Formal and informal institutions' lending policies and access to credit by small-scale enterprises in Kenya: An empirical assessment

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List of abbreviations

ACK	Anglican Church of Kenya
ANOVA	Analysis of variance
GDP	Gross domestic product
ICDC	Industrial and Commercial Development Corporation
K-REP	Kenya Rural Enterprise Programme
Ksh	Kenya shillings
MAGs	Mutual assistance groups
NBFIs	Non-bank financial institutions
NGOs	Non government organisations
POSB	Post Office Savings Bank
PRIDE	Promotion of Rural Initiatives and Development Enterprises
ROSCAs	Rotating savings and credit associations
SACCOs	Savings and credit cooperative societies
SCAs	Savings and credit associations
SMEs	Small and microenterprises

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Abstract

This study assessed the role of institutional lending policies among formal and informal credit institutions in determining the access of small-scale enterprises to credit in Kenya.

The results of the study show that the limited use of credit reflects lack of supply, resulting from the rationing behaviour of both formal and informal lending institutions. The study concludes that given the established network of formal credit institutions, improving lending terms and conditions in favour of small-scale enterprises would provide an important avenue for facilitating their access to credit.

Key words: Lending policies, credit access, credit institutions, small and microenterprises

1. Introduction

The provision of credit has increasingly been regarded as an important tool for raising the incomes of rural populations, mainly by mobilizing resources to more productive uses. As development takes place, one question that arises is the extent to which credit can be offered to the rural poor to facilitate their taking advantage of the developing entrepreneurial activities. The generation of self-employment in non-farm activities requires investment in working capital. However, at low levels of income, the accumulation of such capital may be difficult. Under such circumstances, loans, by increasing family income, can help the poor to accumulate their own capital and invest in employment-generating activities (Hossain, 1988).

Commercial banks and other formal institutions fail to cater for the credit needs of smallholders, however, mainly due to their lending terms and conditions. It is generally the rules and regulations of the formal financial institutions that have created the myth that the poor are not bankable, and since they can't afford the required collateral, they are considered uncreditworthy (Adera, 1995). Hence despite efforts to overcome the widespread lack of financial services, especially among smallholders in developing countries, and the expansion of credit in the rural areas of these countries, the majority still have only limited access to bank services to support their private initiatives (Braverman and Guasch, 1986).

In the recent past, there has been an increased tendency to fund credit programmes in the developing countries aimed at small-scale enterprises. In Kenya, despite emphasis on increasing the availability of credit to small and microenterprises (SMEs), access to credit by such enterprises remains one of the major constraints they face. A 1995 survey of small and microenterprises found that up to 32.7% of the entrepreneurs surveyed mentioned lack of capital as their principal problem, while only about 10% had ever received credit (Daniels et al., 1995). Although causality cannot be inferred a priori from the relationship between credit and enterprise growth, it is an indicator of the importance of credit in enterprise development. The failure of specialized financial institutions to meet the credit needs of such enterprises has underlined the importance of a needs-oriented financial system for rural development.

Experience from informal finance shows that the rural poor, especially women, often have greater access to irúormal credit facilities than to formal sources (Hossain, 1988; Schrieder and Cuevas, 1992; Adams, 1992). The same case has also been reported by surveys of credit markets in Kenya (Raikes, 1989; Alila, 1991; Daniels et al., 1995). A relevant question then becomes: Why do informal financial institutions often succeed even where formal institutions have failed? Lack of an empirical analysis of the relationship between lending policies and the problem of access makes it difficult to answer such a question.

This study was aimed at empirically analysing the credit policies in the rural financial markets with the view of establishing their role in determining the access of small-scale enterprises to financial services from both formal and informal sources in rural Kenya.

2. Problem statement

Small-scale enterprises have become an important contributor to the Kenyan economy. The sector contributes to the national objective of creating employment opportunities, training entrepreneurs, generating income and providing a source of livelihood for the majority of low-income households in the country (Republic of Kenya, 1989, 1992, 1994), accounting for 12–14% of GDP. With about 70% of such enterprises located in rural areas, the sector has a high potential for contributing to rural development. Yet the majority of entrepreneurs in this sector are considered uncreditworthy by most formal credit institutions. Whereas a small number of NGOs finance an increasing number of microenterprise activities, most formal institutions still deny these enterprises access to their services.

Improving the availability of credit facilities to this sector is one of the incentives that have been proposed for stimulating its growth and the realization of its potential contribution to the economy (ROK, 1994). Despite this emphasis, the effects of existing institutional problems, especially the lending terms and conditions on access to credit facilities, have not been addressed. In addition, there is no empirical study indicating the potential role of improved lending policies by both formal and informal credit institutions in alleviating problems of access to credit. Knowledge in this area, especially a quantitative analysis of the effects of lending policies on the choice of credit sources by entrepreneurs, is lacking for the rural financial markets of Kenya.

Although informal credit institutions have proved relatively successful in meeting the credit needs of small enterprises in some countries, their limited resources restrict the extent to which they can effectively and sustainably satisfy the credit needs of these entrepreneurs (Nappon and Huddlestone, 1993). This is because as microenterprises expand in size, the characteristics of loans they require become increasingly difficult for informal credit sources to satisfy, yet they still remain too small for the formal lenders (Aryeetey, 1996a). Studies on financial markets in Africa have shown that credit markets are segmented and unable to satisfy the existing demand for credit in rural areas. Whereas for informal markets it is the limited resources that bring the constraint, for the formal sector it is the difficulty in loan administration that is the problem. A relevant issue for empirical investigation is therefore that of the factors behind the coexistence of formal and informal credit sources in the Kenyan market. This study set out to investigate the following questions:

1. What are the main features of both formal and informal credit institutions that determine the small enterprises' access to their credit facilities in rural Kenya?

2. What factors determine entrepreneurs' participation in credit markets and their choice between formal and informal credit sources?

3. Objectives and hypothesis of the study

Objectives

The main objective of this study was to investigate and assess the role of the institutional lending policies of formal and informal credit institutions in determining the access to and use of credit facilities by small-scale entrepreneurs in rural Kenya.

The specific objectives of the study were:

- To identify the main features of the lending policies of formal and informal credit institutions that determine the access to and use of credit by small-scale entrepreneurs.
- To analyse the factors that determine the participation of entrepreneurs in credit markets and their choice of credit sources in Kenya.
- To draw policy implications for financial services to small-scale enterprises in Kenya.

Hypothesis

The study tested the following main hypothesis:

The differences in the lending terms and conditions between formal and informal credit institutions significantly determine the access to and the choice of credit sources by small-scale enterprises in rural Kenya.

4. Literature review

Theoretical and conceptual issues in financial markets

An increasing body of analytical work has attempted to explain the functioning of credit markets using new theoretical developments. Challenging the paradigm of competitive equilibrium, they have explored the implications of incomplete markets and imperfect information for the functioning of credit markets in developing countries. These provide a new theoretical foundation for policy intervention. Most of this body of literature has followed from the pioneering work of Stiglitz and Weiss (1981).

The work by Stiglitz and Weiss (1981) marks the beginning of attempts at explanations of credit rationing in credit markets. In this explanation, interest rates charged by a credit institution are seen as having a dual role of sorting potential borrowers (leading to adverse selection), and affecting the actions of borrowers (leading to the incentive effect). Interest rates thus affect the nature of the transaction and do not necessarily clear the market. Both effects are seen as a result of the imperfect information inherent in credit markets. Adverse selection occurs because lenders would like to identify the borrowers most likely to repay their loans since the banks' expected returns depend on the probability of repayment. In an attempt to identify borrowers with high probability of repayment, banks are likely to use the interest rates that an individual is willing to pay as a screening device. However, borrowers willing to pay high interest rates may on average be worse risks; thus as the interest rate increases, the riskiness of those who borrow also increases, reducing the bank's profitability. The incentive effect occurs because as the interest rate and other terms of the contract change, the behaviour of borrowers is likely to change since it affects the returns on their projects. Stiglitz and Weiss (1981) further show that higher interest rates induce firms to undertake projects with lower probability of success but higher payoffs when they succeed (leading to the problem of moral hazard).

Since the bank is not able to control all actions of borrowers due to imperfect and costly information, it will formulate the terms of the loan contract to induce borrowers to take actions in the interest of the bank and to attract low risk borrowers. The result is an equilibrium rate of interests at which the demand for credit exceeds the supply. Other terms of the contract, like the amount of the loan and the amount of collateral, will also affect the behaviour of borrowers and their distribution, as well as the return to banks. Raising interest rates or collateral in the face of excess demand is not always profitable, and banks will deny loans to certain borrowers. The result is credit rationing in credit markets, which refers to two situations: (1) Among loan applicants who appear to be identical, some receive and others do not, with those who don't having no chance of receiving a loan even if they offered to pay higher interest rates. (2) There are identifiable groups of people who at a given supply of credit, are unable to obtain credit at any interest rate, but with a larger supply, they would.

Besley (1994), following this line of argument, analyses the rationale for interventions in rural credit markets in the presence of market failure. Since credit markets are characterized by imperfect information, and high costs of contract enforcement, an efficiency measure as exists in a perfectly competitive market will not be an accurate measure against which to define market failure. These problems lead to credit rationing in credit markets, adverse selection and moral hazard. Adverse selection arises because in the absence of perfect information about the borrower, an increase in interest rates encourages borrowers with the most risky projects, and hence least likely to repay, to borrow, while those with the least risky projects cease to borrow. Interest rates will thus play the allocative role of equating demand and supply for loanable funds, and will also affect the average quality of lenders' loan portfolios. Lenders will fix the interest rates at a lower level and ration access to credit. Imperfect information is therefore important in explaining the existence of credit rationing in rural credit markets. Moral hazard occurs basically because projects have identical mean returns but different degrees of risk, and lenders are unable to discern the borrowers' actions (Stiglitz and Weiss, 1981; Besley, 1994). An increase in interest rates negatively affects the borrowers by reducing their incentive to take actions conducive to loan repayment. This will lead to the possibility of credit rationing.

