yearly	6	21.4
Others	6	21.4
Total	28	100

Source; Research Data

On the number of times credit policy is reviewed per year in the organization, 50% of the organizations did it quarterly, 21.4% did it either yearly or at other times , while a small proportion of organizations reviewed their credit policy half yearly shown by 7.1%.

Figure 4.3: Description of the credit appraisal process



According to figure 4.3 the majority of the respondents (24) from the surveyed organizations perceive the credit appraisal as objective, while only 4 out of 28 respondents perceived it as subjective

Table 4.11: Ways to Create Awareness on Credit Risks

Awareness of credit risk	No Extent	Small Extent	Some Extent	Large Extent	Very Large Extent	Mean	STDEV
The way the organization makes its employees aware of credit risk; regional meeting	14	0	10	2	2	2.2	0.5
The way the organization makes its employees aware of credit risk; rural training	0	0	4	10	14	4.4	1.6
The way the organization makes its employees aware of credit risk; using supervision on one to one basis	0	8	8	6	6	3.4	0.8

The way the organization makes its employees aware of credit risk; credit manual	0	0	8	16	4	3.9	1.4
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**Source; Research Data**

Rural; training emerged as a way in which most of the organizations makes employees aware of the credit risk. This is according to the majority respondent hence gaining a mean score of 4.4. Credit manual and using supervision on one to one basis are other ways on which most of the organizations surveyed use in creating awareness to the employees on credit risk as their mean score drew close to 4 at 3.9 and 3.4 respectively. However regional meeting is rarely used in creating awareness to the employees as it had a lower mean score of 2.2.

**Table 4.12: Level of Importance of Some Aspects/Factors**

Level of Importance	Very Small Extent	Small Extent	Some Extent	Large Extent	Very Large Extent	Mean	STEDV
The extent to which (Character) is considered before availing a credit	0	0	10	12	6	3.9	0.55
The extent to which (Condition) is considered before availing a credit	0	0	6	16	6	4.0	0.43
The extent to which (Common sense) is considered before availing a credit	0	0	16	12	0	3.4	0.24
The extent to which (Contribution) is considered before availing a credit	0	0	24	4	0	3.1	0.12
The extent to which (Collateral) is considered before availing a credit	0	0	2	10	16	4.5	0.39
The extent to which (Capacity) is considered before availing a credit	0	0	6	6	16	4.4	0.66
The extent to which (Control) is considered before availing a credit	0	2	2	18	6	4.0	0.57

**Source; Research Data**



The degree of collateral or assets forming the security of the loan is a key feature in any lending and loan pricing decision. Subordinated debentures are riskier because their claims to the assets of a defaulting borrower are junior to those of both mortgage bondholders and debenture holders (Thygerson, 1995). As indicated in the table above, collateral or security is the most basic consideration before availing credit to the customers by most organizations. This is indicated by a high mean score of 4.5. Conditions describe the intended purpose of the loan. Will the money be used for working capital, additional equipment or inventory? The lender will also consider local economic conditions and the overall climate, both within your industry and in other industries that could affect your business (Rose, 1991). Capacity, control, condition are other consideration made by many organizations before credit is availed to customers. These factors had relatively high mean scores of 4.4, 4.0, and 4.0 respectively. Lower response mean scores of 3.9, 3.4 and 3.1 were recorded on character, common sense and contribution considerations by the organizations while availing credit.

In all the surveyed organizations, loan reviews are carried out as an aspect of risk management

**Table 4.13: Practices Used When Managing Credit Risk Exposure in the Organization**

	Frequency	Percentage
Debt collection	8	28.6
Surety bonds and securitization	4	14.3
Credit derivatives	2	7.1
Credit insurance	14	50
Total	28	100

**Source; Research Data**

Financial institutions not only find funds to finance their lending decisions scarcer and more expensive but also must recognize that high interest rates are correlated with higher credit risk in general(Thygerson, 1995).The study also sought to identify the Practices used when managing credit risk exposure in the organization. The study found out that majority of the organizations used credit insurance (50%), debt collection were applied by 28.6% of the surveyed organizations while credit derivatives was rarely used as shown by 7.1%.

