

**THE IMPACT OF MICROFINANCE CREDIT ON MICROENTERPRISES'  
PERFORMANCE AND ENTREPRENEURS' LIVELIHOODS: A STUDY OF  
BUSINESSES MANAGED BY MEMBERS OF SELF-HELP GROUPS IN KAKAMEGA  
COUNTY, KENYA**

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A Thesis Submitted to the Graduate School for the Award of the Degree of Doctor of Philosophy  
in Geography of Egerton University

**EGERTON UNIVERSITY**

**APRIL, 2016.**

## DECLARATION AND RECOMMENDATION/APPROVAL

This thesis is my own original work and has not been submitted or presented for a PhD degree in any other university, either in part or whole.

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## **DEDICATION**

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## ABSTRACT

Shortage of capital is a major constraint in the development of microenterprises (MEs) among entrepreneurs who are members of self-help groups (SHGs) in Butere, Mumias, Matungu and Khwisero Sub-Counties of Kakamega County. Shortage of capital is occasioned by inability of entrepreneurs in the informal sector to access credit from mainstream financial institutions. Thus, a number of microfinance institutions (MFIs) in the study area provide credit to members of SHGs operating MEs so as to improve their businesses. However, it is not clear: how entrepreneurs' and MEs' characteristics influence total microfinance credit secured by entrepreneurs; and how microfinance credit impacts MEs income, capitalization, employment and entrepreneurs' incomes and subsequently, their livelihoods in the study area. The study, therefore, sought to investigate these issues. Both survey and experimental research designs were used in the study. A sample of 267 credit-assisted entrepreneurs (representing 15 per cent of the target population) who were members of SHGs operating MEs located in 40 centres, was drawn using stratified and proportionate random sampling techniques for study. Also, a control group sample comprising 155 entrepreneurs (representing 15 per cent of enumerated population) in the 40 centres, who were non-beneficiaries of credit operating MEs was drawn and surveyed. The study relied on both primary and secondary data. Primary data was sourced from entrepreneurs and key informant and collected using: a semi-structured questionnaire; case-studies; observations; and informal interviews. Data collected was analyzed using descriptive statistics, chi-square, correlation and multivariate linear regression. The study found out that entrepreneurs' and MEs' characteristics were significantly different and influenced differences in total microfinance credit secured by entrepreneurs based on ME type. Further, these characteristics were significantly correlated with total microfinance credit secured, even though they explain only 24.9 per cent of the change in the total microfinance credit secured by entrepreneurs. Significant differences were also observed in the way entrepreneurs spent microfinance credit secured on MEs variables based on credit source. Notably, 69.2 per cent and 30.8 per cent of the total credit secured was spent on MEs and household items, respectively. Microfinance credit secured impacted significantly on MEs incomes and capitalization levels and not on employment levels, with ME incomes impacting significantly on entrepreneurs' incomes

and livelihoods. These findings have important development implications especially for planners, policy makers, SHGs, MFIs and other stakeholders in Kenya’s ME development framework.

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## ACRONYMS

<b>ADF</b>	African Development Foundation.
<b>AGOA</b>	Africa Growth Opportunity Act.
<b>ASCRA</b> s	Accumulating Savings and Credit Associations.
<b>BFSA</b>	Butere Financial Services Association.
<b>CARE International</b>	NGO that emphasizes household livelihood security linked to basic needs.
<b>CBOs</b>	Community Based Organizations.
<b>CIRD</b>	Centre on Integrated Rural Development.
<b>DCs</b>	Developed Countries.
<b>DFID</b>	British Government Department for International Development.
<b>DFSRD</b>	District Focus Strategy for Rural Development.
<b>EFSA</b>	Ekeru Financial Services Association.
<b>FGDs</b>	Focus Group Discussions.
<b>HEPM</b>	Household Economic Portfolio Model
<b>KCB</b>	Kenya Commercial Bank.
<b>KFSA</b>	Khwisero Financial Services Association.
<b>K-REP</b>	Kenya Rural Enterprise Programme.
<b>KWFT</b>	Kenya Women Finance Trust.
<b>LDCs</b>	Least Developing Countries.
<b>MEs</b>	Micro enterprises.
<b>MFI</b> s	Microfinance Institutions.
<b>NEPAD</b>	New Partnership for Africa's Development.
<b>NGOs</b>	Non-Governmental Organizations.
<b>PEP</b>	Poverty Eradication Plan.
<b>PDP</b>	Pioneer Development Programme
<b>PRIDE – KENYA</b>	Promotion of Rural Initiatives and Development Enterprises-KENYA.
<b>PRSP</b>	Poverty Reduction Strategy Paper.
<b>RoK</b>	Republic of Kenya
<b>ROSCAs</b>	Rotating Savings and Credit Associations.

<b>SAPs</b>	Structural Adjustment Programmes.
<b>SCDC</b>	Sub-County Development Committee.
<b>SHGs</b>	Self-Help Groups.
<b>SMEP/NCCK</b>	Small Enterprises Programme/National Council of Churches of Kenya.
<b>UNCRD</b>	United Nations Centre for Regional Development.
<b>UNDP</b>	United Nations Development Programme.
<b>WDF</b>	Women Development Fund.
<b>YEDF</b>	Youth Enterprise Development Fund.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Research Problem

In many developing nations (LDCs) grassroots initiatives, demonstrated through: non-governmental institutions (NGOs); Community based organizations (CBOs); and self-help groups (SHGs) are conceived to be important alternative and complimentary avenues through which people's development needs can be pursued. This is because these institutions act as access points through which locally and externally available development resources can be mobilized for investment (ADF, 2005; RoK, 2008a; and 2013a; World Bank, 2011; and 2013). This arises partly because of the failure of the neo-fabian (emphasizing state control and planning) and neo-liberal (emphasizing structural adjustment programmes - SAPs - and market forces) development paradigms to effectively address people's development needs at the local level. The failure of both development paradigms is attributed to the fact that both ideologies embody a planner's core, centre – outward, top-down view of rural development without actively involving the people at the grassroots (World Bank, 2011; and 2013).

Further, the neo-liberal approach being undertaken by most states involve severe cutback in both services and resources for development by the government, implying that the socio-economic needs of the majority of the poor are increasingly being left in the hands of the private sector. Yet the private sector remains commercially oriented, with preference to serve large-scale investors and direct investments only in the most profitable sectors of the economy (RoK, 2004; ADF, 2005). Also, a number of factors, including: the bureaucratic nature, corruption and inefficiencies associated with government development programmes; and the continued poor economic performance experienced by most developing nations, coupled with scarcity in development resources since the 1980s, among other factors, have contributed to the poor performance of the neo-Fabian approach to development (DFID, 2000; ADF, 2005; RoK, 2008a).

Consequently, the 'impasse' in development theory from the 1980s to date, has made many development ideologies and practitioners to reorient their approach to development. For

instance, the mainstream neo-liberal and alternative ideologies to development, international trade agreements such as COTONOU, NEPAD, AGOA, NGOs and international funding and development agencies show greater concern and interest in working with institutions at the grassroots (ADF, 2005; UNDP, 2007/8). This is because grassroots institutions embrace the concept of territorialism and not space alone, hence more relevant to people at the local level (East Africa Law Society, 2005; UNDP, 2007/8; World Bank, 2013). Also, grassroots institutions provide a level-playing field between sponsors of a programme and beneficiaries in making decisions concerning development at the local level (UNDP, 2007/8). This fosters greater self-reliance, while ensuring relevance, popular and wider participation and sustainability in development (Kibas, 2001; UNDP, 2007/8; World Bank, 2011). There are, therefore, calls from among scholars, especially those from developing nations for an alternative approach to development (ADF, 2005; Wilson, and Wilson 2006). This focuses on self-determined grassroots development initiatives as spaces free from ‘universal institutions’ considered as neocolonialism (ADF, 2005).

The Kenya Government in its successive five-year development plans, policy documents and development approaches since independence recognizes the centrality of grassroots and popular participation in national development (RoK, 2008a; and 2013a). For instance, policy documents such as: Poverty Eradication Plan (1999); Poverty Reduction Strategy Paper (2000); Economic Recovery Strategy for Wealth and Employment Creation (2004); and Vision 2030 espouse the importance of grassroots institutions in community development. Also, development approaches such as: Constituency Development Fund (CDF); Economic Stimulus Fund (ESF); Poverty Eradicating Fund (PEF); Community Development Trust Fund (CDTF); Local Authority Transfer Fund (LATF); Youth Enterprise Development Fund (YEDF); Women Development Fund (WDF); and Uwezo Fund demonstrate that grassroots initiatives are important agents through which community development can be pursued (The Link Writers, 2006; KIPPRA, 2007; RoK, 2008a; Munuhe, 2013). Similarly, Kakamega County Development Profile (2013) and the Sub-Counties Development Committees (SCDCs) for Butere, Mumias, Matungu and Khwisero in which this study was conducted (Figure 3.1), acknowledge the role of MFIs/NGOs and SHGs as agents, complimentary and or alternative avenues through which community

development can be pursued to improve people's incomes and livelihoods (RoK, 2002b; and 2008c).

Geographically, Kakamega County, which has a total area of 3050.3 km<sup>2</sup>, lies within a permissive physical environment. The altitude ranges between 1,200-2,000 metres above sea level, characterized with two major ecological zones: The Upper Medium and The Lower Medium zones. The sub-counties in which the study was conducted lie in the Lower Medium zone. The annual rainfall, which is evenly distributed, ranges from 1,280 – 2,214mm. However, the months of March and July receive heavy rains, while December and February light rains. Temperatures range from 18<sup>0</sup> to 29<sup>0</sup> c, with the months of January, February, March and November being the hottest (RoK, 2013b).

In the year 2015, the estimated population size of the county was 1,929, 401 people. The four sub-counties covered in the survey accounted for 36.2 per cent (699,187 people) of the total county's population in 2015, with an average population density of 661 people per Km<sup>2</sup>. The sub-counties exhibit the highest population densities in the county. This is attributed to high population concentration in the sub-counties, with household land per capita holding being 0.57 hectares (RoK, 2013b). The average population growth rate for the sub-counties is 2.6 per cent per annum.

In terms of accessibility, the county has a total of 2322.2km of road network, of which only 231.2km is of bituminous. The rest, which comprise seasonal and all weather roads, is fairly distributed all over the county. These roads serve rural nodes, facilitating marketing of goods and services (RoK, 2013b). The major cross-cutting issues in the county include high prevalence of poverty, gender inequality in access to productive resources and youth unemployment (RoK, 2013b). The human development index shows that 51.3 per cent of the county's population lives in absolute poverty (RoK, 2008c; and 2013b).

Agriculture is the economic backbone of the four sub-counties' covered in the survey. The sector employs over 65 per cent of the labour force. However, per capital income in the agricultural sector is below Kenya's rural poverty income line of Ksh. 1239 per month (RoK, 2008c; and 2013b). The low income in this sector is attributed to, among other factors; poor weather conditions, unstable and low prices of farm produce, declining farm sizes due to high population growth rate of 2.6 per cent per annum and planting of low-value crops with long

maturity period. Besides agriculture, other important sectors generating employment, incomes and contributing to livelihoods of the people in the sub-counties include: fisheries, mining, public sector wage employment and urban self-employment (including commercial businesses and the informal sector).

Comparatively, the informal sector comprising mainly micro enterprises (MEs), has continued to register remarkably higher levels of growth in employment and income generation for the increasing labour force than any other sector in the sub-counties (RoK, 2002b; 2008c; 2010; and 2013b). However, spatial variations in population density, agricultural production and accessibility have impacted on development of towns and market centres throughout the county. This has had a subsequent effect on the distribution of MEs, with 80 per cent of the MEs located in towns and market centres (RoK, 2008c; and 2013b).

Thus, one key area the SCDCs have identified in order to speed up generation of employment, incomes and improvement in people's livelihoods is the development of the ME-sector (RoK, 2002b; 2008c; and 2013b). However, with limited financial and other forms of development resources, both the SCDCs and Kakamega County Government have intensified the call for the support and participation of the private sector, NGOs/MFIs and grassroots institutions in development activities in the sub-counties (RoK, 2002b; 2008c; and 2013b). Thus, substantial funding of MEs, from both financial resources of SHGs and those of MFIs, is evident (RoK, 2002b; 2008c and 2013b; Information obtained from Butere and Mumias Sub-Counties'/Districts' Social Services Offices, 2010; EFSA, 2011; BFSA, 2011). Hence, the nexus between MFIs and SHGs in the development of ME-sector is important.

## **1.2 Statement of the Problem**

The ME-sector employs 30 per cent of the labour force, generates income and contributes to livelihoods of a number of households in the economies of Butere, Mumias, Matungu and Khwisero Sub-Counties. Despite this, some of Kenya's policy documents and a number of studies in Kenya have identified shortage of financial capital as one of the major constraints in the development of the ME-sector. Shortage of credit to entrepreneurs in the ME-sector is occasioned mainly by two factors: rigid conditions for accessing credit set by commercial banks; and Kenya's ME credit programmes such as YEF, WEF, Uwezo Fund, among others, exhibit



centralized institutional management and bureaucratic procedures that cannot easily be accessed by the intended beneficiaries.

However, some studies in Kenya and other LDCs have observed that lack of credit is not a significant factor affecting the growth and performance of MEs. Rather, other factors such as inadequacies in ME-sector policy issues, inappropriate technology, low markets for products and lack of required skills, among other factors, affect performance of the ME-sector (Marries and Somerset, 1971; House, 1981; Macharia, 1987; Alila, 1992; 1993; and 2001; Felsenstein and Schwartz, 1993; and Levy, 1993; Ongile and McCormick, 1996; Wabwire, 1996; Bowen; 2001; Kibas, 2001; Muller, 2001; Otunga et al, 2001; and IFC, 2013).

To address shortage of credit, a number of MFIs operate ‘friendly’ credit programmes in the sub-counties to assist micro entrepreneurs who are members of SHGs access the much needed credit. Such microfinance credit is meant to grow their MEs, raise incomes and improve their livelihoods. However, a number of issues remain uncertain. First, it is not clear how entrepreneurs’ and MEs characteristics influence variability in the microfinance credit secured by entrepreneurs. Second, how microfinance credit secured has been utilized by entrepreneurs for the intended purpose. Third and last, whether or not microfinance credit secured translate to better performance of MEs, improved entrepreneurs’ and households’ incomes and livelihoods. The study, therefore, sought to investigate these issues with a view to generate information which has important development implications especially for planners, policy makers, SHGs, MFIs and other stakeholders in Kenya’s ME development framework.

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

#### **1.3.1 The Broad Objective**

The broad objective of this study is to contribute to the understanding of the role of microfinance credit to improving the performance of small businesses and entrepreneurs’ livelihoods among members of SHGs in Kakamega County, in Western Kenya.

#### **1.3.2 The Specific Objectives**

The specific objectives of this study were to:

1. Determine MEs and entrepreneurs' characteristics of SHGs members and their influence on amount of microfinance credit secured from MFIs.
2. Analyze the expenditure pattern of microfinance credit secured from MFIs by entrepreneurs who are members of SHGs.
3. Determine the impact of microfinance credit on performance of MEs owned by entrepreneurs who are members of SHGs.
4. Assess the extent to which income generated from microfinance credit-assisted MEs impacted entrepreneurs' household incomes and their livelihoods.

#### **1.4 Study Hypotheses**

In the context of the stated problem and objectives, this study sought to validate the null hypotheses that:

1. Micro enterprises and entrepreneurs' characteristics do not significantly influence differences in the amount of microfinance credit secured by entrepreneurs from MFIs.
2. There is no significant relationship between MEs and entrepreneurs' characteristics and the amount of microfinance credit secured from MFIs.
3. There are no significant differences in the way entrepreneurs' spent microfinance credit secured from different MFIs on ME variables.
4. Credit secured from MFIs does not significantly impact on MEs performance.
5. Income generated from microfinance credit-assisted MEs does not impact positively on entrepreneurs' households' incomes and livelihoods.

#### **1.5 Assumptions of the Study**

In order to successfully implement this study and draw valid conclusions, the following assumptions were made:

- 1) Microfinance institutions are major sources of credit to members of SHGs and lack of credit was one of the major constraints in the development of MEs. Entrepreneurs, who

were members of SHGs, lacked adequate working and investment capital to expand their businesses.

- 2) All MEs (whether credit beneficiaries or not) within a particular category of capitalization level and production line (service, trade and manufacturing) and located in a given market/town centre, were faced with similar ME and entrepreneurs' characteristics as well as business constraints.
- 3) Entrepreneurs operating MEs (whether credit beneficiaries or not) spent the income earned from their businesses in more or less similar patterns.
- 4) Information sought and provided by entrepreneurs in this study was accurate.

## **1.6 Significance and Justification of the Study**

Grassroots institutions such as SHGs are important avenues through which community development can be pursued to improve peoples' livelihoods. In the year 2011, the SHG-movement in the study area had a total registered membership of 120,950 people, accounting for 20 per cent of the total projected population in the sub-counties. One area in which members of SHGs participate in is in the ME-sector. The sector employs 30 per cent of the labour force and has continued to register higher annual growth rates in terms of employment and income generation than any other sector in the economies of Butere, Mumias, Matungu and Khwisero Sub-Counties (RoK, 2002b, 2008b; and 2013b). However, credit has been cited as one of the major constraints to the growth of MEs. Apart from groups' internal financial resources, substantial funding of MEs by MFIs is evident in the sub-counties (RoK, 2008b; 2008c; 2013b; and Information obtained from Butere and Mumias Sub-Counties'/Districts' Social Services Offices, 2011).

