The Impact of Attitudes towards Saving, Borrowing and Investment on the Capital Accumulation Process in Kenya: An Application of the Theory of Planned Behavior

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Abstract
The role of attitudes of the entrepreneurs toward saving, investment and borrowing to invest is an important factor in economic development. This study examined how attitude influences the amount and form of funds saved, borrowed and invested by Micro and Small Enterprises (MSEs) in Kenya. It also examined the instruments used for saving, the sources of finance and how these combine to influence the capital accumulation process and poverty alleviation efforts. A survey of MSEs in Ongata Rongai Township showed that attitudes of MSEs influenced their saving, investing and borrowing behavior. This relationship is positive and significant. The MSEs prefer saving with banks but not Microfinance Institutions (MFIs) and other traditional instruments. The MSEs have a positive attitude toward saving, borrowing and investment. However, they are noncommittal to borrowing from the formal financial system. Those who borrow prefer banks to MFIs. This is attributed to the high interest rates, long procedures for obtaining loans, and the rent seeking behaviour of some officers of the MFIs. The MSEs rely mainly on their savings as a source of finance for investment. Reliance on internal finance means that MSEs must first accumulate savings before investing. Since the amounts saved by most MSEs are small and credit is limited, the amount invested and the returns on investment are also small. Thus the capital accumulation process is long and arduous. This could partly explain why we seem to be loosing the war against poverty in Kenya. Therefore any form of intervention to alleviate poverty through microfinance must seriously consider the attitudes and intentions of those being targeted.

Keywords: Attitudes, Micro and Small Enterprises, Intentions, Saving, Investment, Borrowing, Capital Accumulation, Theory of Reasoned Action, Theory of Planned Behavior, Subjective Norms, Beliefs, Significant Others, Intention.

1. Introduction
Economists consider the attitude of entrepreneurs toward risks and risk-taking as one of the important factors that influence the rate of economic growth and development in any economy. (Smith, 1776; Weber, 1958; Banfield, 1958; Landes, 1998; Tabellini, 2003; Chua, 2004; Guiso, Sapienza and Zingales, 2004; Clark, 2007;). For example Kaldor (1934) argued that the transformation of the traditional structures of production by entrepreneurs who seek risks and profit is crucial to economic development. Furthermore, he contended that the emergence of a class of entrepreneurs is the product of social factors and cannot be attributed to any economic or technical factors.

Attitude is defined as a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavor (Eagly and Chaiken, 1993). An attitude has the cognitive, affective and behavioral components. This view of attitudes has a direct impact on the way people who hold them behave toward specific attitude objects. For instance, MSEs with positive attitudes toward credit will tend to borrow more than those with negative attitudes towards debt. This study examined the role of the entrepreneur’s attitudes in the capital accumulation process. Attitudes would influence saving, borrowing and investment. When MSEs rely solely on their savings to finance investments it takes a long time to accumulate appreciable amounts of capital. However, by borrowing funds from credit institutions, MSEs can quickly accumulate capital. This is because they can improve their incomes and wealth through undertaking larger and more viable investments. Consequently, this reduces the incidence of poverty in the society.

The objective of this study is to inquire into the attitudes of MSEs toward saving, borrowing and investment and how this affects the capital accumulation process. Several studies have examined the factors that determine saving and investment yet the role of attitudes have not been explored. The study also examined the forms of saving used by MSEs. Knowledge of the instruments preferred for saving, borrowing and investment helps to improve policy making as well methods of intervention in this sector.

This paper is organized as follows. Section 1 is the introduction, which presents the role of saving, investment, and credit in the capital accumulation process. Section 2 discusses the underlying theory on the impact of attitudes on behaviors. In section 3 the research methodology is presented. The results of the study are discussed in section 4 while section 5 provides the conclusions and section 6 discusses policy implications.
1.1 Saving, Investment and Economic Growth
Poverty can be alleviated through improved income and accumulation of capital (Nayaran & Petesch, 2007). It is a stylized fact that the poor do not have access to credit from the formal financial institutions and this is one of the major obstacles to escaping from poverty (Nayaran & Petesch, 2007). The alternative financing sources are informal (Ouma, 1990). The amounts that can be borrowed are limited and/or the interest rates charged are very high and prohibitive to the potential borrowers. Therefore, most MSEs usually rely on their own limited means to survive and grow. Through saving over extended period MSEs accumulate enough capital to invest in their small ventures.

Many economists have examined the factors that determine savings. For instance, Ando and Modigliani (1963) argued that savings depend on lifetime income, wealth and returns on savings. Torado (1990) asserts that the level of dependence among a population affects savings. There is a consensus among economists that the level and rate of saving in a nation depends on five macroeconomic policies. These are the credit and monetary policies, fiscal policy, trade policy and exchange rate policy.

