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# A MULTINOMIAL LOGIT ANALYSIS OF DETERMINANTS OF BORROWING SOURCES FOR SMALL AND MEDIUM ENTERPRISES IN KENYA: A SURVEY OF THIKA TOWN

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**ABSTRACT**

Informal financial sector may actually be larger than the formal financial sector yet monetary policy has been directed to the formal financial sector ignoring the informal financial sector. This has been attributed to lack of information about this sector. Failure to incorporate the informal financial sector into monetary policy accounts for partial ineffectiveness of monetary policy. This study sought to create an understanding of how the informal financial sector works. It sought to identify the factors that influence borrowing in the sector. The specific objectives included; to identify how socio-economic characteristics influenced borrowing from the informal financial sector, to determine how loan characteristics influenced borrowing from the informal financial sector and to identify how distance from borrowing source influenced borrowing from informal financial sector. The study used both primary and secondary sources of data. The study targeted micro and small enterprises in Thika town. A structured questionnaire was used. A multinomial logistic regression analysis was conducted on the variables. Results showed that Collateral requirements, application fees and interest rates were the main deterrents of borrowing from banks. It is therefore recommended that any interventionist who wishes to encourage borrowing from the informal financial sector should desist from asking for physical collateral but rather rely on social collateral, should ensure that application fees are minimal and that interest rates charged are low.

**Keywords:** Informal finance, Capital borrowing, Loan characteristics and Formal finance.

## 1.0 Introduction

Finance can make an important contribution to development (Daniels et al., 1995). Increasing the rate of economic growth depends heavily upon having the finance required for investment both mobilized and channeled to meet demand.

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In developing countries, the majority of the people are very poor and are therefore, unable to accumulate substantial savings for investment. As a result, they are engaged in a form of circle i.e. because of the low income, savings are low hence investments are low leading further to low incomes. In order to break away from the vicious circle of poverty. They therefore, need external finance. In Kenya, a number of formal financial institutions exist. There were a total of 55 Commercial Banks, 16 Non-Bank Financial Institutions, 3168 Savings and Credit Co-operative Societies, 8 Development Finance Institutions, 4 Building Societies and 2 Mortgage Finance Companies.

In Malawi, Nissauke (1991) noted that informal lending to the private sector was at least three times as great as that of the formal sector. This evidence was supported by Chipeta and Mkandawire (1993) who estimated the total amount of credit extended by the informal financial sector at K281.5 million compared to K107.9 million extended by the formal and semi-formal sectors. Leonard (1977) found out that in West Kwana State of Nigeria, 82 percent of available credit came from non-institutional sources while Ouma (1991) found that in Siaya District, Kenya, the Informal Financial Sector is more dominant than the Formal financial sector. In Ethopia, Mauri (1987) reported that informal finance was larger and growing much faster than formal finance. Miracle et.al (1980) and Seibel (1986) noted that there is a widespread use of informal finance in Francophone Africa. While they did not suggest any definite statistics, they suggested that households are more likely to use informal units for saving and borrowing than banks. USAID (1989) noted that informal financial markets may contribute the single most important route to broad based economic growth.Informal finance takes several forms, which include Rotating Savings and Credit associations (ROSCAs), mutual assistance groups, professional moneylenders, and part time moneylenders like traders, grain millers, smallholder farmers, employers, relatives and friends. Hyuha et.al (1993) argues that they must offer a particular service otherwise they would not have survived.

## 1.1 Statement of the problem

The role played by micro and small enterprises in Kenya in terms of income generation, economic diversification and dynamism has made the sector to be the last hope for future industrial growth and development. In order to succeed in playing this role, adequate finance is crucial at every stage of their development. Majority of the micro and small enterprise owners are too poor to enable them accumulate substantial savings for investments in income generating projects in order to break away from the vicious circle of poverty and therefore they need external finance.

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Although the Kenyan formal financial sector is quite well developed, it is unable to provide adequate finance to support firm growth. McCormick, Kinyanjui and Ongile, (1997) argue that one principal obstacle to firm growth is lack of external finance. This was confirmed by Namusonge (1999) who observed that entrepreneurs in Nairobi did not obtain the necessary financing required for expansion and growth. Atieno,(2001) also attributed lack of firm growth in Siaya to lack of external finance, while KIPPRA,(2001) argue that access to financial services has been identified as major problem experienced by many in attempts to do business in Kenya. In particular, the singled out access to credit by micro and small enterprises from formal banking sector as a major constraint to their development and growth.

For example, a 2001 survey of small and micro enterprises (Atieno, 2001) found that 86% of the entrepreneurs surveyed obtained their initial capital from informal sources while 87% got their operating capital from informal sources. Such informal finance is said to be very expensive and some researchers argue that interest rates in this sector are *usurious*. The most relevant question that arise is: why do people borrow informal credit rather than formal credit which is cheaper? This study attempts to answer this question.

### 1.2 Objectives of the study

The main objective of the study was to examine the factors that influence borrowing from the informal financial sector.

The specific objectives were:

1. To identify how socio-economic characteristics (Gender, Age, Education level and Marital status) influence borrowing from the informal financial sector.
2. To determine how loan characteristics (Collateral requirement, application fee, interest rates and period of loaning) influence borrowing from the informal financial sector
3. To identify how distance from borrowing source influence borrowing from informal financial sector.

1.3 Hypothesis of study

1. Socio-economic characteristics (Gender, Age, Education level and marital status) do not have any influence on borrowing from the informal financial sector.
2. Loan characteristics (Collateral requirement, application fee, interest rates and period of loaning) do not have an impact on borrowing from the informal financial sector
3. Distance from borrowing source does not have an influence borrowing from informal financial sector.

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## 2. Literature Review

### 2.1 Theoretical Review

### 2.2 The Informal Financial Sector

Informal finance has been defined to refer to all transactions, loans and deposits occurring outside the regulation of a central monetary authority (Atieno, 2001). In Africa, they take several forms which include Rotating Savings and Credit Associations (ROSCAs), cooperative savings associations, mutual assistance groups, professional money lenders and part time money lenders like traders, grain millers, small holder farmers, employers, relatives and friends.