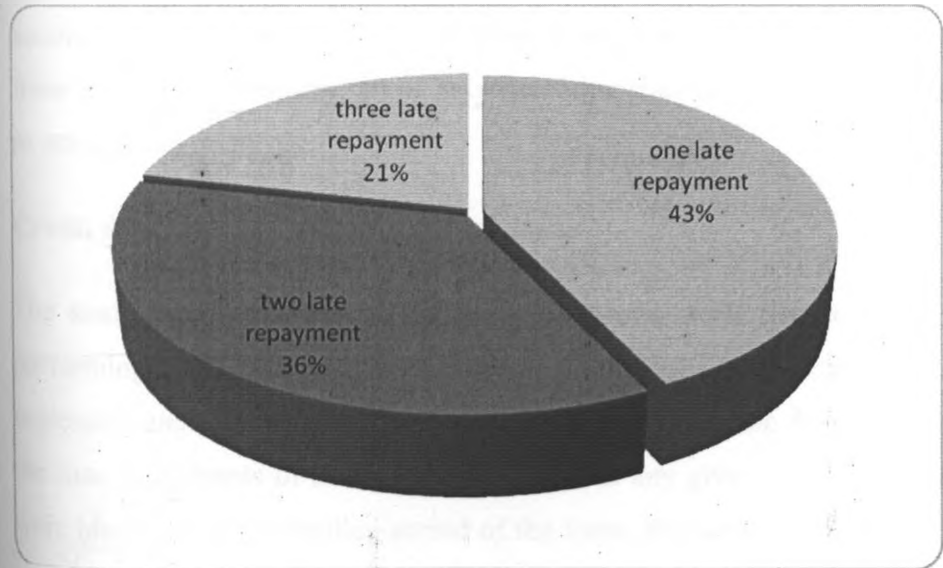
**Table 4.14: Loan Repayment of Women Fund Rates at any Given Time**

Loan repayment rate	Frequency	Percentage
below 70% of loan portfolio	6	21.4
70% of loan portfolio	8	28.6
85% of loan portfolio	10	35.7
90% of loan portfolio	4	14.3
<b>Total</b>	<b>28</b>	<b>100</b>

**Source; Research Data**

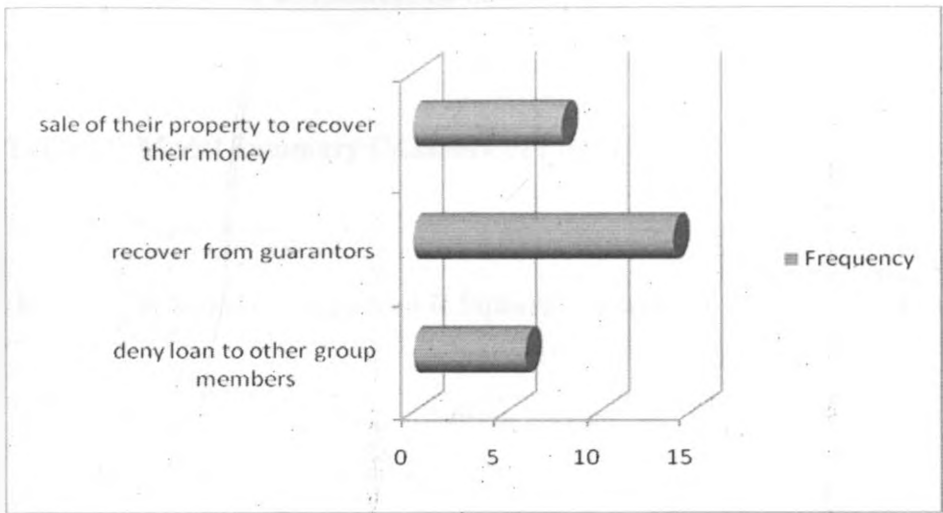
Research on this are identified that in the organizations surveyed, most (35.7%) according to the respondents revealed that the loan repayment of the women fund rates at any given time was 85% of loan portfolio.28.6% indicated that the loan repayment of the women fund rates at any given time was 70% of loan portfolio, while only 14.3% indicated the repayment rate as 90% of loan portfolio.

