

**CRITICAL FACTORS THAT AFFECT THE ACCESSIBILITY OF CREDIT
SERVICES BY SMALL-SCALE TEA FARMERS**

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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

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Many thanks to the Almighty God for seeing me through the entire period of this project.

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DEDICATION

This research project is dedicated to my Family.

ABSTRACT

The study was set to determine the critical factors that affect the accessibility of credit by small scale tea farmers. The study will assist small scale farmers with adequate knowledge on how to access credit and the approach in dealing with the challenges experienced. Financial institutions that provide credit will get information on the views of the small scale farmers who are their customers. The study is also a source of reference material for similar field studies.

The survey design was used in the study, since the objective was to investigate the factors affecting credit access. The population of study consisted of 450,000 registered small scale farmers and the credit providers. The study employed stratified random sampling to choose a sample of 50 farmers for the study. One region out of seven regions as per KTDA geographical spread was selected and then a factory was selected from the region. Then 50 farmers registered at the factory were chosen randomly. The stratum was based on the sizes of tea farms of the respondent. Twenty credit providers were selected using the list of Banks licensed to operate in Kenya and the SACCO's that provide credit to the small scale tea farmers as per records available at KTDA. The data collection tool used was close-ended questionnaires. The data were analyzed and then presented using tables, pie charts and graphs.

The findings showed that most farmers obtain their main income from tea, and tea farms ranged from half and acre to one acre. Most of the respondents had been in the tea farming for 10-20 years. Factors that affected credit access were collateral and farmers lack of understanding of credit services and products. The source of money for inputs was established to be loans and farmers' savings. To improve credit access, the respondents recommended that infrastructure should be improved to ensure service providers are closer to the customers. Information technology should also be improved to ensure awareness among customers. The study concluded that from the farmers' point of view, collateral and lack of information were the most significant factors affecting small scale tea farmers access to credit facilities. The lack of information on the lending process also affected decision making among the small scale tea farmers. The study recommended that improving access to credit

facilities can only be successful if farmers are enlightened on the credit process, in addition, collateral should also be put ready by farmers applying for credit or alternatives to collateral sought.

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ABBREVIATIONS

AGRA	Alliance for Green Revolution in Africa
IFAD	International Fund for Agriculture Development
IMF	International Monetary Fund
KTDA	Kenya Tea Development Agency
MFI s	Microfinance Institutions
SACCO	Saving and credit society Ltd
SH	Shilling
WTO	World Trade Organisation

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

1.1.1 Small Scale Farming in Developing Countries

Small-scale farming forms an important sector in most developing economies. In recent years, financial support for this sector has become a major component of the strategy for poverty alleviation. Several micro-finance schemes provide loans to enable potential entrepreneurs start small-scale enterprises. Unfortunately, these schemes only provide subsistence living for the proprietor with no possibility of providing jobs for others in the community. In order to move the activities of micro-finance schemes from subsistence living to small-scale enterprises it is necessary to inject technology into the various activities (Nyoro and Whittaker, 1986).

Importance of Small-Scale Farmers

The benefits to the agribusiness firm from a small-scale farming venture revolve mainly around cost reduction, quality control and reduced uncertainty with regard to the supply of raw material. Cost is reduced because of a more synchronized input-output processing function (Kilmer, 1986; Azzam, 1996) and the cost and financing of production are passed on to the farmer (Schrader, 1986) without the loss of control (Rhodes, 1993). The company can ensure that the quality of large volumes of the raw commodity is better-controlled (King, 1992; Featherstone and Sherrick, 1992; Goodhue, 1999) and that the company's technology is adopted properly by the producer (Leathers, 1999). Further advantages to the company are the ability to reduce the cost of the raw commodity supplied by the small-scaled farmer through assuming the marketing risk of the farmer and thus reducing related farmer marketing and transport costs (Kumar, 1995). Owing to a relatively stronger bargaining position in the small-scale arrangement, the agribusiness is also able to influence favourable farmer commodity prices (Delgado, 1999). Small-scale farmers thus remove the production risk to the farmer and eliminate the uncertainty of large volumes of input (raw material)

supply (Levin, 1988; because the quality of inputs is more consistent, the risk of consumers dissatisfied is reduced (Pasour, 1999).

Advantages that are specific to agribusiness firms in developing countries are the substantial political economy gains because of involvement in national development projects. Alternatively, the government is a party to the small-scaling arrangement (Hayami, 1990; Binswanger et al., 1993; Watts, 1994; Little, 1994), where this can translate from government intervention or cheap credit and guaranteed minimum prices that results into higher tangible economic benefits (Clapp, 1994; Morvaridi, 1995). In conclusion, agribusiness firms in developing countries that are not allowed to own land can use small-scale farming with local farmers to overcome this constraint. This happened in many parts of Latin America where multinational agribusiness firms used small-scale farming to secure a constant flow of commodities for their processing and export ventures (Runsten and Key, 1996).

Access to credit by small-scale farmers is an important factor in improving agricultural productivity and strengthening the rural economy in developing countries. However, the operational mechanism of farm access to credit is complicated by factors that influence the accessibility of these services. Such factors may include availability of a nearby financial institution, collateral requirements, financial costs, rigid lending policies, education level of the farmers etc.

The challenges confronting Africa's small-scale farmers, start in the field and extend across the entire agricultural value chain. Most African farmers can neither access nor afford basic farm inputs. High quality seeds, organic and mineral fertilizers needed to replenish depleted soils, and simple water management systems that allow farmers to deal with erratic rains and good roads are not necessarily available. Strong market, extension, and finance systems may be lacking. Small-scale farmers also need the support of government policies that promote sustainable and productive agriculture and that ensure access to markets (Hollinger 2003).

Since the early 1960s, Africa has gone from being a net food exporter to a net importer. Per capita food production has declined as the population growth rate of 3 percent a year has outstripped the 2 percent annual increase in food production (Bucheneau, 2003).

Due to these challenges, African leaders are calling for a revolution in agriculture that will enable the continent's small-scale farmers to prosper. Alliance for green revolution in Africa (AGRA) is responding to this call by building African-led partnerships that draw upon the knowledge of Africa's farmers, apply the lessons of modern agriculture, and work across the agricultural value chain while rigorously monitoring the impact in terms of equity and environmental sustainability. Small-scale farmers have positively enhanced their relationship with commercial banks, which have increased access to credit following increased farm production. While the credit services to the manufacturing and telecommunications sectors has been more noticeable, commercial banks have been getting closer and closer to villages and extending credit services to small-scale milk, tea and sugar, among other farmers (Bucheneau, 2003).

Just to give an indication of the sort of financial services, according to a Central Bank of Kenya annual report for 2006, credit to individual farmers nearly tripled to Sh15.8 billion in December, 1999, from Sh5.9 billion in December 1998. Putting together individual farmers and cooperative societies, the total credit was Sh20.2 billion in December 2006 compared to Sh10.4 billion in 1998. For large-scale farmers, credit increased by less than Sh1 billion in nine years, to Sh10.1 billion from Shs 9.2 billion in 1998. However, individual small-scale farmers are still not fully served by financial institutions since they do not have enough collateral and the costs charged by these financial institutions is at times too high.

In the past, commercial banks would not consider extending credit to individual farmers unless they went through cooperative societies that kept financial records. The commercial banks have taken notice of developments in the agricultural sector and their policies seem to have been adjusted as a result (Reardon and Barrett, 2000). The value of marketed output by small-scale farms increased to reach Sh97.6 billion in 2003, compared to Sh89.6 billion in 2002. In 2001, small-scale farmers produced Sh71.5 billion worth of marketed produce, but this has risen dramatically over the years to Shs 97.6 billion in 2003. For large farms, the value was Shs 34.6 billion in 2003. Financial experts claim that the agricultural sector should have even higher allocation of credit from the commercial banks given that it is performing well and the government has given farmers incentives (Roling and Nield, 1984).

The higher liquidity that has characterized the banking sector since the reduction of cash ratio requirement to 6 per cent in 2003, from 10 per cent, has made banks look for new opportunities to lend. This has resulted in focus on sectors that were previously ignored. Government's allocation of Sh 641 million to settle coffee farmers' debts also opened new opportunities for providing credit services as the banks will be more willing to extend services, (CDC, 1989). The debt was owed to banks, which have been reluctant to deal with coffee farmers, seen as an impoverished lot. Other sectors likely to see increased focus include sugar and the fish subsectors. In the tea subsector, there is a move towards value added products, which essentially means processing tea and selling it as a ready product to consumers rather than in the current situation where most of it is exported raw, (CDC, 1989).

Efforts to develop the agricultural sector in developing countries are now taking place against the background of major structural change in the world of agricultural industry. In many developed countries, agricultural production is changing from an industry dominated by family-based, small-scale farms or firms to one of larger firms that are more tightly aligned across the production and distribution value chain (Boehlje, 2000). In addition, the trend of financial market-orientated reforms, following multilateral trade liberalization and especially structural adjustment programmes in developing countries, has led to the increased integration of world markets (Reardon and Barrett, 2000). This has meant that farmers in the developing world are now, more linked to consumers and corporations of the rich nations than ever. Although most of the changes in agricultural and food markets are taking place in developed countries, they have far-reaching implications for agricultural development efforts in developing countries.