Different countries however have got different forms of informal financial institutions. In Ethiopia, for example they have three types of institutions, the *Iqqub*, the *Inddis* and savings and credit co-operatives. The *Iqqub* is a form of traditional savings institution. It has evolved over centuries out of ancient customary institutions such as community labour exchange arrangements. It predates the emergence of modern banking system and is based on pre-established social ties (Aredo, 1993). It consists of homogenous groups: people from the same work place, ethnic background, trade, schooling background or neighbourhood. People from all walks of life participate in the *Iqqub* and the capital contributions vary according to the purpose of the *Iqqub* and the economic status of the *iqqub*. Weekly or monthly payments of a fixed sum are exchanged for the privilege of receiving a large sum at some point in the life of the group. They operate a lottery system of selecting who should be the beneficiary of the lump-sum at each particular time.

The *Iddis*, on the other hand, is an association made up by a group of persons united by ties of family and friendship, by living in the same district, by jobs, or by belonging to the same ethnic group, and has an object of providing mutual aid and financial assistance in certain circumstances. It is a sort of insurance programme ran by a community or a group to meet emergency situations. The first *Iddis* was established by three elders in 1948 with the original purpose of burying the dead. Today, however, they provide a much wider range of services including financial and mutual assistance and consolations to a member in the event of difficulties as well as entertainment as the case may be. Originally, membership was limited to the poor but in the recent years, people from higher income groups are also increasingly participating. Social ties are very important. A member is required to attend meetings, be present at funeral ceremonies and visit the sick. Powerful social sanctions and fines ensure that the by-laws are observed. Most of the common fund is deposited in the bank while a small sum of money is kept with the officials for emergency purposes. *Iddis* are often involved in community development programmes such as construction of roads or schools and installation of

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public utilities. (Aredo, 1993). Savings and credit co-operatives, on the other hand, were established in Ethiopia in the 1960s. They are associations of people with a common bond who save and lend money to one another at low interest rate for productive and provident purposes. They also teach people the wise use of their money and the efficient management of their limited pooled resources. They grant loans to members who might not qualify for credit elsewhere and who cannot afford the high loan rates offered in either the informal sector or by other types of financial institutions.

In Ghana, there are also various forms of informal financial institutions. They include the single collection *susu*system, rotating savings *susu* system, mutual assistance groups and private money lenders (Aryeetey and Gockel, 1999).The single collector *susu* system began with migrant Nigeria traders. A collector (usually male visits shops, work places, market stalls and homes at fixed times each day and collects funds towards a savings plan. Following the plan, a saver agrees to deposit a fixed amount determined by himself/herself in consultation with the collector for an agreed period of time usually a month after which period his/her deposits are returned less the agreed sum. In a number of cases, the saver may, in times of emergency, demand his/her money earlier than agreed. For most savers the collector retains the equivalent of a day's savings though in some cases they return the deposits in full. The presumption is that they are compensated with interest they earn on lending to the market women and others.

In Tanzania, informal finance institutions consists of family members, friends, neighbours and other households in the village. Studies conducted (FAO, 1974, Amani *etal*(1987), Ndashau (1990), Hyuha*etal*(1993) indicate that commercial lenders are a little importance in Tanzania. Ndashau (1990) observed that ROSCAS groups known as *upatu* or *mchezo*circulated a substantial volume of savings among the members. These are thrift groups formed to alleviate economic hardships resulting from an increased cost of living and inaccessible FFIs. The funds from participation in these groups were largely used to finance consumption and purchase of costly items such as furniture.

In Uganda, informal financial institutions range from local money lenders, rotating credit co-operatives to community savings and loan associations. There are no organised associations like the *susu* market in Ghana. The informal financial groups are themselves segmented and include activities in savings, credit and foreign currency. They are subjected to highly covariant risk given that their members are engaged in similar economic activities and are in the same income brackets. In Kenya, the informal institutions include relatives, rotating savings and credit associations, friends and neighbors and money lenders (Masinde and Nzioki 1991).

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Although mutual aid groups are formed largely for social welfare purposes, they have evolved to certain savings mobilization and credit facilities. Members tend to have the same characteristics, socio-economic backgrounds, needs, ethnicity, religion spatial location or other factors implying similarity for reasons of bonding. This bonding, which makes members individually and severally responsible for the actions of others in the group, is the security against default in situations of financial contracts, and the single most powerful mechanism for enforcing repayment. They are organized on social lines with very fee expressly aimed at financial activities of the nature that evolves at a later stage. There are also fixed fund associations whereby each member contributes a fixed amount of savings at regular intervals to a treasurer who in turn holds them for safe keeping then returns the lump-sum at the end of the period agreed upon. (Miracle *et al.* 1990). As in the mutual aid groups, membership is based on trust and personal knowledge in a voluntary association. These associations do not encourage borrowing by members. Money is in most cases deposited with a Commercial Bank or other financial institution as soon as it is collected and not withdrawn until the "sharing" day. Only in a few cases is borrowing allowed often at normal interest rate or a fixed fee. Non-members can also borrow from the fund at a higher interest rate but have to be guaranteed by a member. (Masinde and Nzioki, 1991).

Money lenders are independent short-term financiers who operate illegally under the cover of legitimate businesses. They prefer to lend to people with a fixed place of work or abode where they can easily be traced on case of default. This means that respondents who are hawkers, who do not conduct business in fixed locations, and may be reluctant to reveal their places of domicile for various reasons are excluded from participation (Masinde and Nzioki 1991). They are used as a last resort. Although they offer the advantages flexibility, availability and convenience, they tend to change high rates of interest as a premium for this advantage. In Western Nigeria, people seeking credit have been known to pledge their cocoa trees to such lenders (Adegboye, 1969). He noted that this practice is so common that he states that: there is virtually no village within the Western state of Nigeria where people do not practice the art of pledging cocoa trees."

### 2.2.1 The importance of the informal financial sector

Studies on informal finance 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 formal financial institutions (Chipeta and Mkandawire, 1994). The importance of this sector gained prominence following the works of Mckinon (1973) and Shaw (1973). They argue that restrictive government financial policies shift the allocation of investible funds away from the market and make this a function of government.