Bell (1990) demonstrates that incomplete information or imperfect contract enforcement generates the possibility of loan default and eventually problems of credit rationing. The result is loan supply and implicit credit demand functions, both of which are simultaneously determined. The role of risk in allocation of credit through its effect on transaction costs, therefore, becomes important in incomplete credit markets. Accordingly, where default risk exists, with an upward sloping supply curve, lenders offer borrowers only a choice of points on the supply curve, and borrowers are restricted to these points. It is impossible to identify the loan demand schedule using the observed loan amounts since these only reflect the existing supply. The credit demand function can only be interpreted from the borrower's participation decision, i.e., the decision to borrow or not, and from which sector to borrow. Such a decision will depend on, among other things, the borrower's economic endowment and opportunities. The credit demand schedule identification problem therefore implies the existence of credit rationing (see also Elhiraika and Ahmed, 1998).

Empirically, research on the use of credit by rural households tends to imply that although it is not obvious that demand for credit far outweighs the supply, there are significant obstacles to the transformation of potential demand into revealed demand (Aryeetey, 1996b). The absence of supply creates a lack of demand expressed in low revealed demand. Again, due to market failure in the credit market, the transaction cost involved in obtaining credit is considered greater than the utility, prompting households to switch profits between activities as a way of financing working capital. This also explains the existence of informal credit markets alongside formal credit institutions.

Access to financial services

Access to financial services by smallholders is normally seen as one of the constraints limiting their benefits from credit facilities. However, in most cases the access problem, especially among formal financial institutions, is one created by the institutions mainly through their lending policies. This is displayed in the form of prescribed minimum loan amounts, complicated application procedures and restrictions on credit for specific purposes (Schmidt and Kropp, 1987). For small-scale enterprises, reliable access to short-term and small amounts of credit is more valuable, and emphasizing it may be more appropriate in credit programmes aimed at such enterprises. Schmidt and Kropp (1987) further argue that the type of financial institution and its policy will often determine the access problem. Where credit duration, terms of payment, required security and the provision of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they will be denied access.

The Grameen Bank experience shows that most of the conditions imposed by formal credit institutions like collateral requirements should not actually stand in the way of smallholders and the poor in obtaining credit. The poor can use the loans and repay if effective procedures for disbursement, supervision and repayment have been established. On the issue of interest rates, the bank also supports the view that high interest rate credit can help to keep away the influential non-target group from a targeted credit programme (Hossain, 1988). This further demonstrates the need to develop appropriate institutions for the delivery of loans to small-scale borrowers.

Notable disadvantages of the formal financial institutions are their restriction of credit to specific activities, making it difficult to compensate for losses through other forms of enterprises, and their use of traditional collateral like land. There is need for a broad concept of rural finance to encompass the financial decisions and options of rural economic units, to consider the kind of financial services needed by households, and which institutions are best suited to provide them.

Characteristics of credit markets in Africa

Credit markets in Africa have mainly been characterized by the inability to satisfy the existing demand for credit in rural areas. However, whereas for the informal sector the main reason for this inability is the small size of the resources it controls, for the formal sector it is not an inadequate lending base that is the reason (Aryeetey, 1996b). Rather, the reasons are difficulties in loan administration like screening and monitoring, high transaction costs, and the risk of default. Credit markets are characterized by information asymmetry, agency problems and poor contract enforcement mechanisms (Nissanke and Aryeetey, 1995). They are mainly fragmented because different segments serve clients with distinct characteristics. Because of this, lending units are unable to meet the needs of borrowers interested in certain types of credit. The result is a credit gap that captures those borrowers who cannot get what they want from the informal market, yet they cannot gain access to the formal sources. Enterprises that want to expand beyond the limits of self-finance but lack access to bank credit demand external finance, which the informal sector is unable to satisfy.

Two main theoretical paradigms have been advanced to explain the existence of this fragmentation: the policy-based explanation and the structural-institutional explanations (see Aryeetey et al., 1997). According to the policy-based explanation, fragmented credit markets (in which favoured borrowers obtain funds at subsidized interest rates, while others seek funds from expensive informal markets) develop due to repressive policies that raise the demand for funds. Unsatisfied demand for investible funds forces credit rationing using non interest rate criteria, while an informal market develops at uncontrolled interest rates. Removing these restrictive policies should therefore enable the formal sector to expand and thereby eliminate the need for informal finance. According to the structural-institutional explanations, imperfect information on creditworthiness, as well as cost of screening, monitoring and contract enforcement among lenders, results in market failure due to adverse selection and moral hazard, which undermines the operation of financial markets. As a result, lenders may resort to credit rationing in the face of excess demand, thus establishing equilibrium even in the absence of interest rate ceilings and direct allocations. Market segmentation then results. Market segments that are avoided by the formal institutions due to institutional and structural factors are served by informal agents who use personal relationships, social sanctions and collateral substitutes to ensure repayment. An extended view of this explanation is that structural barriers result in monopoly power, which perpetuates segmentation.

Another view has attempted to explain the existence of informal finance as simply residual finance, satisfying only the excess demand by those excluded from formal finance. According to this view, informal sector finance develops in response to the formal sector controls. Structural and institutional barriers across segments perpetuate segmentation by providing opportunity for monopoly power. A further explanation is that fragmentation exists due to inherent operational characteristics of the markets. Looking at the role of informal financial sectors in Ghana, Aryeetey and Gockel (1991), attempted to investigate factors that motivate the private sector to conduct financial transactions in the informal financial sectors. They argue that the informal sector derives its dynamism from developments in the formal sector as well as from its own internal characteristics. The informal and formal sectors offer similar products that are not entirely homogeneous, implying that both sectors cater to the needs of easily identifiable groups of individuals and businesses, but at the same time serve sections of the total demand for financial services. However, participants from either sector may cross to the other depending on factors like institutional barriers, availability of credit facilities and the ease of physical access. Aryeetey and Gockel (1991) examine some of the factors that influence demand for formal savings and lending facilities in Ghana and observe that incomes, bank formalities and banks' preference for large transactions were the major ones. Travel costs and time are among other factors that determine transaction costs to the entrepreneurs.

Besley (1994) has classified major features of rural credit markets that can be used to explain the existence of formal and informal credit markets in Africa. Among these are the existence of collateral security and covariant risk. Collateral security is often beyond the reach of many borrowers in rural areas. But even where this is not the case, the ability of the lender to foreclose is often limited, making enforcement of loan repayment difficult. Such difficulties help to explain the use of informal financial markets, which use social sanctions to ensure enforcement. In rural areas, shocks in incomes that create borrowers' potential to default will affect the operation of credit markets. In most rural economies, borrowers are faced with risks arising from uncertainties about their incomes. By diversifying their loan portfolios, lenders can avert such risks. However, credit markets in rural areas are segmented, with lenders' loan portfolios being concentrated on borrowers facing common shocks to their incomes.

An important cost of segmentation is that funds fail to flow across groups of individuals despite the benefits of doing so. According to Besley (1994), this kind of segmentation may also be reinforced by government regulations. In incomplete markets, rural households could use partially functioning credit markets to provide insurance against income shocks mainly by trading insurance. However, due to incomplete information about the nature of the risk faced by each individual, and possible changes in the private behaviour of other individuals, insurance arrangements are only partial (Aryeetey, 1996b) or are totally absent (Aryeetey and Udry, 1997).

Another important factor of both formal and informal markets relates to penalties. In the absence of formal contract enforcement mechanisms, both formal and informal institutions rely on lending practices that emphasize loan screening rather than monitoring, which appears to suggest more concern with adverse selection than moral hazard. Differences emerge in the methods used by formal and informal institutions. Whereas formal lenders rely more on project screening, informal lenders rely more on the character and history of the borrower, particularly on personal knowledge of the borrower. Loan monitoring is rarely done by informal lenders due to the lenders' knowledge of borrowers, while in the formal market it is mainly due to lack of facilities. Transaction costs are generally lower in informal markets than in formal ones. One of the issues that emerges from this market structure is which financial institutions are accessible to the rural poor, and which factors determine their demand for credit from the different sources as determined by their participation decisions.

The foregoing literature review shows that financial markets in African countries are characterized by imperfect and costly information, risks, and market segmentation, resulting in credit rationing. This is one of the underlying factors in the coexistence of both formal and informal credit markets serving the needs of the different segments of the market. On the other hand, policy-based and structural-institutional explanations attempt to explain the coexistence of both segments of the market as a result of policy and structural-institutional rigidities. This review provides a conceptual background for an empirical investigation of borrowers' participation in credit markets and access to different sources.

Imperfect information emerges as an important explanation for credit rationing. This is because, due to information asymmetry, loan terms and conditions are used that affect the behaviour of borrowers. The literature also shows that the assumption that formal interest rates are the reason borrowers do not use formal credit is not correct. Rather, the unique characteristics of credit services explain segmentation in the credit market. In addition, lack of effective contract enforcement and the consequent default risk are also important in loan rationing.

Among the questions that arise out of this scenario is that of an empirical explanation for the coexistence of both formal and informal credit sources based on the foregoing background. A related question is that of access to financial services from both sources. In a fragmented credit market, what explains borrowers' decision to borrow at all, and whether to borrow from either formal or informal segments?

Informal finance in Africa

Characteristics of informal finance

A large part of financial transactions in Africa occur outside the formal financial system. Literature on the theory of credit markets with incomplete markets and imperfect information is largely relevant to the functioning of informal markets.

Informal finance has been defined to refer to all transactions, loans and deposits occurring outside the regulation of a central monetary authority, while the semiformal sector has the characteristics of both formal and informal sectors. In Africa it has been defined as the operations of savings and credit associations, rotating savings and credit associations (ROSCAs), professional moneylenders, and part-time moneylenders like traders, grain millers, smallholder farmers, employers, relative and friends, as well as cooperative societies (see Aryeetey et al., 1997; Aryeetey and Udry, 1997).