**Figure 4.4: Time When the Organization Decides that the Client has Defaulted in Loan Repayment**



According to figure the majority of the organization (43%) decides that the client has defaulted in loan repayment, after one late repayment.36% stated that the decision that the client has defaulted in loan repayments is met after two late repayment, while in 21% of the surveyed organizations this decision is met after three late repayments.

**Figure 4.5: Way the Organization Deals with Loan Repayment Defaulters**



A guarantee is a situation where someone else signs a guarantee document promising to repay the loan if the borrower cannot. Some lenders may require such a guarantee in addition to collateral as security for a loan (Rose, 2000). Figure represents the findings on the way the organization deals with loan repayment defaulters. 14 out of 28 surveyed organizations, according to the respondents recover them from guarantors. Nine organizations recover the funds from sale of their property, while only five organizations deal with these clients by denying loan to other group members.

**Credit appraisal and non performing loans**

The study sought to establish the linking between credit risk appraisal and the level of non-performing loans in financial intermediaries offering women enterprise fund by conducting a regression analysis with level of non-performing loans as the dependent variable as indicated by the loan repayments of the women fund rates at any given time. Credit risk appraisal variables were identified as the lending period of the loans, frequency of review of loans given and credit approval considerations. Thus the regression model was:

$$NPL = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Whereby NPL was the level of non-performing loans,  $\beta_0$  is the regression constant,  $\beta_1, \dots, \beta_3$  are the coefficients of regression model,  $X_1$  is the lending period of the loans,  $X_2$  is frequency of loan review and  $X_3$  is the considerations in credit approval. The regression statistics are given in the tables below.

**Table 15: Model Summary (Measure of Fitness)**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.365a	.133	.042	.6640288	1.971

a. Predictors: (Constant) Lending period of the loans, Frequency of loan review, Considerations in credit approval

**Source; Research Data**

The model statistics show that when the independent variables (Lending period of the loans, Frequency of loan review and Considerations in credit approval) and dependent variable interact, the model has a Pearson's correlation coefficient (R) of 0.365 and coefficient of determination (R Square) of 0.133 signifying a positive but weak or negligible association between the two.

**Table 16: Analysis of Variance (ANOVA)**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.861	3	.644	1.460	.209a
Residual	25.133	25	.441		
Total	28.995	28			

a. Predictors: (Constant) Lending period of the loans, Frequency of loan review, Considerations in credit approval

**Source; Research Data**

The Analysis of Variance (ANOVA) shows that the f-value is 1.460 at 0.209 significance level ( $p>0.05$ ) suggesting that the relationship between the two (independent and dependent variables) could be out of chance and nothing else.

**Table 17: Regression Coefficients**

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std Error	Beta		
(Constant)	.642	.390		1.647	.055
Lending period of the loans	.248	.329	.101	.753	.154
Frequency of loan review	-.009	.094	-.012	-.092	.027
Considerations in credit approval	-.087	.182	.064	.477	.012

a. Dependent Variable: Level of non-performing loans

**Source; Research Data**

The regression thus becomes:

$$NPL = 0.642 + 0.248X_1 - 0.009X_3 - 0.087X_3$$

In the first model, it can be seen that taking the independents variables' value at zero, the Level of Non-Performing Loans would be 0.642. A unit increase in 'Lending period of the loans' would lead to a 0.248 increase in NPL, a unit increase in 'frequency of loan review' would lead to a 0.009 decrease in NPL and a unit increase in 'considerations in credit approval' would lead to a 0.087 decrease in NPL.

## **CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study. The researcher had intended to obtain responses on relationship between the credit appraisal process and the level of nonperforming loans of financial intermediaries offering the women enterprise fund loans.

### **5.2 Summary of Findings and Conclusions.**

#### **5.2.1 Summary of findings**

From the study, of the 28 surveyed organisations majority were SACCO's and most of these institutions got their funds from foreign donors. The study also found that existing credit policy was the most important factor in establishing a credit control policy.

It was also clear that most of the organizations had a credit policy manual. The study also established that the reason why some organizations did not have a credit policy manual was that it was too costly to have credit policy manual.

The majority of the respondents also felt that encouraging movement of surplus money was the most important objective in credit policy. Further on the study found that credit risk manager were used in majority of the institutions in approving loans and had a very high approval limits ceiling .