The changes in food and agricultural markets (the so-called industrialization of agriculture) have influenced the need for higher levels of managed coordination. This has resulted in the introduction of different forms of vertical integration and alliances, which have become a dominant feature of agricultural supply chains. Allied to these changes is a worldwide increase in consumer demand for differentiated agricultural products that are relatively labour intensive (Pasour, 1998). Small-scale production often involves a high-cost package of inputs eg chemical fertilizers that require financing facilities. The small-scale farmers also rely on the farm produce for their sources of income that goes towards meeting cost of living

expenses eg children education, medical, food, farm labour etc and availability of credit services allows the farmers access amounts that may be required. Managed co-ordination (eg small scale farmers managed under KTDA) allows for opportunities for access to credit services since cost of provision is likely to go down due to economies of scale and assured pay. (Pasour 1998).

1.1.2 Kenya: Accessibility of Credit Services by Small Scale Farmers

In Kenya, credit services for small-scale farmers rely on commercial banking, whose stringent requirements are not compatible with the resources of the small-scale farmers. This has resulted to lower access by the farmers to financial services. Important lessons from past rural credit programmes redesign or improve delivery mechanism to minimize institutional barriers and, hence, open access of small-scale farmers to credit. In developing countries where physical collateral is a major problem, land certification programme should be one of the national policy options. Sustainable microfinance institutions (MFIs) should also be established and aligned to the capacity and resources of the small-scale farmers (Glover 1983).

Kenya already has a relatively advanced and diversified agricultural sector, including well-established export commodities such as tea, horticulture, coffee and pyrethrum, and a highly developed dairy subsector (World Bank, 2008). Agricultural savings and credit societies (SACCOs) were hailed as the perfect channel for raising savings in rural areas deserted by mainstream banks in the retrenchment and restructuring wave of the late 1990s. Five years down the line, poor lending decisions and poverty have made agricultural SACCOS a millstone around the necks of small-scale farmers (Mude, 2006). The agricultural SACCOS are now prevalent in tea-growing areas where farmers have a regular monthly income before the final payment of the year - popularly known as bonus - is released by the Kenya Tea Development Agency (KTDA). "The bonus used to serve numerous financial needs. However, overall performance in the sector was poor during the 1990s, with average annual growth rates of 0.4 per cent during 1990-1995 and 1.1 per cent during 1996- 2000. In recent years, the sector has seen some improvement (World Development Indicators database, 2008).

1.1.3 Kenya Tea Development Agency

Tea from small scale tea farmers is sold by the Kenyan Tea Development Agency Ltd (KTDA) on their behalf. KTDA is a public company that is owned by farmers. However, there are some tea growers in the west of the country who sell on an out grower basis to estates e.g. in Kericho, through formal contract farming systems. Until recently, all smallholders producing tea in Kenya were registered and had to deliver their tea for processing to the KTDA previously Kenyan Tea Development Authority, a parastatal. Since it was established, the Agency has been instrumental in the expansion of tea production by small-scale producers. KTDA manages 57 tea processing factories exclusively for smallholders throughout Kenya (KTDA Bulletin). Smallholders are free to sell their tea elsewhere, but in practice, KTDA still dominates the provision of services to smallholders such as from green leaf tea collection, processing and marketing in those regions where it operates (Gereffi 1994). Indeed, in most places, the KTDA factory is the only option for marketing tea for smallholders, as other factories are located in different parts of the country and it is difficult to transport green tea over long distances as it is bruised.

The KTDA growers are approximately 450,000 tea smallholders collectively producing about 62% of Kenya's tea. Many own their land and have tea licenses permitting them to grow and pluck the green leaf and deliver it to tea buying centre run by KTDA. On average, tea land holdings are half an acre. Indeed 70% of the small scale tea farmers own half an acre and less and 90% own one acre and less of area under tea. KTDA tried to restrict the size of tea landholding to one hectare (2.47 acres) to ensure that plucking standards were maintained and to have economical farm units but this did not succeed. The minimum size did not work due to the land inheritance cultural practice. Nevertheless, some growers classified as smallholders can have as much as 50 acres.

The financial returns from tea farming have been favorable for smallholder tea producers. Until the introduction of an export tax in 1982, the benefits of increasing prices went directly to producers. Kenyan tea smallholders tend to have above average standards of living in a normal year (Baumann, 2000). While KTDA was in the past viewed as a model contract farming system, in recent years it has suffered from challenges associated with global oversupply of tea, declining global tea prices and increases in cost of production. However,

reducing farm sizes and therefore reduced per capita earnings and the high number of farmers served, criticism is made against KTDA on a regular basis (Baumann, 2000).

1.2 Problem Statement

Small-scale tea farmers may need access to credit services in order to meet their cash demands eg children education, medical costs, fertilizer costs, labour costs (weeding, plucking and pruning). The farmers may also need to participate in other economic activities other than tea growing. The reduction in farming units due to land subdivision, increased number of farmers, thus reducing per capita small scale farming incomes, rigid banking policies (ie on lending or minimum deposits) and lack of enough information on the farmers earning and spending habits (know your client type of information), credit service providers find it risky and thus costly to take credit services closer to the small-scale tea farmers.

With 450,000 small scale tea farmers each with an average family size of six, approximately three million Kenyans earn their livelihood on small scale tea growing. This is almost 10% of the Kenyan population. Despite the significant contribution of these small-scale tea farmers to the economy, no study has been conducted in Kenya to determine the factors that affect access to credit services and the relative importance. Previous research on factors that affect the accessibility of credit services has been undertaken, for example, (Beth M., 1999), (Kimani P .K, 2000), and (David M. G, 2007). None of the studies have tackled the factors that affect the accessibility of credit services by small-scale tea farmers in Kenya. It is in this light that the researcher seeks to fill the existing gap in this area of study by answering the question: what are the factors that affect the accessibility of credit services by small-scale tea farmers and what is the relative importance of these factors.

1.3 Objectives of the Study

The study aims to determine the factors that determine availability of credit services to small-scale tea farmers and the relative importance of those factors.

1.4 Importance of the Study

The need to address small-scale tea farmers' access to credit services has now become even more vital amid the increasing forces of globalization and economic liberalization on the financial and agricultural markets in the developing region, which has narrowed the policy options of the governments in many countries. Likewise, financial institutions have to observe rigid rules following the international standards, and are now restricted to lessen their traditional role of protecting the interests of the farmers. The study is important to managers of banks, their customers, the researchers as well as academicians. The study will highlight the factors affecting access to credit services by small scale tea farmers. Once the factors and their relative importance are known it will assist credit service providers with information that could be used to extend their services to these farmers. Researchers and academicians, will use this study as a reference material.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Accessibility of Credit Services by Small-Scale Farmers

During the 1970s, growth in the agricultural sector was based on smallholder farmers that benefited from land redistribution, subsidized credit, agricultural inputs, and marketing services. The use of hybrid varieties that greatly increased maize and wheat output for domestic consumption, booming export-oriented coffee and tea production, and large investments in horticultural production contributed to agricultural growth of roughly 6 percent per year (Roberts and Fagernas, 2004).

Access to credit services is one of the big incentives for small-scale farmers in joining smallholding-farming schemes. The credit services can be given in various forms eg cash credit, credit in kind, or advance of services or capital inputs. Loans are usually given on the security of the land or the anticipated value of the export crop. Loan recoveries are usually made from crop sales or as service charges. Sometimes the farmers obtain loans separately from an existing national credit agency or a bank, in which case the contract itself can serve as collateral. In the case of smallholding projects, credit services eg longer-term loans for capital expenditure are raised and administered by the project authority on behalf of the farmers. Some of the smallholding projects administer loans to farmers directly rather than through existing credit institutions. This reduces delays and facilitates loan recoveries, but can also undermine existing credit channels. Whether direct or through national finance, institution loans are at 7% interest with a repayment period of 15–20 years and a grace period of 3–5 years. Credit is given in kind rather than cash to avert the risk that the money will be spent immediately. The record of loan repayments in smallholding projects is generally good. However, compulsory or voluntary saving schemes have not worked. The general conclusion is that where there is a problem of loan recovery it stems from overly high levels of indebtedness rather than the repayment procedure adopted (CDC, 1989).

The availability of credit services is a vital part of contract farming and often the only way the smallholder can enter the market. Where tree crops are cultivated, whatever the scale of operation, one function of capital is to tide the producer over the period of maturation. Debt is also more likely to be a problem for tree crops, which have a long maturation period. Repayment for loans advanced by Palm industries on the Ivory Coast for oil palm only starts after 6 years. The longer the pre-harvest period the greater, the problem usually is with repayments, because there is likely to be a difference between the projected and actual profits. These problems will be exacerbated by high and variable inflation rates, which make it difficult to determine interest rates, and changes in cost or market conditions.

There are several recurring problems with financial services especially credit, which appear in the empirical literature. One is that credit is only advanced for the contracted crop whereas farmers may need the money to settle non-crop expenses like school fees. This has been found to be a major complaint amongst coffee farmers in Kenya who have taken loans to finance non-coffee expenditures (Nyoro and Whittaker, 1986).

The authors suggest this will happen whether it is officially sanctioned or not, so it is better to build it into the system for providing credit services. Studies of out grower schemes in Africa mentioned the lack of credit for food security as a major problem for the welfare of smallholders. The CDC projects also do not usually advance credit for crop diversification or for purchasing food. Most projects discourage or forbid diversification, because it reduces the throughput of the main crop and it is more difficult for projects to recover debts from the sale of other crops. By having financial services provision for savings and granting of credit to small scale farmers, this problem ceases to be a problem.