Three types of informal units in Africa have been identified: savings mobilization units with little or no lending; lending units that do not engage in any savings; and those units that combine deposit mobilization and lending (Aryeetey and Udry, 1997). Institutions that combine both are relatively new, however; they respond to the need for direct financial intermediation and mostly fall under self-help organizations. The types of informal financial units vary mainly because they are purpose oriented and mostly developed to meet the demand for specific financial services, responding to the demands of a distinct clientele, defined by themselves using various socioeconomic criteria. However, while informal financial units develop their market niches and have different reasons for selecting a particular segment of the market, they tend to have similar fundamental practices in the administration of credit, which allows for a uniform analysis. As these goals change, informal financial units change their operational structures.

Studies on informal finance in Africa show that they will do well so long as the level of economic activity demands increasing financial services for groups that cannot be reached by the formal financial institutions (Chipeta and Mkandawire, 1994; Soyibo, 1994). The emergence of demand for short-term credit especially among traders and farmers will most likely lead to the development of an informal unit to meet that demand. Informal credit therefore seems to develop in response to an existing demand. Aryeetey and Udry (1997) have further observed that while credit from an individual lender to a set of borrowers may vary in terms of what package each borrower receives, the more significant variation in the informal credit market is in terms of what packages different lenders are able to offer in the market. They therefore note that differences in the loan characteristics represent different lender types.

The failure of many government-subsidized credit programmes to reach the targeted groups has prompted the emergence of alternative means of administering rural credit so as to reduce the access problem (Braverman and Huppi, 1991). Informal credit markets have developed in rural areas, providing faster services to their clients. That informal finance is more important than formal finance has been proven by different approaches used to measure its magnitude in different countries, namely Chipeta and Mkandawire (1992) for Malawi and Aryeetey and Gockel (1991) for Ghana.

Important lessons can be learned from the success of informal financial institutions. Often the degree of flexibility and creativity in informal finance accounts for the high degree of success in such institutions. The types of services they provide mostly contrast with those offered by traditional credit programmes. These are characterized mainly by short-term and small loans, increasing discipline in terms of savings, judgement of borrower creditworthiness, and information about the borrower. Service is based on flexible arrangements to adjust to changing economic circumstances, and reducing the transaction costs to the borrowers who respond by maintaining discipline in order to sustain their access to credit. The result is a dependable working relationship between the lender and the borrowers.

Most services of informal finance are client oriented, thus reducing the transaction costs for customers, and making their services attractive despite the explicitly high interest rates. Informal lenders are also able to design their contracts to meet the individual dimensions, requirements and tastes of the borrowers (Aryeetey, 1996b). This contrasts with the formal lender practices, which charge relatively low interest rates, but often impose procedures on borrowers that substantially increase their transaction costs.

In the informal financial markets, loans and deposits are often tied, enabling individuals to increase their access to credit by improving their deposit performance. This allows participants to enhance their creditworthiness through their savings and repayment record. All these lessons emphasize the fact that financial intermediaries at the small-scale level must be prepared to offer the financial services demanded by clients if microfinance is to succeed (Schmidt and Kropp, 1987).

Loan screening, monitoring and contract enforcement

Unlike formal finance, informal lenders often attach more importance to loan screening than to monitoring the use of credit. Screening practices often include group observation of individual habits, personal knowledge by individual moneylenders and recommendations by others, and creditworthiness. In group lending programmes, members are made jointly liable for the loans given. The joint liability plus the threat of losing access to future loans motivates members to perform functions of screening loan applicants, monitoring borrowers and enforcing repayment. Investigations of the effect of intragroup pooling of risky assets show that groups exploit scope and scale economies of risk by pooling risks and entering into informal insurance contracts. This confirms the role of social cohesion in group repayment (Zeller, 1998).

In group lending, the financial intermediary reduces the recurrent transaction costs by replacing multiple small loans to individuals by a large loan to a group. This enables financial intermediaries to bank with poor loan applicants who would not receive any loans under individual loan contracts due to excessive unit transaction costs. One of the most important rationales for group lending is the information and monitoring advantages that member based financial institutions have compared with individual contracts between bank and borrower. The main argument in the rationale is that in comparison with distant bank agents, group members obtain information about the reputation, indebtedness and wealth of the applicant. They are also able to use social sanctions to compel repayment. However, it has been shown that a number of factors may undermine repayment performance of group lending under joint liability. These include reduced repayment incentives for individual borrowers where other members default, and the incentive to borrow for riskier projects under group based contracts. There are strong incentives for individuals with similar risk characteristics to form credit groups (Zeller, 1998), while other scholars have indicated that group lending schemes work well with groups that are homogeneous and jointly liable for defaults (Huppi and Feder, 1990).

Little evidence exists showing substantial investment in loan monitoring by informal lenders. Aryeetey and Udry (1997) conclude that the observation that commercial lenders spend more time screening new applicants than on monitoring activities of current borrowers suggests that they are more concerned with adverse selection than moral hazard.

5. Structure and performance of the financial sector in Kenya

Overview of the Kenyan financial sector

Kenya's financial sector grew steadily in the 1990s as indicated by the growth of the share of the financial sector in GDP from 7.9% in 1990 to 9.6% in 1994, and to 10% in 1997 (ROK, 1997, 1998). The assets of the banking system more than doubled between 1990 and 1995, while those of the non-bank financial institutions (NBFIs) increased by 16% over the same period. The composition of the institutions as at 1998 consisted of 55 commercial banks, up from 48 in 1997; 16 non-bank financial institutions from 24 in 1997; 4 building societies; and 2 mortgage finance companies (Central Bank of Kenya, 1998).

The number of commercial banks increased significantly in the 1980s, from 16 in 1981 to 26 in 1990 and 48 in 1997. The NBFIs also experienced rapid growth over the same period, more than doubling from 23 in 1981 to 54 in 1988. The number declined sharply after that, however, to 24 in 1997 (CBK, 1998). The rapid growth in the banks and NBFIs was attributed to a regulatory framework in which entry requirements were relaxed as a deliberate government effort to promote the growth of locally-owned financial institutions. The rapid growth of NBFIs was due to the lower entry requirements for NBFIs, which also faced no interest rate restrictions and were therefore able to attract more deposits by charging higher interest rates.

In the 1990s, the realization that regulatory differences had resulted in the mushrooming of NBFIs led to harmonization of capital requirements and interest rate regulation for both banks and NBFIs. This led to the decline in the number of NBFIs as many converted to commercial banks.

As the financial sector grows, institutional diversity is expected. However, this has not been the case, as reflected in the limited growth of other competing institutions like post bank, insurance and the stock exchange. The Kenyan banking sector is dominated by a few large firms, which focus mainly on short-term lending. Of the 56 commercial banks operating in the country, the largest four control 81% of the deposits. The short-term nature of their lending and their policies of concentrating on a small corporate clientele have implied indifference to small savers and borrowers. This has meant that they exclude a large number of potential borrowers and investors from their services.

The growth and relative sophistication in the Kenyan financial system have not been matched by efficiency gains in the quality of services offered to the customers and the economy in general. It has been argued that the large differential between deposit and lending rates is an indication of the lack of sufficient competition for savings among Kenyan banks. Despite the liberalization of interest rates in 1991, nominal interest rates have shown minimal increase, resulting in negative real interest rates, and a widening of interest rate spread, indicating inefficiency in the system. Bank charges for services rendered also make the cost of banking prohibitive to a majority of the population. The high profitability in the banking sector has not triggered entry by new competitors as would be expected. This points to the existence of barriers to entry in the market. According to the 1997–2002 development plan, there is need to introduce regulatory measures to check oligopolistic tendencies, which restrict entry and efficiency in the banking sector.

As in many other countries in sub-Saharan Africa, the performance of formal financial institutions and credit programmes in Kenya in terms of alleviating the financial constraints of the smallholder sector has met a lot of criticism. The criterion of creditworthiness, delays in loan processing and disbursement, and the government approach to preferential interest rates, resulting in non price credit rationing, have limited the amount of credit available to smallholders and the efficiency with which the available funds are used (Atieno, 1994). This can be seen as an indication of the general inadequacy of the formal credit institutions in meeting the existing credit demand in the country.

Bottlenecks in the capacity of the existing institutions to deliver credit are also reflected in the existing unsatisfied demand (Aleke Dondo, 1994). Viewed against its ability to meet the particular credit needs of the different types of rural enterprise activities, Kenya’s financial system displays a deficiency in the range of financial instruments and lack of coordination between different financial institutions. This is consistent with the argument that credit markets in Africa are characterized by inability to satisfy existing demand, which for the informal market is explained by the high transaction costs and default risks.

The lending policies used by the main credit institutions in Kenya do not ensure efficient and profitable use of credit funds, especially by farmers, and also result in a disparity between credit demand and supply (Atieno, 1994). This view is further supported by a 1995 survey by the Kenya Rural Enterprise Programme (KREP) showing that whereas credit is an important factor in enterprise expansion, it will most likely lead to enterprise contraction when not given in adequate amounts (Daniels et al., 1995). Hence, despite the existence of a sophisticated financial system, it has not guaranteed the access to credit by small-scale enterprises.

Although not much is known about the informal financial sector in the country, there is a consensus that it is an important source of finance to the small-scale entrepreneurs in the country (Aleke Dondo, 1994). Ouma (1991) found that 72% of the sample surveyed saved with and borrowed from informal sources. Whereas in the formal credit market only a selected few qualify for the predetermined loan portfolios, in the informal market the diversified credit needs of borrowers are better satisfied. The problems of formal financial institutions, especially security, loan processing, inadequate loans given, unclear procedures in loan disbursement and high interest rates, all underscore the importance of informal credit and the need to investigate the dynamics of its operations, especially with respect to how these factors determine the access to and the use of credit facilities. Informal credit sources in Kenya comprise traders, relatives and friends, ROSCAs, welfare associations, and moneylenders.