For purposes of planning, therefore, it was important that this study evaluates the impact of credit from MFIs on MEs performance, entrepreneurs' incomes and subsequently their livelihoods. This is in view of the emerging role of grassroots initiatives in development and in particular, the nexus between SHGs and MFIs in promotion of the ME-sector in the study area (Rok, 2008b; 2013b). Further, data generated by this study will be important to MFIs and other stakeholders in the development of MEs, in terms of designing strategies that will ensure

enhanced provision of and access to credit for those operating MEs in the sub-counties. Moreover, the findings of the study will be of significance to policy makers in the study area in terms of ascertaining the role of grassroots initiatives in development of the ME-sector and subsequently, entrepreneurs' incomes and livelihoods.

Besides its significance, the study was justified on three grounds. First, a review of studies conducted in Kenya by Omoka (1991), Omosa (1991), Chavangi (1992), Ondiege (1992) on grassroots initiatives in development reveals that the thrusts of these studies did not focus on the theme of this study. However, those of Wegulo (1995), Kinyanjui (1996), Kimuyu and Omiti (2000), Atieno (2001), Kibas (2001), Otunga *et al* (2001), Rono (2001), Ouma (2002), Ouma and Rosner (2003) and Nkurunziza (2005) did partially examine aspects covered by this study; despite their scope being comparatively narrow. This observation also applies to studies by Halter (2008), Simeyo *et al* (2011), Mairura *et al* (2012), Memba *et al* (2012), Obwori *et al* (2012), Kiraka, *et al* (2013), Mwangi and Wanjau (2013) and Simwa and Sakwa (2013). Furthermore, the studies were conducted in geographical areas different from the one covered by this study, thereby making this study important in generating new, as well as, additional data on grassroots initiatives in development.

Second, Butere, Mumias, Matungu and Khwisero Sub-Counties have between 50 and 55 per cent of their population living in absolute Poverty (RoK, 2013b). Yet, one of the millennium development goals (MDGs), which Kenya is signatory to, is to reduce extreme poverty and hunger by the year 2030. Also, Kenya Government development policy paper on '*Economic Recovery Strategy for Wealth and Employment Creation (ERS) of 2004*' outlines, among other things, how to address high poverty levels in the country. This is also emphasized by Kenya's Vision 2030 policy document. Consequently, the theme of this study was justified on the premise that it aimed at evaluating the impact of credit programmes on MEs employment and incomes levels and how this can be improved. This has a direct bearing on reducing poverty levels.

Third, a survey of status of poverty in Western Kenya found out that Butere, Mumias, Matungu and Khwisero Sub-Counties have a comparatively modestly developed network of grassroots initiatives and in particular, SHGs for purposes of community development

(Anyamba, 1998; RoK, 2002b; 2008c; and 2013b). Thus, the sub-counties provided better loci, for evaluating the centrality of grassroots initiatives in development and improvement of peoples' economic activities that have a direct bearing on their livelihoods.

### **1.7 Scope and Limitations of Study**

The scope of this study was confined to assessing the impact of credit from MFIs on MEs operated by entrepreneurs who were members of SHGs in Butere, Mumias, Matungu and Khwisero Sub-Counties. The study, therefore, excluded from its scope: (a) other credit programmes at the grassroots meant for entrepreneurs in the informal sector such as WEF, YEF, among others; (b) entrepreneurs operating MEs and who were loanees of MFIs but not members of SHGs; (c) farming activities managed by members of SHGs and which were beneficiaries of credit from MFIs; and (d) entrepreneurs who were members of SHGs operating MEs and loanees of MFIs in other sub-counties of Kakamega County.

Ideally, the proposed study aimed at investigating two main broad issues regarding members of SHGs (entrepreneurs), who were operating MEs and were loanees of MFIs in Butere, Mumias, Matungu and Khwisero Sub-Counties, Kenya (Figure 3.1). First, the study sought to establish entrepreneurs' and ME characteristics and how they influenced the amount of credit secured from MFIs. Second, how entrepreneurs expended credit secured from MFIs on ME variables and subsequently, how credit impacted ME variables: income, capitalization, employment; and entrepreneurs' incomes and livelihoods.

The target population of study comprised entrepreneurs who were members of SHGs, operating MEs located in towns and market centres and who had secured, serviced or were still servicing microfinance credit between July, 2008 and June, 2011. According to RoK (2008b; 2008c; and 2013b), 80 per cent of MEs in the study sub-counties are located in towns and market centres. Further, 95 per cent of entrepreneurs operating MEs and who are loanees of MFIs have their businesses located in Towns and market centres in the study area (BSFA, 2011; EFSA, 2011; and K-Rep, 2011). It was, thus, easier to access the target population within towns and market centres. Further, Glasson (1985), World Bank (1994), Finamore (1996), Baker (2000), Wilson and Wilson (2006) contend that a period of three years is adequate to register remarkable changes in enterprise variables. Moreover, loan recovery period for MFIs ranges between 3 and

36 months (K-Rep, 2002; KWFT, 2007; KFSA, 2011; BFSA. 2011). Three years is a short period within which entrepreneurs can easily recall information regarding the loans they had secured and the records of their businesses (KWFT, 2007; KFSA, 2011; BFSA. 2011).

Besides the target/experimental population of credit-assisted MEs, the study incorporated in its scope a control population of non-credit assisted MEs. The non-credit assisted MEs were located in the same towns or market centers with credit-assisted ones. The assumption was that the two populations of MEs serve the same threshold and therefore face more or less similar business constraints. Specifically, the purpose of the control group approach was to generate cross-sectional data that facilitated valid comparisons and conclusions to be made regarding the impact of credit on ME performance.

Analyzing the impact of income generated from a project and in this case, MEs income on entrepreneurs' livelihoods is difficult (World Bank, 1994). This is because of the difficulty in analyzing the fungibility associated with the expenditure of such income, especially where an entrepreneur has more than one source of income. However, using simple descriptive statistics such as: tables, percentages and proportions; and the Household Economic Portfolio Model - HEPM - (Dunn and Valdivia, 1996), helped determine and evaluate the relative strengths associated with other entrepreneurs' sources of income(s), if any. Moreover, carrying out: case studies; and context based analysis of cases where the entrepreneur had the ME as the only source of income, helped shed more light on impact of ME income on entrepreneurs' total incomes, expenditures and livelihoods. Otherwise, resources and anticipated data constraints, as well as, time compelled such a limited scope of study, both in theme and spatial area.

## **1.8 Definition of Terms**

In this section some explanations and discussions in reference to some of the technical terms and concepts used in this study/dissertation are presented. These definitions facilitate better understanding of the terms, particularly in the context in which they have been used in this study.

**Entrepreneur/Owner of Micro enterprise** - Is a business proprietor/owner engaged in small-scale production/provision of goods and or services.

**Entrepreneur's Total Income** - Refers to the summation of all incomes earned by the entrepreneur in a month from all his/her occupations.

**Entrepreneur's Total Household Income** – Refers to entrepreneur's total income in addition to incomes earned by the entrepreneur's spouse, including remittances from children.

**Grassroots** - Refers to a level of operation where the beneficiaries are directly involved in appraisal, decision-making, planning, implementation and management of development project(s).

**Livelihoods** – entrepreneurs' households' means and way of life measured in terms of changes in the: (a) amount of entrepreneurs' households' incomes expended on goods and services consumed and property acquired; and (b) percentage contribution of ME incomes to entrepreneurs' households' incomes.

**ME performance** - This refers to the changes that occur in MEs variables overtime resulting from utilization of credit. Three variables were used in determining the impact of credit on MEs, including: ME capitalization (in Ksh), ME employment (in man-hours per month and total number of people employed) and ME monthly income levels (in Ksh). Hence, performance of a ME, whether positive or negative, was determined by the changes in these variables.

**Micro enterprise** – A ME is a small non-farm business venture. Kenya's Micro and Small Enterprise (MSE) Act, 2013 defines a micro enterprise as one with an annual business turnover of not more than Ksh. 5,000,000 and employing less than 10 people. This definition was adopted by the researcher in this study.

**ME capitalization level** - In this study, capitalization level was determined by the summation of the total value (in Ksh) of assets and stock of a ME. Assets are things that can be used to run and or generate output for a business, e.g. machines, equipment, and tools (Ondige, 1996). However,

in this study, business premises were not included in the determination of business assets due to the significant variations in their values, as well as, the difficulty of quantifying their actual values. For instance, a well built premise vis-à-vis a market make-shift will differ in their values, yet in the informal sector setting, they do not necessarily have a direct impact on business performance/income. Moreover, some ME businesses do not have a (permanent) business premise rather, a makeshift or are conducted in open-air-market-place. Business stock denotes total supplies or quantity of goods or items available for sale or use in production, e.g. products, raw material or semi-finished products (Ondiege, 1996).

**ME Income** – Is the monthly net income generated from a ME business, that is, total business sales less costs in a month. Incomes within informal sector are bound to fluctuate; especially when business is doing well or badly. Thus, to be able to capture this variability, entrepreneurs were asked to select the interval within which their monthly business incomes fall in a month.

**ME Employment Volume** – This refers to the total man-hours generated by the ME business in a month (equivalent to 4 weeks). Employment volume was determined by getting the product of the total number of people employed, number of days worked in a week and number of hours worked in a day. The product of these three variables was multiplied fourfold to determine the monthly employment volume for each ME. Synonymous is the total number of people employed.

**ME (variables) and entrepreneurs' characteristics** – In this study ME characteristics include the following variables: age of business, type of production, levels of capitalization, employment level, income levels, technology, product diversification and type of business premise. Whereas entrepreneur's characteristics include the following variables/attributes: education levels, skills/training levels, age, gender, marital status, number of occupations and sources of income.

**Microfinance (Institution)** - Is a formal non-bank financial institution which: (a) provides small loans and or saving facilities to small investors (preferably in SHGs); (b) does not necessarily require (asset-based) collateral to advance loans to small investors; (c) is not concerned mainly with profit maximization; and (d) relies on donor or government funding/support, well-wishers and or locally mobilized financial resources to support grassroots development initiatives.



**Self-help Group** - Is a voluntary formal registered gathering of peers who share common needs and seek to solve or address their socioeconomic problems (that are not being addressed by existing mainstream organizations/institutions or other types of groups). The broad goal of a SHG is to bring about personal and or groups' socioeconomic changes for its members through financial merry-go-rounds in form of Accumulating and Savings Credit Associations (ASCRA) and Rotating and Savings Credit Associations (ROSCAs). These are informal sources of finance from which members of SHGs can borrow micro-credit for their household or business needs.

**Mkokoteni** – The term as used in this thesis implies a handcart.

**Jua Kali** – The term as used in this thesis implies informal sector.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter discusses existing literature on the key issues covered by this study, including: entrepreneurs' and MEs characteristics and how they influence entrepreneurs credit utilization levels; entrepreneurs sources of microfinance; expenditure pattern of credit secured and its impact on MEs; how income generated from MEs affect entrepreneurs' incomes and livelihoods. Also reviewed are policy issues on development of MEs within the broad context of grassroots initiatives. The chapter further reviews the theoretical and conceptual frameworks that inform this study.

#### **2.2 Entrepreneurs' Socioeconomic Profile**

An entrepreneur is considered important in the operation and success of any ME. This is because he or she organizes factors of production, looks for market opportunities and makes decisions that determine the future performance of the business (Bowen, 2001). However, the recent proliferation of MEs in LDCs has attracted micro entrepreneurs with varying socioeconomic profiles (World Bank, 2013). To confirm this, studies by Buss (1999), Kibas (2001) and Otunga *et al* (2001) found entrepreneurs operating MEs within the informal sector in Kenya to exhibit varied socioeconomic characteristics, including: age, sex, education levels, skills attained, ownership type, number of occupations, dependency levels and marital status.

Majority of entrepreneurs joining the informal sector in LDCs are not trained or operate businesses that are not in-line with the training they have received (World Bank, 2013). For instance, Simwa and Sakwa (2013) observes that majority of the entrepreneurs with specific skills in their line of production in Kisumu acquire them mainly through apprenticeship in family enterprises or those of friends. This view is shared by Sengendo *et al* (2001). However, some of the micro entrepreneurs in LDCs have their skills obtained through formal education, with some having worked in the formal sector before crossing into the informal sector (World Bank, 2013; RoK, 2013; and 2013b). In spite of this, Sengendo *et al* (2001) note that entrepreneurs operating

MEs have a high tendency towards flexibility of skills as individuals change jobs in line with changing market conditions, technology and materials available. In fact, this helps them to stay longer in business.

Further, Sengendo *et al* (2001) researching on MEs in Kampala City observed that business owners were aged between 26 and 37 years. Thirty per cent and 49 per cent of entrepreneurs had attained primary and secondary education levels, respectively. Only 17 per cent had attained tertiary level education while 3.7 per cent had no form of education. Also, Kibas (2001) found similar distributional characteristics of entrepreneurs' education levels in Eldoret Town.

Besides education, IFC (2013) has observed that majority of the MEs employ between 1 and 10 people, with ownership of the businesses being sole proprietorship, partnership or family owned. Sengendo *et al* (2001) observed similar findings in Kampala City. Similarly, researching on MEs in Eldoret Town, Kibas (2001) found out that 87 per cent of MEs were sole proprietorships, with 64 per cent and 25 per cent of the entrepreneurs being married and single, respectively. According to RoK (2008a), majority of entrepreneurs operating MEs in Kenya are unemployed and therefore find solace in the informal sector activities. However, the increasing cost of living has also driven those employed in the formal sector to venture into informal sector activities as a way of diversifying and raising their incomes (RoK, 2002a; 2004; 2008a; 2008c; and 2013a). Moreover, the increased investment in MEs has been associated with increased number of women entrepreneurs, wealthy business people, those in formal employment, school leavers and college graduates, as well as, retrenched employees (RoK, 2008a and 2008c).

Entrepreneur's marital status is also an important factor to consider when examining their socioeconomic characteristics. Marital status plays a crucial role in ensuring business success among many entrepreneurs (Kibas, 2001; Otunga *et al*, 2001). For instance, Kibas (2001) observed that women's marital status played an important role in the performance and success of their enterprises, besides a conducive business economic environment such as availability of market and credit. In their study of MEs in Eldoret Town, (Otunga *et al*, 2001) found out that 47 per cent of women entrepreneurs were married and quite successful in business, resulting from

support they received from their spouses in regard to finances, motivation or encouragement, advice and actual involvement in the running of their businesses.

Further, Otunga *et al* (2001) found that the majority of the entrepreneurs in Eldoret Town were aged between 20-44 years and 88 per cent had attained primary and secondary school education, which was essential in equipping them with basic skills in entrepreneurship. Those engaged in tailoring and hairdressing were apparently efficient because they were operating MEs in line with the skills they had trained. Only 2 per cent had post secondary and tertiary education, while 10.8 per cent had no formal education. Otunga *et al* (2001) also found out that high dependency levels limited entrepreneurs' ability to save and undertake business expansion, though there was no significant negative relationship between high dependency levels and business success (*ibid*).

Seierup (2001) examining the socioeconomic profile of *mkokoteni* business operators in selected urban centres in Kenya observed that majority were young, with a mean age of 26 years. In addition, the *mkokoteni* businesses were mainly owned and operated by male entrepreneurs, attributing it to the negative attitude or the physical nature of the work associated with the business, that is, pulling or pushing the *mkokoteni*.

### **2.3 Micro Enterprise Characteristics**

The ME-sector comprises of a larger number of varied micro, small, and medium sized businesses. Most of the businesses are labour intensive and produce goods and services mainly for the local markets (ADF, 2005; World Bank, 2011). Given the wide spectrum of activities in the informal sector, there has been a problem of defining small-scale enterprises (ADF, 2005). Despite this, quantitative and functional approaches have been used to define informal sector activities. The former approach uses variables such as level of capital investment and output, value of assets, number of workers and energy consumption, as convenient measures of scale. The latter approach takes into account the functional approach, classifying MEs on the basis of descriptive and qualitative data such as: organization and management of individual units,

methods of production, their market share and influence, suspected and proven characteristics and problems (Ongile and McCormick, 1996).

Using the quantitative approach, Kenya's policy documents and researchers, define a ME as one employing between 1 and 50 workers, and with assets whose value does not exceed Kshs 1.5 million. A medium-scale enterprise is defined as one that employs 51 but not more than 150 workers (Republic of Kenya, 1992; and 2002a). However, the recently enacted Kenya's Micro and Small Enterprise Act, 2013 defines a micro enterprise as one with an annual turnover of not more than Ksh. 5,000,000 and employing less than 10 people. Further, the Act defines small and medium enterprises as those with annual turnover of Ksh. 5,000,000-10,000,000 and over Ksh. 10,000,000, respectively. In the same order, they employ 10-50 people and 50-150 people (RoK, 2013). Mutai (2011) gives examples of MEs to include street vendors, hawkers, artisans and traders in open-air markets, dressmaking, tailoring, retailing of clothes, hair salons, etc.