A second major problem with credit is that smallholders can be locked into a deteriorating debt situation. A grower may enter a contracting relationship and then be unable to terminate it if the company or project deducts payments and the expected benefits do not materialize. In such a situation, the grower may have to stick to the same company and is effectively at their managerial mercy. The deteriorating debt situation can be exacerbated because of favourable terms offered to growers in the early stages of a project. The contractor will offer favourable terms on credit and price in order to attract competent suppliers, but may be unable or unwilling to sustain these in the long term. This is a common phenomenon and has been

referred to by (Glover and Kusterer, 1990) as ‘agribusiness normalization’. These developments are often a problem for small farmers who have limited business experience and may not be able to understand variable interest rates for deposits and for credit. (Glover and Kusterer, 1990) have found that ‘loan disbursements are usually made on a weekly or monthly basis at rates equivalent to a minimum subsistence wage; this can create the perception among farmers that they are receiving a wage for work performed prior to harvest, rather than a repayable loan’.

When applying for a loan, small-scale farmers increase their chances for success by observing the following management practices (Bucheneau 2003). They are required to know well their farm enterprise the trend both in agriculture and in industry is to do fewer things, but do them better. Small-scale farmers should focus on only one or two enterprises and should develop the production and marketing expertise needed for profitability. In relation to budgeting their cash flows the surplus of revenues over expenses is an important indicator of how much debt you can handle. Lenders will determine whether applicants are eligible for a loan by considering your repayment ability (or cash flow) and the value of your assets. Collateral can be land, buildings, livestock, machinery, personal property, and financial assets such as stocks and bonds. However, permanent specialized structures do not necessarily have great resale value and therefore may not be a major asset.

Because small-scale farms often have a relatively large amount of off-farm income, lenders are sometimes uncertain to what extent farm loans should be based on the small-scale farm enterprise or the off-farm income. In addition, most small-scale farmers apply for loans under Kshs 50,000 and many lenders prefer to make larger loans to business clients, because loan-processing costs per dollar loaned are often highest for small-scale business loans. To minimize these costs, applicant should have important financial statements for the past three to five years already prepared when applying for a loan, including balance sheets listing assets, debts, and net worth; income statements listing sales, expenses, and overhead costs, such as depreciation and changes in inventories; and cash-flow statements for family expenses and loan payments. Financial statements are actually less complicated than they may seem. Their accuracy and early preparation can help you gain loan approval. Farmers

should maintain accurate farm records and use them when making management decisions, such as whether to upgrade or modernize facilities.

2.2 IFAD and World Bank on Financing and Development of Small Scale Farmers

The rural economy, particularly agricultural production, is of primary importance to the livelihoods of most Kenyans. The population is predominantly rural (80 per cent), and the majority of households (70 per cent) rely directly on the agricultural sector for their livelihoods. Agriculture directly contributes 27 per cent to Kenya's GDP and is estimated to account for 60 per cent of total exports and 45 per cent of Government revenue. Kenya already has a relatively advanced and diversified agricultural sector, including well-established export commodities such as tea, horticulture, coffee and pyrethrum, and a highly developed dairy sub-sector (World Bank, 2008). Agricultural savings and credit societies (Saccos) were hailed as the perfect channels for raising savings in rural areas deserted by mainstream banks in the retrenchment and restructuring wave of the late 1990s. Five years down the line, poor lending decisions and poverty have made it difficult for the lenders of small-scale farmers (Mude, 2006).

The agricultural Saccos are now prevalent in tea-growing areas where farmers have a regular monthly income before the final payment of the year - popularly known as bonus - is released by the Kenya Tea Development Agency (KTDA). The bonus used to serve numerous financial needs. However, overall performance in the sector was poor during the 1990s, with average annual growth rates of 0.4 per cent during 1990-1995 and 1.1 per cent during 1996-2000. In recent years, the sector has seen some improvement (World Development Indicators database, 2008). There was an increasing annual growth trend in agricultural GDP during 2001-2005, with an average annual growth rate of 3.7 per cent. The livestock subsector in arid and semi-arid areas accounts for 90 per cent of employment and 95 per cent of household income among pastoralists and contributes roughly 5 per cent of GDP. The majority of Kenya's small scale tea holders are market-oriented. It is estimated that as many as 80 per cent of all rural households sell some crops, although the degree of commercialization may range from less than 10 per cent in relatively low-potential districts to 80 per cent in high-potential districts (IFAD, 2007).

Five broad categories of rural smallholders may be identified. These are (a) commercially oriented smallholders, (b) semi-subsistence smallholders, (c) subsistence smallholders, (d) agropastoralists, and (e) pastoralists (Export Processing Zone Authority, 2005). Small scale tea farmers broadly fall into categories, for tea farming and for other subsistence crops.

2.2.1 High Transaction Costs

A case study in Mexico (Key and Runsten, 1999) where a local frozen vegetable firm managed to engage in successful contracting with smallholders despite the inherent problems listed above. The company designed contracts that both parties found profitable. The firm offered resource-providing contracts that provides saving services, delivered credit, specialized inputs and extension advice. The credit to the farmers was advanced against no collateral in the form of seedlings, all pesticides and fertilizers. The value of these advances was equal to about 40 per cent of total production costs, with the farmers being responsible for land, labour and the costs of land preparation. The out-of-pocket costs for the farmers were thus in the same range as the costs for maize. In addition, the company introduced a management strategy that further reduced transaction costs Key and Runsten, (1999).

Participation by smallholders was restricted to a certain location and chemical control decisions were taken by an agronomist who visited growers once a week, carrying all material with him at all times. Farmers were responsible for obtaining their seedlings and fertilizers from the firm's ranches and for delivering their harvests. This strategy has reduced transaction costs tremendously, making the contract arrangement with the smallholders profitable.

To counter the problem of high transaction costs of dealing with smallholders is to consider the promotion of farmer groups or farmer-controlled enterprises (commonly also referred to as cooperatives) in conjunction with a contract-farming venture. The cooperative could bargain and negotiate prices and the terms of the contract on behalf of the farmers. It can also be instrumental in providing information, inputs, technical and quality assistance to the growers. The agribusiness as such will have a stake in strengthening such institutions since it will contribute to considerably lowering transaction costs. These cooperatives should be assisted by the agribusiness through training in literacy and numeracy and improving their

ability to bargain effectively (despite this not being in the direct interest of the agribusiness). This would help the farmers' group or cooperative not to become excessively linkage dependent. Owing to the poor record of agricultural cooperatives in developing countries, it is important that such cooperatives be established on sound principles that will ensure their sustainability. The recent work by (Cook and Chaddad 2000) provides an indication of the aspects that should be taken into account to ensure that cooperatives (or 'new generation cooperatives', as these authors call them) provide the necessary benefits to producers in any contractual or marketing arrangement.

2.2.2 Small Farm Innovations and Risk Aversion

It is widely acknowledged that the risk factor is an important component in determining whether a farmer will access finance which is new to him, and that it operates particularly against the poorer farmer, in that he has few reserves to protect him in the event of failure. A number of studies have emphasized the role risk aversion plays in slowing down the adoption of new technology. Small-scale farmers have no margin of error, because there is little or no production surplus. Crop failure or the death of a single animal may be a disastrous loss, 'A poverty ratchet on an irreversible course to greater misery' (Robert Chambers, quoted Roling 1985 p. 17).

Several published surveys indicate that small-scale farmers are likely to be slower to adopt new technology when the risk involved is high. However, in practice the risk factor seems to have had a surprisingly small effect on research design or technology recommendations, where small farms are concerned.

In part, this is because it is difficult to evaluate the importance of risk aversion in farmers' response to new technology, and it is difficult to incorporate into research something it is not easy to demonstrate and is impossible to quantify.

The relationship between the adoption or rejection of new technology and risk aversion is not a simple one. As (Feder, 1981) have pointed out; innovation entails both a subjective risk, in that lack of familiarity with new technology makes the farmer's yield less certain, and an objective risk, in that the innovation may be more vulnerable to bad weather or pests than the traditional practice it replaces. The farmer's assessment of the risk involved is a composite of

many factors, of which the nature of the technology itself is only one. Others include his faith in the extension worker's competence, previous experience in agricultural innovation, and the amount of information he is given concerning the new technology. (A number of studies have shown a strong relationship between the farmer's decision to adopt new varieties and his access to information about them, whether by extension agents, demonstration plots or the mass media). Furthermore, in some cases new technology may reduce rather than increase risk, as when effective pest control techniques lower the risk of crop damage or failure (Roumasset, 1977).

The difficulty involved in isolating or measuring the different variables means that, although risk aversion is assumed to be a component in the behavior of small-scale there is very little certainty as to its relative importance, and as to the extent to which the farmer's perception of risk is a correct one.

Many cases of small-scale farmer's refusal to risk investment in new technology may be justified, in the sense of being a correct assessment of the objective facts. When agricultural scientists and extension specialists first faced the problem, a few decades ago of the widespread refusal by small-scale farmers to adopt modern agricultural technology, researchers naturally looked for an explanation by comparing the farmers who did not modernize with those who did. At that time, modernization of agriculture implied a strong value judgment, and it was generally assumed that those who adopted new technology were enterprising and innovative, while the 'laggards' who did not represented the more conservative and passive farmers. Later, it was realized that the innovators were not so much enterprising as comparatively wealthy, while the laggards were generally poor, so that the major cause of non-adoption was believed to be lack of resources with which to do so. In the neat phrases of Capland and Nelson, 'person blame' was replaced by 'system blame' (Capland and Nelson, quoted Roling 1984). The chain of causation was felt to run from wealth to innovation, rather than the reverse, as had been believed earlier (Meyers, 1982).