It is apparent from the foregoing that the financial market is divided between formal and informal segments, which operate almost independently. It is also apparent that the informal credit markets offer important alternative sources of credit since despite its resources, the formal sector is not effective in meeting credit demand. There is no empirical information on the effect of (differences in) lending policies and procedures in determining the access of small-scale enterprises to credit. This study was intended to fill this gap of information. An important issue addressed by this study is the underlying factors behind the coexistence of the two types of credit markets, which account for the differences in their ability to satisfy the credit demand by small-scale enterprises. Alternatively, why do borrowers choose to use any one source of credit in the market? In the Kenyan financial market, what are the typologies of lending units? Why do they serve only specific segments of the credit markets?

Segmentation of the rural financial market in Kenya

Typology of financial institutions serving small and microenterprises

A number of institutions provide credit to the small and microenterprise sector in Kenya. These include commercial banks, non-bank financial institutions, non-government organizations, multilateral organizations, business associations, and rotating savings and credit associations. In addition, financial transactions also take place between traders, friends, relatives and landlords, as well as commercial moneylenders. The main commercial banks involved in SME lending and savings mobilization are the Kenya Commercial Bank and Barclays Bank. Many financial institutions, especially commercial banks, rarely lend to small and microenterprises (SMEs) since they emphasize collateral, which most SMEs lack. Few enterprises are able to provide the marketable collateral and guarantee requirements of commercial banks, with the result that SMEs lacking such requirements have not been able to obtain credit from banks. Most of them therefore rely on their own savings and informal credit (Oketch et al., 1995).

The advantage of commercial banks is that they have a wide branch network that can reach most microenterprises. They also operate accounts, which makes it possible to monitor their clients closely. Most of them are located in urban areas, however, making it difficult to provide services to those enterprises located in rural areas. Given that up to 78% of the SMEs are located in rural areas, this is a major limitation on the extent to which commercial banks can serve them. Other limitations of commercial bank lending to the SME sector in Kenya are the lack of appropriate savings instruments to mobilize savings to the SMEs and the restrictions on withdrawals, which discourages savers who would like frequent access to their savings. Their location away from many enterprises also implies high transaction costs, which discourage most enterprises from using their savings and other services.

In the recent past, a number of non-government organizations (NGOs) have been involved in financing of microenterprises. Most NGOs have not had positive performance, however. Their inexperience in financial intermediation and limited financial resources have constrained their potential. There is little coordination among the NGOs, resulting in duplication of resources and activities. Most of them have high credit costs, are donor based and sponsored, lack adequate funding, and are limited in their geographical coverage. They also discriminate against small-scale enterprises who get rationed out by lenders since cheap credit creates excess demand for loanable funds, forcing lenders to lend to large enterprises that have collateral and are perceived to be less risky.

Rotating savings and credit associations (ROSCAs) are also an important source of credit in the country. These are found in both rural and urban areas as either registered welfare groups or unregistered groups. They mainly provide credit to those who would likely be ineligible to borrow from other sources. ROSCAs have developed mostly in response to the lack of access to credit by SMEs, forcing them to rely on their own savings and informal credit sources for their financing. It has been found that rural firms use ROSCAs more than urban ones. They mostly integrate savings into their credit schemes, thus mobilizing savings from their members. However, even for members of ROSCAs, not all their credit needs can be satisfied within the associations. This implies that there is some proportion of borrowing and lending that is not catered for by either formal institutions or such associations. This is catered for by personal savings as well as borrowing between entrepreneurs and other forms of informal transactions.

Financial institutions serving small and microenterprises in western Kenya

There are a number of credit institutions that support small and microenterprise activities in the study region. These include commercial banks, development finance institutions, NGOs, and rural credit organizations like SACCOs and ROSCAs. There are also a number of financial transactions taking place outside these institutions, like those between relatives and friends, traders, and welfare groups. An inventory survey of financial institutions in western Kenya by KREP documents the main lending institutions in the region. These are presented briefly below.

Barclays Bank offers loans for women entrepreneurs both as individuals and in groups. Under the Barclays Bank of Kenya Credit Scheme, the bank offers credit to small and large enterprises engaged in off-farm activities. Commercial rates of interest are applicable with no lower or upper limits. The clients are drawn from the existing bank clientele. The scheme aims at stimulating small businesses by removing some of the constraints on bank lending to the sector. The main constraints of risk and administrative costs were to be addressed by the creation of a loan guarantee fund. Credit is advanced to small businesses by Barclays Bank, operating within the traditional banking system, with the institutional systems in place to achieve a high level of loan recovery. The loan guarantee fund is used to guarantee part of the loan. The client provides 25% of the security for the loan while the guarantee fund provides the remaining 75%, thus helping to distribute the risk of lending.

In western Kenya, the scheme operates in Bungoma and Kisumu, with the two areas having a total of 14.8% of the clients nationally. The loans are not restricted to any specific sector, although an observation of the applications shows that 45% of all the clients operate wholesale or retail trade.

Care International focuses on pre-existing organized rural groups. Its credit programme emphasizes women owners of microenterprises. Clients are required to raise equity cash of 25% of the total loan required. The loan security is the group members who guarantee each other and are collectively guaranteed by the group. Credit is advanced to the group, which lends to its members individually.

Other institutions include ***Industrial and Commercial Development Corporation*** (ICDC), which operates credit schemes including one that caters for retail and wholesale traders for working capital. The ***Anglican Church of Kenya***, ***Diocese of Maseno South*** provides financial and nonfinancial services to farm and non-farm rural enterprises. ***Kenya Industrial Estates*** directs loans to small-scale enterprises. The main security is land and buildings. ***Kenya Small Traders and Entrepreneurs Society*** can be classified as an informal source of credit since it brings together entrepreneurs whose share contributions determine the amount of credit they receive. Members act as the guarantors for the loan. ***KREP*** has a credit programme targeted at ROSCAs, who then onlend to their members. The loan received by the groups is equivalent to ten times the groups' savings; savings are an important component of the programme and there is also an insurance fund. ***Promotion of Rural Initiatives and Development Enterprises*** (PRIDE) provides credit to small enterprises especially those in the informal sector without access to other sources of credit. ***ROSCAs*** provide credit to borrowers who would normally be unlikely to borrow from other sources, and also mobilize savings from members. Rural firms rely more on ROSCAs since they present easier access. ***SACCOs*** also provide both savings and credit facilities to their members. The amount of credit provided depends on the amount of the individual members' savings, but the use of money is not restricted.

Lending approaches by informal and semi-formal institutions

There are four major approaches for providing credit to small enterprises in Kenya: group-based minimalist credit schemes, lending to individuals, lending to community-based enterprises, and integrated credit models (Aleke Dondo, 1994).

In the minimalist approach, credit only is provided without any other form of assistance. The group-based approach can use either newly formed groups or already existing ones. The approach operates on the principle that credit is the most important constraint to entrepreneurs. Based on newly formed groups, credit is provided to small groups that guarantee the loans to their members. This approach emphasizes responsibility in the selection of clients, appraisal, approval and collection of loans while at the same time cutting administrative costs. Members make weekly contributions to a joint account in the name of the group and the lending institution, which acts both as a savings account for each member and a loan guarantee fund. Members can only receive a second and bigger loan after the first loan is repaid. The responsibility for loan administration by the group provides peer pressure, which keeps up repayment.

In the alternative of existing groups, the NGOs come in to bridge the capital gap faced by the groups, mainly ROSCAs, by giving them loans at market rates of interest. The group then onlends to the members at a higher interest rate. Members repay to the group, which then repays the NGO. The method is a cost-effective way of extending credit since the members do the administrative work. The groups have achieved high levels of cohesiveness and are effective in reaching even those in remote rural areas.

In one type of the minimalist individual credit model, credit provision is restricted to those who can secure it with tangible collateral; commercial banks and non-bank financial institutions mainly use this model. The model uses the existing commercial bank branch network and therefore has considerable potential for reaching many people with small enterprises. In the scenario where tangible security is not required, it is replaced with guarantors or chattel mortgages.

In community-based enterprises, financial assistance is provided to group owned and managed enterprises. The approach evolved from grant-giving programmes of NGOs. Administrative costs of this approach are high and although returns to the groups may be high, returns to the members are small.

The integrated model combines training and technical assistance with credit. The loans are given to individuals who interact directly with the loan officer. An assessment of the appropriate loan size is normally done and one or two guarantors are required to guarantee the loan. The model is relatively expensive due to the training and technical assistance components.

Loan security

Loan security is one of the important aspects of credit to SMEs. Most lending to small-scale enterprises is security based, without any regard for potential cash flow. However, organizations lending to microenterprises have devised alternative forms of collateral. These include: group credit guarantees, where organizations lend to individuals using groups as guarantors, and personal guarantors, where individuals are given loans based on a guarantor's pledge.

Loan guarantee schemes are increasingly being implemented as a means of encouraging financial institutions to increase their lending to the risky sectors and those without the traditional formal security. The main banks operating this scheme are:

- ***Kenya Commercial Bank,*** where the government guarantees the loan to reduce the risk and overcome the lack of borrower security. Applicants are expected to meet all the bank requirements except for tangible security.
- ***Barclays Bank,*** where entrepreneurs involved in off-farm business activities but lacking the traditional bank security are guaranteed through a loan guarantee fund.

An important feature of these institutions' activities is that there is little interaction or coordination between the different activities. They mostly serve different types of economic units with access to their facilities directly dependent on participation in the supported activities. This fragmentation is further reflected in the geographical dispersion of specific programmes, credit terms and conditions specific to certain programmes, and the short-term nature of a number of programmes. Credit markets in Africa are mainly fragmented, since different segments serve clients with distinct characteristics. Hence this diversity of credit institutions can be seen as an explanation of the fragmentation.

6. Methodology

Theoretical and conceptual framework

Many surveys on formal and informal credit sources in Kenya have been mainly qualitative in nature (Raikes, 1989; Alila, 1991; Aleke Dondo, 1994; Daniels et al., 1995). Zeller (1993, 1994) used a univariate probit model to estimate the factors that determine an individual's borrowing decisions, in terms of their participation in formal or informal credit markets in Madagascar. The market segments are treated separately in order to identify similarities and differences between the sectors in credit applications and rationing. The results show that among the informal lenders, age, schooling, wage income, sick days and household headship are significant determinants of applications for credit. On the other hand, gender and social events are not significant. Age, the years of schooling and the ratio of outstanding loans increase the probability of being supply constrained. Higher household wealth reduces the probability of being constrained. In the formal sector, being male significantly increases the probability of applying for a loan.