In addition to saving, MSEs must invest in order to earn profit. This surplus can be used to increase capital and improve welfare. Investment involves sacrifices of current consumption to achieve a high output later than it would otherwise be possible. Consequently a low level of income and wealth will constraint investment. The level of investment plays a dual role: it affects income in the short-run and capital accumulation in the long run. The determinants of investment are income, expectations and the entrepreneurs’ confidence in the future. The expectations about the performance of the economy and the policies of the government influence how much will be invested and where. For instance, in 2003, when this study was done, MSEs were expected to pay tax to the government. Many of the MSEs that were interviewed were apprehensive and were contemplating switching to other ventures beyond the reach of the Kenya Revenue Authority.

The traditional instruments for saving include keeping cash in the house or granary, investing in livestock, purchasing farm tools and equipment (Ouma, 1990). Today several financial assets exist through which savings can be accumulated. These include fixed deposit accounts, savings accounts, mobile phone money accounts, treasury bills, stocks, property and debentures (Lofthouse, 2001). The MSEs also save through merry-go-rounds, and rotating savings and credit Societies (ROSCAs). Therefore, this study inquired into the attitudes towards and the popularity of these forms of saving given the recent developments in the financial sector in Kenya.

1.2 The Role of Credit in Economic Growth and Development
McKinnon (1973) in his seminal work entitled Money and Capital in Economic Development strongly argued that reliance on self-finance retarded economic growth. Under self-finance, the investor must first accumulate capital before undertaking any investment. He contended that given low savings in developing Countries this process is necessarily long. The role of credit would be to reduce the entrepreneur’s over-reliance on internal finance and therefore increase the size of projects undertaken and the volume of investment in the economy. An increase in investment working through the multiplier increases income, output and economic growth.

The main problem facing MSEs in developing countries has been the limited access to credit. This has been attributed to a number of factors like lack of collateral, high-risk profile of MSEs, an oligopolistic banking sector and generally bias by commercial banks against the MSEs. However, with increasing competition in the banking sector many financial institutions have began to lend to MSEs. But many MSEs still complain about experiencing problems in obtaining loans for business expansion.

What has limited MSEs access to formal credit markets? In order to inquire into this question this study examined the attitude of MSEs toward borrowing. Other studies done in this area have not considered entrepreneur’s attitudes. Yet as correctly argued by Schumpeter (1934), Weber (1958), Boeke and others, this is an important determinant of risk-taking and profit making. In particular this study answered the following questions: How does the MSEs attitudes influence the form and amount saved? How does the MSEs attitudes affect the choice and amount of investment? What is the attitude of MSEs towards borrowing from the formal financial system? What factors determine the form and amount borrowed?

2. The Impact of Attitudes on Entrepreneurial Behavior
The relationship between attitudes and behavior is controversial. The bone of contention is on the link between attitudes and behavior. Obviously, many factors impinge on an individual’s behavior and attitude is only one among them. Thus observing high correlations between attitudes and behavior may not be reliable evidence that indeed attitudes determine behavior. Therefore, there are some scholars who argue that attitudes influence individual behavior yet there are others who disagree.

One of the earliest empirical evidence against a strong relation between attitudes and behavior was due to Blumer (1955). He criticized the definition of the attitude concept and the underlying assumption that attitudes influence behavior. Subsequent studies by Deutscher (1966, 1973) provide a comprehensive critique and evidence against the relationship between attitudes and behavior.

Wicker (1969) provided more evidence in a survey article on the low relationship between attitudes and behaviors. Providing evidence of low correlations between attitudes and behaviors from 42 empirical studies he
argued that there is scant evidence to support the view that individuals have stable, enduring attitudes that impact on their behaviors. With the benefit of hindsight one can rationalize these findings as reflection of the hostile environment in social psychology prevailing in the 1950s, 1960s and 1970s. These periods were characterized by studies that demonstrated that it is behavior that influenced attitude and any other opposing view was severely criticized.

Those researchers who argue that attitudes affect behavior have pointed out the rather superficial analysis of those studies opposed to this view (Eagly & Chaiken, 1993). They pointed out that a lot of evidence adduced relied solely on laboratory experiments. Little survey data had been used by such studies. The first studies to provide evidence for a positive relationship between attitude and behavior were by Kelman (1974) and Schuman and Johnson (1976). Utilizing survey data they argued that there is a pattern of positive and moderately positive relationship between attitudes and behavior. The differences in the findings between laboratory studies and survey researches have been largely attributed to the constraining and artificial laboratory environment (Kelman, 1974, Snyder & Ickes, 1985). However, beyond the confines of the laboratory the wider context within which the study is conducted can influence the impact of the findings of the relationship between attitudes and behavior (Campbell, 1963).

Subsequent studies of the relationship between attitudes and behaviors have demonstrated that the correlations produced are easily ascribed to the methods, tools and the researcher’s control of the study. This is, indeed, the case because each study utilizing different methods yielded different results. Moreover correlations between these two variables do not imply causation (Eagly & Chaiken, 1993).