Furthermore, Kinyanjui (1996) notes that capitalization, which includes the value of business assets as well as stock, and the number of people employed are important factors to be considered when determining the size of a ME. This is because an enterprise employing capital-intensive methods of production may have higher output per worker than those employing labour-intensive methods of production. Also, output level may not be a good measure of ME size, as it depends on price and market demand. But as much as income may be determined by price and market demand, it is very much correlated with ME capitalization level, hence a good indicator of ME size (*ibid*). Such a comprehensive view of what constitutes a ME is important as it gives an in-depth understanding of concepts and when empirically measuring and analyzing data on various ME variables.

In spite of difficulties in defining MEs, most of the businesses require little start-up capital and operate on a small capital base, are labour-intensive, family owned and rely on indigenous resources (Sengendo *et al*, 2001). Further, Stevenson and St-Onge (2005) point out that MEs as income-generating activities, operate in a dynamic and legally unregulated environment. For instance, they neither pay taxes nor observe laws on minimum wages. Moreover, they applaud the issue of illegitimacy as an important aspect in expanding employment opportunities in the ME sector. This is because with illegitimacy, there is the

freedom of entry into the market by potential small investors. Though, Omondi (2014) argues that operating outside the legal framework gives ground to lack of safety hazards and properly developed working places (premises) that leads to poor hygiene. He adds that some of the MEs lack business premises and operate in open air, not in consonance with land-use zones in urban and market centres. In a study in Kampala City, Uganda Sengendo *et al* (2001) observed that MEs were located in four major sites, including: along the main roads, side roads, established markets and in residential houses. Such locations do not make any meaningful comparative analysis of the value or cost of business premises to total cost of production difficult. In spite of location characteristics, Omondi (2014) point out that some of the MEs are engaged in lucrative business ventures, where entrepreneurs generate considerably higher incomes. For instance, Seierup (2001) found out that some *Mikokoteni* businesses in selected urban centres in Kenya were generating incomes five times higher than low-income casual wage labourers.

However, a number of factors act in unison or singly to determine ME size, characteristics, survival and growth. These factors include, among others: the amount of capital and financial resources available, skills acquired in technical and managerial areas, entrepreneur's sex, and size of market for products (RoK, 2008a; and IFC, 2013). Though, most businesses in the informal sector may not necessarily require (specific) skills to operate (RoK, 1992; and 2002b). To confirm this, a study of MEs in Nakuru Town by Obulinji (2010) found out that 75 per cent of entrepreneurs operating MEs in the trade category did not have skills relevant to the businesses they were operating. This was contrary to entrepreneurs in the service and artisan/manufacturing ME categories, of whom 60 per cent and 90 per cent, respectively, had received training that was relevant to the businesses they were operating.

#### **2.4 Factors Influencing Entrepreneurs' Credit Utilization Levels.**

In articulating the issue of credit utilization levels among entrepreneurs, IFC (2013) observes that access to credit, credit needs and utilization, as well as, repayment capabilities of many small investors is determined by their personal socioeconomic factors as well as business performance, among other factors. Further, Grameen Bank (2011) notes that entrepreneurs' lack of the required collateral or formal employment (which can also act as security) affects their

ability to access credit from mainstream financial institutions. RoK (1992; 1999; 2002a; 2002b; and 2008a) corroborates this view by noting that the majority of those venturing into informal sector activities are unable to secure employment in the formal sector. Yet permanent employment in itself qualifies one to secure loans from mainstream financial institutions. Further, RoK (1992; 1999; and 2008a) notes that land ownership or title deeds and other properties have been used as collateral by many investors. However, the low levels of land adjudication and registration in Kenya have denied many potential small investors to acquire credit using their land as collateral (RoK, 2008a). To improve access to credit, the Kenya Government has come up with special credit programmes to serve micro entrepreneurs. This include, among others: Women Enterprise Fund, Youth Enterprise Fund, Uwezo Fund (RoK, 2013a). Besides these micro-credit programmes, the Kenya Government has supported the establishment of a number of MFIs to provide the much needed credit to those engaged in informal sector activities (Omondi, 2014).

Kiraka *et al* (2013) notes that entrepreneurs' socioeconomic characteristics also determine their ability to mobilize available resources, take up risks and uncertainties in investing in available economic opportunities. For instance, wealthy individuals with assets and higher levels of income consume relatively more credit from available sources of finance than the poor. In support of this view, a study by Halter (2008) observes that, despite the potential of MFIs to reach the poor through 'friendly credit terms', they still consume fewer credit products relative to the rich. Also, Alila (1992), Bryden (1998) and Halter (2008) found out that in spite of the existence of special credit programmes to serve informal sector activities in Western Kenya, there was still wide variation in credit use among micro-entrepreneurs.

Further analyses of entrepreneurs' socioeconomic characteristics by Waitathu (2013) and KWFT (2007) show that the number of male and women micro-entrepreneurs has increased. This is attributed to increasing unemployment among men and women, as well as, the number of single-women headed households. Women, who are the sole bread winners for their families, are compelled to engage in small business ventures so as to be able to provide for their families. Despite this, empirical evidences show that women entrepreneurs are the most disadvantaged compared to their male counterparts in terms of accessing credit from formal lending institutions

(Munuhe, 2013). For instance, studies by Kibas (2001) and IFC (2013) have shown that majority of women lack formal employment and are also denied the right to ownership and inheritance of property - due to cultural considerations in most African communities. This makes them disadvantaged in terms of accessing credit from mainstream financial institutions (RoK, 2008a). However, with the emergence and proliferation of MFIs with 'friendly' credit programmes in most urban and rural areas of Kenya, it is not evident whether sex of the entrepreneur is still an important factor influencing credit utilization. Kibas (2001) observes that MFIs credit schemes in Eldoret Town disbursed huge amounts of financial resources, though in significantly varying amounts to entrepreneurs operating MEs. Despite this, the emergence of MFIs with tailored credit schemes to serve small investors in Kenya is a move in the right direction in addressing shortage of capital to entrepreneurs in the informal sector (RoK, 2002a; 2002b; 2008a; and 2013a).

Moreover, female rather than male entrepreneurs, face more business constraints: they lack entrepreneurship, market knowledge and technical skills which have pushed them to engage in small and peripheral informal sector activities that do not require substantial funding (Bryden, 1999; and KWFT, 2007). Also, the gender division of labour has traditionally designated them to the roles of food, water and fuel provision at the household. They are also preoccupied with the general maintenance of the homestead besides child-bearing responsibilities. This enormous burden worsens their performance in ME businesses (RoK, 1992; 1999; 2002a; and 2008a; and Kibas, 2001). Yet business performance directly affects ME income, which K-Rep (2011) notes that will influence entrepreneur's demand for more credit.

In addition, a study by Obulinji (2010) shows that: ME profit level; entrepreneur's ignorance as regards other available low interest sources of credit (other than banks), sex, level of education and training; and ME capitalization, were important pointers to credit utilization levels among entrepreneurs in Nakuru Town. Also, Wegulo and Obulinji (2001) observe that entrepreneurs who had more sources of income, unlike those with one source, relied less on bank loans as a source of credit for their businesses in Mumias sugar belt. Indeed, bank loans accounted for only 8.4 per cent of MEs start-up capital, while 91.6 per cent actually came from entrepreneur's other sources of income. It is in view of the above mixed observations and



discrepancies when it comes to accessing loans that among others, Stevenson and St-Onge (2005) and Simwa and Sakwa (2013) have recommended the need for gender sensitive as well as appropriate policies to address the credit needs of entrepreneurs.

Studies by Ouma (2002) and Ouma and Rosner (2003) also analyze savings and credit. Savings among ME proprietors is inhibited by: high opening and minimum savings balances requirement of formal financial institutions, low levels of income, low levels of education, and high monthly domestic expenditures. Choice of lending sectors is determined by size of loans, the demand for security, the number of days it takes to process a loan, restriction on loan use and age of entrepreneur. Determinants of choice of lending institutions include demand for collateral, demand for small loans, bureaucracy in loan processing and the age of urban ME proprietors. Kimuyu and Omiti (2000) found that the factors that significantly affected the odds for applying for a loan include formality and age of proprietor. Demand for credit is determined by formality, age of entrepreneur and primary level of education while determinants of credit supply include formality, urban location and firm revenue. Atieno (2001) found that 85% of small scale enterprises were credit constrained. She interpreted this to imply that lack of supply creates lack of demand, displayed in the low revealed demand. This generates credit rationing by both formal and informal credit markets and the creation of a credit gap in the market.

Other studies by Bowen (2001), Kibas (2001), Otunga *et al* (2001) and Rono (2001) examined a number of entrepreneurs' and MEs characteristics, including: education, sex, training, marital status, age and other forms of entrepreneur's occupation; and size of investment capital; location characteristics, business production type, market demand and profitability levels, business age, among others. However, the scopes of these studies did not include the nexus between entrepreneurs' and MEs characteristics and their influence on credit utilization levels among entrepreneurs, except for the study by Kibas (2001) in which it was found that married women tended to consume more loan amounts. He attributes this to their spouses' moral and financial support both in business, and in meeting some of their social needs, leaving the women entrepreneurs with more disposable ME incomes. Higher business incomes enable them to consume more credit.

## **2.5 Entrepreneurs' Sources of Micro Credit**

The notion of micro credit in improving performance of small businesses and livelihoods of poor people in rural areas of developing countries is not a new phenomenon. Some of the leading and renowned models of micro-credit programmes that have been in operation in developing countries include, among others, the Micro-Credit Summit programme (covering many developing countries) and the Grameen bank of Bangladesh (Ongwaye, 2010; Grameen Bank, 2011). Many such programmes have come up due to the challenges faced by mainstream financial institutions to serve micro-entrepreneurs, particularly those operating within the informal sector. Besides the above two models of micro-credit programmes, a number of MFIs are operating within developing countries to uplift the standards of living of the poor through provision of business credit (Ongwaye, 2010; Grameen Bank, 2011). Further, many LDCs governments' have come up with ME development programmes, which among other things, provide micro-credit aimed at assisting the poor grow their business incomes and improve livelihoods. However, most the government credit programmes are riddled with corruption and bureaucracy (World Bank, 2013).

Sources of microcredit for informal sector activities can be classified as formal and informal. The term 'informal', in the conventional sense, implies non-institutional and unregulated through financial legislation and supervision. However, this does not mean that unofficial systems are without unregulated activities (Alila, 1992; CBS, 1999). According to Alila (1992), Bryden (1998) and KWFT (2007), formal credit institutions include MFIs, cooperatives, producer associations, banks and other financial intermediaries. While friends, ASCRAs, ROSCAs, table banking concept, among others, are examples of informal credit institutions or sources. Oyugi (2013) notes that these informal credit institutions are commonly organized inform of or under the SHG-movement, where members can borrow money for their household or business needs. Mutai (2011) points out that commercial banks and government financial support programmes fall within the formal sources of credit, while money lenders and trade credit supplies are informal sources of credit.

According to AMFI (2010), MFIs are small formal non-bank/non-governmental institutions engaged in provision of small loans and or saving facilities to small investors,

preferably in SHGs. These institutions do not necessarily require (asset-based) collateral to advance loans to small investors. They are not concerned mainly with profit maximization and rely on donor or government funding/support, well-wishers and or locally mobilized financial resources to support grassroots development initiatives (AMFI, 2010). Examples of formal MFIs in Kenya include: KWFT, SMEP/NCKK, K-Rep and Faulu Kenya, among others (AMFI, 2010). Formal MFIs have comparatively less stringent lending conditions than the mainstream financial institutions such as banks. For instance: loan guarantor(s) need not be clients, household goods can act as collateral and one month savings with the MFI is considered an eligibility criterion to qualify for a loan. Other advantages of accessing loans from MFIs include: flexibility in loan amount borrowed, i.e from Ksh 1000 onwards, and the lengthy payment period of the same; public awareness of existence and close proximity of MFIs to (potential) loanees; and the friendly human face, accessibility and approachability of MFIs credit officers. Also, there is no loan processing fees charged and loanees can communicate in their mother tongue, especially for those that are semi-illiterate (BFSA, 2011; EFSA, 2011; KFSa, 2011; PDP, 2011).

Besides the advantages of accessing loans from MFIs, North and Weingast (1989) and Ostrom (2005) have outlined a number of benefits associated with group or institutional formation in tackling socio-economic issues faced by members at the grassroots or at whatever level of operation. The objectives and goal of group formation are aimed at improving the socio-economic status of members. For instance, groups form to address issues of whatever nature that are faced by members and are not addressed by existing formal or government institutions. The group's collective actions and common responsibility ensures that each member acts as a co-guarantor to any decision made by a group member. The group's collective actions and common responsibility act as a safeguard measure to group members in any form of mutual linkage(s) with other institutions or partners. Further, through group dynamics, each member is assigned specific roles/duties and also oversees how each member works towards achieving the group's common objectives and goals. The group is also responsible in evaluating each member's potential, suitability and contribution towards achieving the group's objective and goals. Moreover, through members' interactions, members are able to share diverse knowledge, experiences and skills, which are vital in members' decision making process. By so doing, members are able to widen their social and professional networks that help in achieving the goals

and objectives of the group (North and Weingast, 1989; and Ostrom, 2005). This group dynamics are important in understanding why MFIs prefer working with entrepreneurs in groups as regards provision of micro-credit to their MEs.

In spite of the friendly credit conditions offered by MFIs, their proliferation in rural Kenya is recent and can be traced slightly to close to a decade (Waitathu, 2013). Thus, ADF (2005) and RoK (2008a; 2013a; and 2013b) note that besides other factors, inadequate capital has constrained the development of MEs. Shortage of capital is occasioned by the inability of (potential) investors in the informal sector to access loans from the mainstream financial institutions such as commercial banks. This is attributed to a combination of both economic and non-economic factors. For instance, stringent lending requirement, lack of collateral, high levies charged on secured loans, high costs of operating bank accounts and the comparatively high as well as unstable and soaring interest rates charged on bank loans inhibit entrepreneurs in the informal sector from accessing loans (RoK, 1986; 2002a; 2002b; and 2008c; Wegulo and Obulinji, 2001; Central Bank of Kenya, 2007; Kenya Bankers Association, 2011). Also, because of: lack of workable proposals and the high overhead costs associated with handling many small loanees; and the fact that most of the MEs have no permanent locations and assets that can be mortgaged, most mainstream financial institutions are discouraged from lending to entrepreneurs operating MEs in the informal sector (Ryne and Otero, 1994; Buss, 1999; RoK, 2008a).

Moreover, ignorance and fear among small investors, as well as the geographical inaccessibility to banks by small borrowers in rural areas, continue to hamper their effort to access credit from the mainstream financial institutions (Waitathu, 2013). Further, some of the Kenya Government development programmes such as the Youth Enterprise Fund, Women Enterprise Fund, Uwezo Fund, among others, exhibit centralized institutional management and bureaucratic procedures that cannot easily be accessed or met by the intended beneficiaries (Wanzala, 2012; Mosoku, 2013). Besides this, the operationalization of programmes developed by the government to provide credit to micro-entrepreneurs has been hampered by, among other factors, lack of collateral and awareness of available credit sources among entrepreneurs (ibid).

Thus, because of intrinsic financial market failures associated within mainstream financial institutions and many government programmes, NGOs have been prompted to develop innovative financial services to serve the needs of small investors ( RoK, 2008a; and 2008c; KWFT, 2007; AMFI, 2010). In pursuant of this, RoK (2002a; and 2008a) notes that the move by NGOs is partly in line with the policy of promoting informal sector activities through credit provision. Also, conditionalities set by formal credit sources, including those within government departments, inhibit entrepreneurs' access to financial resources (Alila, 1992; and 2001; RoK, 1992; and 2008a; Mwarania, 1993; Ryne and Otero, 1994; ADF, 2005). Alila (1992), therefore, suggests the need to re-institutionalize formal credit lending terms to conform to terms and conditions at the grassroots like those set by MFIs and informal groups such as ASCRAs and ROSCAs. Indeed, in support of this argument, studies by IFPRI (1998) in Bangladesh, Cameroon, China, Egypt, Madagascar and Nepal show that the bulk of loans (95%) are from informal sources. This is attributed to better borrowing terms and the better economic conditions for micro-entrepreneurs (IFPRI, 1998).

## **2.6 Expenditure Pattern and Impact of Credit on Microenterprises, Entrepreneurs' Incomes and Livelihoods**

Whereas credit acquisition, use and business growth are of concern in the ME sector in most LDCs, some of the literature on these aspects is not only fairly recent but is also thin, particularly on issues of how businesses performance affect livelihoods of owners (ADF, 2005; Grameen Bank, 2011). In articulating issues related to the expenditure pattern of credit secured, Finamore (1996) observe that credit secured by entrepreneurs from MFIs and other sources has been useful in a number of ways: bridging cash-flows; purchasing fixed assets; and providing a base for adequate working capital. Also, Onyuma and Ouma (2005) contend that credit secured by entrepreneurs is treated as working capital finance and is meant to facilitate entrepreneurs purchase additional business stock, required assets, among other needs.