Zeller divides the factors into individual characteristics, labour assets, household events that affect credit demand, and reasons for participation. This approach assumes that an individual's decision is only affected by internal factors. However, external factors also play an important role in influencing participation in credit markets. This approach was adopted in this study, modified to focus on those external factors related to institutional credit lending policies.

A number of conceptual difficulties have been identified in estimating credit demand, especially in fragmented markets with imperfect information. In most models where there is the possibility of loan default due to imperfect contract enforcement, and an upward sloping supply curve, it is assumed that lenders offer borrowers a choice of points on the supply curve, to which they are restricted. It therefore becomes difficult to identify the loan demand schedule using information on observed loan amounts since this reflects only the existing supply. The credit demand function can only be identified from the borrower's participation decision; namely, the decision to borrow or not and from which sector to borrow.

Apart from the conceptual difficulties in identifying demand for credit, Nagarajan et al. (1995) note that estimates of loan demand are often biased because they use models that do not adequately correct for selectivity bias or they use data that do not account for the existence of multiple loans. However, in a situation of supply constraints and multiple loans for individual households, it is important to develop a definition of loan demand

and data so that all loans obtained from different sources can be measured. Moreover, Nagarajan et al. (1995) further argue that while loan demand is unobservable, it can be inferred under certain behavioural restrictions by aggregating individual loans received from various types of lenders. It therefore becomes important to gather such data that allow all loans from different lenders during a given period to be measured. The authors develop a theoretical and econometric framework to estimate credit demand from field data. This framework has been used by Elhiraika and Ahmed (1998) to estimate loan demand from field data from Sudan.

Bigsten et al. (2000) estimate credit market participation and constraints faced by firms by modelling the explicit demand for funds by firms and assessing the decision rules used by financial institutions to grant loans. Since applying for funds has transaction costs, firms can build internal funds from retained profits. They argue that controlling for risk attitudes, the factors that determine whether firms have a demand for credit are expected return on investment, the opportunity cost of using own funds and the cost of outside funds. Given credit market imperfections, firms may prefer external funds, but would not apply due to inability to meet collateral requirements, perceived low rate of application success, and high costs associated with loan application.

In this study, data were collected on all loans from different lenders available to the borrowers. To achieve the stated objectives, the study used both descriptive and analytical methods. These include cross-tabulations, tests of differences between the means, and analyses of variance (ANOVAs).

Data type and sources

The study used mainly primary data from individual entrepreneurs and farmers receiving credit from both formal and informal credit institutions as well as those who did not. The formal financial institutions considered in this study were commercial banks, Post Office Savings Bank (POSB), non-bank financial institutions, savings and credit cooperative societies (SACCOs), and development financial institution, mainly Kenya Industrial Estates. Informal finance has been used to refer to all transactions, loans and deposits occurring outside the regulation of a central monetary or financial market authority (Adams and Von Pischke, 1992; Aryeetey and Udry, 1997). The informal financial institutions in this study consisted of rotating savings and credit associations (ROSCAs), savings and credit associations (SCAs), mutual assistance groups (MAGs), relatives and friends, welfare associations, shopkeepers, traders, and community-based organizations and NGOs. The primary data were collected by administering structured questionnaires to the sampled respondents.

The survey was carried out during July and August 1998 in market centres in the rural areas of five districts of western Kenya: Kisumu, Siaya, Vihiga, Bungoma and Kakamega. Small-scale entrepreneurs engaged in farming, wholesale and retail trade, and primary processing of agricultural products were selected as the units of study. Rural-based enterprises were selected mainly because surveys on microenterprises in Kenya have shown that about 78% of the enterprises are located in rural areas (Parker and Torres, 1994). The same study also shows that the sector is dominated by commerce and trade activities mostly in agricultural products. Up to 61% of the enterprises are involved in trade. These results have been confirmed by the 1999 Central Bureau of Statistics survey, which shows that 66% of the enterprises are in the rural areas. Further, up to 64% of all credit to micro and small-scale enterprises have gone to those enterprises located in rural areas (Daniels et al., 1995).

Sampling procedure and study design

The data collection process required a preliminary survey in order to construct the sampling frame and draw a sample. A pilot survey was conducted for this purpose during the last week of June. A population of small-scale enterprises in agricultural and non-agricultural activities was identified in the study region of western Kenya, with the help of the district offices of the Ministry of Planning and National Development. This included both credit and noncredit users. Since there is no official register of individual entrepreneurs operating in these markets, it was not possible to have a listing of the traders. Respondents were therefore randomly selected from this population in the selected markets using a random start. Systematic random sampling was then used to pick subsequent respondents. The entrepreneurs were also used to identify the available informal sources of credit from which they had benefited. This was necessary in order to avoid the problem of sample selection bias and also the possibility of informal lenders not known in the formal system.

A sample size of 540 respondents was initially targeted. However, only 334 respondents were successfully interviewed, distributed as follows: Kisumu 158 respondents, Kakamega 68, Siaya 48, Bungoma 30 and Vihiga 30.

7. Empirical results

Household and enterprise characteristics

This section presents the major characteristics of enterprises that are likely to determine their participation in credit markets, and which segments of the market they use. Such characteristics include: main occupation, household size, number of business owners and employees, gender of the owner, business revenues, income, enterprise age, and assets owned.

Different people choose to use the available sources of credit depending on how they suit their personal and economic characteristics. These characteristics have been found to determine the decision to apply for credit at all, and whether to apply from either formal or informal lenders. However, their effects on the lenders' decision to ration applicants differ between the two market segments (Zeller, 1994). Table 1 gives the distribution of the main occupation of the respondents.

Table 1: Distribution of main occupation of respondents

Occupation	No. of respondents engaged in activity	Percentage
Selling cereals	71	21.3
Selling fruits and vegetables	108	32.3
Selling other agricultural goods	23	6.9
Selling non-agricultural goods	118	35.3
Farming	8	2.4
Formal employment	6	1.8
Total	334	100

Source: Computed from survey data.

We observe that more than half of the respondents were involved in selling agricultural commodities. Another one-third was involved in selling non-agricultural products. Almost half of the sample (47%) had no supplementary activity on top of their main occupation.

These results indicate that most of the enterprises sampled were small traders mainly in agricultural commodities as opposed to those engaged in non-agricultural enterprises. The composition of this sector in Kenya can help to explain this observation. Surveys of small and microenterprises in Kenya have shown that about 78% of the enterprises are located in rural areas. Their activities are also dominated by commerce and trade, most of which are in retailing and vending of agricultural products (Daniels et al., 1995; Parker and Torres, 1994). These surveys also found that up to 61% of the enterprises are involved in trade, with only 12% in services and 27% in manufacturing.

This study therefore gives a representative picture of microenterprise response to credit needs, and their use of various credit sources in the country. This is particularly so since the sample was drawn from major market centres in rural areas of selected districts. As a rural-based survey, the composition of the sample is therefore neither unexpected nor unrepresentative. Table 2 gives summary statistics for selected characteristics of the enterprises.

Table 2: Selected characteristics of the surveyed entrepreneurs

Characteristic	Average	Mode
Approximate gross weekly income (Ksh)	16,334	2,000
Approximate gross monthly income (Ksh)	66,065	12,000
Distance to the nearest credit source in kms	5	1
Household size	6	5
Number of enterprise owners	1	1
Number of employees		
Age of the enterprise	8	2
Proportion of respondents who save part of their income (%)	74	
Proportion of the income saved (%)	29	10

Source: Computed from survey data 1998.

From Table 2, we see that most businesses had a weekly income of Ksh2,000, and a monthly income of Ksh12,000. The average weekly and monthly incomes, however, were Ksh16,334 and Ksh66,065, respectively. The disparity between the mean and the mode in both cases indicates the high variation in income within the sample. The average age of the enterprises was found to be eight years, while the most common age was two years. Most of the enterprises had single owners.

A total of 246 (74%) respondents saved part of their income for the future, using different savings modes. An average of 29% of the monthly income was saved, while the most common share of income saved was found to be 10%.

Easy access to savings was the most common reason for using saving at home. Security of savings was the most common reason for saving in banks, while for those who saved with ROSCAs, the most common reason was access to loans. The different savings modes therefore appear to serve different savings needs for their clients.

Access to formal and informal credit markets

Characteristics of the credit markets

Different sources of credit used by the enterprises were investigated. These were classified broadly into formal and informal sources. It is important to note here that the informal sector in many African countries is highly heterogeneous, especially with respect to borrower–lender relationships. The typology of informal financial units also varies because they are purpose oriented and meet different types of demand. Access to and use of credit from these sources are discussed in this section, with participation in both formal and informal markets discussed separately. The categories of credit investigated include initial capital, operating capital, past credit use, current credit use and purposes for using such credit.

In considering the dichotomy between formal and informal segments of the credit market, it is important to note that rural credit markets in Africa are mainly fragmented with the various segments serving borrowers with different characteristics (Nissanke and Aryeetey, 1995). Because of the multiplicity of arrangements in the informal markets, the sector cannot be aggregated (Adams, 1992). While the formal sector may have distinct characteristics especially with respect to the lending policies and its control by the central monetary authority, the informal sector is highly heterogeneous. This heterogeneity can be seen in terms of the type of relationship between the borrower and the lender, like social cohesion or interlinked transaction. The result is credit products that differ from each other in such loan characteristics as duration, uses and related costs (Zeller, 1994). Informal credit markets are segmented according to the products they provide, their lending terms and conditions, and the characteristics of the groups they serve.