There is now a consensus that there are direct and indirect determinants of entrepreneurial behaviour. Among the indirect determinants are personal traits and the demographics of the MSEs. The most direct determinant of behaviour are intentions. The intentions are influenced by the attitudes towards the behaviour, the subjective norm and perceived behavioural control.

In order to establish causal links between attitudes and behaviors two major theories have been put forward: the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB). These theories are briefly reviewed below.

### 2.1 The Theory of Reasoned Action

Fishbein and Ajzen (Fishbein, 1967; Fishbein & Ajzen, 1975) developed the theory of reasoned action. This theory convincingly provides the intervening variables and processes in the relationship between attitudes and behavior. Fishbein and Ajzen argue that individual behavior is influenced by ones intentions to engage in the said behavior. Intentions refer to an individual’s decisions to act in a particular way. The attitudes of an individual influence his intentions and thereby behavior.

Fishbein focused on volitional or voluntary behaviors. This is indeed important because other types of behavior may be subject to external influences. Also Fishbein aimed at excluding impulsive behaviors and habitual actions. He also confined himself to attitudes toward behavior rather that toward some target. He argued that an individual’s intentions are also influenced by his significant others. Therefore, Fishbein’s model is mathematically represented as shown below.

\[
I = bA + cU + e_i
\]

Where \( I \) represents an individual’s intentions, \( A \) represents the attitude toward the behavioral act, \( U \) represents beliefs about significant others approval to engage in the said behavior (the subjective norm), \( b \) and \( c \) are specific weights assigned to the respective variables. While \( e_i \) is a random error term.

According to Fishbein an individual’s behavioral intentions are determined by the individual’s behavioral beliefs (F). The behavioral beliefs represent the expected consequences of acting in a particular way. The subjective norms (U) are determined by the normative beliefs (N). The normative beliefs represent the perceptions of the significant others preferences about what constitutes the appropriate behavior by the individual. Clearly the behavioral intentions and normative beliefs are closely related suggesting possible problems of multi-collinearity when any attempt is made to estimate the strengths of the relationships in the model. Any other variable excluded from the model above is considered to be external and lacking a direct influence on the relationship between attitude and behaviour.

Therefore, the theory of by reasoned action can be summarized by stating that an individual’s behavior is determined by intentions to engage in a particular behavior. The individual’s intention is determined by the attitude the individual has toward the behavior and the subjective norm. The individual’s attitude is determined by behavioral beliefs and evaluation of expected consequences. The subjective norm is determined by normative beliefs and the urge to be in agreement with his significant others.

Empirical evidence from studies applying the TRA model, when the theory is correctly operationalized, report a lot of success. For example the TRA has been successfully applied to predict behavior from attitudes in church attendance (King, 1975), eating at fast-food restaurants (Brinberg and Durand, 1983), attending a training course (Fishbein & Stasson, 1990) and purchasing various consumer goods (Brinberg and Cummins, 1983). In a meta-analytic study of research on TRA van de Putte (1991) reports a mean of 0.68 for \( R^2 \) for predicting intention.
from attitude and subjective norm. The value for $R^2$ was 0.62 for predicting behavior from intention. The mean correlation between attitude and behavioral beliefs was 0.53. The correlation between subjective norm and normative beliefs was 0.53. Moreover, the relationship between intention and attitude was stronger than the relation between intention and subjective norm. The low correlation between the relevant variables in the above studies could be attributed to the involuntary nature of the behavior investigated. As already stated the TRA is only relevant where behavior under investigation is voluntary.

Several criticisms have been leveled against the reasoned action theory. First, some scholars have questioned the assumption that the theory can explain the immediate causes of behavior, and therefore other determinants of behavior are of limited use (Schartz & Tessler, 1972; Triandis, 1980; Granberg & Holmberg, 1990; Ajzen & Driver, 1991; 1992). These scholars argue that there are other determinants of an individual’s intention in addition to attitude toward behavior and the subjective norm. For example, an individual’s moral obligations (Schartz & Tessler, 1972), self-identity (Granberg & Holmberg, 1990), habit (Triandis, 1980) an individual’s affective and cognitive reactions to attitude objects (Ajzen and Driver, 1991; 1992). Including these other variables has increased the predictive power of the TRA model. The behavioral history of an individual also has been demonstrated to influence an individual’s current behavior (Bentler & Speckart, 1979). Second, the TRA cannot predict behaviors that require resources, opportunities, cooperation, and skills of others (Liska, 1984). Such behaviors are excluded from the TRA. However, Fishbein and Ajzen argued that their theory is generally applicable to many behaviors of interest to researchers. They also argued that their theory is applicable to predicting a specific behavior but not a series of acts that are intricately connected, or aimed at achieving a set goal. Thirdly, Liska (1984) points out that the causal direction between the relevant variable is not unidirectional; a feedback relationship has been demonstrated by a number of studies (Andrews & Kandel, Bentler & Speckart, 1981). Lastly, researchers have also questioned the impact of attitudes on behavior through their influence on intentions only. Several studies have uncovered a direct relationship between attitudes and behavior (Bentler & Speckart, 1979). These criticisms of the TRA led to the development of the Theory of Planned Behavior (TPB) (Ajzen, 1985; 1991) discussed below.