Further, Finamore (1996) and Sengendo *et al* (2001) note that credit is vital in the development of MEs. It enables entrepreneurs to make independent decisions regarding their businesses, unlike when they depend on friends, spouses or relatives for financial support. For

instance, entrepreneurs will invest in the most critical and deserving ME variables needs that they think can improve business performance. They can invest in more business stock, buy new equipment, invest in new technologies, modernize their business premises or even hire more labour, among other business needs. However, in Kenya Kibas (2001), KWFT (2007) and EFSA (2011) observe that majority of small scale entrepreneurs are at times unable to secure adequate credit to meet their business needs. Despite this, KWFT (2007) notes that some entrepreneurs still divert the inadequate funds borrowed to their personal or household needs.

Some studies have been conducted to ascertain the extent to which credit secured impacts on MEs. For instance, Finamore (1996) and Bryden (1998) observed significant impacts resulting from credit secured on rural MEs, including: rural trade; and manufacture. Further, Bryden (1998) observed improved ME production technology, increased as well as diversified output and increased income. However, because of limited capital and skills, most entrepreneurs and more particularly women, concentrate on activities with low employment and or income levels, impacting minimally on their standards of living (Bryden, 1998). Bulow *et al* (1995) and Harrizon (1997) attributes women occupation in such activities partly to correspondingly lack of broad-based policies that touch on gender-relations at the household. Otunga *et al* (2001) corroborates this view and notes that despite women operating activities with low employment and incomes, MEs have contributed to improvement of livelihoods in many rural and urban households. Therefore, Bryden (1998) recommends the need for advisory services to ensure members of SHGs engage in more productive activities.

Further, research findings and reports from NGOs and other formal financial institutions involved in credit provision to MEs (World Bank, 2000; Kibas, 2001; BFSA, 2011; and EFSA, 2011) show that credit impacts positively on ME output and productivity, employment, business assets and subsequently, income. To confirm this, K-Rep (2002) in its inventory of projects and small programmes for small enterprises and *Jua kali* activities notes that loans borrowed by owners of businesses were spent primarily for purposes of generating working capital requirements. In addition, loans secured impacted positively on ME-profits/incomes and total ME-employment. The survey also revealed that the loan size appeared to be a strong predictor of both net enterprise capitalization and income levels.

Other recent studies that have analyzed the relationship between micro-credit and growth of enterprises include Nkurunziza (2005) Simeyo *et al* (2011), Mairura *et al* (2012), Memba *et al* (2012), Obwori *et al* (2012), Kiraka *et al* (2013), Mwangi and Wanjau (2013) and Simwa and Sakwa (2013). For instance, Nkurunziza (2005) found that, conditional on survival, firms that use credit grow faster than those not using it. However, the results of this study apply only to the manufacturing industry. No attempts were made to provide results for manufacturing MSEs. Similarly, data limitations could not allow for the analysis of other sectors. Mairura *et al* (2012) found that financial intermediaries support (by offering banking services, credit, training and advisory services) to manufacturing SMEs in Nairobi promoted their growth prospects. A study of 1,200 small scale soapstone operators in Gucha South District shows that 86% of the respondents had experienced growth of their enterprises as a result of loans obtained (Obwori *et al*, 2012). This results is corroborated by Simeyo *et al* (2011), Memba *et al* (2012), Mwangi and Wanjau (2013) and Simwa and Sakwa (2013).

However, Kiraka *et al* (2013) using multivariate logistic analysis found mixed results. In the “employee growth” equation, the authors found the loan amount did not significantly affect the odds that the business will grow while the age of the loan significantly increased the odds that the business will grow. In the “total business worth” equation, age of the loan was positive and significant but loan amount was positive but insignificant. In the “turnover growth” model, the loan amount was negative and significant while the age of the loan was positive and significant. In the “growth in gross profit” equation, loan amount was negative and significant but age of the loan was positive and significant. Notably, the variable “loan amount” does not give very consistent results when the authors analyzed different measures of firm growth. Apart from Kiraka *et al* (2013), most of the studies reviewed here use data collected from small samples (less than 200 firms) and others collected data from only one sector. This limits the extent to which such results could be generalized. In determining the impact of credit on MEs, this study examined MEs in all the sub-sectors; trade, service and artisan categories, generating data that is useful in comparing the impact of credit across different categories of MEs. Further, studies by Nkurunziza (2005) Simeyo *et al* (2011), Mairura *et al* (2012), Memba *et al* (2012), Obwori *et al* (2012), Mwangi and Wanjau (2013) and Simwa and Sakwa (2013) did not explore

how MEs performance impacted on livelihoods of owners. Moreover, this study was conducted in a different spatial area that vary in the socioeconomic characteristics, generating different but complimentary data that helps in understanding the impact of credit on MEs growth. This is important for comparison purposes.

Apart from NGO-credit meant to support activities of SHGs, a number of scholars and official documents have also examined financial resources (internal sources) of mutual-groups in various aspects and how they impact on MEs as well as group members' incomes ( Alila, 2001; Halter, 2008; BSFA, 2011; EFSA, 2011; RoK, 2013b). Also, Finamore (1996) and Wachtel and wachtel (1997) have also examined the impact of SHGs' internal financial resources on incomes of members activities and their livelihoods. They observe that SHGs' internal sources of credit have enabled members to expand their MEs, undertake a number of group, as well as, individual activities including investment and expansion in: hotels and high rise apartments, import-export businesses, bars, restaurants, cinema, supermarkets, transport business, dry cleaners and liquor stores. These MEs greatly impacted the employment and members earnings, thus, improving their lifestyles through increased consumption of goods and services. However, some of these studies, for instance, Alila (2001) and Halter (2008) point out that some of the money borrowed from ROSCAs and ASCRAs was not invested but spent on consumables because of lack of investment opportunities.

However, data on the way credit secured is utilized on specific ME variables and the nature of its impact on businesses operated by Members of SHGs is uncertain in the study area. Kibas (2001) in his study of entrepreneurs in Eldoret Town recommends the importance of ascertaining exactly how loanees spend funds borrowed on various ME variables. Thus, to be able to fully understand the contributions of MEs and hence assist them grow and play a major role in the economy of the study area, empirical data on the amount, use and impact of credit on MEs needed to be ascertained. It is from such empirical data that appropriate policies and actions can be taken by the credit providers and in this case MFIs, so as to ensure increased access to credit by entrepreneurs. Further, credit providers can come up with mechanisms for assessing entrepreneurs' credit needs and advisory services so to ensure credit borrowed is adequate and utilized effectively, respectively. This will ensure maximum impact of credit on MEs.



Despite the above discussions, a number of studies (Alila, 1992; 1993; and 2001; Felsenstein and Schwartz, 1993; Levy, 1993; Ongile and McCormick, 1996; Wabwire, 1996; Bowen; 2001; Kibas, 2001; Muller, 2001; and Otunga et al, 2001) and policy documents in Kenya and other developing countries (RoK, 1986; 1992; 1999; 2000; 2002a; 2002b; 2008a; and 2008c; and IFC, 2013)) that focus on development of MEs have observed that apart from lack of adequate capital, other complimentary factors are also important limitations to micro enterprise growth. These include insecurity, lack of appropriate technology, poor physical infrastructure, poor market services/obstacles and competition. Also, shortage of raw materials and power, lack of education, low or lack of labour and management skills and unfavourable broad-based policy issues are important factors that affect the growth of MEs. Mutai (2011) has also noted that lack of: effective regulatory environment for MEs; developing capacity of MEs support institutions; research and data gathering that can enhance issue-based planning, are important factors affecting the development of the ME-sector. In addition, studies by Ouma and Atieno (2001), Onyuma and Ouma (2005) while mainly conceptual put forward the argument that micro-finance is associated with the myth that the major factor constraining success of businesses is lack of access to credit. The authors conclude that the poor need much more than micro-loans.

With a myriad of factors affecting the performance of a ME, it is difficult to ascertain the impact of a particular variable on the growth of a ME. However, according to IFPRI (1998), one way of analyzing the impact of a particular programme or variable on the performance of a ME is to adopt a comparative analysis of MEs that are beneficiaries and those that are non-beneficiaries of a development programme, holding other factors constant. This is based on the assumption that MEs operating in a given threshold or market are faced with more or less similar business constraints. Hence, such a comparative approach adopted by this study facilitated the analysis and determination of the impact of credit on MEs that were beneficiaries.

In Kenya and other developing countries, the promotion of informal sector and in this case MEs, has had the objective of creating jobs and incomes for the increasing labour force that cannot find jobs in the formal sector (RoK, 2008a; World Bank, 2013). Thus, the development of the ME-sector is one key area or strategy the Kenya Government is using to reduce high poverty levels in urban and rural areas. This is well envisioned in Kenya's Vision 2030 policy document.

Besides this, other programmes such as the Women and Youth Enterprise Funds and the recently launched Uwezo Fund are key pointers to the efforts the government has directed towards the development of the ME-sector. Further, the formation of Micro and Small Enterprises Authority (MSE Authority) and the enactment of the Medium and Small Enterprise Act 2013, to incorporate other stakeholders in ME development policy framework, is proof of the government's commitment to develop the ME-sector (Munuhe, 2013).

In the study area, 51.3 per cent of the population was classified as living in absolute Poverty in the year 2013 (Rok, 2013b). Yet, one of the millennium development goals (MDGs), which Kenya is signatory to, is to reduce extreme poverty and hunger by the year 2030. It is envisaged in some of the Kenya's policy documents (RoK, 2004; 2008a; 2008b; and 2008c) that micro, small and medium scale enterprises will continue to play a major role in the creation of employment and incomes to the increasing labour force. Therefore, to enhance the growth of these enterprises, the government recognizes, among other measures, the need to ensure increased provision of credit so as to enable entrepreneurs expand their businesses. This is also corroborated by Kenya's Poverty Reduction Paper (1999), RoK (2008a; 2008b) and Kenya's Vision 2030 policy document.

A part from the above review on the expenditure and impact of credit on MEs, entrepreneurs' incomes and livelihoods, a number of studies are reviewed in this section whose themes either partially cover aspects of this study or do not but have focused on grassroots initiatives in development. For instance, a review of studies conducted in Kenya by Omoka (1991), Omosa (1991), Chavangi (1992) and Ondiege (1992) reveals that the thrusts of these studies did not focus on the theme of this study but on two general areas on grassroots initiatives in development: (i) on transfer of financial and material resources from NGOs to SHGs, the nature of projects undertaken and the approaches used by SHGs in their development activities, that is, whether gender sensitive, group or individual projects; and (ii) on internal organization and management structure of SHGs as well as their membership characteristics, and how these affected the effectiveness, nature and pattern of development undertaken by the groups at the grassroots.

Kibas (2001) too examined the impact of NGO-credit on MEs operated by women entrepreneurs in Eldoret. He observed that the MFIs loan process had ‘friendly’ credit terms and enabled entrepreneurs to acquire loans with no substantial collateral beside their minimum savings. Credits secured empowered women in managing and controlling the resources of their enterprises, as well as, make key decisions regarding their enterprises and families. This raised their social status. Further, credit secured impacted positively on business assets, sales, profits and employment. Despite these observations, his scope was comparatively narrow to that of this study, as he did focus only on women entrepreneurs. Furthermore, his study did not examine how entrepreneurs’ and MEs characteristics influenced credit utilization levels among entrepreneurs.

Other studies (Kinyanjui, 1996; Otunga *et al*, 2001; and Rono, 2001) mainly focused on inventorying of entrepreneurs and ME characteristics, without also making further analyses of how these factors influenced credit utilization levels among entrepreneurs. Moreover, the scopes of these studies were comparatively narrow as they did not examine the impact of credit on MEs and entrepreneurs’ livelihoods. Besides the above, it is also evident that all the above-cited studies {including that of Kibas (2001)} were conducted in major urban areas characterized with spatial and socioeconomic backgrounds that are different from the area covered by this study, which is predominantly rural. Such variations in the socioeconomic profiles can have significant ramifications on the findings of this study, which is important for comparison purposes.

Also, Owuor (2002) did a study on the effects of financial self-help groups’ credit on agricultural production among small-scale maize farmers in Ukwala Division, Siaya District, Kenya. Further, Owuor (2008) did a study on comparative analysis of the effects of group-credit linkages on small-holder farmers’ productivity and poverty reduction in Kakamega and Nakuru Districts. Both studies are related to this study in that they evaluated the impact of credit from ASCRAs and ROSCAs on SHGs activities, and in particular, farming. His findings show positive impacts of credit on farmers’ farming activities and livelihoods. However, this study is different from his in terms of the geographic area covered, as well as, the object of study. In particular, this study focused on credit-assisted non-farm activities (MEs) among members of SHGs in Butere, Mumias, Matungu and Khwisero Sub-Counties and subsequently, how income

generated from these enterprises was spent on entrepreneurs' businesses, other household investments, as well as, consumption items.

Halter (2008) also carried out a study on self-help groups as a strategy for rural development in Butere-Mumias District. Her study focused on: how groups were used to address community challenges and meet their needs; the differences between women, youth and mixed groups, as well as, their differing needs based on demographic characteristics; and the type of government and NGO support that were available to groups. Her first two concerns are not related to the scope of this study. Despite her third concern being related to this study, it is non-specific to microfinance credit generated and advanced to groups by MFIs. Moreover, the spatial area covered, research design and time period within which she conducted her study vary from this study.

## **2.7 Policy Issues on Development of Microenterprises within the Broad Context of Grassroots Initiatives**

Most sub-Saharan African countries have in the last three decades been characterized by dismally low economic growth and development (ADF, 2005; UNDP, 2007/8). Most scholars attribute this partly to shortcomings in macro planning (World Bank, 2013). Hence, there is need to reorient planning and development approaches so as to spur development, particularly at the grassroots level (Alila, 2001; UNDP, 2007/8). Policy makers and practitioners, as well as, other stakeholders in development arena are therefore putting emphasis on enhanced growth through broad-based consensus in formulation, implementation and intervention of development policy. This is expected to broaden the scope of economic activities captured within the policy framework, besides ensuring relevance and sustainability in development (World Bank, 2000; 2011 and 2013).

One area in developing countries where policy makers, development practitioners and institutions have focused to ensure enhanced community participation in development is in the strengthening of the nexus between grassroots initiatives and stakeholders in development. It is

argued that such policy reorientation will foster greater self-reliance, while ensuring relevance, wider participation and sustainability in development at the grassroots (RoK, 2004; and ADF, 2005). In fact, both bilateral and multilateral donors now have a clear preference for channeling resources through NGOs to support grassroots initiatives. For instance, provision of credit and business development support to MEs by NGOs/MFIs attests to this emerging policy change or orientation in development approach (Leys, 1996; Alila, 2001; DFID, 2005). The ME sector is significant in most African economies in terms of promoting participatory development at the grassroots (ADF, 2005), employment creation and improvement of livelihoods for various segments of the population, the old, young, unemployed, the poor and women (Alila, 1991; Bryden, 1998; Mutai, 2011). Indeed, the proliferation of MEs in recent years in both urban and rural areas of Kenya is an indication of their potential to improve incomes, create employment and address the high levels of poverty among the people (RoK, 1999; 2002a; 2002b; 2008a; and 2008c).

However, some of the policies formulated in Kenya to spur the growth of large-scale industries and commercial firms such as tax rebates and credit provision, do not necessarily benefit the ME sector. This is because most of the MEs operate out of the tax bracket and majority of micro entrepreneurs lack required collateral to access credit from the mainstream financial institutions (RoK, 1992; 2002a; 2004; and 2008a). There is need, therefore, for the Kenya Government to undertake policy measures to encourage the growth of the ME sector, notably by way of setting up programmes that seek to alleviate shortages of capital, which is a major obstacle to their development. Besides capital provision, other measures such as improvement in market infrastructure, training in skills, attitude and capacity building, etc need to be addressed (Kibas, 2001; Ongile and McCormick, 2001; Otunga et al, 2001; and RoK, 2008a)).

Kenya and other African Countries ratified the UNCRD/CIRDAFRICA agreed proposals on local/grassroots initiatives in development held at Arusha, Tanzania in February 1989. Proposals on how to support local initiatives in development, echoed in Kenya's 1997 – 2001, 2002 – 2007 and 2008 - 2012 Development Plans, Poverty Eradication Plan, 1999 and Vision 2030 include among others: decentralizing or strengthening decision-making and development

strategy at the local level; and provision of sound macroeconomic policy framework, basic socioeconomic infrastructure, financial resources as well as institutional and technical support. In addition, the Kenya Government will continue to embrace and encourage the role of other stakeholders such as NGOs and churches in its development framework (UNCRD, 1989; Kinuthia, 1993; RoK, 1997a; 1999; 2002a; 2008a; and 2013a). Moreover, reduced direct government funding of development projects due to poor economic performance, structural adjustment programmes and reduced support from external development partners, strengthen the nexus between local initiatives and other stakeholders in development (RoK, 2008a; and 2013a; and World Bank, 2008).