Majority of the respondents (24) from the surveyed institutions perceive the credit appraisal as objective, while only 4 out of 28 respondents perceived it as subjective. Rural training is the way in most of the organizations makes employees aware of the credit risk; according to the majority of the respondents hence gaining a mean score of 4.4. Credit manual (3.9) and using supervision on one to one basis (3.4) are other ways which most of the organizations surveyed use in creating awareness to the employees on credit risk. Regional meeting is rarely used in creating awareness to the employees as it had a lower mean score of 2.2

In all the surveyed organizations, loan reviews are carried out as an aspect of risk management where as collateral or security is the most basic consideration before availing credit to the customers by most organizations. Capacity, control, condition are other consideration made by many organizations before credit is availed to customers. Lower response mean scores of 3.9, 3.4 and 3.1 were recorded on character, common sense and contribution considerations by the organizations while availing credit.

Credit insurance and debt collection are the practices used when managing credit risk exposure in many financial organizations, while a credit derivative is rarely used. Most organizations (35.7%) according to the respondents revealed that the loan repayment of the women fund rates at any given time was 85% of loan portfolio. 28.6% indicated that the loan repayment of the women fund rates at any given time was 70% of loan portfolio, while only 14.3% indicated the repayment rate as 90% of loan portfolio. Most of the organizations further decide that the client has defaulted in loan repayment, after one late repayment or after two late repayments, although a few decides this after three late repayments. Most of these organizations recover the funds from the defaulted clients through; from the guarantors.

Regressing NPL with the credit appraisal factors the study established the following regression model:

$$\text{NPL} = 0.642 + 0.248(\text{Lending period of the loans}) - 0.009(\text{Frequency of loan review}) - 0.087(\text{Considerations in credit approval})$$

This signifies that the period of loan repayment increases the chances of loan defaults while frequency of loan reviews and credit approval considerations decreases chances of loan defaults ( $p < 0.05$  in both cases).

### 5.2.2 Conclusions

From the study conclusions are made basing on the objectives which were to analyze the credit evaluation process adopted by the financial intermediaries offering Women Enterprise Fund loans in Kenya, analyze the level of nonperforming loans related to the Women Enterprise Fund offered through the financial intermediaries in Kenya and to establish whether there is any relationship between the credit evaluation process and the level of non performing loans in the

Women Enterprise Fund loans offered through financial intermediaries in Kenya. Most of the organizations get their funds from foreign donors, and existing credit policy is the most important factor in establishing a credit control policy. Further the study conclude that encouraging movement of surplus money is the most important objective in credit policy and that credit risk manager are used in majority of the organizations in approving loans with very high approval limits ceiling .

The study further estblished that credit period of funds do increase the level of loans defaults while credit appraisal through frequency of loan reviews and considerations made during credit approval do decrease the level of non performing loans of WEF. Brownbridge (1998) found perfunctory credit approval such as insider lending to be the single biggest contributor to the bad loans of many of the failed local banks. He observed that poor credit approval exacerbates NPL since such loans are invested in speculative projects such as real estate development, breached large-loan exposure limits and were extended to projects which could not generate short-term returns (such as hotels and shopping centers'), with the result that the maturities of the bank's assets and liabilities were imprudently mismatched. Moral hazard leading to defaults also happens when loans are not subjected to normal objective credit assessment before disbursement. This may include extending credit to business they own or with which they are affiliated to, personal friends and relatives among others.

### **5.3 Recommendation**

From the finding and basing on the objectives, the study recommends the following; financial intermediaries offering the women enterprise fund/ loans should have clear credit policy with proper monitoring and review from time to time in order to reduce the cases of NPL. Also these institution should have operational credit policy manual, and credit committees should be employed to approve loans this is based on the basic assumption of power in numbers. The study also recommends that credit risk managers, only, should not be used to approve loans and their approval limits ceilings as this may lead to biased approval.



**5.4 Limitations of the study**

A limitation for the purpose of this research was regarded as a factor that was present and contributed to the researcher getting either inadequate information or responses or if otherwise the response given would have been totally different from what the researcher expected.

The main limitations of this study were; some respondents refused to fill in the questionnaires, further some respondents decided to withhold information which they considered sensitive and classified. This reduced the probability of reaching a more conclusive study. However, conclusions were made with this response rate. Most of the respondents were busy throughout and had to continuously be reminded and even persuaded to provide the required information. In addition, due to official duties time was also a major concern.