The poverty of the small-scale farmer in developing countries means that, not only does he have few resources to invest, but also that any capital investment at all involves a much higher level of risk than it does for the wealthy farmer. It is a tenet of gambling that a rational decision on whether a risk is justified or not depends on an evaluation, not only of potential

losses versus potential gains, but of whether those potential losses are manageable (should they occur) in relation to assets already owned. The degree of risk involved in investing Shs 10,000 depends, not just on the chances of success, but also on the proportion between that Shs 10,000 and the investor's total resources. A Shs 10,000 investment is a very small risk to a millionaire, whatever the probable outcome, but it is a very big risk to a poor person with an annual income of Shs 20,000.

Technology for the small-scale farmer, should carry as little risk as possible and the level of risk should be defined in terms, not only of the probability of gain versus loss, but in terms of the proportion, the maximum possible losses bear to total farm income. An example of programmes for small-scale farmers, which have not considered this aspect, can be seen in several livestock programmes recently established in this region. These are intended specifically to give the poorer farmer supplementary income. Several of these programmes provide the farmer with livestock on credit, the money to be repaid when the animal is sold for meat after being fattened by the farmer, or from the profit from dairy products. However, even when large, very expensive animals such as cattle are involved, there are generally no livestock insurance programmes. The farmer bears the whole risk of the value of the animal, which may be more than his total annual income (IFAD, 2007).

2.3 The Challenge of Rural Finance

Developing countries around the world have seen a reduction in rural access to financial services over the last two decades, with the closing of many agricultural development banks, (Adams, 2001). The decisions to close these institutions were well founded where the banks:

Focused on subsidized, directed and politicized credit at the expense of other financial services demanded by the rural poor, discouraged sufficient mobilization of savings due to subsidized interest rates, directed loans to finance specified numbers of hectares of specified crops, influencing borrower decisions on what to grow, forgave debt for political reasons, undermining the development of a sound credit culture and blurring the distinction between grants and loans and ran up enormous losses, straining national budgets.

Donor and government recognition of these failures resulted in a wave of development bank closures, and an appreciation of financial systems and the distorting effects of government and donor intervention. This awareness contributed to the considerable and rapid growth in microfinance institutions, and privatized commercial banks complying with the financial systems approach over the last fifteen to twenty years. Few of these however, have moved in to serve the rural market. This fact frustrates governments and donors seeking to increase the level of investment in rural development and economic opportunities for farm households, rural enterprises and value chains, clusters and industries in which they work. Growth for these actors often is limited by the scarcity of institutions offering loans for investment and working capital, savings products, and other financial services.

Conditions in rural areas help to explain the gap in rural financial services. Rural areas typically face high transaction costs. Compared to urban areas, clients are more dispersed, infrastructure is less developed, and branch networks are more expensive to maintain. Information to assess a borrower's ability and willingness to repay a loan is difficult and expensive to obtain. Collateral is more limited, often less documented, and more difficult to liquidate, increasing provisioning and foreclosure costs for financial institutions. Financial institutions that historically blurred the distinction between grants and loans have helped to create a credit culture in which rural residents may be less willing to repay their loans. Financing agriculture creates an additional set of costs and risks, from its seasonality and requirements for longer terms, to the fact that many borrowers will face the same production and price risks, (Bass, J., Henderson K., 2000).

At the *Paving the Way Forward for Rural Finance* conference, (Claudio Gonzalez-Vega 2003) described three gaps between the demand and supply of rural financial services. These gaps are caused by factors such as distortions of policies, regulatory frameworks, governance structures, and subsidies that favor inefficient providers, which discourage efficient institutions from entering the market;

Costs faced by efficient financial institutions to deliver rural financial services, that need to be lowered through investments in infrastructure and innovations in technology, products and processes for delivering those products; and Unrealistic expectations, based on assessments that are more political than economic in nature, that overestimate the real demand for rural

financial services. These unrealistic expectations often contribute to the distortions described above.

These gaps and challenges help to illustrate a financial systems perspective, one that focuses on the policy and regulatory environment and financial institutions as primary units of analysis. Given the complexity of financial systems, donors and project designers may grow frustrated with interventions that are slow in closing these gaps. Those who see the potential for the growth and expanded participation of small farmers and micro enterprises in particular value chains find themselves asking how do we get the needed credit out there to tap potential growth and poverty alleviation opportunities: the banks are not willing, the MFIs remain urban focused, and must we wait until the enabling environment is ideal?

2.4 Success Factors and Innovation in Small-scale Finance

Despite the gaps, there are efficient financial institutions, entering into financial transactions that mutually benefit the provider and the customer. Their governance structures may differ, as well as their legal environments and product lines, but they tend to share the following characteristics. They possess a market orientation and commercial outlook, one committed to being profitable and with the capacity to risk capital in making basic business decisions. They have cost-effective screening methods to identify customers with the willingness and ability to cover transaction costs. These financial institutions integrate incentives for themselves and their customers into their products.

Gonzalez-Vega identified three gaps: *Inefficiency gap* in which distortions make the potential supply for credit services greater than the current supply. The *insufficiency gap* in which real demand is greater than potential supply, a gap that could be closed through infrastructure and innovations in methodologies and technologies that reduce the cost and service providers to more quickly achieve economies of scale; and a *feasibility gap* in which expectations about portfolio levels are greater than the real demand for financial services. Real demand is defined as the ability and willingness of an individual to purchase a credit service at a price that covers all costs of delivering that service. Services and contracts—incentives such as competitive costs, adequate pricing, adequate security, terms that reflect the economic activities being financed, and effective controls to monitor and enforce contracts and manage

risks. There is a need to expand credit services to the small-scale sector. A respect for financial systems and markets, and the ability of financial institutions to operate efficiently within them is critical to this expansion. Fixing systems wholesale is a daunting task, and often requires more resources than are available to individual USAID missions.

USAID's Small-scale Finance conference considered the role of innovation in the expansion of small-scale financial services. In another major theme paper "Innovative Products and Adaptations for Small-scale Finance", (Buchenau J, 2003), identified three critical objectives for innovation: reducing transaction and risk costs, creating longer-term loan products, and increasing the size of loans to small-scale customers. He also stressed that to be successful, financial products must not only be mindful of financial market realities, but also must be responsive to realities in the relevant product markets. They should be tailored to the cash flows of enterprises and small-scale households, and take advantage of links to traders and other actors in the product market, actors with existing relationships, constraints, and knowledge of each other.

Relying on a sound appreciation of financial markets, and building on the knowledge of and relationships with actors in relevant product markets, promising innovations have been evolutionary. "Innovations in lending should begin with low or limited risk through commitments of small amounts initially to larger amounts as experience develops" (Buchenau J., 2003). Mark Wenner, in a study of promising small-scale finance innovations in Latin America concluded, "Innovations seem to work best when they are evolutionary in nature" where intermediaries build on experience and reputation in a related field and geographic area, (Wenner, 2003). Similarly, Hollinger, in his research on methodologies of agricultural lending concluded that effective innovation requires a gradual approach that builds on the knowledge of local conditions, strong relationships with stakeholders and clients, and progressive product development (Hollinger, 2003).

2.5 Improving Agricultural Finance System

Agricultural development is considered as the foundation of industrial development and, consequently of a country's overall economic development. However, to attain agricultural development, every government must consider agricultural credit as an important policy. The

basic principle of reform in agricultural finance is to maintain and repair instead of to destroy or take apart the whole system. Agricultural finance is vital to the achievement of agricultural policy objectives, and should not be regarded and treated as a general finance system, especially during this era of agricultural trade liberalization when the agricultural sector, the rural society, and the farmers need all the help and assistance they can get to cope with the necessary transformation/adjustment.

To improve the agricultural finance system, some recommendations include integrating individual credit departments, providing a better environment of operation, and raising the efficiency and competitiveness of such credit departments within the financial market. Agricultural finance policies must also be continuously developed to ensure the sustainable development of the agricultural finance system. It is also crucial to reconstruct the whole system of farmers' associations so that the problems of credit departments could be solved fundamentally. World Bank (2008). Farm credit guarantee system. In some developed Asian countries, credit guarantee fund is established for the liabilities of promising farmers and anglers who do not have enough collateral, and to enable them to have better access to financial services. Some of the present challenges faced by financial systems are:

Enhancing the financing of the guarantee system and making it more effective by more fund injection from commercial banks as well as from government institutions, Stricter credit appraisal and guarantee scoring to prevent moral hazard of contracting institutions by applying stricter application review procedure, Higher mobilization of savings in order to build a pool of funds for re-investment and, To facilitate the development of advanced agricultural industries in view of greater competition brought about by the WTO, providing more loans to biotechnology research and business or innovative agricultural and fishing ventures (WTO, 2007).

Preventing agricultural lenders' insolvency: Credit risk management is important to prevent agricultural cooperatives' insolvency. In most Asian countries, local agricultural cooperatives have a limitation in managing credit risk because they do not specialize on credit activities, but instead conduct multi-functions such as marketing, supply, services, and credit. Small local cooperatives usually are not able to adapt to changes in business environment and to use advanced risk management techniques. Geographical regulation, in which clients are

determined by geographical location, also makes local cooperatives inefficient. With the advent of financial deregulation and liberalization of capital market, competition among financial institutions has become intense. This means that minimum capital requirements, supervisory review, and transparency for banks will have to be intensified with incentive-based approaches to risk and capital adequacy management. Consequently, capital requirement and risk management of local agricultural cooperatives will have to be reformed as well (World Bank 2008).