One area where collaboration exists between grassroots initiatives and other stakeholders in development is in the promotion of the ME sector. Unfortunately, whereas most African Countries have sound policies on MEs, these remain largely unimplemented. This is particularly true in Kenya where there is serious shortage of resources needed to implement policies for development of MEs – capital, skills, technology, etc (Alila, 2001; RoK, 2002a; and 2008a). Despite this, some of the policies the Kenya Government has put in place to overcome constraints in accessing credit for micro entrepreneurs include: (i) recognizing letters of allotment on land and expedite land registration processes to enhance credit worthiness of micro entrepreneurs; (ii) encouraging donors to avail funds to commercial banks and other lending institutions at low interest rates. This will allow them a wide interest margin to cover the greater risks and high cost of lending to informal sector firms; and (iii) encouraging donors, NGOs, cooperatives and other strong voluntary associations representing informal sector entrepreneurs to support programmes aimed at the development of the ME-sector. For instance, avail information and give assistance on new technologies, purchase inputs and market outputs for informal sector firms besides providing credit. It is envisaged that such organizations can devise their own credit programmes for the informal sector because they are better placed to determine credit worthiness of an entrepreneur and also enforce repayment (RoK, 1986; 1992; 2000; 2002a; and 2008a; and Mutai, 2011).

## **2.8 Critique of the Literature**

It is evident from the review of literature that data on socioeconomic characteristics of entrepreneurs operating MEs in the study area is scanty and in particular, how they influence differences in total microcredit secured from available sources. Hence, an inventory of entrepreneurs' socioeconomic profile and how they influence differences in total microcredit secured is important in any ME-sector led interventions and development policy in the study area.

Despite exhibiting a myriad of business characteristics, information on MEs types and characteristics is also lacking in the study area. For instance, data on MEs income, employment, capitalization levels and business age is lacking. Inventories of ME types and characteristics generated by the study, provide crucial data needed in any ME-sector led interventions and development policy in the study area. Further, it is evident that studies reviewed do not explore how MEs characteristics influence differences in total microcredit secured by entrepreneurs from available sources. Hence, an inventory of MEs characteristics and how they influence differences in total microcredit secured by entrepreneurs is important in any ME-sector led interventions and development policy in the study area.

Further, it is not exactly clear from the literature review the extent to which entrepreneurs' and ME characteristics are significant in influencing levels of total credit secured among micro-entrepreneurs. This study was, therefore, important in establishing the significance of entrepreneurs' and ME characteristics in influencing levels of total credit secured by entrepreneurs. Such information will partly be crucial to policy makers in terms of designing policies and informing strategies that will enhance total credit secured by small investors in the informal sector.

It is also evident from the review of literature that apart from formal credit sources, ROSCAs and ASCRAs are important informal financial resource access-points for group members involved in informal sector activities. However, despite the significance of formal and informal credit sources and the difficulties associated with accessing loans from mainstream financial institutions, there is lack of clear documentation on the extent and magnitude to which members of SHGs operating MEs rely on either source of credit for their businesses and in

particular, in the study area. In view of this, it was important that this study documents the formal and informal sources of micro credit and establish their relative significance as sources of funds for members of SHGs operating MEs in the study area. Besides this, there was need for this study to suggest recommendations that will ensure entrepreneurs' easy access to credit from MFIs in the study area.

Moreover, literature reviewed shows that studies that have focused on expenditure and impact of credit on MEs have not ascertained how credit secured by entrepreneurs is spent on ME variables and the extent to which credit impacts ME variables, entrepreneurs' total incomes and livelihoods. This study has examined these issues. Thus, information generated by this study is important to planners and policy makers that aim to address employment, raise incomes and livelihoods of people in the study area through the development of MEs activities.

It is also evident from the review of policy issues that there is changing approach to rural development in LDCs, where governments and other development agencies prefer working with grassroots institutions. The Kenya Government acknowledges the key role played by grassroots initiatives in development and in this case, MFIs in the development of MEs through credit provision. However, this critical information on the role of MFIs in provisioning of credit to MEs and how it impacts their growth is lacking in the study area. It was, therefore, important that this study documents this data, which is partly useful in ascertaining the role of grassroots initiatives in development. This is important in terms of contributing to the theoretical and empirical literature on grassroots initiative to rural development. This will also be important in terms of refinement of policy instruments in support of grassroots initiatives in development and in particular, the role of MFIs in the development of MEs in the study area through provision of credit.

## **2.9 Theoretical Framework**



This section discusses three theories that inform the conceptual framework of this study: the social work and community radicalism theory; the flexible specialization model; and the household economic portfolio model.

### **2.9.1 Social Work and Community Radicalism Theory**

The social work and community radicalism theory explains the emerging change in development policy and approach by governments and other stakeholders in LDCs, i.e from community development paradigm to community participation in development. The former involves centralized approach to planning and development which is looked at as alien by the targeted (rural) beneficiaries while the latter, grassroots initiatives involving active participation in development (Midgley, 1986a; and 1986b).

Among the first to systematize community development and give it a theoretical base was Lane (1939, 1940). However, Ecklein and Lauffer (1972) and Perlman and Gurin (1972) observe that community development movement of the 1950s and 60s, initiated by missionaries and founding presidents of Third World Countries failed to enlist popular participation and effectively address community development needs. Drawing from the theory of social work and community radicalism, Galtung *et al* (1980), Kitching (1982), Bwalya (1985), Midgley (1986b; 1986c) and Pickering *et al* (1995) observe that community development movement failed because it lacked proper administrative and democratic mechanisms to incorporate the poor in the realm of decision-making, policy formulation and implementation of development projects. Also, it suffered interference from the political establishment – diverting and or withholding resources meant for development (Muia, 1991; and Wandera and Omoto, 1991). Further, Midgley (1986a), DFID (2000), ADF (2005) and Wanzala (2012) note that many governments in Africa have failed to provide adequate financial support to community development activities and needs. This is attributable to poor economic performance; and bureaucratic nature, corruption and inefficiencies associated with government development programmes.

Moreover, the SAPs adopted by many countries in the 1980s, considerably reduced the prospects and fortunes of the conventional community development paradigm, by cutting resources meant for development. Yet the socioeconomic needs of the majority of the poor

cannot be addressed effectively by mainstream government and private development institutions, which remain largely commercially oriented, with preference to serve large-scale investors and direct investments only in the most profitable sectors of the economy (RoK, 1994; 2002a; and 2004; DFID, 2000; ADF, 2005). Lane (1939, 1940), Ross (1955, 1958), Warren (1955), Harper and Dunham (1959) and Steward (1969) note that self-sustained efforts in community development often arise as a collective means of redress to development needs of the local people, neglected by indifferent establishments.

Thus, proponents of community participation have been vociferous critics of community development paradigm since the 1970s. They argue that an alternative grassroots approach, which ensures popular and direct involvement in community life, is needed to promote genuine participatory development. Hence, there is need to radically change community development approach by urging the people to take direct action to improve their well-being through existing grassroots organizations such as SHGs (Alinsky, 1971; Loney, 1983; Midgley, 1986a; and 1986c; and Alila, 1992). Barkan and Holmquist (1986), for example, contend that grassroots initiatives enhance participation and help embrace the concept of territorialism in development.

The concept of community participation has, therefore, had considerable appeal in development planning in both developed and developing nations, among politicians, technocrats, scholars, development and donor agencies, including NGOs (Worsely, 1967; Midgley, 1986a; Leys, 1996; ADF, 2000; DFID, 2000). Mardsen and Oakley (1982) and CARE International (2000) point out that, apart from locally available resources, many NGOs and donor agencies, through their laid down conditions and structures, provide financial as well as other resources in support of community participation in development activities. The open social system theory epitomizes a situation in which actors in development activities at the local level can rely on both locally and externally available resources for development (Omoka, 1991). In this case, entrepreneurs in SHGs utilize their internal, as well as, external financial resources from MFIs in the development of their businesses. North and Weingast (1989) and Ostrom (2005) observe that many NGOs providing financial or material credit to members of SHGs engaged in small-scale economic activities rely on groups' collective actions and common responsibility as insurance to

credit repayment. Credit utilized can enhance the performance of entrepreneurs' MEs as explained by the flexible specialization model.

### **2.9.2 Flexible Specialization Model**

According to the flexible specialization model as originally proposed by Piore and Sabel (1984), small enterprises utilizing either internal or external resources or both will develop characteristic changes besides compete, survive and grow in a competitive market. For instance, credit secured influences the decisions an entrepreneur is likely to take regarding operation of a ME. According to the model, an entrepreneur operating a ME can: (a) hire more raw materials and labour to increase output and income; (b) use multiple skills his/her employees have to diversify output and raise income; (c) invest in more assets and better forms of technology so as to raise as well as diversify output and improve on quality of products; (d) relocate to better sites conceived as either having a ready and bigger threshold for goods and services produced or create more space for expansion of business (House, 1981; Schmitz, 1989; and Sengendo, *et al*, 1997; and 2001). Thus, evidences of rising: output levels, technical efficiency, profitability, capital stock and employment of a firm are all indications of enterprise growth (Bannano and Brandolini, 1990). Improved incomes from the business can translate to better households' livelihoods for owners of MEs (Finamore, 1996). Dunn and Valdivia (1996) have recommended the use of household economic portfolio model in ascertaining the significance of income from a ME or project on households' livelihoods.

### **2.9.3 Household Economic Portfolio Model**

Household Economic Portfolio Model (HEPM) is used to assess how income derived from a household's ME impact livelihoods. According to Dunn and Valdivia (1996), the HEPM is used to compliment case studies in determining the impact of ME income on households' or entrepreneurs' livelihoods. The HEPM treats the sources of revenues and expenditures of a household as a portfolio to which a small business contributes. In short, it looks at sources from which households acquire money or income and where they spend it to understand the (relative)

impact of a programme and in this case, how growth in MEs incomes resulting from impact of credit received affect entrepreneurs' incomes and livelihoods (Dunn and Valdivia, 1996).

Together, the three theories provide a framework that is used in this study to assess the impact of a grassroots initiative in enhancing development, the impact of micro credit on performance of MEs and the contribution of MEs to households'/entrepreneurs' incomes and subsequently, their livelihoods. Hence, the empirical findings generated by this study will help in further theoretical developments and understanding of community development issues.

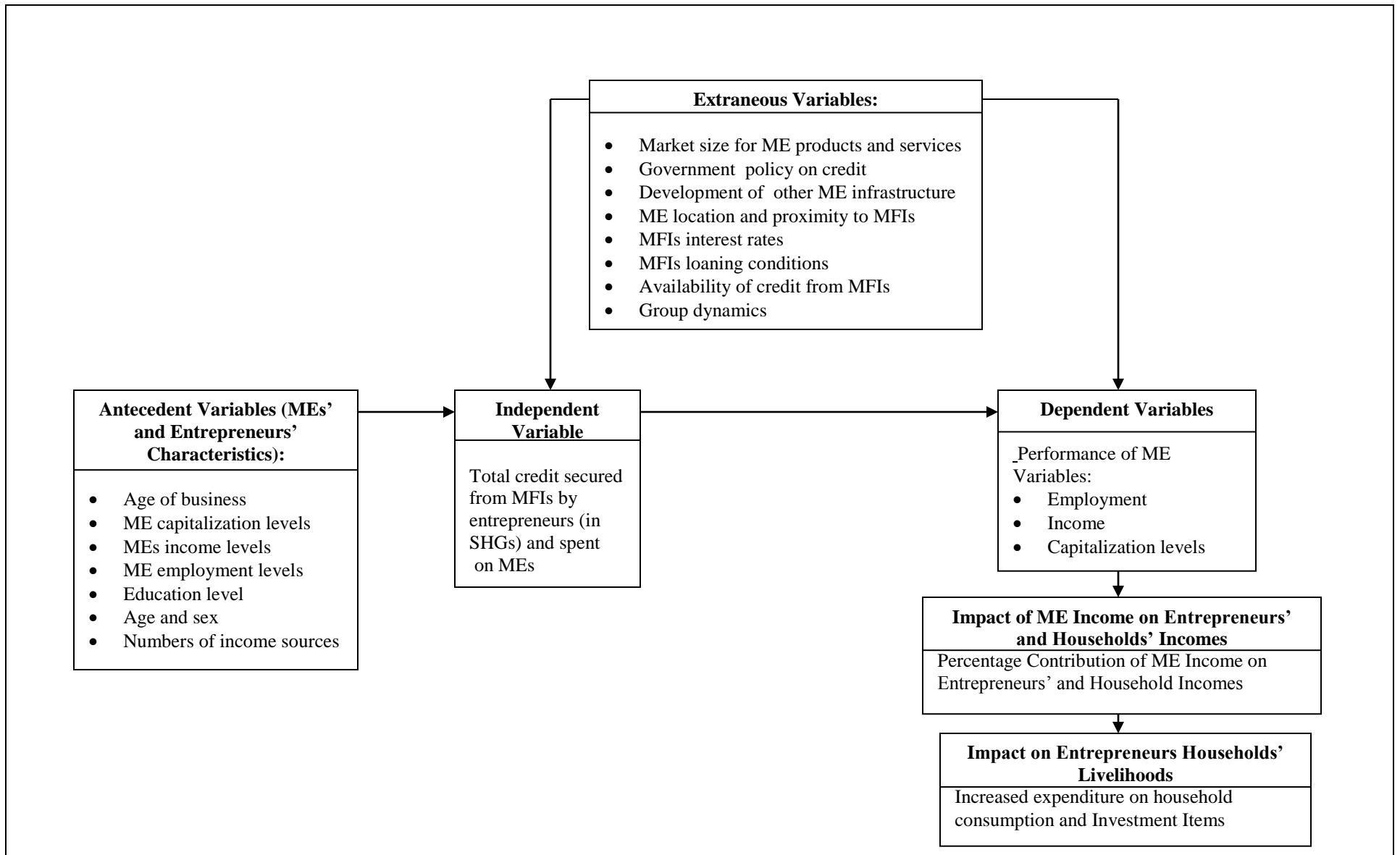
## **2.10 Conceptual Framework**

This study, therefore, conceptualizes a link between grassroots institutions/initiatives and development agencies in promotion of development and improvement in livelihoods of the people at the local level (Figure 2.1). For instance, MFIs have come up with special and less restrictive programmes to provide credit to members of SHGs operating MEs in the study area, with an objective to improve their livelihoods (RoK, 1999; 2008a; 2008b; 2013b). The group's collective actions and common responsibility act as insurance in loan repayment and facilitates members' easy access to credit from MFIs (North and Weingast, 1989; and Ostrom 2005). However, total credit secured by entrepreneurs from MFIs is influenced by their personal socioeconomic factors and business performance (antecedent variables), among other factors (Finamore, 1996; Buss, 1999; and Mugenda and Mugenda, 2003). The antecedent variables precede the independent variable and do not interfere with the established relationship between the independent and dependent variables. Rather, the antecedent variables clarify the influence that precedes such a relationship, i.e. the total credit secured by entrepreneurs from MFIs (independent variable) is directly determined by MEs and entrepreneurs' characteristics (Mugenda and Mugenda, 2003). Ryne and Otero (1994) and Waitathu (2013) conceive that, holding other market factors constant, not only access to cheap financial capital is essential, but the availability of it are important ingredients in growing MEs. Both MEs that receive credit and those that do not receive credit are faced with more or else similar business environment (extraneous variables). The extraneous variables impact on independent and depended variables

separately, such that differences in the changes (growth) of MEs variables for both MEs that receive credit and those that do not are attributable to credit received. The growth in ME incomes resulting from the effect of credit affect total entrepreneurs' and households' incomes, which subsequently have a direct effect on their households' livelihoods. These relationships are depicted in the conceptual framework (Figure 2.1).

## **2.11 Summary**

In this chapter, literature related to aspects covered in this study has been reviewed. For instance, literature on: entrepreneurs' and MEs' characteristics; factors influencing entrepreneurs'



**Figure 2.1: Conceptual Framework**

Source: Adopted and Modified from World Bank Project Impact Analysis on Livelihoods (World Bank, 1994).

credit utilization levels; and entrepreneurs sources of microfinance credit is presented. Further, literature on expenditure pattern and impact of credit on ME variables, entrepreneurs' incomes and livelihoods is examined. Also discussed are policy issues on development of MEs within the broad context of grassroots initiatives. Moreover, a critique of the literature reviewed, examining its relevance to the study while, identifying existing gaps that justify this study has also been presented. The chapter also presents the theoretical and conceptual frameworks that informs this study, including: The Social Work and Community Radicalism Theory; Flexible Specialization Model; and Household Economic Portfolio Model.



## **CHAPTER THREE**

### **STUDY AREA AND RESEARCH METHODOLOGY**

#### **3.1 Study Area**

##### **3.1.1 Location and Size**

Figure 3.1 shows the location of Butere, Mumias, Matungu and Khwisero Sub-Counties, in which the study was conducted. The four sub-counties are located within Kakamega County, which covers a total area of 3050.3 km<sup>2</sup>. Kakamega County has a total of 14 sub-counties, with the four sub-counties covered in the survey accounting for 29.2 per cent of the county's total area. (RoK, 2013b; and IEBC, 2012).