This happens as governments try and manage credit allocation through subsidies interest rates ceilings and direct intervention. As interest rates are kept artificially low, often in times of high inflation, the demand for loans is raised. At the same time, formal lenders may find the depressed normal rates unattractive as they are unable to adjust their cost structures adequately to meet the official standards. In attempting to cut back on supply, the shifting of loans to their least risky clients is expected to lead to many of the rationed out clients spilling over to informal sources of finance. Proponents of this view (eg. Fry 1995, Taylor 1983) argue that the existence of the informal financial sector is a reaction to policy distortions or financial repression. Since the informal sector is not subject to regulation, it is more efficient than the formal one. The remedy for this relative inefficiency of the formal credit market may be seen in financial liberalisation.

The other view, supported by Adams (1992), Wai (1992), VanWijnbengen (1982) is that the informal sector has a comparative advantage in some market segments notwithstanding financial liberalisation. They argue that while it is costly for formal institutions to acquire information, informal agents can utilise local personal information resulting in monopoly power. Moreover, weak legal systems inhibit contracts enforcement which results in credit rationing of potential borrowers without collateral. Informal agents can fill such market segments and collateral can be replaced by reputation, group responsibility and inter linked transactions. Several researchers (Aredo, 1993, Bouman 1977, Chandavaskan, 1985, Miracle et.al 1980, Bouman and Houtman 1988) support this view of the informal financial sector having certain advantage over the formal sector. The average scale of operation and cost of lending and recovering, they argue, is small; there is freedom of entry and exit and it is freed from Central Bank counters, information gathering is kept to the minimum while trust and first-hand knowledge of a participant are important and the purpose is for both consumption and investment.

Informal finance has been found to the more important than formal finance in different countries. In Ghana, for example, Aryeetey and Gockel (1991) found that informal savings constitute 60% of total financial savings in rural areas. Primary school children deposit a full day's pocket money with a chosen member of a *susu*group at school once a week in order to collect their entire savings at the end of the school term. They use the lump-sum to finance end-of-term celebrations or the acquisition of toys or clothes.Junior civil servants, teachers and artisans also set up savings clubs at their work places in which deposits are paid to members of the club in rotation. Lump-sums from these rotating savings help the savers make large purchases like refrigerators.

Fish traders in Ghana also form mutual assistant groups through which part of their contributions is used to finance fish purchases and control fish supply. Retired persons also form associations

for mutual assistance and their mobilized savings are used to provide various forms of audit to participants. Bank officials also get involved in activities of informal financial institutions pointing to the importance of informal savings operations. The usage of services of *susus* is not simply out of habit of tradition but the result of sound economic considerations.

In Malawi, Nissauke (1991) noted that informal lending to the private sector was at least three times as great as that of the formal sector. This evidence was supported by Chipeta and Mkandawire (1993) who estimated the total amount of credit extended by the informal financial sector at K281.5 million compared to K107.9 million extended by formal and semiformal sector. Receipts from the informal finance section was found to be spent on projects and items that promote development eg purchase or production of food, the construction or improvement of housing, and the payment of fees for school children.

Similar findings were reported in Tanzania by Ndashau (1990) who reported that funds from participation in thrift groups. Update *or mchezo* were largely used to finance the consumption and purchase of costly items eg furniture. Hyuha et.al (1993) concurred that in Tanzania credit from informal financial sector is not entirely used on "provident expenditures" or "wasteful consumption". It is moreover used by with small scale and large scale farmers. Hyuha et.al (1993) argue that informal sources of finance must offer a particular service otherwise they would not have survived. They argued that formal financial institutions and informal financial institutions operate some kind of monopolistic competition although some element of price leadership – a characteristic of oligopolistic markets can be discerned in such markets in developing countries. The informal sector does not therefore, thrive on the deficiencies of the formal sector alone. Consequently financial policy should take cognisance of this phenomenon. U Tun Wai (1977), in an attempt to measure the size of the IFS, estimated the ratio of agricultural and rural indebtedness to the claims of the, banking system on the private sector for 16 countries. He found out that in about half the sample the IFS was at least three quarters the size of the FFS. The implication of this is that official monetary data understates the volume of financial savings and credit in the economy and that monetary policy instrument could be targeted at a small portion of financial transactions.

Aredo (1993) argues that in a society where monetary relations have not yet sufficiently developed, culturally appropriate financial institutions will remain indispensable. People who might not qualify for bank loans or insurance policies resort to the IFS but even those who qualify for these facilities still use the IFS due to the additional benefits they get from them. Such benefits include social solidarity and friendship. This collaborates what Mauri (1987) had reported, that informal finance in Ethiopia was larger and growing much faster than formal finance in the mid-1980s.

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### 3.1 Sources of business finance

Equity financing

Maguire and Axcell (1994) define equity financing as exchanging a portion of the ownership of the business for a financial investment in the business. The ownership stake resulting from an equity investment allows the investor to share in the company's profits. They further postulates that equity involves a permanent investment in a company and is not repaid by the company at a later date. The investment should be properly defined in a formally created business entity. An equity stake in a company can be in the form of membership units, as in the case of a limited liability company or in the form of common or preferred stock as in a corporation.

Wang and Zhu (2013) ascertain that equity financing shows that firm's value would decrease with the uncertainty of equity financing, because of the relationship between firm's future cash and their financing policies. The numerical solution of the model suggests that the uncertainty of equity financing is one of the important factors affecting the choice of optimal capital structure, the greater the uncertainty is, the lower optimal capital structure is.

Conventional Debt Financing

According to Bhaird and Lucey (2011) Banks, credit unions and other financial institutions are commonly used by enterprise owners as a source of financing. The most common financing instruments used with debt financing are lines of credit or operating loans (used to finance inventory or accounts receivable), term loans (used to finance fixed assets, i.e., equipment and machinery), mortgages (used to finance purchase or construction of land and buildings), and credit cards. Most financial institutions will require a business to produce a detailed business plan before loaning them any money. These business plans commonly consist of financial statements for the business (including projections if the business is just starting up), a personal statement of net worth, a discussion on industry and target markets, management capability, etc., and a resume of business owner. Ismal, (2010) explains that equity and debt-based financing produce sustainable returns of bank financing. Moreover, they are also very resilient during unfavorable economic conditions. Second, the performance of service-based financing is very sensitive to the economic conditions.