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter focused on the methodology that was used in carrying out the study, determining the population and the sampling procedure as well as data collection and data analysis methods.

3.2 Research Design

Survey method was used since the main purpose of the study is to investigate the factors that affect the critical factors that affect credit accessibility by small scale tea farmers in Kenya. Descriptive research according to (Kothari 1990) is a powerful form of quantitative analysis.

3.3 Population

The KTDA growers are approximately 450,000 registered small scale tea farmers. These farmers are distributed all over the country. The providers of credit include banks, Saccos, MFI's etc.

3.4 Sample and Sampling Technique

The researcher used the factories establishment register of farmers where he sampled 50 small-scale farmers using a random stratified approach. A region within the KTDA's 7 regions was sampled at random and a factory randomly selected from the region and then sampled farmers from the factory. The sample size was justifiable since most farmers shared the same characteristics including the income bracket, scale of farming and financial requirements where 90% of the farmers had 1 acre of tea or less. The researcher determined the number of respondents to be picked in each stratum by weighting to obtain a sample proportional to their percentage representation in the establishment. The researcher assigned an arbitrary number to every farmer in the register. The recorded arbitrary numbers were

also used to identify the randomly selected respondents who then formed the study sample. A sample of 20 banks and SACCO's were selected based and their officers were the respondents.

3.5 Data Collection Methods

Primary data was collected using questionnaires that consist mainly of closed-ended questions. However, there were open-ended questions (see appendices: attached – questionnaires).

3.6 Data Analysis

Factor and content analyses was used to analyze the data collected. Content analysis is the systematic qualitative description of the composition of the objects or materials of study. It involves observation and detailed description of objects, items or things that comprise the study (Mugenda, 1999). The reason for choosing these methodologies was that it did not restrict respondents on answers and had potential of generating more information with much detail. The data was analyzed using SPSS and presented in tables, charts and graphs.

CHAPTER FOUR

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter presents the data analysis and interpretations. The results have been presented using tables and graphs for easier pictorial interpretation. The analysis has been divided into two, the credit suppliers' and the farmers' responses.

4.1.1 Demographic Characteristics of the respondents

The sampling picked farmers from the Kiambu/Thika region, in this aspect, the farmers connected to the one factory in Kiambu were selected for the study. The regional aspect ensured that farmers' peer groups were ensured and the challenges in the chosen region were relevant to most of the respondents. The regional aspect and the choice of one factory was also able to ensure that results were able to be matched to the source and the implementation of the recommendations would also be made possible. Deriving from the names of the respondents, it was evident that a majority of the farmers were male.

4.2 Farmers' Perception on credit Access

The researcher designed a questionnaire to collect the responses from the farmers regarding their access to the credit facilities. The responses have been analyzed as follows.

4.2.1 Analysis of the main sources of income

The respondents were asked to show the percentage of their total income that comes from tea. This was in order to judge the importance of tea to the farmers. The results showed that a majority of the farmers obtain 25%-50% of their income from tea as represented by 56%. 22%, also obtained below 25% of their total income from the tea. The results are presented in the table below.

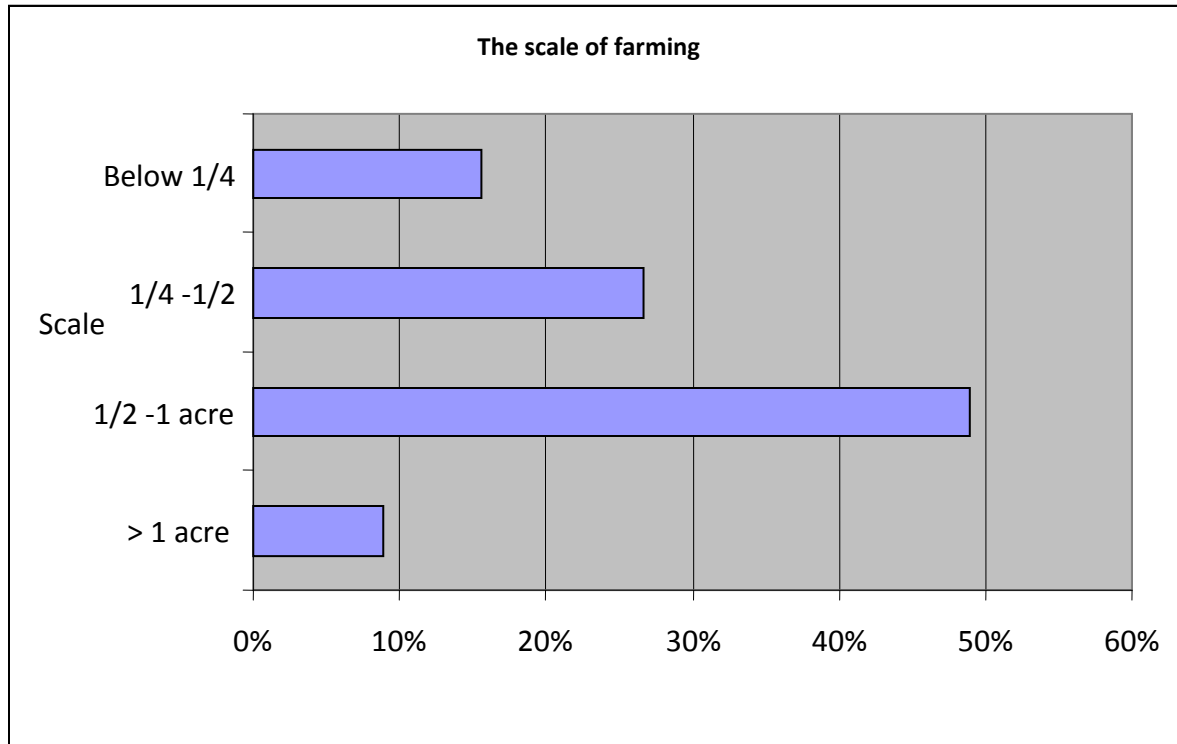
Table 1 Amount of Income derived from tea farming

Income	Frequency	Percentage
> 75%	4	9%
50%-75%	6	13%
25%-50%	25	56%
Below 25%	10	22%
Total	45	100%

4.2.2 The scale of tea farming

The results show that a majority of the farmers had tea farms that ranged between ½ acre to 1 acre. This was followed by those who had ¼ acre to ½ acre, the implication of this is that most of the respondents practice small scale tea farming. These findings also support the low percentage of income from tea in the total income received by farmers. Figure 1 below shows the findings.

Figure 1 The scale of acreage of tea farming



4.2.3 The current monthly income derived from tea farming

The results show that for a majority of the farmers, income from tea is between shs 2000-3000. A significant portion also showed that they receive below Kshs 2000 from tea. The results are presented in the table below. The findings indicate that a majority of farmers apart get very little income generally.

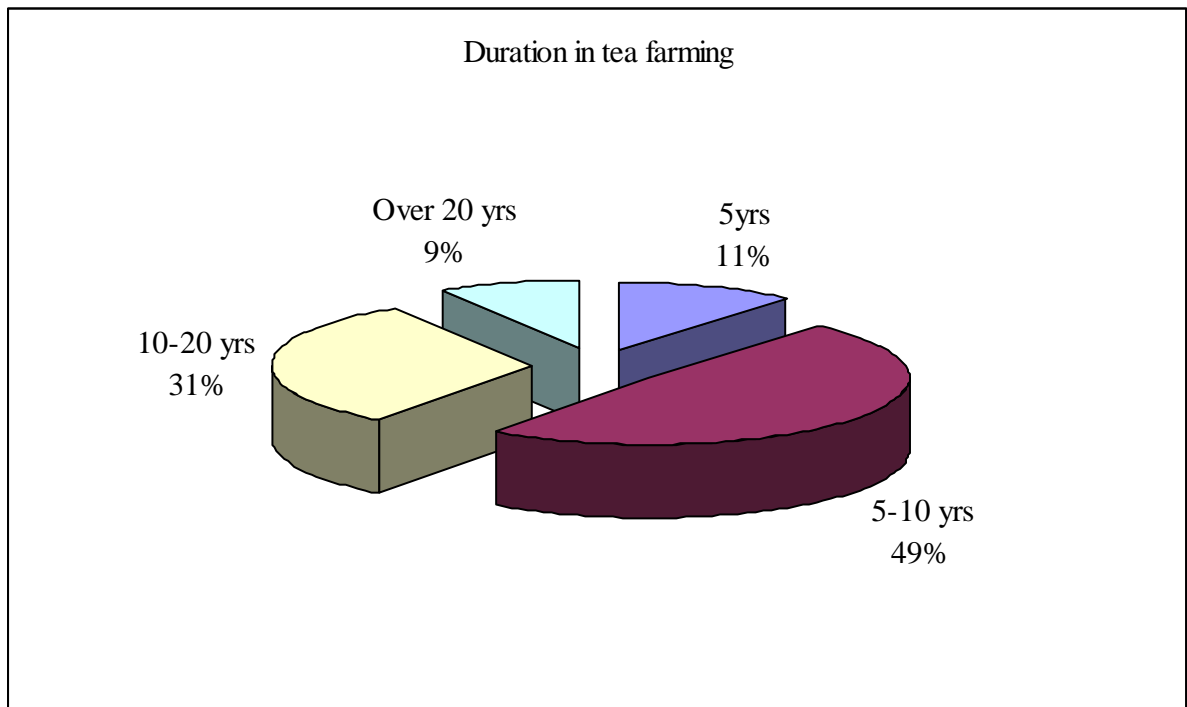
Table 2 Income from tea farming

Income	Frequency	Percentage
Below kshs 2000	24	53%
Kshs 2000-3000	14	31%
Kshs 3000-5000	4	9%
Kshs 5000-10,000	2	4%
Over 10,000	1	2%
Total	45	100%

4.2.4 Duration in Tea farming

The findings show that a majority of the farmers have been in tea farming for 10-20 years. A significant portion had also been in tea farming for between 5 to 10 years. This shows that a majority had been in the farming business for a period long enough to answer the questions, the chart below shows the results.