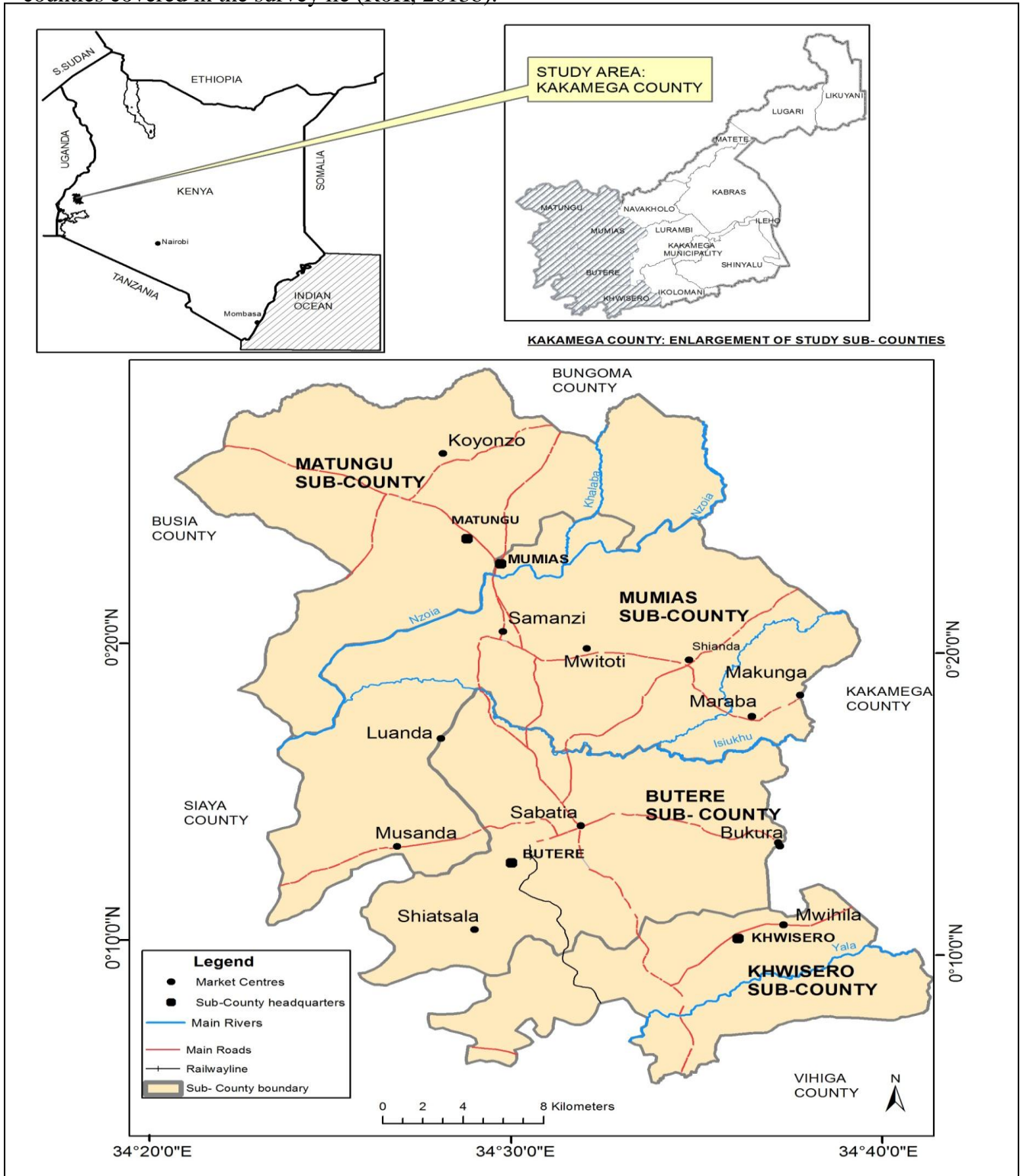
##### **3.1.2 Relief, Climate and Agro-ecological Zones**

Kakamega County lies within an altitude that ranges between 1,240 metres to 2000 metres above sea level. The southern part of the county is hilly and is made up of rugged granites rising in some places to 1,950 metres above sea level. The western part, in which the four sub-counties covered in the survey lie, is slightly hilly in some places, with most of the area exhibiting gentle undulating slopes that are dissected by a number of rivers, including: Nzoia, Lusumu, Viratsi and Yala (RoK, 2013b).

The county receives rainfall amounts that range between 2214.1mm to 1280.1mm per year. Though well distributed throughout the year, the rainfall is less in intensity between the months of December and February. March and July receive heavy rains, with the rest of the months receiving moderate rains. Temperature ranges between 18<sup>0</sup> c and 29<sup>0</sup> c, with January, February, March and November being the hottest months. The average humidity is 67 per cent (RoK, 2013b).

There are two main agro-ecological zones in the county, namely: The Upper Medium (UM) and the Lower Medium (LM). The UM zone covers the northern, central and southern parts of the county, including: Lurambi, Malava, Lugari, Shinyalu and Ikolomani Sub-Counties.

The LM zone covers a major portion of the western part of the county where the four sub-counties covered in the survey lie (RoK, 2013b).



### **Figure 3.1: Location and Administrative Structure of Butere, Mumias, Matungu and Khwisero Sub-Counties.**

Source: The Independent Electoral and Boundaries Commission: National Assembly Constituencies and County Assembly Wards Order (2012). Programme used: Arcgis 9x Software

#### **3.1.3 Population Distribution and Density**

According to the 2009 Population and Housing Census, Kakamega County had a total population of 1,660,651 people. This was projected to increase to 1,929,401 by 2017. In the year 2009, Butere, Mumias, Matungu and Khwisero Sub-Counties had a total population of 139780, 212818, 146563 and 102635 people, respectively. In the same order, these populations were projected to increase to 170728, 259935, 179012 and 125359 people by end of the year 2017, accounting for 38.1 per cent of the total population in the county. This proportion of the population is high given that the county has 14 sub-counties (RoK, 2010). In terms of population density, Butere, Mumias, Matungu and Khwisero had average population densities of 664 people per km<sup>2</sup>, 623 people per km<sup>2</sup>, 531 people per km<sup>2</sup> and 705 people per km<sup>2</sup>, respectively, in the year 2009. These population densities are generally higher than those of the counties in central and northern parts of the county. Further, the expected increase in total population for the four sub-counties covered in the survey will raise the average population density to 798 people per km<sup>2</sup> by the year 2017. This population density will be among the highest compared to other sub-counties in the county. The high population concentration in the four sub-counties surveyed creates demand for small and MEs products and services, given that most of the business units are engaged in production of basic goods and services (RoK, 2013b). According to Kakamega County Development Profile 2013, 30 per cent of small and MEs are located within the four sub-counties covered by the study.

The average annual population growth rate for the four sub-counties surveyed is 2.6 per cent, which is equivalent to the average rate of growth for the whole County. The average population dependency ratio is 100:110 across all the counties (RoK, 2002b; 2008c; 2010; and 2013b; and IEBC 2012). Towns that have large concentrations of population include Kakamega, Mumias and Malava. Population densities have a direct bearing on the number and concentration of economic activities, particularly MEs, which serve much smaller thresholds (RoK, 2013b).

### **3.1.4 Agriculture and Other Economic Activities**

Agriculture is the mainstay of the county's economy, employing 65 per cent of the labour force and contributing over 50 per cent of households' incomes. However, spatial variations in farming are evident, with sugar cane cultivation (the main cash crop) dominating Mumias and Matungu Sub-Counties, as well as, the northern parts of Butere Sub-County. A few farmers in Mumias and Matungu Sub-Counties allocate small portions of their farms for maize and beans cultivation. Maize, beans, sweet potatoes and cassava, the major food crops, are mainly grown on small-scale basis in Khwisero Sub-County and the southern parts of Butere Sub-County. Lugari and other sub-counties in the northern part of the county grow maize on a large-scale basis (CBS and ILRI, 2003; RoK, 2002b; 2008c; and 2013b). The occupational differences in farming types have brought about variations in levels and patterns of household incomes, with those in the sugar cane sector earning skewed but comparatively higher incomes (Obulinji, 1996; Wegulo and Obulinji, 2001; RoK, 2002b; 2008c; and 2013b).

The average land holding size in the four sub-counties covered in the survey is 0.57 hectares, with the average upper ceiling for small and large scale farms being 3 and 10 acres, respectively (RoK, 2013b). The scenario is different in Kabras, Lugari, Likuyani and Malava Sub-Counties, where per capita land holding is 5 hectares, with some households owning hundreds or thousands of acres of land. The spatial variations in per capita land holding are attributable to differences in population densities between the sub-counties (RoK, 2008c; and 2013b). Despite regional differences in per capita land holding size, there is a general decline in farm sizes throughout the county. This has impacted negatively on farming incomes earned at the household level. This, coupled by use of traditional farming practices, has further reduced agricultural incomes, leaving 65 per cent of the populations in the sub-counties living below the nationally defined rural poverty income line of Ksh. 1,239 per month (CBS and ILRI, 2003; RoK, 2002b; 2008c; and 2013b). Pressure on farmland has led to two forms of labour migration: rural to rural; and rural to urban. The former form of migration is characterized by agricultural labour migrating to sub-counties that still exhibit large farms, in search of agricultural employment. The latter form of migration involves migrants moving to major towns such as Kakamega and Mumias in search of employment in the wage and informal sectors (RoK, 2013b).

Apart from agriculture, other important sectors contributing to employment and income generation in the sub-counties are: wage employment, commercial businesses and informal sector activities, each accounting for 5 per cent, 6 per cent and 24 per cent of the total labour force, respectively (RoK, 2002b; 2008c; and 2013b). The ME-sector has continued to register remarkably higher levels of growth rates, than any other sector, in terms of employment and income generation in the sub-counties. Though the exact number of MEs is not known due to lack of official registration and issuance of licenses by the County Government (as some lack permanent locations or business premises), the ME-sector is estimated to have over 34,000 business units in the county. Given the high levels of unemployment in the county, most of the increasing labour force finds solace in the ME-sector (RoK, 2013b). In fact, the ME-sector employs 30 per cent of the labour force in the four sub-counties surveyed. However, credit has been identified as one of the major constraints to the development of the sector.

To address shortage of capital, a number of MFIs operating in the four sub-counties, including: K-Rep, Faulu Kenya, Pioneer Development Programme (PDP), Small Scale Enterprise Programme (SMEP), Ekeru Financial Services Association (EFSA), Butere Financial Services Association (BFSA), Khwisero Financial Services Association (KFSA), and Kenya Women Finance Trust (KWFT), have come up with special credit programmes for small scale income generating activities (RoK, 2002b; 2008c; and 2013b). These programmes target members of SHGs engaged in small scale farming and informal sector activities. Thus, substantial funding of small-scale economic activities of members of SHGs is evident (RoK, 2013b). The SHG-movement has proliferated in Kakamega County, and in particular, in the sub-counties covered in the survey. The aim of the SHG-movement is to uplift the standards of living for its members, through mobilization and investment of groups' internal and external resources in income generating projects (RoK, 2002b; and 2008c; Information obtained from Butere and Mumias Sub-Counties'/Districts' Trade and Social Services Offices, 2011).

### **3.1.5 Markets and Town Centres**

Kakamega County has a total of 7 Towns, including: Kakamega, Mumias, Malava, Butere, Khayega, among others. Among the sub-counties covered in the survey, it is only Butere

and Mumias that have one town each, with Khwisero and Matungu having none. However, a number of market centres are found in each sub-county, with the sub-counties surveyed accounting for 30 per cent of the market centres in the county (RoK, 2013b). These market centres and towns are linked-up mainly by the road network. Roads classified as bitumen, gravel (all weather) and earth (seasonal) roads cover distances of 231.3 km, 1701.7 km and 3322.2 km, respectively (RoK, 2013b). Notably, 80 per cent of the MEs and small businesses are located in the various nodes found all over the county. However, Kakamega and Mumias Towns are home for over 40 per cent of the MEs and small businesses in the county. This is attributable to the fact that the two towns are major education, industrial and administrative centres. Also, they have large populations and higher per capita incomes compared to other centres. In addition, Mumias town is located in the heart of the sugar cane growing belt, which exhibit relatively higher household per capita incomes (RoK, 2013b). Cumulatively, these factors have led to higher per capita incomes and purchasing power, enabling formal and informal sector activities to thrive in the two major towns. Consequently, a number of formal financial institutions, including: commercial banks, MFIs, building societies, savings cooperatives and village banks are located in Kakamega and Mumias Towns. Indeed, the two towns host approximately 60 per cent of the financial institutions in the county. Besides, the formal institutions, a number of informal financial institutions such as ASCRAs and ROSCAs are found in both rural areas and urban/market centres. These financial institutions provide credit to a number of economic activities, including the ME-sector (RoK, 2013b).

## **3.2 Research Methodology**

### **3.2.1 Research Design**

Both survey and experimental research designs were used in the study. On one hand, the descriptive research design comprised the main design adopted in the study and cut across all the objectives of the study. On the other hand, the experimental research design, which focused only on objective three, was used to ascertain the extent to which microfinance credit impacted MEs performance. According to Mugenda and Mugenda (2003), a survey research design involves a process of collecting data in order to report, describe, test hypotheses or answer questions

concerning current status of the subjects being investigated by the study. The experimental design, tests the impact of an independent variable on dependent variable holding other factors that may affect the dependent variable constant. The validity of such a test is ensured with the introduction of a control variable to counter the influence of extraneous variable(s) on the dependent variable. This enables the researcher to determine with certainty the extent of the influence of independent variable on the dependent variable (Mugenda and Mugenda, 2003). On the basis of the above reasons, this research designs were appropriate for this study.

### **3.2.2 Conceptualization of Data**

In this study both primary and secondary data were sourced. This included both quantitative and qualitative data. Six broad types of primary data were collected from two categories of entrepreneurs operating MEs, i.e those who had received credit from MFIs and those who had not received any credit by the time of this study. This included data on: entrepreneur's socioeconomic background; ME characteristics; information on credit acquisition from MFIs, usage and repayment; and changes and or impact of credit on ME variables. Also collected was data on: expenditure pattern of entrepreneurs' total incomes earned from all their occupation(s) and how this impacted households' livelihoods; and the overall entrepreneurs' assessment of the MFIs loan-process, as well as, business problems encountered by the entrepreneur.

Secondary data collected included: the location, population size and density, economic activities, peoples' incomes levels and standards of living in Butere, Mumias, Matungu and Khwisero Sub-Counties; and geographical location of MFIs, MFIs spatial areas of operation, years in operation as well as client base. Also, information on MFIs financial resources base vis-à-vis demand; lending conditions; the successes and shortcomings in loan recovery; and interest levels charged on loans advanced was collected. Besides the above, informal sector activities and policy issues on ME development was also reviewed.

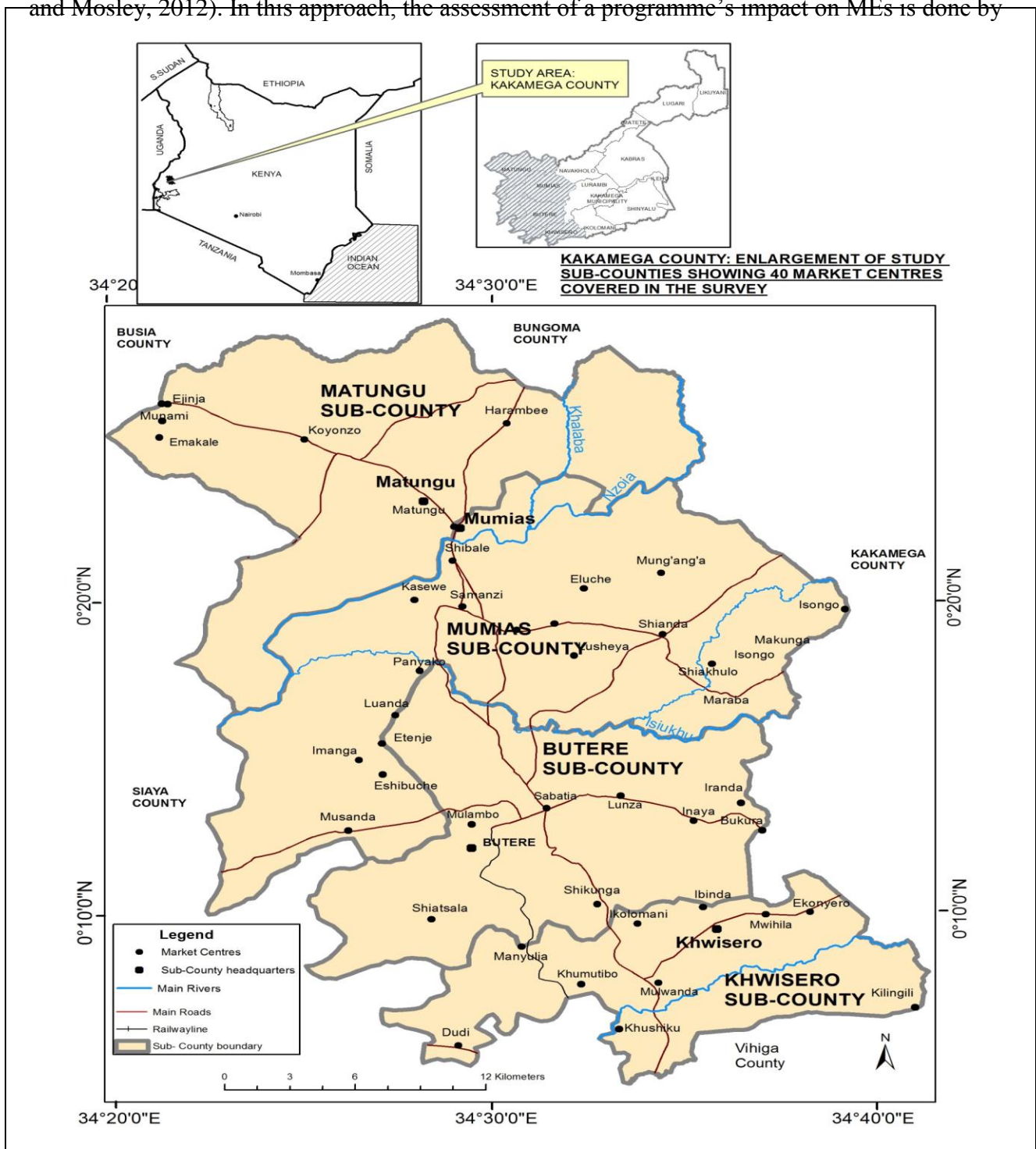
### **3.2.3 Study Population**

The study population comprised two categories of owners of MEs. First, were members of SHGs operating microfinance credit-assisted MEs located in towns and market centres in Butere, Mumias, Matungu and Khwisero Sub-Counties between July, 2008 and July, 2011. A total of eight MFIs that were operating and providing financial services to entrepreneurs in informal sector were identified with the help of the Sub-Counties' Social Services Offices, as well as, Butere and Mumias local informal sector (business) associations. These included: K-Rep, Faulu Kenya, Pioneer Development Programme (PDP), Small Scale Enterprise Programme (SMEP), Ekeru Financial Services Association (EFSA), Butere Financial Services Association (BFSA), Khwisero Financial Services Association (KFSA), and Kenya Women Finance Trust (KWFT). Out of the eight MFIs, it is only KWFT that is segregative, giving loans only to female and not male entrepreneurs. The rest service loan needs for both male and female entrepreneurs. Information obtained from Butere and Mumias Sub-Counties'/Districts' Ministry of Culture and Social Services (now renamed Ministry of Labour, Social Security and Services) Offices in 2011 showed that out of a total of 120,950 registered members of SHGs in the districts, approximately 5500 members (4.55 per cent) were loanees of MFIs.