Rotating savings and credit associations (ROSCAs)

Rotating savings and credit associations (ROSCAs) are the most prevalent forms of informal financial institutions in developing countries.A ROSCAS can be defined as "a voluntary grouping of individuals who agree to contribute financially at each of a set of uniformly-spaced

dates toward the creation of a fund, which will then be allotted in accordance with some prearranged principle to each member of the group in turn (Calomiris and Rajaraman, 1998)

A group of people gather for a series of meetings. At each meeting, everybody contributes to a common pot. The pot is given to only one member of the group. This member is then excluded from receiving the pot at future meetings, but still contributes towards it. This process is disbanded or begins another cycle. The pot may be allocated randomly (random ROSCAs), or through a bidding process (bidding ROSCAs). For random ROSCAs, while the original allocation order is chosen randomly, the order of the winners may, or may not, be repeated throughout the cycles until every member has received the pot. ROSCAs are popular among high- as well as Low- income households and flourish in economic settings where formal financial Institutions seem to fail to meet the needs of a large fraction of the population. They serve as a financial intermediary by transforming the bundled savings of a group into what might be considered a loan to one ROSCAS participant in each period (Klonner, 2003).

Banks and Other Commercial Lenders

Banks and other commercial lenders are popular sources of business financing. Most lenders require a solid business plan, positive track record, and plenty of collateral. These are usually hard to come by for a start- up business. Once the business is underway and profit and loss statements, cash flows budgets, and net worth statements are provided, the company may be able to borrow additional funds (Klonner, 2003).

Socio-Economic characteristics

Nguyen (2007) applies probit model to estimate credit program participation and Tobit model to estimate loan amount received. By separating the source of loan, he expects that the determinants of credit participation will be different as the eligible requirements for borrowing are different between sources. He specifies credit program participation or the loan size as a function of household characteristics including gender of household head, age of household head, number of household members, education level of household head, agricultural work, value of house and land holding size; and of commune characteristics including distance from commune to the nearest Government banks and distance from commune to the nearest. His findings are: Number of members in a household is found to have a large and significant effect on credit participation, especially from formal source. Farm work is also significant. Household is more likely to borrow if head of household is working in agriculture or self-business.

Shah, Hashmi and Bukhari (2005), studied the determination of credit programme participation and socioeconomic characteristics of beneficiaries. The study used a survey data of rural

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household collected by the rural community development Society, a Pakistani NGO in the year 2004. A sample of 910 from district Sargodha was taken from low income category of population with average monthly income Rs. 3872. The data included but not limited to household characteristics including size, composition, employment, expenditures and borrowing. They further found that there were two different steps in the mechanism involved in credit programme participation. First, people willing to borrow fix on their required amounts to apply for, from a particular agency/lender at the existing rate of interest, making demand side. In the next step lender decides to whom he had to fund and how much, it was the supply side. The access to formal and informal loan was determined by the interaction between supply and demand for loan. The access to formal credit sector was constrained due to the institutional limitations. The formal sector specialized in lending for production purposes whereas the informal sector's lending was varied. The formal lenders adopt severe collateral pre-requisites to minimize evasion, thus separating poor from the process. Reputation, the dependency ratio of households, and the amount of credit applied for by the household were identified as the determinants of credit rationing by the bank. The low level of returns, asset growth and limited formal lending for consumption smoothening, make the poor household unattractive and render a high-risk contour for formal lenders. So they move to the informal credit market to meet their credit demands.

By using a micro-econometric analysis of household surveys, Duong and Izumida (2002) examined the rural household participation in the Vietnamese rural credit market. The empirical results showed that due to segmentation of rural credit market in Vietnam, households are rational in deciding the sources from which they should ask for particular kinds of loans. It was found that, total farming area and total value of livestock are decisively the determinants of borrowing by households from the formal financial institutions.

Togba (2009) also studied about the effect of individual and household level characteristics on credit source choice. He found that the choice of a credit source depends on the income, age, marital status and employment status of an individual. The probability to borrow from formal MFIs source increases as the income of an individual also increases than the informal source for all categories. These marginal effects are significant and very higher. This is mainly because as the income increases, the ability of a household to service the loan also increases. Formal MFIs were found to have restrictions on the strong ability of an individual to service the loan according to the level of income of an individual. In his study, he also found that the probability of participating of bank credit program is lower when the household head is aged between 40 years and 59 years. Household demographic profile of the 1286 respondents surveyed indicates that the average age of a household head was 43 years and about 84.06% of them fall in the economically

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active population (ages 18-59). Majority of household heads (53.03%) had no formal education. Approximately 19.75% and 22.55% had low and medium education level respectively. Male-headed households constituted 82.89%. The average household size was 5.65 persons per household with an average proportion of 82.89% of female and 17.11% for male. He therefore concluded that age is an important factor in determining the source of credit source. From this data, the probability to choose formal MFIs source is greater for married and unmarried household heads. The positive and marginal effects show that the marital status was not the requirement to fill before obtained the loans. So, there was no discrimination between the several statuses. When the household head is unemployed, the probability to choose bank is lower than the probability of choosing informal. The reason is there is no future revenue from those persons. So they represent the higher risk people and that lead the bank to ration them. Knowledge of that will made the unemployed prefer the informal source.

The results of multinomial logit of respondents choice of formal or informal as a source of credit was also obtained by Ajagbe (2012) in his study about multinomial regression of whether Individual have access to credit or do not have access. Each respondent was able to choose one of the five credit institutions as his/her preferred source of credit. There were negative relationship between age attained by respondents and accessibility to credit from relatives/friends and bank. This implies that the more the number years of an individual the less productive such as individual in economic activities hence the lesser the ability to pay back the loan. So people will not be willing to extend credit facilities to aged entrepreneurs because of fear of default. The membership of the enterprise ownership has a negative impact on access to bank loan and relatives/friends credit. This shows that membership of the entrepreneur were not credit-worthiness, have no total control over their business and lack of the collateral to secure credit from commercial banks and relative/friends. Plausible explanation for positive coefficient of education status might be because the more an individual attain higher educational status the more the number of his/her friend/relatives that can assist him/her in terms of financial needs without any serious problems. Also the higher the educational status of an individual the higher the credit worthiness of such an individual from the banks (Mpuga, 2008).