Figure 2 Duration of farming



4.2.5 Whether the farmers used credit from SACCO, Bank or other registered lenders

The results below shows that a majority of the farmers rely on credit facilities from lenders. It may be attributed to the fact that tea farming involves serious capital expenditures that may not be easily met from personal savings and other personal sources of income.

\Table 3 Do the Farmers Use Credit?

Response	Frequency	Percentage
Yes	36	80%
No	9	20%
Total	45	100%

4.2.6 Reasons for not using credit facilities

The results show that majority of the farmers experience the challenges listed such as expensive lending rates, lack of understanding on the credit access process, lack of collateral on loans and that there were no lenders near the farmers.

4.2.7 Factors enabling tea farmer access credit services

The results show that for a majority of the farmers, lack of collateral was a major challenge, closely followed by lack of understanding of how the lending process takes place. This may be attributed to the fact that lenders have not taken an aggressive campaign to sensitize the farmers on the basic knowledge of lending. The results were as presented in the table below.

Table 4 Factors enabling farmers' access to credit

The grading scale used was as follows:

5-Very important, 4-Important, 3-Moderately important, 2-Less important and 1- Not important

Factors	N	Mean
Lack of collateral	45	5.00
Costs charged by financial service providers	45	4.85
Lack of information of the various different providers	45	4.74
Lack of understanding of how it all works	45	4.67
My scale of production is low	45	4.21

Fear of inability to repay	45	4.13
Rules and regulations are too complicated	45	3.69
Have to travel over 15km to reach service provider	45	3.43

4.2.8 Whether loans were used for labour and farm inputs

The results as shown below indicate that majority of the farmers use loans for the farm inputs, this supports the findings on the use of credit facilities by the farmers. The results were as shown below.

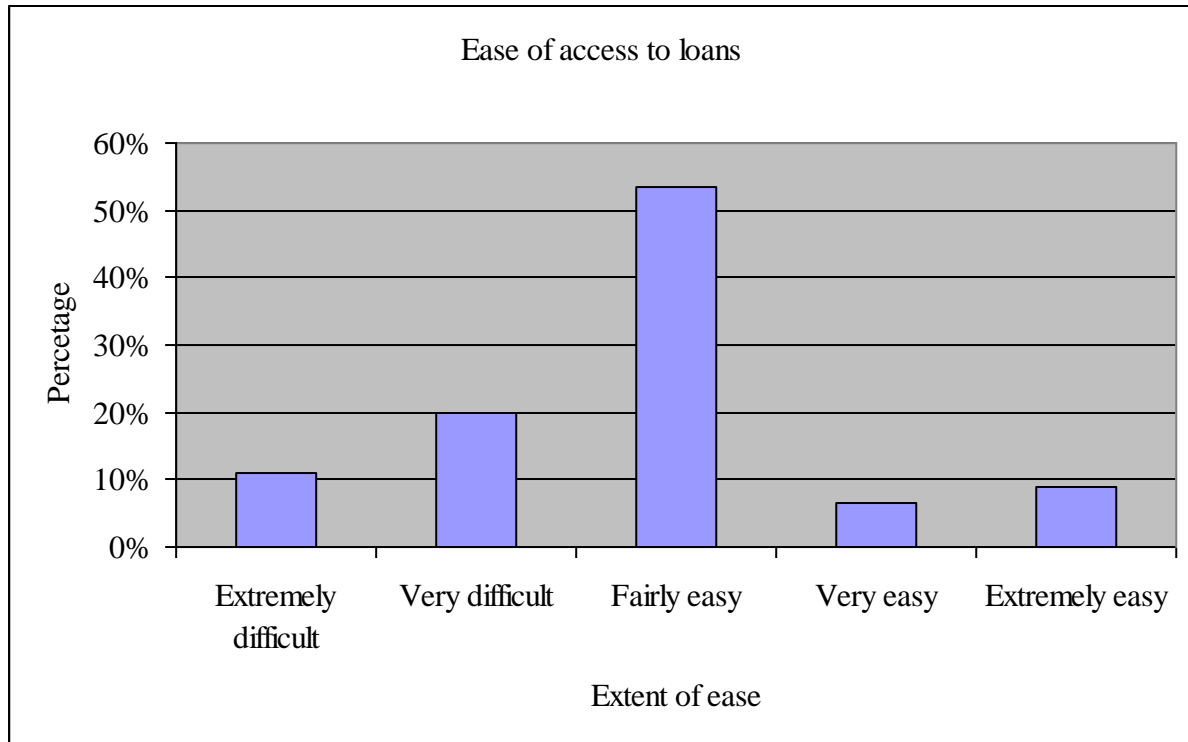
Table 5 Use of Credit for labour and inputs

Response	Frequency	Percentage
Yes	35	78%
No	10	22%
Total	45	100%

4.2.9 Ease of access to loans from credit institutions

A majority of the respondents showed that it was fairly easy to obtain credit from the institutions. The remainder showed that it was very difficult to obtain the credit facilities. The graph below shows the results of the findings.

Figure 3 Ease of access to loans



4.2.10 Recommendations to improve tea farmers access to credit services

The results show that lenders should be able to create lower credit charges and ease access. Monthly deductions and lower interest rates would to a greater extent encourage more farmers to borrow. In addition, awareness creation among the farmers would assist in building confidence among the participants. Lack of collateral can be addressed by giving loans based on the shares that are held by a member of the SACCOs or based on projected future incomes.

4.2.11 Inferences

From Table 2, 84% of the small scale tea farmers earn upto shs 3000per month from tea farming. In relating this to the use of credit facilities, table 3 shows that 80% of the small scale tea farmers use credit. There is therefore a close relationship between income earned and the need for credit.

Table 1 shows that only 22% of small scale tea farmers make their living from other earnings as opposed to tea earnings. This is because their tea earnings contribute only 25% of their total earnings or less. This can lead to a conclusion that a majority of small scale tea farmers (78%) rely on their tea earnings for their livelihoods.

Figure 2 shows that small scale tea farmers farm tea over long periods of time ie 40% of the farmers have farmed tea for over 10 years. It would therefore be possible to track their incomes over time and with financial planning, develop lending models for them to avoid perennial entanglement in debt.

4.3 Credit Providers

The research sought to establish the considerations that matter to credit providers in giving credit to the small scale tea farmers. Particularly, they were required to rank the different factors as was listed in a scale of 1 to 5, with 5 being the most important. The results are as presented below:

4.3.1 Factors considered in honoring a loan application

The lenders were asked to rate the factors listed in terms of their ability to influence honoring a loan application. The table below shows the findings. The results show that collateral was a major influencer in lending to a farmer, this was represented by a mean of 5 showing very important consideration. Farmers account history determined the loan approval, this was represented by a mean of 4.9, which may still be rounded of as very important, this may be because the frequency of withdrawals and amount of deposits determine the liquidity of the farmer. In addition to the factors discussed, the respondent showed that farmers' future income as per latest pay slip would also apply for salaried applicants.

Table 6 Factors considered in honoring a loan application

The grading scale used was as follows:

5-Very important, 4-Important, 3-Moderately important, 2-Less important and 1- Not important

Factors	N	Mean
Collateral	15	5
Farmers account history	15	4.9
Future income as per latest pay slip	15	4.8
Farmers education level	15	3.8
Costs of credit administration	15	3.7
Information communication technology in use by credit provider	15	3.6

4.3.2 Recommendations to improve provision of credit services

The likert scale of 1-5 was used to rate the recommendations to improve credit access, 5 represented very important while 1 represented not important. Any factor with a mean above 3.5 was considered important. The results show that particular attention should be paid to the improvement of infrastructure to ensure proximity. Information technology should be improved to ensure awareness among the customers. In addition, steps should be taken, to link the operation of a savings account to getting an approval; this would ensure collateral that is acceptable to both parties. The table below shows the findings.

Table 7 Recommendations to improve access

The population refers to the total number of respondents who responded to the questions asked, the mean represents the overall score for each factor as in the likert scale.

Factors	Population	Mean
Improve infrastructure to ensure proximity	45	5
Improve information communication technology	45	4.9
Link operating a savings account to getting approval to loans	45	4.8
Educate farmers on need for loans	45	3.8
Educate farmers on associated costs of loans	45	3.7

4.3.3 Inferences

Both farmers and lenders do consider collateral as the most important factor to availability of credit services. Farmers consider costs of borrowing as the second most important factor in the provision of credit service. The Banks however do not consider costs to farmers as a major issue in making lending decisions or for attracting farmers.

The lenders do not consider information availability as important to the farmer, but farmers consider information availability as the third most important factor after collateral and costs charged. These are varied perspectives on the same factor depending on whether one is a borrower or a lender and finding a middle ground or compromise would improve the situation.

CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of findings, conclusions and recommendations of study. The results are summarized and subsequently used to advice the conclusions of the study based on the objectives.

5.2 Summary of findings

The objective of the study was to determine the factors that affected small scale farmers' access to credit and the relative importance of those factors. Regarding the demographic characteristics of the respondents, the study established that a majority of the farmers obtain only 25%-50% of their income from tea. A significant number also obtained below 25% of their total income from tea. A majority of the farmers had tea farms that ranged between ½ acre to 1 acre. This was significantly followed by those who had ¼ acre to ½ acre. The implication of this is that most of the farmers practice small scale tea farming.

The results show that for a majority of the farmers, income from tea between Kshs 2000-3000. A significant portion also showed that they receive below Kshs 2000. The findings indicate that a majority of farmers rely on tea farming for their upkeep as the main alternative source of income. A majority of the farmers have been in tea farming for 10-20 years. A significant portion had also been in tea farming for between 5 to 10 years. This shows that a majority had been in the farming business for a period long enough to answer the questions.

In relation to reliance on credit, the results show that a majority of the farmers rely on credit facilities from lenders. It may be attributed to the fact that tea farming involves expenditures that may not be easily met from personal savings and other personal sources of income. The challenges listed were such as expensive lending rates, lack of understanding on the credit access process, lack of collateral on loans and proximity of lenders the farmers.

Considering the factors that affect access to credit, the results show that for a majority of the respondents, lack of collateral was a major challenge, closely followed by costs charged by

the borrowers and then lack of understanding of how the lending process takes place. This may be attributed to the fact that lenders have not taken an aggressive campaign to sensitize the farmers on the basic knowledge of lending. Regarding the source of money for farm inputs, a majority of the farmers use loans for the farm inputs; this supports the findings on the use of credit facilities by the farmers. In grading the access to credit, majority of the respondents showed that it was fairly easy to obtain credit from the institutions.

The respondents recommended, to ease access, lenders should be able to create lower credit charges and ease access. The respondents also reiterated that monthly deductions and lower interest rates would to a greater extent attract the farmers. In addition, awareness creation among the farmers would assist in building confidence among the participants. The respondents also indicated that the lack of collateral can be addressed by giving loans based on the shares that are held by a member of the SACCOs or by using other collateral alternatives.

In relation to the factors considered by credit providers in approving loan application, the results show that collateral was a major influencer in lending to a farmer, in addition, farmers account history determined the loan approval, in the sense that the frequency of withdrawals and amount of deposits determine the liquidity of the farmer. In addition to the factors discussed, the respondent showed that farmers' future income as per latest pay slip would also apply for salaried applicants. The credit providers also recommend that to improve access to credit, particular attention should be paid to the improvement of infrastructure to ensure proximity. Information technology should be improved to ensure awareness among the customers. In addition, steps should be taken, to link the operation of a savings account to getting an approval; this would ensure collateral that is acceptable to both parties.

5.3 Conclusions

The objective of the study was to determine the critical factors affecting access to credit by small scale farmers and the relative importance of the factors. Specifically the study sought the views of farmers as well as credit lenders. Considering the study findings, it can be concluded that from the farmers' point of view, collateral, costs charged and lack of information affected their access to credit facilities. Lack of information on the charges and the process of lending affect decision making among the farmers. Availability of credit has been identified the world over as a key contributor to wealth creation and any efforts that would make it easier to access credit by borrowers should be made.

In relation to the lenders, it can be concluded that factors they consider in honoring a loan application include collateral and account history. The lenders also consider proximity and use of information technologies as important factors in availing more credit to the farmers. This would be in line with the Kenya Governments' commitment to vision 2030 which identifies infrastructure and use of information Communication technologies as key components towards achieving the vision.

5.4 Recommendations

The study recommends that improving access to credit facilities must first consider the education of farmers and the target market. The awareness creation involves the provision of information on the lending activities and the costs associated with it. Since collateral has been considered a main requirement in the lending process, serious considerations should be undertaken to make flexible options for provision of collateral.

Duration of tea farming has been confirmed a long which would make it possible for financial information modeling as historical earnings are known and can be used with various assumptions to make future projections that can be used to avail credit based on future earning streams instead of collateral.

Intermediaries like KTDA can work with farmers and lenders and develop comprehensive lending or credit availability schemes as alternatives to collateral and also to disseminate

information of costs and lending to the farmers. Such a partnership can be developed to benefit all parties involved both in the short term and in the long term.

5.5 Limitations

The sampling method used has its own limitations as by using a sampling frame, characteristics unique to geographical areas outside the frame would be left out of consideration. Cultural practices of different communities in Kenya may also be different when it comes to using credit and this may alter the results.

SACCO respondents were not as enthusiastic as those of Banks who went to give additional information of how the whole lending schemes can be enhanced. This could be related to the regulatory framework on which the different financiers operate on. The Saccos' respondents would probably fear information leakage would be used against them whereas banks even publish pertinent information on lending.

5.6 Suggestions for future research

Since small scale tea farming has been successful over the years in Kenya, it must be a vital supply for the global population. However, with declining farm sizes, availability of credit services will be important since farmers' needs may not be met all at once with incomes being generated. Further research could be done to check against borrowings that pile debt without full repayment which would ultimately create an inability to pay.

Some of the factors identified as critical include lack of information to the farmers. However, it is not clear whether this is linked to the information availability or the lack of knowledge by the farmers. Future research can find out if this factor can be linked to the farmers' levels of education.

There is a correlation between the scale of production and use of credit in that small over 80% of the farmers earn shs 3,000 and less per month and over 80% of the farmers use credit for labour and inputs. Further research would be useful to establish the correlation of farmers incomes to use of credit.

Due to different demographic and cultural factors, use of credit may differ from one part of the country to another. Research could be extended to cover the entire tea growing areas of Kenya particularly if there would be interested lenders to cover all the small scale tea farmers more specifically.

REFERENCES

- Adams, D., (2001), *“AfDB Policy Guidelines for the Rural Financial Sub-sector,”* African Development Bank
- Azzam (1996), *“Financial services for Rural and Large Scale Sectors”*, Trans African Agency
- Bamako (2000) Conference,. *“Value Chain Management, Natural Resources”*
- Bass, J., Henderson,K., (2000), ‘Microfinance, Labour Markets and Poverty in Africa: A Study of Six Institutions’, in A. Mushtaque, R. Chowdhury and P. Mosley (eds), *Journal of International Development, Special Issue, The Social Impact of Microfinance* 16.3: 467–500
- Bass, J., Henderson,K., (2000), *“Leasing: A New Option for MF Institutions”* ,
- Bates, R. H. (2005), *Beyond the Miracle of the Market: The Political Economy of Agrarian Development in Kenya*. New York, NY: Cambridge University Press.
- Baumann, P. (2000), *Equity and Efficiency in contract farming schemes: the experience of agricultural tree crops*. Working Paper 139, London: Overseas Development Institute.
- Bedford, A, Blowfield, M, Burnett, D and Greenhalgh, P (2001) *Value Chain Management, Natural Resources Institute*
- Beth M., (1999), *“Factors affecting provision of non-financial services by NGOs to micro and small enterprises in Nairobi”*. Unpublished MBA research Project UON
- Binswanger, HP, Deininger, K & Feder, G, (1993), *Power, distortions, revolt and reform in agricultural land relations*. Discussion paper. Washington, DC: World Bank.
- Boehlje, M, (2000), *Critical dimensions of structural change*: Unpublished document, Department of Agricultural Economics. West Lafayette: Purdue University.

- Bucheneau, J. (2003), *“Innovative Products and Adaptations for Rural Finance”*, Paving the Way Forward for Rural Finance: An International Conference on Best Practices Case Study
- Capland and Nelson “E-commerce: the next global frontier for small businesses”, *The Journal of Applied Business Research*, Vol. 17 No. 1, pp. 87-94.
- CDC (1989), *Review of Smallholder Agricultural Program: Final Report*, Vols. 1 and 2. London: Commonwealth Development Corporation.
- Central Bank of Kenya (August 2007), Press Release: Macroeconomic Stability for Vision 2030.
- Clapp (1994), “Strategic alignment: leveraging information technology for transforming organizations”, *IBM Systems Journal*, Vol. 38 Nos 2/3, pp. 472-84.
- Cook ML and Chaddad, F, (2000), Agro-industrialization of the global agro-food economy: bridging development economics and agribusiness research. *Agricultural Economics*, 23: 207-18.
- Coulter J, Goodland, A and Tallontire A, (1999), *Marrying farmer cooperation and contract farming: provision in a liberalizing sub-Saharan Africa*. Overseas Development Institute, ISSN 1356-9338.
- David M. G, (2007), *“A survey of factors influencing demand for financial services”*, Unpublished MBA research Project UON
- Delgado T. (1999), “Businesses urged to share data about security holes. InformationWeek”,
- Export Processing Zone Authority (2005). “Tea and Coffee Industry in Kenya 2005”
- Feathestone and Sherrick (1992) *“Federal Deposit Insurance Corporation”* (FDIC).
- Feder , (1981), “Redressing Institutional Impediments to Micro and Small-scale Enterprises Access to Credit in Kenya, IPAR.