2.2 Theory of Planned Behavior

In order to improve upon the TRA Ajzen (1985) developed the theory of planned action in which he incorporated non-volitional behaviors. He argued that individual’s behavior could be viewed as a goal or an outcome. The extent to which an individual’s intentions to act in a specific way can be executed is determined by the amount of control one wields over one’s behavior. According to the TPB an individual’s behavior lies on a continuum of behaviors ranging from those that can be easily done at one extreme to those that are difficult to execute at the other extreme. The most challenging behaviors to execute are those requiring the skills, resources, opportunities and cooperation of others (Ajzen, 1991).

Therefore in the theory of planned behavior the individual’s perceived control over the behavior to be executed is included as one of the predictors in the model. The individual’s perception of being in control in turn depends on the control beliefs, which are the beliefs about the probability that one has what it takes to perform the intended behavior or achieve the set goal (Ajzen, 1991). Therefore, perceived control affects behavior in at least two ways: First, through its influence on the intention to perform the behavior concerned and second, through its direct impact on behavior concerned (Ajzen, 1991). This implies that people engage in those behaviors they have confidence to perform successfully and have control over.

To what extend can one say that he/she is in control of a specific behavior? Ajzen (1991) argued that it is actual control that is most relevant to the TPB. By actual control he meant a situation where an individual posses the requisite skills and resources to perform a particular act and there are abundant opportunities to do so. Since perceptions can be inaccurate or wrong, Ajzen contends that perceived control could only act as a proxy for actual control (Ajzen, 1991). This has opened up the TPB to criticism that beliefs about personal control can be biased by normal tendencies of individuals to exaggerate their sense of personal control over some situation directly touching their egos (Langer, 1975). Further, Ajzen (1985) argues that perceived control could influence behavior through the psychological effect leading to an increased effort by an individual to perform a specific act or achieve a particular goal. The planned behavior theory can be algebraically represented as follows:

$$I = bA + cU + dP + e_i$$  \(2\)

Where $P$ represents the perceived behavioral control of the individual to perform the act and $d$ is its coefficient

Empirical studies of the TPB have provided different results. Ajzen (1991) surveys 12 studies done to test the validity of the TPB in predicting different types of behavior including voting choice, shoplifting and election participation. The results show that the multiple correlation coefficients predicting behavior from intentions and perceived control ranged from 0.20 to 0.78. When a variable for behavioral control was added to the models, predictions improved significantly. However, intentions accounted for a large proportion of the variability in behavior compared to perceived control in most studies (Ajzen, 1991). There was an improvement in the prediction of intentions when attitudes toward behavior, perceived control and subjective norms were used as predictors. The average value for $R^2$ was 0.71.
The planned behavior theory has been criticized on several grounds (Eagly and Chaiken, 1993). First, individuals’ perception of control over their behavior or situation can be biased. Secondly, the causal chain from perceived behavior control to intention and finally to action has been questioned. It implies that merely having a perception of control over some behavior will cause one to act on it. This is not correct especially with respect to negative behaviors. Thirdly, the conceptual framework of the TPB has been found wanting. By merely introducing one more variable, the perceived behavioral control, it cannot lay claim to pride of place among other comprehensive theories of human behavior. Lastly, the TPB fails to delineate the processes through which individuals formulate and implement their plans.

To summarize, available empirical evidence, though scant, indicates that including perceived control in the reasoned action theory model generally improves prediction especially where behavior requires skills, resources, opportunities and cooperation of other people to execute them. Therefore, this study applies the TPB to examine the impact of attitude toward saving, borrowing and investment on the capital accumulation by MSEs.

2.3 A Critique of the Theories of Intention

There is need to apply a coherent and robust theoretical framework in order to understand entrepreneurial intentions of MSEs. Many theories of intentions exist in the literature but it has now become necessary to try and integrate them so as to reduce the number of alternative intention theories (Shook et al., 2003). There are several intentions theories in the literature. The most common ones are Bird’s (1988) theory which was enhanced by Boyd & Vozikis (1994), the Shapero theory (Shapero & Sokol, 1982), Ajzen’s theory (1988, 1991) and Davidsson’s (1995) theory.