**5.5 Areas for Further Research**

The study suggests that further studies be conducted on how credit approval affects loan non-performance of the financial intermediaries. This would augment the study as it would bring to light, how factors affecting approval would relate with the level of non-performing loans.

Further studies should be done on the effects of NPLs from the women enterprise fund loans on the performance and profitability of the financial intermediaries.

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## APPENDICES

### Appendix I: Questionnaire

#### INSTRUCTIONS AND CONFIDENTIALITY

- i. Where boxes are provided please tick appropriately.
- ii. The title and terms may not apply uniformly to the whole industry .Equivalent terms can be assumed in completing the questionnaire for example loan officer, credit analyst.
- iii. All the information to be collected will be kept in strictest confidence and used for research purposes only. It will not be possible to identify any particular individual or address in the results.
- iv. Levels of importance
  1. To no extent
  2. To a small extent
  3. To some extent
  4. To a large extent
  5. To a very large extent

#### Company Background

- vi. Name of your institution .....
- vii. Physical address .....
- viii. Name of officer completing questionnaire.....
- ix. Title of the officer completing questionnaire .....
- x. Telephone number.....
- xi. Mail address.....

#### xii. Form of institution

N.GO { }	constituency fund { }	Bank { }
Sacco { }	Others (specify) { }	

Xiii.Which year was your institution established?.....

Xiv. What proportion of your funds comes from the following sources?

Foreign donors ..... %

Internal operation.....%

Borrowings..... %

Others (specify).....

**Xv.** Which market segment does your bank serve? Please tick as appropriate

Business { }

Personal { }

Both business and personal { }

Others, Specify.....

**Credit Control Policy**

**1.** Which among the following factors do you consider in establishing a credit control policy?  
Please tick appropriately

	Level of importance				
	1	2	3	4	5
Existing credit policy	{ }	{ }	{ }	{ }	{ }
Overhead costs	{ }	{ }	{ }	{ }	{ }
General trend of credit extended to your organization	{ }	{ }	{ }	{ }	{ }
The state of the economy	{ }	{ }	{ }	{ }	{ }
Any other (specify) .....					

**2. (a)** Do you have a credit policy manual?  
Yes { }                      No { }

(b) If yes please list three contents of your credit manual

- i. ....
- ii. ....
- iii. ....

(c) If not tick appropriately the reason why you do not have the manual

	Level of importance				
	1	2	3	4	5
Too complicated to develop	{ }	{ }	{ }	{ }	{ }
Not necessary	{ }	{ }	{ }	{ }	{ }
Too costly	{ }	{ }	{ }	{ }	{ }



Too rigid { } { } { } { } { }

Any other (Specify) .....

3. Please indicate your credit policy objectives by ticking appropriately

	Level of importance				
	1	2	3	4	5
A competitive tool to gain competitive advantage	{ }	{ }	{ }	{ }	{ }
Minimizing credit cost	{ }	{ }	{ }	{ }	{ }
Encourage movement of surplus money	{ }	{ }	{ }	{ }	{ }
Earn interest from surplus money	{ }	{ }	{ }	{ }	{ }
Any other (specify)	.....				

4. Who approves loans in your organization and what are their approval limits ceilings?

Management Level	Credit approval Limits (Ksh)				
Credit analyst / officer	{ }	{ }	{ }	{ }	{ }
Credit risk manager	{ }	{ }	{ }	{ }	{ }
Credit committee	{ }	{ }	{ }	{ }	{ }
Others (Specify)	.....				

5. Tick the categories through which you lend funds to customers.

Groups ..... %      Individual through a group..... %

Direct to individuals..... %      Others(specify).....

6. Tick the type (s) of operations financed by your organization

Initial capital ( )      Working capital ( )

Additional capital ( )      Others (Specify).....

7 (a) What is the average lending period for your loans?

Over 4 years ( )

Between 2 and 3 years ( )

Between 1 and 2 years ( )

Less than 1 year ( )

Any other (Specify).....

(b) Does the period differ for different individual groups      Yes ( )      No ( )

If yes please give details.....