A typology of financial units can then be identified from the credit market. From the data collected in this study, the rural credit market can be disaggregated into a formal sector and an informal sector consisting of three main segments:

- Category 1 consisting of family, friends and relatives, and own savings at home
- Category 2 consisting of group based credit programmes
- Category 3 consisting of commercial lenders

Respondents were asked about the credit source nearest to them in terms of physical proximity. A total of 143 respondents (43%) mentioned informal sources, 123 (37%) mentioned formal sources and 20% had no idea about the credit source nearest to them. Despite the fact that only 20% of the respondents had no idea about the nearest credit source, while up to 80% knew where they could get credit, only 164 (49%) had ever applied for credit from any of the sources. The remaining 51% had not applied. Out of those who had applied, a total of 37 (23%) had applied from formal sources while 127 (77%) had applied from informal sources.

Based on the classification of informal markets, we see that out of those who had used credit from informal sources, 14% had used family and friends, 27% had used group based credit programmes, and 36% had used commercial lenders. This disaggregation is used in the subsequent discussions in the paper. This distribution in the use contrasts with the argument that borrowers tend to pool their risks by borrowing among close relatives (Udry, 1994). However, this may suggest the type of demand for credit that exists in the credit market. For example, where entrepreneurs need credit to expand the size of their operations or start a business, family and friends may not provide adequate resources.

Those who had not applied gave a number of reasons for not doing so. The main reason for not seeking credit was lack of information on how to obtain credit (21%). This was followed by no need for credit (15%) and lack of required security (4.5%).

Lack of information appears to be a major reason for not using credit facilities within this sample, confirming results from earlier studies in other countries. A study on the determinants of bank credit access for smallholder farmers in Tanzania also concluded that limited awareness about available credit facilities was one of the important factors keeping smallholder farmers from getting access to credit (Kashuliza and Kydd, 1996).

Loan rationing by formal and informal markets

The availability of credit, or access to credit by borrowers, can be explained in terms of the credit rationing behaviour of lending institutions. According to Zeller (1994), when borrowing credit is perceived as a decision making process, then it starts with the decision of the individual to apply for credit or not. This depends on whether the individual has a demand for credit. In this sample, the 164 (49%) respondents who had borrowed can therefore be classified as having had a demand for credit. However, among those who never used credit, there are those who did not apply because they did not need credit, and those who did not apply because they did not perceive any chance of getting credit. Those who did not apply because of lack of need for credit can be classified as not credit constrained, while those who did not apply because of other reasons are considered as credit constrained. In this sample, 15% of the respondents did not apply because they had no need for credit and are therefore classified as not constrained. The remaining 36% are credit constrained. Among the 49% who had used credit, there are also those whose loan applications were rationed and they did not get the total amount applied for. A comparison of means between the amount applied for and amount received showed that the amount applied for is significantly higher than the amount received from both formal and informal sources. This suggests the existence of loan quantity rationing in both the formal and informal segments of the credit market.

The differences between the amount applied for and amount received in both markets was tested for statistical significance. The results are presented in Table 3. The extent of credit rationing in the three segments of the informal market was also tested.

Table 3: Results of t-test for the differences in means between the amounts applied for and received in both formal and informal credit markets

Market type	Mean amount applied for (Ksh)	Mean amount received (Ksh)	t-value	Significance
Formal	51,961	29,018	2.77	0.008
Family and friends	10,461	8,870	1.53	0.140
Group based	2,284	1,703	1.85	0.072
Commercial lenders	23,012	11,252	2.04	0.046

Source: Computed from survey data.

The results show that the difference between the amount applied for and that received is statistically significant in both credit markets, suggesting the existence of credit rationing in both markets. However, in the informal market, the difference between amount applied for and amount received is only statistically significant among the group based lenders and the commercial lenders. Among family and friends, the differences are not statistically significant, suggesting less credit rationing in this market segment. The concern with loan repayment among the formal lenders is given more emphasis and determines the amount of credit actually disbursed to the borrower compared with the amount applied for. Among the informal lenders, the deviation between the amount applied for and that received is attributed to their limited resource base (Aryeetey, 1996b). The result is a credit gap capturing those borrowers who cannot get the type of credit they need from informal sources, and yet do not qualify for credit from the formal sources due to their lending terms and conditions. We therefore observe two types of credit rationing whereby those who are credit constrained are discouraged from seeking credit due to the lending terms and conditions, and loan quantity rationing whereby those who apply receive less than they applied for.

The small number of respondents who used credit is attributed to lack of information about credit and lack of security. As already seen, only 15% of the sample was not credit constrained, although only 49% revealed their demand by applying for credit. For the remaining 36%, their perception about the credit market implies a lack of supply, which creates lack of demand, displayed in lack of revealed demand for credit through application. This also tends to support the argument that there are a number of obstacles preventing the transformation of potential demand into revealed demand in Africa (Aryeetey, 1996b). Although potential borrowers need credit, and may have the ability to repay the loans, the lending terms and conditions, especially by the formal institutions, prevent them from seeking credit. Due to lack of information about the borrowers, lenders are not able to extend loans to some of the applicants. On the other hand, borrowers' ignorance about existing credit opportunities hinders them from seeking credit. Hence markets with information asymmetry and problems of contract enforcement result in loan rationing by the lenders and eventually the inability to satisfy the existing demand as implied by these results.

Reasons for loan rationing in formal and informal markets

To further test the argument that different reasons prevent formal and informal credit markets from satisfying the potential demand, the loans from formal and informal segments were compared. The loan amounts (applied for and received) from both formal and informal credit sources for the different credit categories were found to differ significantly, as shown in Table 4.

Table 4: Differences between means: Amount of credit from formal and informal sources

Credit category	Mean value (Ksh) Formal	Informal	F-statistic	Significance level
Initial capital	73,723	3,576	39.1468	0.0001
Operating capital	44,196	10,718	17.7800	0.0001
Past credit, amount applied for	51,961	8,968	27.9245	0.0001
Past credit, amount received	29,018	5,835	15.9467	0.0001
Current credit, amount applied for	18,692	7,372	5.3760	0.0228
Current credit, amount received	14,461	6,446	2.8866	0.0929

Source: Computed from survey data.

For initial capital, operating capital and past credit, the differences in the means of amounts of credit from formal and informal sources were significant at less than the 5% level. The amounts borrowed from formal sources were significantly higher than those from informal sources. The difference in the current credit applied for was also significant at less than 5% level. However, the difference in the current credit received between the formal and informal sources was only significant at less than the 10% level. For all the credit categories, the amounts received from formal sources were significantly higher than those from informal sources. This may be attributed to the limited resource base of the informal market, which determines what they can lend out to any individual borrower. Loan quantity rationing is therefore likely to result from limited resources of the lenders.

It is argued that in the informal market, since moneylenders are usually the most expensive source of credit, demand for their credit normally comes from those without any other options. Despite the probability of loan requests being granted, their lending terms like short maturity and high interest rates make their credit unattractive for working capital and fixed investments. This is reflected when the use of the different informal market segments is compared. A majority of the respondents (70%) got their operating capital from family friends and relatives, while 81% got their initial capital from the same source. The commercial lenders therefore seem to be least attractive to borrowers. Hence for initial and operating capital, borrowers in this sample appear to borrow from close friends and relatives as a means of pooling risks.

A comparison based on the heterogeneity of the informal market was made of the different credit categories between the different segments (Table 5). The amounts differed significantly between the different market categories.

Table 5: Differences between means in credit from informal market segments

Credit category	Mean Value (Ksh) Family and friends	Group based	Commercial lenders	F-statistic	Significance
Initial capital	3,681	5,600	1,518	12.386	0.0001
Operating capital	10,142	3,580	11,942	8.4291	0.0001
Past credit, applied for	10,461	2,284	23,012	8.4824	0.0001
Past credit, amount received	8,870	1,703	11,252	6.4357	0.0001
Current credit, amount applied for	NA*	2,575	19,020	9.3884	0.0002
Current credit, amount received	NA*	2,452	16,983	8.1643	0.0006

*Means the market segment was not used. The difference therefore applies to group based and commercial lenders.

Source: Computed from survey data.

The table shows that even within the informal market, there are differences between the different segments in the amount of credit applied for and received, which may imply that the different informal market segments serve different borrower categories, depending on the amount of credit they can offer. Aryeetey and Udry (1997) observe that differences in loan characteristics represent different lender types since in the informal market, different lenders are able to offer different credit packages to meet the needs of their clients. Units of informal finance therefore vary mainly because they are purpose oriented and develop to meet the demand for specific financial services. Group based credit programmes are an important example in this respect since they are formed as a means of mobilizing funds for a specific group of clients.

Two reasons can explain the differences in loans from formal and informal sources: the resource base of both formal and informal markets, and the credit rationing behaviour of formal markets. From the resource base line of argument, informal lenders possess a relatively small resource base, which restricts the amount of credit they can give out to any individual borrower, although they can serve a larger number of borrowers. This is unlike formal lenders, who possess a relatively bigger resource base and can give out larger amounts of loans per borrower, but because of their lending terms and conditions, they are only able to serve a relatively smaller number of borrowers.

The lending terms and conditions imposed by formal lenders (emphasizing collateral security) ration a large number of borrowers out of the credit market, leaving only the few who can afford the required collateral. According to Stiglitz and Weiss (1981), lenders would like to identify borrowers most likely to repay their loans since the banks' expected returns depend on the probability of repayment. In an attempt to identify borrowers with high probability of repayment, banks are likely to use the interest rates that an individual is willing to pay as a screening device. This is likely to be reflected in higher loan amounts applied for and disbursed by the formal sector lenders to the borrowers after rationing out those who do not qualify. The same argument can be extended to the different market segments of the informal sector.

The unique characteristics of credit services provided by the different segments of the informal market to a great extent explain the heterogeneity of the market. In addition, the existence of information asymmetries between borrowers and lenders limits the substitution of credit by switching between formal and informal sectors, thereby inhibiting competition and ensuring segmentation.