There are two dominant intention theories in the literature (Shook et al, 2003, Fayolle et al., 2006 and Gelderen et al., 2008) that have become popular from the 1990’s (Autio et al, 2001). These theories are Ajzen’s theory of planned behaviour (TPB), and Shapero’s theory of the entrepreneurial event. Shapero’s theory derives entrepreneurial intention from perceived desirability, perceived feasibility and the propensity to act upon opportunities. There are similarities between these two theories. The two constructs of Shapero theory, perceived desirability and perceived feasibility, are no different from the theory of planned behaviour’s attitude toward behaviour and perceived behavioural control (Autio et al., 2001). The main difference between the two theories of intention is that Ajzen applies the subjective norm instead of Shapero’s propensity to act. Both theories provide an insight into the process of entrepreneurial formation and growth (Krueger et al, 2000).

Shapero’s theory focuses mainly on new firm formation rather than the adoption of the entrepreneurial behaviour in general. It is also considered as an application of Ajzen’s theory (Fayolle et al., 2006). However, the theoretical specification of TPB is more detailed and consistent than the Shapero theory (Gelderen et al, 2008).

In this study the theory of reasoned action and the theory of planned behaviour are applied, so as to test how attitudes toward saving, borrowing and investment influence the capital accumulation process and the poverty alleviation efforts in Kenya. TPB has been severally applied and tested thereby providing a valid research framework. It has been applied to almost all voluntary behaviours. The results obtained have been found satisfactory in many different fields (Ajzen, 2001)

2.4 The Conceptual Model and Research Hypotheses

The relationships between attitudes and behavior have been discussed above. It is sufficient to note here that the individual’s behavior to save, borrow and invest to invest can be subject to the availability of resources and the cooperation of others to execute the desired intention. These behaviours are only possible with proper planning. Therefore, the models based on the TPB were employed to test the relationships between these variables.
Specifically, the following hypotheses were tested.

**The Impact of Entrepreneurial Attitude on Entrepreneurial Intention**

$H_1a$: There is no relationship between the attitude toward saving money by the MSE and the intention to save money.

$H_1b$: There is no relationship between the attitude toward borrowing money by the MSE and the intention to borrow money.

$H_1c$: There is no relationship between the attitude toward investing by the MSE and the intention to invest money.

**The Impact of the Subjective Norm on Entrepreneurial Intention**

$H_2a$: There is no relationship between the influence of the subjective norm on the MSE to save money and its intention to save money.

$H_2b$: There is no relationship between the influence of the subjective norm on the MSE to borrow money and its intention to borrow money.

$H_2c$: There is no relationship between the influence of the subjective norm on the MSE to invest money and its intention to invest money.

**The Impact of the Perceived Behavioral Control on Entrepreneurial Intention**

$H_3a$: There is no relationship between the perceived behavioural control of the MSE to save money and its intention to save money.

$H_3b$: There is no relationship between the perceived behavioural control of the MSE to borrow money and its intention to borrow money.

$H_3c$: There is no relationship between the perceived behavioural control of the MSE to invest money and its intention to invest money.

**The Impact of Entrepreneurial Intention on Entrepreneurial Behavior**

$H_5a$: There is no relationship between the intention to save money by the MSE and behavior to save money.

$H_5b$: There is no relationship between the intention to borrow money by the MSE and the behavior to borrow money.

$H_5c$: There is no relationship between the intention to invest by the MSE and the behavior to invest money.

The analysis of variance and nonparametric tests (Chi-square tests) were applied to determine the presence and strengths of the various relationships postulated above. The results are presented and discussed below.
3. Research Design and Methodology
This section presents the research design, the population and sample of the study, and the data collected and the data collection instruments. Lastly, there is a discussion of the conceptual and empirical models used in data analysis.

3.1 Research Design
This study employed a descriptive research design. This research design enables the relationships between variables of interest to be analyzed. The aim of this study was to explain the relationship between attitudes towards saving, borrowing and investment and the capital accumulation process among MSEs. Therefore, the descriptive research design was the most appropriate.

A survey design was employed to capture the relevant data. This was implemented using a questionnaire as the main research instrument. The questionnaire was self-administered to the MSEs that were willing to respond. Such MSEs were also requested to introduce the team to other SMEs within the study location.

3.2 Population of the Study
The population of the study consisted of all MSEs located in Ongata Rongai Township south of the city of Nairobi. There was no official list of registered businesses from which the population of the study could be estimated. All these MSEs were situated along Nairobi-Magadi road in Ongata Rongai Township starting from the main stage to Fatima Health Centre an approximately 1.5km stretch. With each MSE taking about 3m wide premises there are about 500 MSEs on either side of the road. Between, these two extremes lie an open air market at a place called Kware (a corrupted form of the word “Quarry”). This area has the largest concentration of MSEs operating in informal structures. Thus, the population of the MSEs was estimated to be about 1,000.

The MSEs were engaged in different types of ventures: kiosks, woodwork shops, green grocers, second hand clothes, shops, hotels, gas vendors, hair and beauty salons, hardware, laundry and dry cleaners, computer and phone bureaus, and real estate agents.