A study by Awunyo and Abankwah (2012) in Ghana about Formal and Informal Credit Demand by Farmers in Ghana stated that gender of the farmer has positive and significant relationship with demand for formal credit. Their regression studies show that male farmers are more likely to demand formal credit as compared to their female counterparts. They confirmed this from the result of Zeller (1998) who observed that women in Madagascar are less likely to demand credit from formal financial institutions compared to male. In addition Steiner (2008) in a related study in Ghana observes that female headed households are less likely to demand formal credit.

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Though, gender positively and significantly influence demand for both formal and informal credit its marginal effect on formal credit (9%) is stronger than informal (5%). This is because women control few assets, cultivate smaller acreages with low productivity and this does not give them collateral security which is one of the major requirements for formal credit.

Chavis et al (2008) did a study on different financing sources for new and young firms. They used a unique dataset from over 170 surveys, which contained about 70,000 firms, most of which were small and medium sized (SMEs) in 104 developing and developed countries, including many low-income countries. They addressed two types of questions: (1) the relationship between firm age and sources of external financing, and (2) the differential impact of business environment on access to financing by young versus older firms. As expected, they confirmed that in all countries' younger firms have less reliance on bank financing and more reliance on informal financing. The relationship with operations finance, which consists of trade credit, leasing and credit cards, was less associated with firm age, although there was some weak evidence of a negative relationship between firm age and the use of trade credit and leasing for new investment. Most interestingly, they explored the interaction of firm age and the business environment and the relative impact of the business environment on a young firm's mix of financing sources. They found that younger firms had better access to bank finance in countries with better rule of law, than they are in countries with worse rule of law. In other words, while younger firms have less bank access in all countries, they had worse access in countries with poor rule of law. Similarly, they found that credit information had a differentially positive effect on the use of bank finance by young firms; this highlighted the importance of personal credit histories for entrepreneurs without business track records. In parallel, they found that the use of informal finance by young firms' decreases in countries with better credit information, reaffirming that informal finance was a second-best substitute to formal finance. Our results are robust to the sub-sample of individual and family owned firms and sole-proprietors. Overall, their results suggest that improvements to the legal environment and credit information infrastructure are disproportionately beneficial for promoting access to formal finance by young firms.

The other demographic variables that have statistically significant effects on the extent of access to formal credit according to Diagne (1999) are household adult population size and dependency ratio, the number of wholesale buyers coming to the village, distance to the home of the field credit officer, distance to the trading center, and distance to the post office. Except for the distance to the post office, the coefficients of these community "infrastructure" variables have the expected signs. Indeed, for logistical and economic reasons, one should expect the credit programs to tend to locate in trading centers and be willing to lend more to households from

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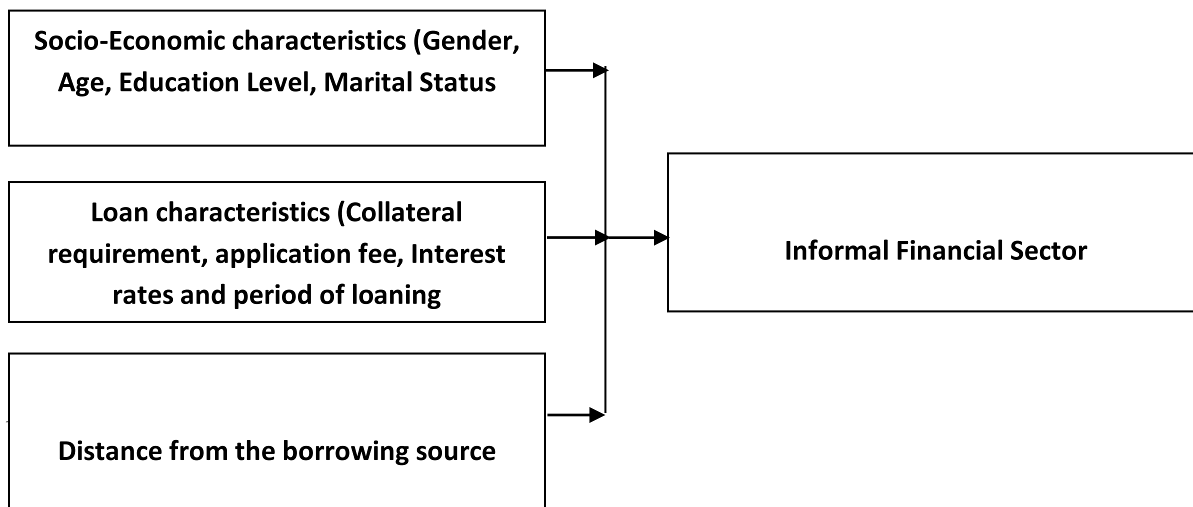
villages with higher levels of economic activity. Finally, he did a regression analysis on gender, education, and occupation and found that the three have no significant effect on access to both formal and informal credits. He concluded that the composition of household assets is much more important as a determinant of household access to formal credit than the total value of household assets or landholding size. In particular, a higher share of land and livestock in the total value of household assets was negatively correlated with access to formal credit. However, landholding size remained a significant determinant of access to informal credit.

Awung (1989) who did a research about Micro-credit, Financial Sector Reform and Welfare took a sample of 250 respondents evenly distributed in Cameroon and found that financial institution participation is a breakdown of the manner in which the respondents are members of financial institutions by sector and by sex. His study revealed out that most of the respondents belong to one form of financial institution or other. Informal financial institutions or rotating savings group are the most popular: 30.4 per cent of the male respondents and 14 per cent of female respondents are members of informal financial institution. A closer look at the female data will reveal that close to half of the female respondents are members of informal financial groups. Only 4.1 per cent of women patronize commercial banks. This may be due to the fact that banks are still inaccessible for most women who find it hard to meet their requirements such as collateral and the huge amount needed to open an account. About 20 per cent of the male respondents belong to a formal financial group.