Credit Appraisal

Qualitative ( )	Quantitative ( )	Any other (Specify)
-----------------	------------------	---------------------

Quarterly ( )                      Half yearly ( )  
Yearly ( )                          Others (Specify)

**Objective ( )**

	Level of importance				
	1	2	3	4	5
Regional meetings	{ }	{ }	{ }	{ }	{ }
Regular trainings	{ }	{ }	{ }	{ }	{ }
Using supervision on one to one basis	{ }	{ }	{ }	{ }	{ }
Credit manual	{ }	{ }	{ }	{ }	{ }
Any other (Specify) .....					

	Levels of importance				
	1	2	3	4	5
Character	{ }	{ }	{ }	{ }	{ }
Condition	{ }	{ }	{ }	{ }	{ }
Commonsense	{ }	{ }	{ }	{ }	{ }
Contribution	{ }	{ }	{ }	{ }	{ }
Collateral	{ }	{ }	{ }	{ }	{ }
Capacity	{ }	{ }	{ }	{ }	{ }
Control	{ }	{ }	{ }	{ }	{ }
Others, Specify	.....				

(b) If yes how do you go about it?.....

14. In a situation where you find that the borrower financial situation and structure have altered and the original promised value of collateral differ, which steps do you take?

.....

15. Which practices among the following does your organization consider when managing credit risk exposure?.....

- |                                 |     |                     |     |
|---------------------------------|-----|---------------------|-----|
| Debt collection                 | ( ) | Netting off         | ( ) |
| Factoring of debt               | ( ) | Credit insurance    | ( ) |
| Surety bonds and securitization | ( ) | Letters of credit   | ( ) |
| Credit derivatives              | ( ) | Any other (Specify) | ( ) |

16. Kindly provide your loan repayments of the women fund rates at any given time

- |                                      |     |
|--------------------------------------|-----|
| More than 95% of your loan portfolio | ( ) |
| 90% of your loan portfolio           | ( ) |
| 85% of your loan portfolio           | ( ) |
| 80% of your loan portfolio           | ( ) |
| 70% of your loan portfolio           | ( ) |
| Below 70% of your loan portfolio     | ( ) |

17. When does your organization decide that the client has defaulted in loan repayment?

- |                          |     |
|--------------------------|-----|
| One late repayment       | ( ) |
| Two late repayments      | ( ) |
| Three late repayments    | ( ) |
| Any other (Specify)..... |     |

18. How does your organization deal with clients who default in repaying their loans?

- |   |     |
|---|-----|
| Deny loans to other group members             | ( ) |
| Recover from guarantors                       | ( ) |
| Sale of their property to recover their money | ( ) |
| Leave them alone to decide when to pay        | ( ) |
| Write the debt off and action it as bad debt  | ( ) |
| Any other (Specify).....                      |     |

19. How does your organization minimize losses when loans go bad?.....

## **Appendix II: List OF Financial Intermediaries Offering WEF Loans**

The list of financial intermediaries offering Women Enterprise Fund loans As per the Ministry of Gender, Children and Social Development.

1. Taifa Sacco
2. BIMAS
3. Co-operative Bank
4. Family Bank
5. Kenya Industrial Estates (KIE)
6. Wakenya Pamoja (formerly Gussi Rural Sacco)
7. K-REP Development Agency
8. Jitegemea Credit Scheme
9. Mathira Farmers Sacco
10. Pamoja Women Development Programme
11. Small & Micro Enterprise Programme (SMEP)
12. Jamii Bora Trust
13. Chase Bank
14. First Community Bank
15. Bright Enriched Empowerment Programme
16. Umoja Women Entrepreneur Programme
17. Adok Timo
18. Village Women Organization
19. South Imenti Micro Finance
20. Social Initiative and Development for Enterprise Programme (SIDEP)
21. NECCO FOSA
22. Naivasha Women SACCO
23. Lamu Teachers SACCO
24. Meru Mwalimu SACCO
25. Kipsigis Teachers SACCO
26. Wananchi SACCO

27. Laikipia Teachers SACCO
28. Biashara SACCO
29. Universal Traders SACCO
30. Samburu Traders SACCO
31. Narok Jua Kali SACCO
32. Omoremi Rural SACCO Society
33. Jiweze Women Foundation
34. African Women Foundation