3.3 Data, Sample and Sampling Method
Using a self-administered questionnaire and focused interviews, data were collected about the attitudes, intentions, subjective norms and perceived behavioral control of MSEs toward saving, investment and borrowing to invest. Moreover, data was collected about the amounts currently saved and invested along with the instruments used, the age of the venture and the value of assets accumulated since the venture was started. The study employed a snowball sampling technique. The choice of the technique was influenced by the existing circumstances in 2003 when MSEs were wary of Kenya Revenue Authority’s effort to capture tax evaders. It was difficult to get MSEs to interview or accept questionnaires. Therefore, the very few MSEs that accepted to be interviewed were requested for help to get more respondents. However, the suspicion that we were KRA tax assessors remained big obstacles in our way. Only 30 MSEs accepted to be interviewed. The data captured included the amount, form and rate of saving, borrowing and investing. Attitudes, intentions, subjective norms and the perception of control were measured using a Likert scale.

3.4 The Conceptual Models and the Analytical Models
Theoretical relationships between attitude and behavior can be summarized into the following conceptual models:

\[ B = f (I, P) \] (3)
\[ I = f (A, U, P) \] (4)
\[ A = f (E) \] (5)
\[ U = f (N) \] (6)

Using the above conceptual frameworks the following analytical models were formulated:

\[ I_i = a + bA_i + cU_i + dP_i + et \] (7)
\[ I_b = a + bA_b + cU_b + dP_b + et \] (8)
\[ I_s = a + bA_s + cU_s + dP_s + et \] (9)
\[ B_i = a + bA_i + cU_i + dP_i + et \] (10)
\[ B_b = a + bA_b + cU_b + dP_b + et \] (11)
\[ B_s = a + bA_s + cU_s + dP_s + et \] (12)

The subscripts s, i and b represent the saving, investment and borrowing variables, respectively. The other variables are defined as before. For instance, \( B_s \) represents saving behavior, \( A_s \) represents an individual’s attitude toward saving, \( U_i \) represents an individual’s subjective norm and \( P_s \), represents an individual’s perceived behavioral control. The letter \( a \) represents the constant while letters \( b, c \) and \( d \) represent the coefficients to be estimated.

4. Data Analysis, Results and Discussion
This section presents the findings of this study about the relationship between attitudes and behavior. First, the descriptive statistics are presented, then the results of the non-parametric tests and lastly, the analysis of variance.

4.1 Descriptive Statistics
4.1.1 Capital for Start-ups
Table 1 provides a summary of start-up capital and the number of MSEs by each category. The majority of MSEs started with capital of up to Ksh. 50,000. This shows many MSEs have limited capital to undertake major investments that could earn high returns.

Table1. Distribution of MSEs by Start-up Capital

<table>
<thead>
<tr>
<th>Amount (Kshs)</th>
<th>Number of MSEs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>50,001 - 100,000</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>100,001 - 150,000</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>150,001 - 200,000</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>200,001 - 500,000</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s computations.

Therefore the rate of capital accumulation is slowed down. This point is corroborated by the results of Table 2. Most enterprises had increased capital up to 52,000 since they were started. The average of time taken to accumulate such investment was six years. This means that MSEs average in increasing capital is 8,667 per annum or Kshs. 722 per month. This pattern of scaling cannot precipitate faster accumulation of capital and wealth generation. There is a clear relationship between start-up capital and the amount of capital accumulated.

Table 2: Distribution of MSEs by increase in Capital since Formation

<table>
<thead>
<tr>
<th>Capital increase</th>
<th>Number of MSEs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>12</td>
<td>40</td>
</tr>
<tr>
<td>50,001 - 100,000</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>100,001 - 150,000</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>150,001 - 200,000</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>200,001 - 500,000</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s computations.

4.1.2 Instruments Used For Saving
Table 3 provides a summary of the saving instruments used by MSEs. The interesting finding here is 41% percent of MSEs prefer saving with banks. The next popular instrument for saving was ROSCAs and merry-go-rounds (MGRs) accounting for 22 percent. The traditional instruments of savings - crop-production, keeping money at home relatives and friends, and money lenders are no longer popular. Livestock as a form of saving is preferred given the semi-rural setting of Ongata Rongai Township, but this is also changing very fast. Commercial banks are the major conduit for the savings of MSEs. This could be attributed by the presence of the Kenya Commercial Branch in the town. This pattern of behavior is explained below. These results suggest that the close the banks are to MSEs the higher the motivation to save and borrow from them. It is no wonder that today many banks have opened branches in Ongata Rongai as compared to other urban centres on the outskirts of the city of Nairobi.

Table 3. Instruments Used By MSEs to Save

<table>
<thead>
<tr>
<th>Saving instrument</th>
<th>Number of MSEs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop-production</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Livestock</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Home</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Relatives</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Friends</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Money lenders</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>ROSEAs and MGRs</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>Banks</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s computations.