Conceptual framework

INDEPENDENT VARIABLES DEPENDENT VARIABLE



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The study used both primary and secondary sources of data. Secondary data comprised mainly desk review of published information on informal finance and micro and small enterprises. It was collected from libraries and the Internet. It assisted the researcher in identifying the variables on which data was collected. Primary data was collected using questionnaires, face to face standardized interview schedules, interview guides and observation. The data was collected by the researcher with the assistance of four research assistants. The research assistants were trained before embarking on the exercise. Data was collected on a wide range of variables which included the sources of finance for MSEs, the interest rates charged, how credit risk is managed and the uses to which the credit is put. Specific data was collected on the factors which motivate borrowers to use the source of finance which included cost, convenience, terms of payments, collateral requirements and other factors which in their view motivates them to borrow from the informal financial sources. The target population of this study was the micro and small enterprises in Thika town. The micro and small enterprises were chosen because they are the most likely clients of informal finance. Due their small size, they are unlikely to have collateral required by the formal lenders. Their little daily savings may be too little to be accepted by banks and hence they are unlikely to have bank accounts. Thika was chosen because of several reasons. First, the researcher is familiar with the area and so little time was to be spent familiarizing him with the area. Second, it was near the University and so travel time to the field to collect data and supervise research assistants was minimal. Third, the researcher resides in the area and so no additional cost for accommodation was to be incurred. Fourth, the researcher is conversant with the local language and so no communication barrier was to be encountered.

Thika was moreover likely to give a fair representation of different types of economic activities engaged in by micro and small enterprises. Different types of informal credit mechanisms flourish in the area since the bulk of the urban trade takes place there. Being an industrial town, where the majority of urban dwellers are precluded from the formal financial institutions due to lack of title deeds and other tangible securities. Finally, survival mechanisms are most crucial in the urban setting where the livelihood of the family may be dependent on the micro and small enterprises. A list of all Micro and Small enterprises was obtained from the municipal Council. They were clustered by the activities they undertake. In total, a sample of 200 enterprises was selected for the study. A structured questionnaire was used. Interviews were conducted face to face with the micro and small enterprise owners on their sources of finance and what influences them to use them. Face-to-face interviews have advantages in that the length of face-to-face contact helped the interviewer to develop rapport with the respondents. This rapport facilitated responses to sensitive questions. The data on sources of finance was analyzed and the most important source of informal finance was selected for in-depth study. The enterprise owners

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who do not use informal finance were taken as the control group. The respondents who use the informal sources were requested to identify the lenders who were studied.

## 4. Research Findings and Discussions

### 4.1 Demographic characteristics of the respondents

Male respondents were 113 representing 56% while female respondents were 87 making the remaining 44% of the respondents. Out of the entire response, a total of 155 respondents were married comprising of 78% while the rest 45 (22%) were single. Concerning education level, those that had only primary level education were 21 (11%), O – Level were 163 (81%), while those that had college education were 16 (8%). When asked about who manages the enterprise, all the respondents 200(100%) said that it was managed by the owner.

The mean age of the respondents was 32 years. However, their age ranged from 23 years to 48 years. This shows that the respondents were at the economically active ages. The money used to start the business at average was Ksh. 24555 ranging from Ksh. 30 to Ksh. 500,000. This shows that a higher percentage of respondents started their enterprises with less money compared to those who started with higher amount of money. Savings per month averaged at Ksh. 2236 ranging from Ksh 500 to Ksh 15000. The minimum savings before borrowing averaged at Ksh 7804. This is an indication that after borrowing to start the enterprise, the respondents saved less than before borrowing, showing that some money that could have been saved had now been made into use. The amount last borrowed was within Ksh 1000 – 500000 with a mean of Ksh 16116, while the application fee paid was within Ksh 100 – 3000 with a mean of Ksh 719. The period of loaning ranged from 2 days to 180 days with an average of 22 days. Table 4.1 represents frequencies and percentages of the non-continuous variables while Table 4.2 represents means and standard deviations of the key continuous variables used in the analysis:

Table 4.1: summary statistics (Non-continuous variables)

| variable | Categories | Frequency | Percentage |
|---|---|---|---|
| Gender | Female | 87 | 44 |
| | Male | 113 | 56 |
| Education | Primary | 21 | 11 |

| | | | |
|---|---|---|---|
| | o-level | 163 | 81 |
| | College | 16 | 8 |
| marital status | Married | 155 | 78 |
| | Single | 45 | 22 |
| Manager | Owner | 200 | 100 |

Table 4.2: summary statistics (Continuous variables)

| | N | Mean | Standard Deviation | Min | Max |
|---|---|---|---|---|---|
| Age (yrs) | 199 | 32 | 5 | 23 | 48 |
| Money used to start | 200 | 24555 | 44645 | 30 | 500000 |
| No. Of employees | 119 | 2 | 1 | 1 | 6 |
| Savings per month | 199 | 2236 | 1819 | 500 | 15000 |
| Amount last borrowed | 198 | 16116 | 46604 | 1000 | 500000 |
| Application fee paid | 120 | 719 | 506 | 100 | 3000 |
| Distance from source of borrowing (mtrs) | 197 | 5144 | 11535 | 2 | 50000 |
| Minimum savings before borrowing | 126 | 7804 | 29785 | 200 | 200000 |
| Period of loaning (days) | 196 | 22 | 31 | 2 | 180 |

Factors Influencing Informal Borrowing

Informal borrowing comprises all financial transactions, loans, deposits outside the regulation of the central monetary authority. They include ROSCAS and family/friends. On the other hand,

formal institutions include commercial banks and all those sources which are regulated by the central monetary authority. Results from table 4.8 indicate that individual borrowers choose to borrow from informal financial sector because of various reasons. Out of all the respondents who chose to borrow from informal sources, 27(14%) of them said they chose informal because formal, in this case banks, charged them high interest rate

Table 4.8 Factors influencing informal borrowing

| Factor | Frequency | Valid Percent |
|---|---|---|
| Banks have high interest rates | 27 | 14 |
| Informal sources are cheap | 90 | 46 |
| Easy accessibility | 36 | 18 |
| You must have an account in Order to get bank loan | 11 | 6 |
| They are far away | 15 | 8 |
| Banks have long procedure | 7 | 4 |
| many don't know how banks operate | 11 | 6 |
| Total | 197 | 100 |

Table 4.9 indicates the feeling of borrowers about banks and how they charged interest rates. Majority of respondents (71%) had a feeling that banks charged high interest rates and only a minority of 21% agreed that banks' interest rates were appropriate. From table 4.8, another reason cited by borrowers to choose informal sector was that informal sources were cheap. This had a response of 90(46%) which was a response from the majority. 36(18%) of the respondents believed that informal sector was easy to access and therefore preferred it. The other 11(6%) believed that for you to get a loan from banks, you must have an account with banks for them to consider you. For you also to have an account with a bank, it meant that you have to incur extra cost to maintain the account and therefore, banks have to have your financial history to consider you for a loan. This made it difficult for the respondents to choose banks as their sources of borrowing but rather chose informal financial sources. Most of the banks were too far. This was an opinion from 15(8%) respondents. The distance between the borrowers and respondents was

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great and therefore made it difficult for them to access them. Other respondents, 7(4%), believed that banks had long procedures which made it difficult for the borrowers to access credit. This made them opt for informal financial sector. Finally, 11(6%) of the respondents said that a good number of borrowers did not know how banks operate. They therefore had a low profile on the operations of banks and therefore opted to get their funding from informal sources.