Despite a total of eight MFIs having been identified and operating in the study area, only five of them accepted to be included in the survey. This included K-Rep, PDP, EFSA, BFSA and KFSA. Faulu Kenya, SMEP and KWFT declined to be included in the research project. Credit officers of MFIs that were covered in the survey generated names (sampling frames) of members of SHGs who had secured and serviced (or were still servicing) loans between July, 2008 and June, 2011 and whose MEs were located in towns and market centers in Butere, Mumias, Matungu and Khwisero Sub-Counties. Further, information on the name of a SHG in which a MFI loanee was a member, the town or market centre in which the ME operated was located and the type of business operated, i.e. whether in service, trade or manufacturing category, was also sought from the credit officers. This information helped in the identification of owners of MEs, type of MEs and their respective locations in the sub-counties. A total of 1779 credit-assisted MEs (target population), located in 40 town/ market centres, were generated from all the five MFIs. Appendix 1 shows the locational distribution of the 1779 credit-assisted MEs in the 40 town/market centres (Figure 3.2). Comparing Figure 3.2 and Appendix 1, it is evident that MFIs served specific spatial regions of the sub-counties studied.



The second category of study population comprised entrepreneurs operating MEs that had not received credit during the period under study. This acted as a control group, an approach recommended in the assessment of the impact of a programme on MEs (Gaile and Foster, 1996; and Mosley, 2012). In this approach, the assessment of a programme's impact on MEs is done by



**Figure 3.2: The 40 Town/Market Centres within Butere, Mumias, Matungu and Khwisero Sub-Counties where Credit-Assisted and Non-Credit-Assisted MEs were located.**

Source: The Independent Electoral and Boundaries Commission: National Assembly Constituencies and County Assembly Wards Order (2012). Programme used: Arcgis 9x Software.

examining the response of target variables between credit beneficiaries and non-beneficiaries. This approach, thus, holds non-project factors constant thereby ensuring validity of the research findings. The control group sample, therefore, included owners of non-credit-assisted MEs which were similar to sampled credit-assisted MEs (irrespective of their source of credit) and located in the same town/market centres surveyed. Through enumeration, lists (sampling frames) of owners of non-credit-assisted MEs were drawn from the 40 town/market centres surveyed. This was done through an exploratory survey conducted in the centres before the actual interviews with owners of credit-assisted MEs commenced. A total of 1033 non-credit-assisted MEs located in the 40 centres were thus enumerated. Appendix I shows the details relating to credit sources (MFIs), total populations of both credit-assisted and non-credit-assisted MEs by category, as well as, their locations in the 40 town/market centres.

Informal interviews were also conducted in this study. An assorted list of key informants, who were thought to be resourceful about particular aspects being investigated in the study, was prepared. This included: selected officials of SHGs; members of SHGs who were loanees of MFIs, operating MEs and with key successful or unsuccessful stories; owners of non-credit-assisted MEs, officials of *Jua Kali*/business associations in Butere and Mumias Towns; and credit officers of MFIs. Also listed were government officials and community leaders. A total 120 key informants were identified and listed based on the above categories (Table 3.1).

### **3.2.4 Sampling Procedures and Sample Sizes**

Stratified and proportional random sampling techniques were used to select owners of credit-assisted MEs that were included in the survey. The sampling procedures used ensured validity of

sample estimates, given the varied nature of population studied. For instance, a list of owners of MEs generated from the five MFIs was stratified at three levels: (i) source of microenterprise credit, i.e. whether K-Rep, PDP, EFSA, BFSA or KFSA; (ii) town/market centre in which the MEs were located; and (iii) type of ME operated, that is, whether in trade, service or manufacturing/artisan category. Stratification ensured a wider spatial coverage of the districts, given their varied socioeconomic profiles (Republic of Kenya, 2008b; and 2008c). Further, stratification helped capture the different categories of MEs.

**Table 3.1: Total population and sample of key informants**

Category of key informants	Total population of key informants	Sample size of key informants
Selected officials of SHGs	15	2
Officials of <i>Jua kali</i> /Business Associations	14	2
Owners of CMEs that were:	successful	5
	unsuccessful	1
Owners of NCMEs that were:	Successful	2
	unsuccessful	2
Managers/credit officers of MFIs	10	2
Govt. and community leaders	10	2
Total	N=120	S=18(15%)

CMEs – Credit-assisted MEs. NCMEs – Non-credit-assisted MEs. N – Population. S – Sample.

Source: Research Data.

In order to ensure high precision of the sample estimates, the researcher used a formula by Kathuri and Pals (1993) to determine a scientifically representative sample size of the target population. Thus, at the third level of stratification, a sample size of 15 per cent of the target

$$n = \frac{\chi^2 NP (1-P)}{1}$$

$$\sigma^2 (N-1) + \chi^2 P (1-P)$$

Where: n = required sample size.

N = given population.

P = population proportion assumed to be 0.5.

$\sigma^2$  = degree of accuracy, assumed to be 5% (0.05).

$\chi^2$  = chi-square at one degree of freedom, which is 3.841.

Substituting these values:

$$n = \frac{(3.841)^2 (1779) \times (0.5) (1-0.5)}{(0.5)^2 (1779 - 1) + (3.841)^2 (0.5) (1 - 0.5)}$$

$$= 267.$$

population was selected through proportionate random sampling technique for study. This amounted to 267 owners of credit-assisted MEs, with 241 covered in the survey, representing 90 per cent of the targeted sample size (Appendix 1). According to Statistical Package for Social Scientists (SPSS), a sample of 200 and above which is scientifically selected is fairly objective, representative and can be used to infer about population parameters (Chappell, 2003; Rice, 2003). Stratified-random sampling was also used to select owners of non-credit-assisted MEs for study. For instance, in each market/town centre surveyed, the enumerated non-credit-assisted MEs were stratified based on ME type. For valid comparative analysis, a sample size of 15 per cent of the enumerated non-credit assisted MEs was also selected through proportional random sampling. This generated 155 owners of non-credit assisted MEs, with 137 covered in the survey, representing 88 per cent of the targeted sample size (Appendix 1).

Informal interviews were also conducted in this study. A sample size of 15 per cent of key informants was selected for interviewing to generate additional primary data using stratified and proportional random sampling. This represented 18 key informants (Table 3.1).

### **3.2.5 Sources and Methods of Data Collection**

After sampling, lists of selected ME-owners who had received and those who had not received credit were prepared. Credit officers of MFIs, provincial administration officers and business people in respective towns/market centres where MEs were located helped in

identifying owners of MEs that had been sampled for study. This was done without the credit officers necessarily introducing the researcher/research assistants to the owners of MEs. Thereafter, the principal investigator and research assistants visited respondents' premises/locations, developed rapport with them before conducting interviews. Primary data was sourced mainly from owners of MEs through a semi-structured questionnaire (Appendix 2). It was important to ensure validity and reliability of the semi-structured questionnaire used in data collection. For instance, content validity of the questions was assessed and reviewed by the researcher and supervisors to ensure the questions posed to the respondents captured the required data in addressing the objectives of the study. Further, as a pre-requisite to further refining and improving the reliability of the data collected through the use of semi-structured questionnaire, a pilot survey of 30 entrepreneurs operating similar MEs selected in 5 market centres outside those covered in the actual survey was conducted randomly. Thereafter, amendments and revisions were made to the questionnaire to ensure consistency or repeatability of the responses given by the respondents. A semi-structured questionnaire allowed, in some instance, opinions to be expressed more freely and respondents' answers probed than a closed-structured questionnaire would. Three research assistants were hired, each from Butere, Matungu and Mumias Sub-Counties and trained for a period of one week by the researcher so as to assist in primary data collection using the questionnaire.

Observations were also used to collect primary data. This data complimented that collected through semi-structured questionnaire interviews. For example, in-depth investigations of some of the MEs characteristics were made through observations. This approach assisted the researcher to have a clear understanding as well as verify some of the data collected using the questionnaire.

Besides observations, case studies and informal interviews were also used to obtain in-depth data on some of the issues being investigated. Informal interviews were conducted with selected officials of SHGs, owners of credit-assisted and non-credit-assisted MEs perceived to be successful or unsuccessful in their businesses, managers/credit officers of MFIs, officials of *jua kali*/business associations in Butere and Mumias, government officials and community leaders. The interviews with key informants focused mainly on issues in-built in the semi-structured

questionnaire. Case studies targeted only owners of credit-assisted MEs perceived to be successful or unsuccessful. This helped generate data to explain why some MEs performed well while others poorly. Also, case studies helped ascertain the impact of MEs performance on entrepreneurs' total incomes and livelihoods. The identification of owners of MEs that were perceived to be successful or unsuccessful was done with the help of credit officers of MFIs, members and officials of SHGs, local leaders and verification of information collected from the questionnaires. The selection criteria for owners of credit-assisted MEs for case studies were based on performance of two MEs variables: (a) average growth/decline in ME income levels of 40 per cent and above; and (b) average growth/decline in ME capitalization levels of 40 per cent and above. These variables are clearly embraced in the conceptual framework and propositions on the impact of credit on MEs (Curtis, et al 2000). Kinyanjui (1996) identifies growth in ME income and capitalization as appropriate variables for measuring ME performance. Tables 3.2 and 3.3 show details of owners of credit-assisted MEs that were selected for case studies, while **Table 3.2: Entrepreneurs selected for Case Studies based on Source of Credit and ME-Category.**

Source of credit (MFI)	ME – Category			Total
	Trade	Service	Artisan/manufacturing	
EFSA	9(+3*) = 12	7	2(+2*) = 4	18(+5*) = 23
PDP	5	1	1	7
K-Rep	1	1		2
KFSA	5	2		7
BFSA	6		1	7
Total	26(+3*) = 29	11	4(+2*) = 6	41(+5*) = 46

Total owners of credit-assisted MEs identified for case study interviews = 46 (equivalent to 17.2% of the sample of 267 entrepreneurs studied).

\* Entrepreneurs who declined case-study interviews = 5 (equivalent to 10.9% of the owners of MEs identified for case studies). Case studies registered response level = 89.1 per cent.

Source: Research Data.

**Table 3.3: Entrepreneurs selected for Case Studies based on Performance of ME Variable(s) and ME-Category**

ME-Category	X1			X2
	Y only	K only	Both Y and K	Both Y and K
Trade	1	3(+2*) = 5	17(+1*) = 18	5
Service	1	1	7	2
Artisan/manufacturing	1	1*	2	1(+1*) = 2
Total	3	4(+3*) = 7	26(+1*) = 27	8(+1*) = 9

\* Those entrepreneurs who declined case study interviews.

X1 – entrepreneurs who recorded 40% and above positive growth in ME variables.

X2 – entrepreneurs who recorded 40% and above negative growth in both ME variables.

Y – ME income

K – ME capitalization level

Details of the entrepreneurs who declined mini-case study interviews.

1. Trade – itinerary trader dealing with sisal and manila ropes (EFSA)
2. Trade – grocery (EFSA)
3. Trade – wholesale shop (EFSA)
4. Artisan/manufacturing – baking (EFSA)
5. Artisan/manufacturing - shoe manufacture (EFSA)

Source: Research Data.

Appendix 3 shows the guiding themes/questions that were used during case studies conducted both with the successful and unsuccessful owners of MEs. Information generated from case studies and informal interviews and recording of responses helped confirm or offer additional data/explanations on issues under investigation.

Key probes, listening and recording of responses through focus group discussions (FGDs) with the owners of MEs (interviewees) can generate additional primary data to compliment and supplement data gathered through semi-structured questionnaire interviews. Further, data gathered through FGDs can be used to facilitate explanations, compare, confirm or reject information collected through questionnaire administration, especially where contradictory responses are given. For example, credit received by owners of MEs may not have impacted

performance of MEs. But when probing is done, it might be established that poor performance of MEs could be attributable to a number of factors (Hentschel, 1999; Baker, 2000; Nicholas and Valentine, 2005). Thus, the right conclusions can be made regarding poor performance of MEs. However, this method of data collection was not used in this study due to lack of adequate funds and unwillingness by 70 per cent of the respondents to participate in group discussions.

Secondary data was sourced from, among others: (a) business records for owners of MEs who had kept relevant information sought in this study; (b) group records kept by officials of SHGs; (c) credit officers of selected MFIs; (d) districts' officials of the Ministry of Culture and Social Services (now renamed Ministry of Labour, Social Security and Services); and (e) officials of local *Jua Kali* Associations. Secondary data was accessed through reviewing and interrogation of official documents, i.e. quarterly and annual publications of selected MFIs, sub-county development plans and policy documents, among others.

### **3.2.6 Data Analysis**

The study generated both quantitative and qualitative data. Data collected was coded, abstracted, tabulated and subsequently analyzed for purposes of validating the study hypotheses. The bulk of the data was analyzed using descriptive statistics, e.g. frequencies, percentages and cross-tabulations. This is because most of the variables/concepts and study hypotheses required the use of descriptive statistics to validate them. Data was categorized, analyzed and interpreted were based on: (i) source of credit (MFI); (ii) sex of the entrepreneur; (iii) ME size; and (iv) ME category. This ensured effective and valid comparisons to be made between issues investigated. Moreover, data generated from specific case studies was analyzed to shed more light on the individual entrepreneurs and MEs.

Table 3.4 shows a summary of the study hypotheses, key independent and depended variables and the tools of analysis used in validating the hypotheses. Specifically, hypothesis one was validated using chi-square and correlation analyses. Chi-square was used to test if selected entrepreneurs' and MEs characteristics (Figure 2.1) were significant in explaining differences in the total loan amounts secured by entrepreneurs from MFIs. However, in order to undertake



effective comparisons among groups, the study used a correction factor to standardize the chi-square test so as to take care of the differences in the sample groups, i.e entrepreneur's gender/sex, ME type, ME income, capitalization, etc. Correlation analysis was used to test if selected entrepreneurs' and MEs characteristics were significant factors influencing variations in the total amounts of credit secured by entrepreneurs from MFIs (Chapter 4). Hypothesis two was analyzed using regression analysis to test if the relationship between selected entrepreneurs' and ME characteristics were significant in explaining the total amounts of credit secured by entrepreneurs from MFIs (Chapter 4). Hypothesis three was analyzed using Chi-square to test if there were any significant differences in the way entrepreneurs spent credit secured on ME variables (Chapter 5). Chi-square and descriptive statistics were used to validate hypothesis four. Specifically, chi-square was used to test if there were significant differences in MEs capitalization, income and employment levels before and after securing credit. This was done using cross-sectional data of the above variables between MEs that had received credit and those that did not (Chapter 6).