4.1.3 Amount Borrowed
Further inquiring to find out why MFIs are not preferred by MSEs revealed that these institutions have been seizing the chattels of the MSEs which defaulted on loans and auctioning them without following the due process of the law. MFIs also charge high interest rates on loans compared to base lending rates of the commercial banks. Table 4 below summarizes the amount of money borrowed by MSEs according to their respective ages in business.
Table 4. Distributions of Loans by Amount Borrowed by MSEs

<table>
<thead>
<tr>
<th>Amount Borrowed</th>
<th>Number of MSEs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>50,001 - 100,000</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>100,001 - 150,000</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>150,001 - 200,000</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>200,001 - 500,000</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s computations.

The evidence adduced indicates that MSEs start borrowing after 4 years of operation probably after accumulating physical assets that could serve as collateral for the loans. Out of 30 MSEs sampled only 16 have borrowed funds. The amount borrowed per annum increases with the age of the MSE. The amount borrowed does not exceed Ksh. 50,000 for MSEs with less than three years of experience and this tapers off at Ksh. 350,000 for MSEs with over six years of experience.

Six MSEs did not indicate the amount borrowed. Probably they have not borrowed at all. Those MSEs that did not borrow cited problems and fears of repaying loans on time, high interest rates, and restrictive covenants in loan agreements. MSEs dealing in furniture indicated that lenders demanded high collateral for loans. Also the recessionary trends in the economy then affected the demand for their products thereby reducing their ability to service loans. Loan repayments require monthly installments or even installments at shorter time intervals. One interesting finding on the constraints on borrowing by MSEs from MFI was claims of corruption. Some respondents said they could not obtain loans because they refused to bribe the officers in charge. They have since given up seeking any loan from an MFI.

4.1.4 Amount of Investment

The amount of funds invested increased with the age of the MSE. This means that as MSEs acquired more experience better opportunities were discovered which led to increased investment. Moreover as the MSEs becomes more experienced, it could easily access credit from whichever source thereby increasing the amount invested in the venture. Also, it could be that the profit made by the MSE also increased with age. A large proportion of profit could then be ploughed back into the venture. Table 5 summarizes these results.

Table 5. Distribution of Amount Invested by MSEs

<table>
<thead>
<tr>
<th>Amount borrowed</th>
<th>Number of MSEs</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 50,000</td>
<td>18</td>
<td>60</td>
</tr>
<tr>
<td>50,001 - 100,000</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>100,001 - 150,000</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>150,001 - 200,000</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>200,001 - 500,000</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author’s computations.

It was found that MSEs with 1-3 years of experience and over 6 years of experience financed most of their investment from internal savings. While MSEs with experience of 4 - 6 years financed a large proportion of their investments using borrowed funds. This finding could be rationalized as follows. Newly formed MSEs do not have a track record that can be used as a basis for extending credit while those MSEs with over 6 years of experience could use their own savings. However, both faced a similar obstacle - demand for bribes from credit officers. The MSEs with 4 - 6 years of experience in business could be experiencing faster growth that could not be financed by internal funds. Thus they depend more on external finance despite its constraints.

4.1.5 Attitudes of MSEs towards Saving, Borrowing, and Investment

The general finding of this study is that MSEs have a favorable attitude toward saving and investment, and a neutral (non-committal) attitude toward borrowing. The fact that MSEs have a neutral attitude toward borrowing means that with proper incentives they are likely to borrow. However, what form should these incentives take? We do not provide an answer to this question in this study.

To capture the various attitudes towards borrowing a Likert scale was used. It was defined as follows: 1 represents total agreement with while 7 represents total disagreement with the given statement about saving, investment and borrowing. The respondents were required to endorse a particular position from 1 to 7 with respect to a particular aspect of saving, investment and borrowing.

The computed means for various aspects of attitudes towards saving were as follows: good, 1.5; worthy 1.2, must, 3.15; small amount, 3.5; often, 2.1; likeable 2.1; now, 2.4; long-term, 2; beneficial, 1.4; and easy, 5.2. This indicates a very strong and favorable attitude towards saving. However, the respondents indicated that saving was not easy. Given the low level of income and the meager earnings from business saving for a rainy day is indeed difficult and a big sacrifice. The overall mean is 2.5.
The mean of responses to various aspects of investment were as follows: large sums, 2.8; worthy, 3.5; long-term 2.3; now, 2.5; good, 1.7; often, 2.1; likeable, 1.6; safe, 1.5; profitable, 2.4; honorable, 1.8; easy, 5; slowly, 2.6. The overall mean is 2.4, which demonstrates a very strong and favourable attitude toward investment. However, MSEs noted that it is not easy to invest (mean of 5.0).