Table 4.9 Feeling about interest rates charged by banks

| Feeling | Frequency | Valid Percent |
|---|---|---|
| Appropriate | 35 | 26 |
| High | 95 | 71 |
| Exploitative | 2 | 1 |
| Not applicable | 2 | 1 |
| Total | 134 | 100 |

Multinormial logistic regression results for borrowing from informal sector (z values in parenthesis)

| Variable | Bank | ROSCAS | Family members |
|---|---|---|---|
| Gender | .25984254 | .51226227 | .2472878 |
| | (1.25) | (1.18) | (0.54) |
| Age in years | -0.65484525 | -0.0620522 | -.190707 |
| | (0.2315) | (0.180) | (-3.40)* |
| Education level | -.158658 | -.1365305 | .1230123 |
| | (-0.256) | (-0.26) | (0.22) |
| Marital status | -.5325879 | -.6766788 | -.5266287 |

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| | | | |
|---|---|---|---|
| | (-1.58) | (-1.07) | (-0.84) |
| Collateral | 0.3564895 | 0.209674 | 0.968475 |
| | (-3.46)* | (0.66) | (0.50) |
| Application fee | 0.2145324 | 0.032467 | 0.004236 |
| | (0.68) | (-3.67)* | (0.82) |
| Interest rate | 1.2548682 | 0.0245687 | 1.728607 |
| | (0.23) | (-3.58)* | (1.40) |
| Distance from borrowing source | 0.0000254 | 0.0000714 | -0.0000979 |
| | (0.53) | (0.64) | (-0.27) |
| Period of loaning | 0.0021548 | 0.0014584 | 0.060411 |
| | (1.25) | (0.14) | (1.17) |
| Constant | 5.235846 | 4.023563 | 7.292525 |
| | (2.66) | (2.66) | (2.66) |

Number of observations = 192 L.R $chi^2$ (8) = 24.48

Log likelihood = -181.13766 Pseudo $R^2$ = 0.0633

Discussion of Results

The table shows the relationship between entrepreneurial characteristics and borrowing from informal sector.

Gender

The coefficient for gender, which was measured by a dummy variable, 1 for males and 0 for females, is positive but not significant for borrowing from bank and ROSCAS. This signifies that the choice of borrowing from a bank or ROSCAS is not determined by the gender of an

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individual. Both male and female can borrow from bank or ROSCAS at an equal measure. The coefficient for gender borrowing from family members is also positive but insignificant. To borrow from a family member, males and females can borrow at equal measure.

Age in years

The coefficient of age in years is negative but not significant for borrowing from either a bank or ROSCAS. It implies that borrowing from banks or ROSCAS cannot be determined by the age of an individual. A young or an old individual can borrow from either a bank or ROSCAS at an equal measure. The coefficient for borrowing from family members is negative but significant implying that young people are likely to borrow from family members than old people. This may be due to the fact that majority of the young people are dependent on the old and other family members. As age increases, the probability of borrowing from family members decreases. As the age grows, the rate of independence grows and therefore the old becomes mostly independent.

Education level

The coefficient for education level is negative but not significant for borrowing from either a bank or ROSCAS. This implies that the level of education of an individual borrower does not determine if he/she can borrow from a bank or ROSCAS. The less educated and the highly educated can borrow from a bank without any privilege attached. On the other hand, the coefficient for borrowing from family members is positive and insignificant. It implies that it does not matter the level of education for an individual to decide to borrow from family members.

**Marital status**

Marital status was measured by a dummy variable with a value of 1 for married and 0 if otherwise. The coefficient of marital status for borrowing from a bank or ROSCAS is negative but not significant. It means that an individual's marital status does not determine if he/she can borrow from either a bank or ROSCAS. Those who are married or those who are single can borrow from either a bank or ROSCAS without any restrictions attached. The coefficient of marital status for borrowing from family members is negative and insignificant too. The marital status does not determine if an individual can borrow from a family member.

**Collateral**

Collateral is an asset of the borrower that is automatically transferred to the lender should the project revenues not be sufficient to repay the loan in full. Collateral was measured as a dummy

variable with presence of collateral taking the value 1 and the absence of collateral zero. The coefficient of collateral for borrowing from a bank is positive but significant for borrowing from a bank. In practice banks only accept stringent collateral such as certificate of land right of use and real estate, which makes small and medium enterprises' availability of bank loan more difficult. The coefficient of collateral is positive but not significant for borrowing from ROSCAS. This implies that for an individual to borrow from ROSCAS, lack of collateral does not bar him/her. Similarly, the coefficient for collateral is positive and insignificant for borrowing from family members. It signifies that for an individual to borrow from a family member, he does not need collateral for the transaction to be completed.

Application fee

The coefficient of application fee for borrowing from a bank is positive and insignificant for borrowing from a bank. This indicates that application fee is not a necessity for a borrower to get a loan from banks. Banks do not put it as a requirement for one to access funding from them. On the other hand, the coefficient for application fee is positive and significant for borrowing from ROSCAS. This is an indication that application fee is crucial in the borrowing from ROSCAS. As the application fee increases, people tend to run away from ROSCAS to a source of borrowing with a favorable amount of application fee. On the other hand, the coefficient for application fee requirement is positive and insignificant for borrowing from family members, an implication that application fee is not needed when borrowing from family members.

**Interest rate**

The coefficient of interest rates for borrowing from banks is positive but significant. This implies that interest rates are an important factor to consider in accessing funding from banks. As interest rates increases, borrowers tend to shift to other sources of finance other than banks. For banks also to get profits, they must set interest rates at a point acceptable by the public. On the other hand, the coefficient for interest rate is positive for borrowing from ROSCAS but insignificant. This is an indication that interest rates movement does not determine borrowing from ROSCAS. It is a similar situation where the coefficient for interest rates is also positive for borrowing from family members, an indication that interest rates are not a necessity in borrowing from family members.