The credit market fragmentation also implies that there are few lending units that can satisfy the needs of borrowers interested in certain types of credit. This affects enterprises that want to expand. In this study, we have found that the average amount of credit from the informal market was significantly lower than that from the formal market segment. While credit from informal sources may serve the purpose of enabling small enterprises to start, it may not be adequate for those wanting to expand beyond a certain level of operation. Hence, whereas the informal market may be more accessible than the formal market, it does not satisfy the needs of a certain category of enterprises that are too big for it, but still do not meet the requirements of the formal market. This study therefore also reveals a credit gap in the rural credit markets in Kenya, capturing those who cannot get credit from the formal market because of the lending terms and conditions, but who fail to get what they want from the informal lenders (see Aryeetey, 1996b).

Access to and use of formal credit sources

This section discusses the nature and extent of the use of formal credit sources by the sampled enterprises. A total of 48 respondents (14%) got their initial capital from formal sources, while 37 (11%) used formal sources for operating capital. Table 6 gives the distribution of the specific formal sources for both initial and operating capital.

Table 6: Distribution of the use of formal sources for initial and operating capital

Sources of capital	Initial capital		Operating capital	
	Number	Percentage	Number	Percentage
Loan from bank	2	4 (.6)	0	0
Own savings in bank	40	83 (12)	30	81 (9)
Loan from NBFI	4	8 (1)	7	19 (2)
Loan from cooperative society	2	5 (6)	0	0
Total	48	100 (14)	37	100 (11)

Note: Figures in parentheses are percentages of the total sample (N=334).
Source: Computed from survey data.

The results in Table 6 show that own savings in the bank was the major formal source of credit used for both initial and operating capital. However, loan from a bank was the least used, which may be an indication of the difficulty in accessing formal sources of credit, forcing enterprises to rely more on their savings. The fact that 76% of the respondents said the sources used were the only sources available for initial capital, while 52% said this was the only source available for operating capital, might support this argument. Easy access was the other reason given by 24% of the respondents for choosing own savings in the bank for both purposes. This implies that despite the existence of the formal institutions, especially the commercial banks, their financial services in the form of loans are not easily accessible to the enterprises. While banks can be used for savings, the entrepreneurs do not have access to their credit facilities. One important characteristic of Kenya's financial sector is that despite its growth and development, there have not been corresponding efficiency gains in the services offered to customers. A majority of potential borrowers are therefore excluded.

The use of different formal sources of credit also supports this position, with about 65% of those who used formal credit sources getting credit from non-bank financial institutions (Table 7).

Table 7: Formal credit sources used by past and current credit participants

Type of Institution	Past credit sources		Current credit sources	
	Number of respondents	Percentage	Number of respondents	Percentage
Commercial bank	8	22 (5)	1	8 (1)
Non-bank financial institution	24	65 (15)	12	92 (13)
Cooperative society	5	13 (3)	0	0
Total	37	100 (23)	13	100 (14)

Note: Figures in parentheses are percentages of the total who had ever borrowed (N=164)..
Source: Computed from survey data.

The major source of formal credit used by those who had used credit before was the NBFIs, followed by commercial banks and cooperative societies. For most respondents this was the only source available. The dominance of NBFIs can be attributed to the fact that their loan application procedures are shorter than those of the commercial banks. They also have longer loan maturity periods, which are considered favourable to SME financing. In Kenya, the short-term nature of the lending policies by the commercial banks and the concentration on a small number of corporate clients has meant that they exclude a large number of small savers and borrowers from their services (Republic of Kenya, 1997). Commercial banks have mainly been conservative in their lending practices, a tendency reinforced by the legal requirements for ensuring adequate security.

Household and enterprise characteristics are usually related to borrowing behaviour and purposes, with enterprises using specific sources of finance for particular purposes (Aryeetey, 1996b). Hence with moneylenders being the most expensive source of credit, demand for credit from this source comes mainly from those without any other option. For example, households may borrow from moneylenders during scarcity to maintain their consumption until next harvest. Besley et al. (1993) observe that credit from savings and credit associations is mainly used for consumption and working capital, while Chipeta and Mkandawire (1991) have found that in Malawi, cooperative loans are used more for farm working capital.

The application purposes in relation to the sources of credit were also investigated. In this study, the most common application purpose for credit from formal sources was starting and expanding business. Hence the different segments of the credit market appear to serve specific purposes among the entrepreneurs. Credit from formal sources is mainly used for business expansion while informal credit is used to meet family and social obligations, as well business expansion. Surveys of informal finance in Kenya show that borrowers have different needs, which cannot all be met by informal sources despite their relative accessibility (Alila, 1991).

This pattern of borrowing seems to suggest borrowers’ response to the low supply of credit, and information asymmetry in the market. Borrowers respond to the limited supply by directing their demand for credit to specific market segments, depending on the purpose for seeking credit. Indeed, the high reliance on informal sources for meeting social obligations observed in this study may suggest the tendency to trade risks within the community (Udry, 1994).

Access to and use of informal credit sources

This section presents the nature and extent of the use of informal sources of credit. Out of the total sample of 334 enterprises, more than three-quarters of the respondents (86%) stated that they got their initial capital for starting their enterprises from informal sources. Some 87% of respondents also stated that they got their operating capital from informal sources. Different categories of informal credit were used. Table 8 shows the distribution of the use of different categories of informal credit sources for both initial and operating capital. The results indicate that own savings at home was the most common source of finance used for both initial and operating capital. For initial capital, this was followed by loans from parents and close relatives and the sale of property, while for operating capital, sale of property, profits and supplier's credit were the next most common sources. Personal savings again appear to be the most used source in the informal market.

Table 8: Distribution of the use of informal sources of finance for initial and operating capital

Sources of capital	Initial capital		Operating capital	
	Number	Percentage	Number	Percentage
Own savings at home	141	49 (42)	157	53 (47)
Loan from ROSCA	7	2 (2)	16	5 (5)
Loan from moneylender	3	1 (1)	1	.3 (.3)
Parents/close relatives	77	27 (23)	1	.3 (.3)
Supplier's credit	6	2 (2)	34	11 (10)
Sale of own property/profits	40	14 (12)	84	28 (25)
Income from farming	8	3 (2)	4	1 (1)
Gift from parents	4	1 (1)	0	0
Total	286	100 (86)	297	100 (89)

Note: figures in parentheses are percentages of the total sample (N=334).
Source: Computed from survey data.

Looking at application purposes in relation to the sources of informal credit, we find that borrowing for family and social obligations were the most common reasons. When the informal market is fragmented into the three categories, we see that for initial and operating capital, own savings at home, friends and relatives provided more than 50% of the loans from the informal market. This may imply a practice of trading risks within the community as established by Udry (1994). Surveys of rural finance in Africa suggest that enterprises would use moneylenders only as a last resort or in emergency (Nissanke and Aryeetey, 1995). Indeed in this study, less than 5% of the enterprises got credit from moneylenders, while none used moneylenders for initial or operating capital. Therefore it is apparent that although informal credit provides easy access to small-scale borrowers, the lending terms in certain segments make them unattractive and inaccessible to some borrowers. (See Table 9.)

Table 9: Informal credit sources used by past and current credit participants

Source	Past credit use		Current credit use*	
	Number	Percentage	Number	Percentage
ROSCA	43	34 (26)	42	51 (44)
Moneylender	2	2 (1)	1	1 (1)
Friends and relatives	19	15 (12)	8	10 (8)
NGO	46	36 (28)	13	16 (14)
Supplier's credit	11	9 (7)	13	16 (14)
No idea about institution name	4	3 (2)	4	5 (4)
Missing	2	2 (1)	1	1 (1)
Total	127	100 (77)	82	100 (86)

Note: Figures in parentheses are percentages of the total who had ever borrowed (N=164).
Current credit use here refers only to those who succeeded and whose applications were still being processed.
Source: Computed from survey data.

In this section, we have seen that more enterprises used informal sources of credit than formal sources. In both formal and informal markets, personal savings was the dominant source of credit, especially for initial capital, pointing to the limited ability of the financial markets to meet existing credit demand from certain borrowers and reinforcing the argument that small-scale rural based enterprises do not have access to the financial resources of the formal financial sector. Even within the informal market, the different segments display different degrees of accessibility. Most enterprises used personal savings and credit from relatives. The reasons given in this section for not using credit or choosing a specific source tend to confirm this difference in accessibility. Evidence of credit rationing was observed in both markets. However, within the informal market, family sources display no rationing, compared with the other categories. Moneylenders were the least used, reflecting their relative inaccessibility.

The results also show a fragmentation of the credit market not only between formal and informal credit sources, but also by the distinct characteristics of the clients served. This is reflected in the differences in the loan amounts from different sources. A study of SMEs engaged in non-agricultural activities found that over 50% of the sample had access to commercial bank credit in the form of short-term loans (Kariuki, 1995), and the number was increasing over time. Hence, whereas distinct segments of the formal and informal credit market serve the credit needs of enterprises engaged in specific activities, at the general level, existing evidence suggests that formal financial institutions, including commercial banks, are more accessible to those enterprises engaged in non-agricultural enterprises. The credit market in Kenya therefore seems disaggregated into different segments, with each serving different types of borrowers.

Explaining the participation in credit markets

A number of factors explain why certain borrowers prefer to use only specific segments of the credit market. Factors related to the participation of entrepreneurs in credit markets were therefore investigated. Such factors can be divided into enterprise characteristics, and the loan terms and conditions imposed by lenders (Kashuliza and Kydd, 1996; Zeller, 1994). Enterprise characteristics considered here included main occupation, household size, number of owners, revenue from the enterprise, income level, distance to credit source, age of the enterprise, past credit participation and assets owned. The lending terms and conditions imposed by lenders include application fee, collateral value, application period, repayment period, other services provided with credit and whether credit is given for specific use. Both categories of factors are hypothesized to influence enterprise decisions on whether to apply for credit at all, and to which market segment.

In the previous sections we saw that informal sources of credit were used more than formal sources by the enterprises. The results also revealed that while the market can be divided between formal and informal segments, various segments of the informal market serve specific activities. In this section, an attempt is made to advance arguments explaining this trend. Both enterprise characteristics and loan terms and conditions are hypothesized to influence the use of credit and which segments to choose from.