The mean responses towards various aspects of borrowing were as follows: large amounts, 4.3; must, 4.7; long-term, 4; now, 4.2; good, 3.5; often, 4.8; worthy, 3.7; likeable, 3.9; safe, 4.2; beneficial 3.4; profitable, 3.2, honorable, 3.7; expensive, 3.2; easy, 3.9, the overall mean is 3.9. Therefore, MSEs were not committed towards borrowing from the formal financial system. However, they agree that borrowing for investment was good, honorable profitable but expensive. Many MSEs would like to borrow from the formal system but the long vetting procedures are a constraint. The amount, frequency and horizon of borrowing do not seem to be issues to MSEs.

4.2 Results of Nonparametric Tests: Chi-square Test

The results of testing the hypotheses of independence between behavior, attitudes, intentions, subjective norms, and the perception of behavioral control are given in Table 6 below.

Table 6. Results of Tests of Independence between Attitudes, Intentions, Subjective Norms, Perception of Control, and Behavior

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>U</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B_s$</td>
<td>54.7</td>
<td>518</td>
<td>563</td>
</tr>
<tr>
<td>$B_i$</td>
<td>52.6</td>
<td>48.1</td>
<td>64.5</td>
</tr>
<tr>
<td>$B_b$</td>
<td>59.8</td>
<td>54.6</td>
<td>61.4</td>
</tr>
<tr>
<td>$I_s$</td>
<td>58.1</td>
<td>50.9</td>
<td>50.6</td>
</tr>
<tr>
<td>$I_i$</td>
<td>60.4</td>
<td>54.7</td>
<td>638</td>
</tr>
<tr>
<td>$I_b$</td>
<td>58.9</td>
<td>48.9</td>
<td>63.2</td>
</tr>
</tbody>
</table>

Source: Author’s computations. Note: The values in the table are the computed chi-square statistics. The critical $X^2 = 7.841$

The analysis shows that the computed chi-square statistics exceed the critical chi-square value in all cases at 95% significance level. Therefore we rejected the null hypotheses of no relationships between the relevant variables. The results therefore support both the models based on the theory of reasoned action and the theory of planned action. Saving, investing, and borrowing for investment is not independent of the attitudes, intentions, subjective norms, and the perception of behavioral control of the act itself.

4.3 Results of Parametric Statistics: MANOVA

The analysis of variance indicates that there exists a strong and positive relationship between intentions, attitudes, subjective norms, and the perception of control over saving, investing and borrowing to invest. The results are summarized in Table 7. Our results compare favorably with those of other studies reviewed above (Ajzen, 1991). R-squared ranges between 0.64 and 0.79. Both the $t$-test and the $F$-test show that the coefficients of the independent variables are significant at 95% significance level.

Table 7. The Relationship between Behavior, Intentions, Attitudes, Subjective Norms and Perception of Behavioral Control

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>U</th>
<th>P</th>
<th>F-statistics</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$B_s$</td>
<td>0.104</td>
<td>0.004</td>
<td>0.213</td>
<td>6.15</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>(3.94)</td>
<td>(3.961)</td>
<td>(4.041)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$B_i$</td>
<td>0.385</td>
<td>0.018</td>
<td>0.347</td>
<td>5.92</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>(3.89)</td>
<td>(3.63)</td>
<td>(4.23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$B_b$</td>
<td>0.221</td>
<td>0.002</td>
<td>0.492</td>
<td>6.15</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>(3.81)</td>
<td>(2.93)</td>
<td>(3.65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$I_s$</td>
<td>0.148</td>
<td>0.105</td>
<td>0.283</td>
<td>4.84</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td>(4.32)</td>
<td>(3.951)</td>
<td>(4.58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$I_i$</td>
<td>0.336</td>
<td>0.114</td>
<td>0.419</td>
<td>5.67</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>(3.431)</td>
<td>(3.94)</td>
<td>(3.85)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$I_b$</td>
<td>0.404</td>
<td>0.003</td>
<td>0.525</td>
<td>7.49</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>(2.93)</td>
<td>(2.97)</td>
<td>(3.41)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computations. Note: The values in the table are the coefficient of the variables in the estimated model. The computed $t$-statistics are in brackets.

5. Conclusions

The findings of this study are that attitudes, subjective norms and the perception of behavioral control influence saving, investment and borrowing intentions and behavior of MSEs. All MSEs have a positive attitude toward
saving and investment. However, they find difficulties to save and invest their funds. In general, MSEs are non-committal to borrowing although they appreciate the role of debt in investment. The amounts saved and invested by most MSEs are on average small. Therefore the returns on investment are also small. No wonder then that the capital accumulation process is long and arduous. Hence the fight against poverty is not effective. Any form of intervention to reduce poverty through microfinance must seriously consider the attitudes and intentions of those being targeted. Indeed, attitudes and intentions may well complement and supplant the use of collateral in extending credit to clients.

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