**Distance from borrowing source**

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The coefficient of distance from borrowing source for borrowing from a bank is positive but insignificant. This implies that borrowers do not get determined from where they borrow from by the distance but other factors. The coefficient of distance from borrowing source is positive for borrowing from ROSCAS but insignificant. This implies that for an individual to borrow from a ROSCAS, the amount of distance to that ROSCAS does not influence him in borrowing from that ROSCAS. On the other hand, the coefficient of distance from the borrowing source is negative but insignificant for borrowing from family members, an indication also that distance is not a factor considered in borrowing from family members.

**Period of loaning**

The coefficient of period of loaning for borrowing from a bank is positive but insignificant. Borrowers does not have period of loaning as a factor to consider when deciding to borrow from a bank. The coefficient of period of loaning for borrowing from ROSCAS is positive and insignificant. This is an implication that period of loaning is not a factor to consider when borrowing from ROSCAS. On the other hand, the coefficient of period of loaning for borrowing from family members is also positive and insignificant. This is also an indication that period of loaning is not a factor to consider in borrowing from family members.

## 4. Summary of the Findings

The study examined the factors influencing borrowing from the informal financial sector. It specifically touched on demographic characteristics of individual borrowers like gender, age in years of borrowers, educational level and marital status. It also touched on collateral requirements by both formal and informal financial sector, borrowing application fee, distance from the borrowing sources and the period of loaning. The study wished to find out how these factors influenced an individual to choose to borrow from informal financial sector than borrowing from formal sources like banks. Data was collected from 200 micro and small enterprises within Thika Municipality.

Concerning gender, 56% of the respondents were males while on the other hand, the remaining 44% were females. A total of 155 respondents representing 78% were married while 45 respondents representing 22% were single. About the education level, 21 respondents, representing 11% had attained only primary level of education while a majority of the respondents, 163 representing 81% had attained O-level education. The rest 16 respondents representing 8% had attained college level of education. All the respondents 200(100%) were the managers of their enterprises. The mean age of the respondents was 32 years. However, their age ranged from 23 years to 48 years.

The sources of capital of these enterprises ranged from savings, manual work, borrowing, family and friends to hawking. Majority of the respondents depended their source of capital from their savings. This was represented by 42% of the respondents. Borrowing became second with a response of 76% percent. The rest shared the remaining percentages. Concerning sources of borrowing, majority of respondents depended on ROSCAs as their major source of borrowing with women taking the highest percentage (27.5%) of borrowing from ROSCAs. This was also replicated by the highest percentage of the married respondents (38%) opting to borrow from ROSCAs. Family/friends followed ROSCAs closely with a response rate of 73(37%) with women still leading the response with 19% while male taking 17.5% of the response. Banks were the least sources to borrow from which had a response of 6 respondents which represented 3%.

Concerning factors influencing informal borrowing, majority of the respondents gave reasons that were against banks and other commercial formal sources. For example, majority of the respondents, 90(46%), said that informal sources were cheap. This was followed by 36(18%) respondents who actually said that informal sources were easy to access as compared to formal sources. 27% of the respondents said that they avoided commercial banks and other formal sources because banks have high interest rates and was expensive for them to service their loans. Other respondents said that for you to access loans from formal sources like banks, you have to possess an account with banks (6%), banks are far away from them thus eliciting some other expenses to reach them (8%), banks had long procedures to follow in order to access loan (4%) and finally respondents avoided banks because most of them don't know how banks operate (6%)

## Conclusion

The study concluded that ROSCAs were the most preferred source of borrowing. This was because it had the highest response of 46%. This was followed by borrowing from a family member or friend with a response of 37% and then other microfinance institutions. All these are informal financial sources, leaving a conclusion that informal sources were the most preferred sources of finance. Borrowing from commercial banks and other formal sources became distant last with a response of only 3%. The reasons given by respondents as per why they did not consider formal sources for example banks to finance their enterprises include, banks have high interest rates, informal sources are cheap, informal sources have easy accessibility, an individual must have an account in order to get bank loan, most of the banks are far away, banks have long procedure andmany don't know how banks operate.

The results also concluded that due to their nature, females were the most ones to depend on borrowing from banks, ROSCAs and from family members to finance their enterprises.

According to marital status, the majority of the married individuals (38%) borrowed from ROSCAs.

The multinormial logistic regression results for borrowing from informal sector indicated that gender was insignificant for borrowing from banks, ROSCAs and from family member or friend. This indicated that an individual's gender does not determine if he/she has to borrow from the above three sources. The age of an individual was insignificant for borrowing from banks and other informal sources. This was a indication that both the old and the young can borrow from banks at an equal measure. But on the other hand, in borrowing from family members, aage was a factor to be considered.

Collateral was sisnificant for borrowing from banks. This necessitated to the difficulty of households obtaining loans from formal sources such as banks. It therefore forced those who needed credit to look for other means that can satisfy their credit needs. This made the respondents opt for informal sources of finance which appeared not to be very strict on collateral but rather the ability to pay. The requirement of collateral by banks and other formal sources was a major issue that has always hampered the access to credit by small scale entrepreneurs. Collateral was not significant in borrowing from ROSCAs. This meant that ROSCAs could provide loans to individuals even without collateral but showing an ability to pay. Equally, collateral was not significant for borrowing from family members or friends. Application fee was insignificant for borrowing from banks but significant for ROSCAs. For an individual to be recognized as a member of aROSCAs, it is a requirement that he/she has to register with some given fee as a sign of commitment to that ROSCAs. It was insignificant for borrowing from family members and friends.

Concerning interest rates, for borrowing from banks, it was significant. The estimation results show that interest rate is a factor to consider when borrowing from banks and any formal financial sources. It is believed that banks' major goal of existence is to lend money to borrowers and therefore must charge some specific interest rates on the amount borrowed. If interest rates are charged highly, borrowers tend to divert their borrowing to other sources because they cannot be able to finance their loans. For borrowing from ROSCAs and family member or friend, interest rates were insignificant.

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