Factors related to participation in credit markets

Household and enterprise characteristics are hypothesized to influence an individual's decision to participate in credit markets. Table 10 gives a comparison between the means for selected household and enterprise characteristics for those who used credit and those who did not. Among those who did not use credit a distinction is made between those who are credit constrained and those who are not. This is based on the assumption that credit use is a decision making process whereby those who choose not to use credit due to lack of demand for it are assumed to be not constrained, while those who do not use credit because they are denied access are assumed to be credit constrained. A comparison was therefore made between credit users, credit constrained non-users and not constrained non-users.

Table 10: Differences between means of selected characteristics for credit users and non-users

Characteristic	Mean value			F-statistic	Significance level
	Credit users	Credit constrained	Not con-strained		
Approximate weekly income (Ksh)	16,415	9,034	33,590	1.946	0.1445
Approximate monthly income (Ksh)	68,116	36,123	131,201	1.8230	0.1632
Sales revenue monthly (Ksh)	68,924	42,251	145,800	2.0672	0.1282
Value of land owned (Ksh)	294,350	132,572	187,742	1.2444	0.2900
Value of livestock owned (Ksh)	36,456	36,713	42,404	0.1374	0.8717

Source: Computed from survey data.

The results show that these characteristics are not significantly different between the credit users and the two categories of the non-users. However, an important pattern is observed. For all the variables compared except value of land, the values of income, sales revenue and livestock for those who are not credit constrained are higher than for those who used credit and those who are credit constrained. Hence the unconstrained non-users may not have used credit because they had adequate resources.

Two explanations may emerge from this scenario. The first one is that the loan rationing behaviour by lenders and lack of information flow hinder the credit market from meeting the existing demand. Secondly, lack of credit, due to an inadequate credit market, means that enterprise characteristics including wealth may not be important in determining whether people use credit or not. Therefore enterprise characteristics are not relevant in credit use. An important observation from this is that the access to credit and the limited use by enterprises is mainly determined by the supply side of the market, rather than the demand side. We therefore argue that in this market, credit rationing and lack of information flow restrict access to credit since potential borrowers do not apply. Limited access to credit is more a result of the supply side constraint than of the demand side. Furthermore, we argue that the fact that those who did not seek credit because they had relatively higher wealth values may not necessarily mean that they did not need credit.

Rather, it may mean that the type of loans they require do not exist. This would imply that the credit market does not serve the needs of enterprises seeking to expand their business. The result is therefore a credit gap capturing those enterprises too big for the informal market, and yet not served by the formal market.

Factors related to the choice between formal and informal credit sources

Enterprise characteristics and the choice of credit source. The choice of which credit market to use can be determined by a number of household or enterprise characteristics. Table 11 presents the differences between the means of major characteristics for those who use formal sources and the different segments of the informal credit market.

Table 11: Differences between means of selected characteristics of formal and informal credit users

Characteristic	Mean value				F-Statistic	Significance level
	Formal	Family	Group based	Commer-cial		
Approximate weekly income (Ksh)	15,564	42,291	9,268	10,843	1.6008	0.1914
Approximate monthly income (Ksh)	76,774	162,530	33,543	41,419	1.5255	0.2100
Monthly sales revenue (Ksh)	68,975	175,796	36,982	44,870	1.8278	0.1445
Value of land owned (Ksh)	477,032	237,352	139,201	254,500	1.0050	0.3932
Value of livestock owned (Ksh)	37,968	52,621	26,814	34,641	1.0138	0.3895

Source: Computed from survey data.

Table 11 shows that the difference between means for the variables is not statistically significant between users of the formal market and those of the different segments of the informal market. Within the informal market, the values of the variables among those who used family sources are higher than among those who used group based sources and commercial lenders. There is no obvious explanation for this scenario. However, one possible explanation is that within the informal market, commercial lenders, like moneylenders, are mainly used by those with a lower resource base, while those with a higher resource base seek extra finances from close relatives. Existing literature shows that moneylenders, due to their lending terms and conditions, are only used as a last resort. In this sample, commercial informal lenders, consisting of moneylenders, are only used by those without access to resources from family or friends. However, the lack of statistical significance in the differences points to the supply side constraints in access to credit.

Loan terms and conditions and the choice of credit source. The lending terms and conditions affect the borrowers' decision about which segment of the credit market to borrow from, and mainly determine the supply of credit. Table 12 presents the comparisons for the loan terms and conditions between the formal and informal sources.

Table 12: Mean values of selected loan aspects by formal and informal institutions

Loan aspect	Formal	Informal	F-statistic	Level of significance
Application fees (Ksh)	301	154	0.827	0.3644
Collateral value (Ksh)	12,973	44	42.2051	0.0000
Application period (months)	1.6	0.56	2.9099	0.0916
Repayment period (months)	12	2	27.1857	0.0000

Source: Computed from survey data.

The results show that apart from application fees, all the other loan aspects are significantly different between formal and informal credit markets in this sample. In all cases, the values from formal sources are higher than those in the informal market. Loan terms and conditions therefore appear to be relevant in the choice of which credit market to use.

8. Conclusions and policy implications

The study had the objective of assessing the role of the institutional lending policies of formal and informal credit institutions in determining the access to and use of credit facilities by small-scale entrepreneurs in rural Kenya. A field survey was conducted in which primary data were collected using a structured questionnaire. A total of 334 enterprises were interviewed. The study used mainly descriptive statistics in the analysis.

The results showed that most enterprises (51%) had not used credit before. Out of those who had, the majority (67%) had used informal sources. The major reasons for not seeking credit were lack of information about credit and lack of required security. The use of specific credit sources, either formal or informal, was justified as the only source available. This may indicate the existence of only a limited range of options to choose from. In both formal and informal markets, personal savings was the dominant source of finance, especially for initial capital, which may point to the inability of the financial markets to meet the existing credit demand and reinforces the argument that small-scale rural based enterprises do not have access to the financial resources of the formal financial sector.

When credit access is seen in terms of the rationing behaviour of lenders, we find that 15% of the sample was credit constrained, although only 49% had ever applied for credit. Evidence of credit rationing was observed in both markets, as indicated by the significant difference between amount applied for and amount received. Within the informal market, however, family sources display no rationing compared with the other market categories. Moneylenders were the least used, reflecting their relative inaccessibility.

Loan rationing in the informal credit market is attributed to the limited resource base, while for the formal sector it is due to the lending terms and conditions. A comparison of household and enterprise characteristics between those who had used credit and those who had not, as well as between those who used formal sources and those who used informal sources, showed that the differences were not significant in both cases. However, the loan terms and conditions all differed significantly between formal and informal credit sources. It is argued that the limited credit use is due to an inadequate credit market, which means that enterprise characteristics may not be important in determining the use of credit. Limited access to credit is therefore seen as a result of supply-side constraints, and not the demand side.

We further argue that the fact that those who did not seek credit because they had relatively higher wealth values may not necessarily mean that they did not need credit. Rather, it may mean that the type of loans they require do not exist, implying that the credit market does not serve the needs of enterprises seeking to expand their business.

The result is, therefore, a credit gap capturing those enterprises too big for the informal market, but not served by the formal market.

Studies in other parts of Africa show that different lenders are able to offer different packages in the credit market. Data from this study show that each single lender had a specific credit package offered to borrowers meeting specific conditions. This was particularly true for the group based credit programmes supported by NGOs. We can therefore argue that in the Kenyan credit market, the diversity in informal credit with respect to loan characteristics represents only the different lender types offering different types of loans. The result is that potential borrowers fail to seek credit from informal sources because they do not provide the required credit package.

A number of conclusions can be drawn from the results of this study. One major conclusion is that the large number of potential borrowers who did not seek credit does not mean that they did not need credit, as only 15% of the sample were found to be not credit constrained. This result suggests that the lack of supply creates a lack of demand, displayed in the low revealed demand. This has resulted in credit rationing by both the formal and informal credit markets observed from the results and the creation of a credit gap in the market. Hence, although the potential borrowers need credit, the lending terms and conditions prevent them from seeking credit. In the formal sector, these terms focus on concerns with default risk and high transaction costs. In the informal sector, the study suggests that the failure to seek loans is due to the failure by the different lenders to offer the credit package required by specific borrower categories.

It is also concluded that informal credit sources provide easier access to their credit facilities for small and microenterprises. The main reasons explaining this scenario are the lending terms and conditions reflected in collateral, application procedure and repayment period. However, given that different segments serve specific credit markets, their ability to meet the credit needs of certain enterprises, especially those requiring large amounts of credit as they grow, is limited.

An important conclusion for improving access to credit that emerges from this study is that given the wide and established branch network of commercial banks, improving their lending terms and conditions in favour of small-scale enterprises would significantly facilitate the accessibility of small-scale enterprises to credit. This is because although informal finance provides easier access to credit, the results of the study show that informal credit is confined to specific activities and at lower levels of income, thus limiting its use. This tends to confirm the argument that the nature of credit markets in Africa is such that the lending units are unable to meet the needs of borrowers interested in certain types of credit. The result is that a credit gap is created that captures those borrowers who cannot get what they want from the informal market, yet they cannot gain access to the formal sources because of restrictive lending practices.

Some policy implications can be drawn from the results of this study. Given the relatively abundant financial resources of the formal institutions compared with informal credit sources, there is need for policy measures to increase access of SMEs to formal credit. This can be achieved through the establishment of credit insurance schemes protecting the financial institutions against default risks, which result in credit rationing. The formal financial institutions should also be encouraged to diversify their loan portfolios so as to be able to cater for the different financial needs of SMEs.

There is also need to expand the capacity of informal credit sources to enable them to increase their potential to lend to SMEs. Since formal institutions are mainly concerned with default problems and loan administration costs, linking their operations with those of informal lenders can help to ensure that they reach more potential borrowers. This is because informal lenders have their own insurance mechanisms, which guarantee loan repayment, yet they lack adequate financial resources to enable them to expand their coverage.

SMEs also must be profitable in order to grow and be able to attract more external finance. It is therefore necessary to provide a policy environment that affords the necessary incentives for enterprise growth.

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