- Gereffi, G (1994), *'The organization of Buyer-driven Global Commodity Chains: How U.S retailers shape overseas production networks'*, in G. Gereffi and Korzeniewicz (eds) *Commodity Chains and Global Capitalism*, Westport: Praeger
- Glover, D. (1983), 'Contract Farming and Smallholder Out grower Schemes in Less Developed Countries', *World Development* 12 (111–12) pp. 1143–1157.
- Glover, D. and Kusterer, K. (1990), *Small Farmers, Big Business: Contract Farming and Rural Development*, London: Macmillan.
- Gonzalez-Vega, Claudio, (2003), "*Deepening Rural Financial Markets: Macroeconomic Policy and Political Dimension*," Paving the Way Forward for Small-scale Finance: An International Conference on Best Practices, Theme Paper.
- Goodhue, P (1999), "Strategic Management and Business Policy" Fifth Edition, New York, Addison-Wesley publishing company,.
- Hayami, Y, (1990), Assessment of the Green Revolution. In Eicher, C & Staatz, JM (Eds), *Agricultural development in the Third World*. Baltimore, MD: Johns Hopkins University Press.
- Hollinger, F., (2003), "*Financing term investments in agriculture: A review of International Experiences*", Paving the Way Forward for Rural Finance: An International Conference on Best Practices Case Study
- IFAD, (2007), Source: "AllAfrica.com", Kenya Originally Published: February 07, 2005.
International Fund for Agricultural.
Development, www.ifad.org/events/remittances/maps/index.htm, accessed April 2008.
- Key, N and Runsten, D, (1999), Contract farming, smallholders, and rural development in Latin America: the organization of agro processing firms and the scale of out grower production. *World Development*, 27(2): 381–401.

- Kilmer, C. (1986), "*dimensions of structural change*": farming schemes: the experience of agricultural tree crops
- Kimani P .K, (2000), "*Product strategy in the marketing of financial services. A survey of the commercial banking sector in Kenya*". Unpublished MBA research Project.
- KTDA Bulletin (2007), The Financial Report
- Kumar, D. (1995), "Product innovation and small business growth: a comparison of the strategies of German, UK and Irish Companies", *Research Policy*, Vol. 31, pp. 1087-102.
- Kumar D. (1995), "Banking review". Retrieved April 22, 1995
- Leathers, J. (1999), "Rural finance: Issues, Design, & Best Practice". World Bank
- Levin, H. I (1988), "Contemporary Strategy Analysis": concepts, techniques, applications
- Little, PD, (1994), Contract farming and the development question. In Little, PD & Watts, MJ (Eds), *Living under contract*. Madison, WI: University of Wisconsin Press.
- Mark Wenner, (2003), "Implementing enterprise resource planning (ERP) systems in small and midsize manufacturing firms", *International Journal of Operations & Production Management*, Vol. 23 No. 8, pp. 850-71.
- Meyers, D. (1982), *Formulation and advocacy Business Policy*, Ithaca, NY: Cornell University Press.
- Mude, A (2006), "Business experience with computer integrated manufacturing: empirical implications for industrial information systems", *Journal of Management Information Systems*, Vol. 12 No. 2, pp.
- Mude, A. (2006), "Weaknesses in Institutional Organization: Explaining the Dismal Performance of Kenya's Tea Cooperatives" Paper presented at International Association of Agricultural Economists Conference.

- Nyoro, J. K. and Whittaker, M. J. (1986), 'Factors Influencing the Adoption of Coffee Management Practices by Smallholder Coffee Farmers' in *Kenya Coffee*.
- Pasour, E, C (1999), "Small firm networks: a successful approach to innovation?", *R&D Management*, Vol. 32 No. 3, pp. 201-7.
- Pasour, E, C. (1998), *The potential impact of increased vertical integration on North Carolina grain farmers*. North Carolina State University, December.
- Reardon, T and Barrett, CB, (2000), Agro industrialization, globalization and international development: an overview of issues, patterns and determinants. *Agricultural Economics* (Special Issue), 23: 195-205.
- Rhoades, R. E (2003), *Federal Financial Institutions Examination Council (FFIEC)*", *Journal of Financial services by Micro entrepreneur*
- Rhoades, Robert E. (1984), Understanding small-scale farmers in developing countries: Sociocultural perspectives on agronomic farm trials. *Journal of Agronomic Education*. 13: 64-68.
- Roberts, E. (2004), "Applying world-class manufacturing to make-to-order companies: problems and solutions", *International Journal of Operations & Production Management*, Vol. 18 No. 11, pp. 1086-100.
- Roling N. (1984), Appropriate Opportunities as well as Appropriate Technology. *Ceres* 97 (17,1): 15-19.
- Roumasset, James A. (1977), Risk and Uncertainty in Agricultural Development. Seminar Report No. 15. Agricultural Development Council, New York.
- Runsten D and Key, N, (1996), *Contract farming in developing countries: theoretical aspects and analysis of some Mexican cases*. Research Report No. 3, August 1996. Report prepared for the United Nations Economic Commission for Latin America and the Caribbean, Santiago, Chile.
- The Global Monitoring Report (2007), World Bank and IMF (2007)

- Schrader, L. (1986), An engineering organization's cost of quality program. 8-11 American Society for Quality Control Twelfth Annual National Energy Snippet view
- Von Braun, J and Immink,, (1994), Non-traditional vegetable crops and food security among smallholders in Guatemala. In Von Braun, J & Kennedy, E (Eds), *Agricultural commercialization, economic development and nutrition*. London: Johns Hopkins University Press.
- Watts, MJ, (1994), Life under contract: contract farming, agrarian restructuring, and flexible accumulation. In Little, PD & Watts, MJ (Eds), *Living under contract*. Madison, WI: University of Wisconsin Press.
- Wenner, M., (2003), “*Promising Practices in Rural Finance/Experiences from Latin America and the Caribbean-Chapter 11*”, IADB
- World Bank (2008), Doing Business Report. New York, NY: World Bank
- World Development Indicators database, www.worldbank.org/data, accessed April 2008.
- WTO (2007), Journal on business and Agriculture in Africa today.
- Young D. N. (1960), “Electronic commerce and the future for MFIS in a global market-place: networking and public policies”, *Small Business Economics*, Vol. 12 No. 3

APPENDICES

APPENDIX 1: FARMERS QUESTIONNAIRE

1) What are your main sources of income?

Over 75 % from Tea

Between 50% - 75 % from Tea

Between 25% - 50 % from Tea

Below 25% from Tea

Others (please specify)

.....

2) What is the scale of your tea farming?

Over 1 Acre

Between ½-1 Acre

Between ¼- ½ Acres

Below ¼ Acres

3) What is the your current monthly income that you derive from tea farming?

Sh 2,000 – Sh3,000

Sh 3,000 – Sh 5,000

Sh 5,000 – Sh 10,000

Over Sh 10,000

4) For how long have you been in tea farming? (Tick)

- Below 5 years
- 5-10 years
- 10-20 years
- Above 20 years
- Above 10

5) Do you use credit services from a financial institution eg SACCO, Bank or other registered lenders?

- Yes
- No

If no to (5), why not?

- No service provider nearby
- They are too expensive
- Don't understand them
- Lack of collateral on loans
- Staff not friendly
- Any other (please specify)

.....

6) How do you rate the following factors in enabling you as a small scale tea farmer to access credit services? Give a score of 1 to 5, 5 being the most important and 1 being the least important.

- a) Lack of collateral
- b) Cost charged by financial service providers

- c) Lack of understanding of how it all works []
- d) Have to travel over 15km to reach service provider []
- e) Lack of information of the various different providers []
- f) My scale of production is low []
- g) Rules and regulations are too complicated for me []
- h) Fear of inability to repay []

Any other (please specify)

.....

7) What is your source of money for labour, fertilizer, school fees, other investments ?

- a) Personal savings – over 50% []
- b) Loan – over 50 % []

Any other (Specify)

.....

8) How easy has it been for you to access loans from credit institutions?

- a) Extremely difficult []
- b) Very difficult []
- c) Fairly easy []
- d) Very easy []
- e) Extremely easy []

9) What do you think should be done to help tea farmers to improve access to credit services?

.....
.....
.....
.....

Farmers Name:..... Grower number:.....

Farmers' Signature:

APPENDIX 2: CREDIT PROVIDERS QUESTIONNAIRE

1) On a scale of 1 to 5 (5 being the most important and 1 least important) please rate the following factors in terms of you evaluating if to honour a loan application.

- a) collateral []
- b) farmers account history []
- c) future income as per latest pay slip []
- d) farmers education level []
- e) cost of credit administration []
- f) information communication technology in use by credit provider []

specify and show rating

.....

2) On a scale of 1 to 5 (5 being the most important and 1 least important) please rate the following on what you think should be done to improve provision of credit services to small scale tea farmers.

- a) improve infrastructure to ensure proximity to them Yes [] No []
- b) improve information communication technology Yes [] No []
- c) link operating a savings account to getting approval to loans Yes [] No []
- d) educate farmers on need for the loans Yes [] No []
- e) educate farmers on associated costs of loans Yes [] No []

Other(s)

specify.....

Respondent's Name..... Job Title.....Lender
Institution.....

APPENDIX 3: LIST OF LENDERS WHO RESPONDED

Co-operative Bank

Barclays Bank

Kenya Commercial Bank

ABC Bank

Standard Chartered Bank

NIC Bank

CfC Stanbic Bank

Consolidated Bank

Commercial Bank of Africa

Citi Bank

Wananchi Credit Society (Formerly Nyeri Tea Sacco)

Kirinyaga Tea Growers Sacco

Chai Tea Sacco

Muramati Sacco

Imenti Tea Sacco