As explained earlier in section 1.7 of Chapter 1, the World Bank (1994) has indicated that determining the impact of a project on (improvement of) livelihoods of a target population is difficult. This is because of the difficulty in analyzing the fungibility associated with the expenditure of such income, especially where the beneficiary in question has more than one source of income. Despite this, the link between impact indicator (such as livelihoods) and process indicators (such as growth in ME capital, incomes, and employment, etc.) of a project may be well established and used in the assessment of the impact indicator livelihoods (World

**Table 3.4: Summary of Data Analysis**

<b>Hypothesis</b>	<b>Independent Variables</b>	<b>Dependent Variables</b>	<b>Tools of Data Analysis</b>
1. Micro enterprises and entrepreneurs' characteristics do not significantly influence	<ul style="list-style-type: none"> <li>• Entrepreneur's:</li> <li>-Sex</li> <li>-Age</li> <li>-Level of education</li> </ul>	<ul style="list-style-type: none"> <li>• Total loan amount secured</li> </ul>	<ul style="list-style-type: none"> <li>• *Chi-square</li> <li>• *Correlation analysis</li> <li>• +Descriptive</li> </ul>

differences in the amount of microfinance credit secured by entrepreneurs from MFIs.	<ul style="list-style-type: none"> <li>-Number of</li> <li>-Occupation</li> <li>• ME:</li> <li>-Age</li> <li>-Income level</li> <li>-Capitalization</li> </ul>		statistics:
2. There is no significant relationship between MEs and entrepreneurs' characteristics and the amount of microfinance credit secured from MFIs.	<ul style="list-style-type: none"> <li>• Entrepreneur's:</li> <li>-Sex</li> <li>-Age</li> <li>-Level of education</li> <li>-Number of</li> <li>-Occupation</li> <li>• ME:</li> <li>-Age</li> <li>-Income level</li> <li>-Capitalization</li> </ul>	<ul style="list-style-type: none"> <li>• Total loan amount secured</li> </ul>	<ul style="list-style-type: none"> <li>• *Multivariate Linear Regression analysis</li> </ul>
3. There are no significant differences in the way entrepreneurs' spent microfinance credit secured from different MFIs on ME variables.	<ul style="list-style-type: none"> <li>• Entrepreneur's total credit secured</li> </ul>	<ul style="list-style-type: none"> <li>• (Expenditure) on ME variables (Table 5.7)</li> </ul>	<ul style="list-style-type: none"> <li>• *Chi-square</li> <li>• +Descriptive statistics:</li> </ul>
4. Credit secured from MFIs does not significantly impact on MEs performance.	<ul style="list-style-type: none"> <li>• Total loan amount secured</li> </ul>	<ul style="list-style-type: none"> <li>• ME performance:</li> <li>-Income</li> <li>-Capitalization</li> <li>-Employment</li> <li>-Other variables</li> </ul>	<ul style="list-style-type: none"> <li>• *Chi-square statistic</li> <li>• +Descriptive statistics:</li> </ul>
5. Income generated from microfinance credit-	<ul style="list-style-type: none"> <li>• ME income</li> <li>• Entrepreneur's</li> </ul>	<ul style="list-style-type: none"> <li>• Entrepreneur's Household</li> </ul>	<ul style="list-style-type: none"> <li>• +Descriptive statistics:</li> </ul>

<p>assisted MEs does not impact positively on entrepreneurs' households' incomes and livelihoods.</p>	<p>Household income</p>	<p>livelihood (Income spent on household consumption and investment items)</p>	<ul style="list-style-type: none"> <li>Household economic portfolio model</li> </ul>
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\*Significance level for chi-square, correlation and regression analyzes ( $\sigma=0.05$ ).

+Descriptive statistics include: percentages, means, tables, pie-charts and line graphs.

Bank, 1994). In fact, such an analysis, according to the World Bank (1994), can to a great extent reduce the cost of data collection and save on time.

Microfinance institutions provide credit to entrepreneurs operating MEs with the sole purpose of improving their business incomes and livelihoods. However, analyzing the impact of income generated from MEs on entrepreneurs' livelihoods may equally be difficult. This is because of the difficulty in analyzing the fungibility associated with the expenditure of such income, especially where an entrepreneur has more than one source of income. In this study, however, the analysis of hypothesis five was done using a number of descriptive methods. First, the Household Economic Portfolio Model (HEPM – Table 7.1) was used to determine MEs incomes before and after receiving credit, percentage contribution of MEs income on entrepreneurs' total monthly incomes and the computation of entrepreneurs' household monthly incomes. According to Dunn and Valdivia (1996), the (HEPM) - an approach relatively unique to micro credit programme evaluation - treats the sources of revenues and expenditures of a household as a portfolio to which a small business contributes. In short, it looks at sources from which households acquire money or income and where they spend it to understand the (relative) impact of a programme.

Second, Tables were used to analyze how entrepreneurs' households' incomes were spent on consumption and investment items. Third, carrying out case studies (Table 7.3) helped determine and evaluate the relative strengths associated with ME income and other entrepreneurs' sources of income(s), if any, on their livelihoods. A total of 46 entrepreneurs were

identified for case studies, with 5 entrepreneurs declining interviews. Out of 41 entrepreneurs covered in case studies, 33 had registered good performance in their businesses, while 8 had performed poorly. Thus, case studies conducted with 33 entrepreneurs helped shed light on the impact of incomes earned from MEs on entrepreneurs' households' livelihoods. Fourth and last, context based analysis of cases where the entrepreneur had secured credit and relied entirely on ME business as a source of income, helped shed more light on the impact of credit on ME income and entrepreneurs' livelihoods.

### **3.3 Summary**

In this chapter a number of issues have been elaborated regarding the study area and the methodological procedures used in the study. A description of the study area, including: location and size; relief, climate and agro-ecological zones are presented. Also covered in relation to the study area are: population distribution and density; agriculture and other economic activities; and distribution of markets and town centres . Further, an elaboration of the research methodology used, including: the research design; conceptualization of data collected; and the study populations (experimental and control group populatios) is presented. In addition, the sampling procedures employed and the sample sizes; sources and methods of data collection; and tools of data analysis used are discussed.

## **CHAPTER FOUR**

### **ENTREPRENEURS' SOCIOECONOMIC PROFILE, MICROENTERPRISE CHARACTERISTICS AND THEIR INFLUENCE ON CREDIT UTILIZATION LEVELS**

#### **4.1 Introduction**

This chapter discusses three issues related to objective one regarding credit-assisted MEs, including: entrepreneurs' socioeconomic profile; ME characteristics; and how the two influence variability in the total amount of credit secured by entrepreneurs.

#### **4.2 Entrepreneurs' Socioeconomic Profile**

This sub-section of the chapter discusses entrepreneurs' socioeconomic characteristics. These include: age-sex distribution, years of schooling, marital status and number of household dependants. Also discussed are types and levels of occupational training received, ethnicity and SHG membership. The section ends by examining entrepreneurs' reason(s) for venturing into particular types of businesses.

##### **4.2.1 Age-Sex Distribution**

Table 4.1a shows the entrepreneurs' age-sex distribution by ME type. It is evident from the Table that 48 per cent of the entrepreneurs were in the age bracket 33-40 years. It is observed that 94.2 per cent of the entrepreneurs were aged between 25-50 years, with only one male entrepreneur within the age bracket of 18-24 years. Thirteen of them, accounting for 5.4 per cent of the sample, were above 51 years. Moreover, 72.6 per cent, 17 per cent and 10.3 per cent of the entrepreneurs were operating MEs within the trade, service and artisan categories, respectively. The CBS (1999) Baseline Survey of small businesses in Kenya also shows that businesses in trade category are the majority. Similarly, RoK (2008b; and 2008c) note that small businesses within market centres and towns in Butere and Mumias sub-Counties were dominated by those in the trade category. Businesses in service category are moderate in number while those in artisan are the least.

**Table 4.1a: Entrepreneurs' Age-Sex Distribution Based on Sex and Type of ME.**

Age Bracket (in years)	Frequencies of Entrepreneurs Based on Type of ME Operated						Total/Percentage		Total/ Percentage (M+F)
	Service		Trade		Artisan/ Manu- facturing				
	M	F	M	F	M	F	M	F	
18-24	0	0	0	0	1	0	1(0.4%)	0(0.0%)	1(0.4%)
25-32	9	4	11	17	1	2	21(8.7%)	23(9.5%)	44(18.3%)
33-40	10	7	35	48	9	6	54(22.4%)	61(25.3%)	115(47.7%)
41-50	8	2	29	23	5	1	42(17.4%)	26(10.8%)	68(28.2%)
51-60	1	0	4	6	0	0	5(2.1%)	6(2.5%)	11(4.6%)
>61	0	0	1	1	0	0	1(0.4%)	1(0.4%)	2(0.8%)
Total	28	13	80	95	16	9	124(51.5%)	117(48.5%)	241(100%)

$X^2_{cal} = 156.1$ ;  $df = 10$ .  $X^2_{cal} > X^2_c$ . The Differences in entrepreneurs' age based on ME type is significant at 95 per cent confidence level.

$X^2_{cal} = 176.84$ ;  $df = 2$ .  $X^2_{cal} > X^2_c$ . The Differences in entrepreneurs' sex based on ME type is significant at 95 per cent confidence level.

M=Males. F=Females

Source: Research Data

The artisan sub-sector has been a preserve of men for a long time due to the skills and physical strength associated with the nature of production (RoK, 2008a). In support of this notion, Bryden (1998) found that female entrepreneurs were only engaged in simple rural trade than manufacture. However, the findings of this study show that no category of MEs is a preserve of any particular gender or age of entrepreneurs. It is evident from Table 4.1a that despite significant differences ( $X^2_{cal} > X^2_c$ ) in entrepreneurs' sex based on ME type, both males and females of varying ages were operating businesses across the different types of MEs. For instance, research data shows that 8 per cent and 13 per cent of females and males entrepreneurs sampled, respectively, trained in artisanship related skills. This finding corroborates evidence from a study in Mombasa by Mwakio (2013), who observed that women were defying the norm

by taking-up men's work in the construction industry, a move he refers to as 'gender revolution in the occupational structure'. Despite female entrepreneurs operating MEs in the artisan category, they were the majority in the trade category, a sub-sector characterized by the highest range and variability in MEs capitalization levels (Tables 4.10a and 6.2). RoK (2008a) notes that female entrepreneurs often venture into small businesses due to lack of adequate capital and those who apply for credit secure small amounts due to lack adequate collateral.

Further, it is evident in Table 4.1a that significant differences ( $X^2_{cal} > X^2_c$ ) were noted in entrepreneurs' age based on ME type. Entrepreneurs in the age brackets 18-24 years and over 61 years, accounted for 0.8 per cent of the sample studied (Table 4.1a). The fewer number of entrepreneurs in the two age intervals can be explained by two factors. First, 53.1 per cent of the entrepreneurs were form four graduates (Table 4.2a). This implies that majority of the entrepreneurs within the age bracket 18-24 years are faced with challenges in meeting the required conditions for accessing loans from MFIs (Chapter 5). Moreover, the apparent absence of female entrepreneurs in the age bracket 18-24 years, imply that either: (a) female entrepreneurs are faced with more challenges than their male counterparts in meeting the conditions for accessing loans from MFIs or (b) female entrepreneurs rely on other credit sources other than MFIs to start or fund their businesses To confirm this, Table 4.7a shows that 19.1 per cent of entrepreneurs, who were females, depended on their spouses to provide start-up capital, in addition to other financial assistance to their businesses. The degree of such dependence could even be bigger if other family members, relatives and friends were considered. For instance, it is observed from Table 4.7a that a further 6.6 per cent and 5.8 per cent of the entrepreneurs got their business start-up capital and other forms of business assistance from other family members and relatives/friends, respectively.

Second, entrepreneurs who were aged 51 years and above were very few in the sample. This may be because this category of entrepreneurs either did not rely much on credit from MFIs or if they did secure some business finance for their MEs, they did so by relying more on non-institutional sources of credit such as past savings or income from other investments. Partly in support of this, data in Table 4.3a shows that 46.2 per cent of entrepreneurs aged 51 years and above had more than one occupation. In their study, Wegulo and Obulinji (2001) found that entrepreneurs who had many sources of income relied less on loans to improve their businesses.

These findings support studies by Bulow *et al* (1995), Kibas (1995) and IFC (2013) which found out that women socio-economic factors such as marital status, unemployment, lack of collateral and inability to own assets due to cultural tendencies inhibit their opportunities to access financial credit from formal sources. This minimizes their chances to venture into income-generating activities. For instance, one of the conditions an entrepreneur must fulfill in order to secure a MFI loan is that he or she must be operating a business. Yet at the age interval of 18-24 years, majority of the people have just completed school and are unemployed or married. They are, therefore, incapable of raising the required seed-money to start a business in order to qualify for a loan from MFIs.

In this study, however, female entrepreneurs constituted 48.5 per cent of the total sample surveyed, though 94 per cent of them were aged between 25 and 50 years. This proportion is quite significant. RoK (2002a), EFSA (2011) and BFSA (2011) point out that the number of women accessing loans is on the increase, courtesy of the expanding MFIs loan network in both rural and urban areas with comparatively favourable conditions that enable them to access loans easily.

Despite entrepreneurs' age-sex characteristics discussed above, Table 4.1b shows that entrepreneur's age was not a significant factor ( $P > 0.05$ ) influencing differences in the total loan amounts secured from MFIs by entrepreneurs. This is explained by the fact that once an entrepreneur attains the age of 18 years, he or she becomes eligible to access loans from a MFI so long as the entrepreneur meets all the conditions set by the MFI (see chapter 5). Microfinance institutions do not restrict entrepreneurs from accessing loans based merely on their age. Despite

**Table 4.1b: Cross Tabulation of Total Loans Secured Against Entrepreneurs' Age**

Categories of the Total Loans Secured (In Ksh)	Frequencies of Entrepreneurs Based on Age						Total/ Percent
	Categories (In Years)						
	18-24	25-32	33-40	41-50	51-60	>61	
<19,999	1	6	19	9	1	0	36(15.0%)



20,000-49,999	0	24	47	27	4	0	102(42.3%)
50,000-99,999	0	5	27	15	2	0	49(20.3%)
100,000-199,999	0	6	17	12	3	2	40(16.6%)
200,000-299,999	0	3	4	2	1	0	10(4.1%)
300,000-399,999	0	0	1	1	0	0	2(0.8%)
500,000-599,999	0	0	0	2	0	0	2(0.8%)
Total	1	44	115	68	11	2	241(100.0%)

$X^2 = 30.078$ ;  $df = 30$ ;  $P = 0.462$  ( $P > 0.05$ ). The Difference is not significant.

Pearson Correlation ( $r$ ) = 0.146.  $P = 0.023$ ,  $P < 0.05$ .  $N = 241$ . Correlation is significant at the 0.05 level, 2-tailed (Appendix 4).

Source: Research Data.

this, Table 4.1b further confirms that entrepreneurs' age was significantly correlated ( $P < 0.05$ ) with the total loans secured by entrepreneurs from MFIs. This implies that as the age of the entrepreneurs advances, they tend to secure more loans because of increased entrepreneurs' total incomes. Appendix 4 confirms this by showing that entrepreneur's age was significantly correlated with entrepreneur's number of income sources, ME age, ME capitalization and income levels ( $P < 0.05$ ). Thus, combinations of these factors create ground for an entrepreneur to be in a position to secure higher levels of credit.

Further, Table 4.1c indicates that sex of the entrepreneur was not a significant factor ( $P > 0.05$ ) in influencing differences in the total loans secured by entrepreneurs from the MFIs. As explained earlier in this section of the chapter, sex and age *per se* were not significant factors influencing differences in the total loans secured by entrepreneurs from MFIs. This is because conditions for accessing loans from MFIs are not discriminatory to age and sex. Hence, the old, young, male or female entrepreneurs can freely access credit from MFIs so long as they meet MFIs loaning conditions.

**Table 4.1c: Cross Tabulation of Total Loans Secured against Entrepreneur's Sex**

Categories of Total Loans Secured (In Ksh)	Frequencies of Entrepreneurs Based on Sex	Total/ Percentage
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	Male	Female	
<19,999	13	23	36(15.0%)
20,000-49,999	47	56	103(42.7%)
50,000-99,999	29	20	49(20.3%)
100,000-199,999	26	15	40(16.6%)
200,000-299,999	5	4	9(3.7%)
300,000-399,999	2	0	2(0.8%)
500,000-599,999	2	0	2(0.8%)
Total	124	117	241(100.0%)

$X^2 = 12.517$ ;  $df = 6$ ;  $P = 0.051$  ( $P > 0.05$ ). The Difference is not significant.

Spearman's Correlation ( $r$ ) = -0.208.  $P = 0.001$ ,  $P > 0.05$ .  $N = 241$ . Correlation is significant but negative.

Source: Research Data

#### 4.2.2 Education and Training

Education is a long-term investment that has both pecuniary and non-pecuniary returns. It contributes to improvement of an individual's skills, which greatly impacts occupational performance (Smith et al, 2001). Table 4.2a shows a summary of education levels attained by the sample studied, based on entrepreneurs sex and type of ME. Despite significant differences ( $P < 0.05$ ) in entrepreneurs' education levels, it is evident that all the entrepreneurs covered in the survey, except three, had attained some level of education. Three entrepreneurs, who accounted for only 1.2 per cent of the sample and had no form of schooling, were females operating businesses within the trade category. Notably, 29.8 per cent, 53.1 per cent, 1.7 per cent and 14.2 per cent of the entrepreneurs had attained education levels of up to standard eight and or below, form four, form six and college/university, respectively. It is therefore evident that majority of the entrepreneurs were form four graduates.

**Table 4.2a: Education Levels Based on Sex of the Entrepreneur and Type of ME**

	ME Category		

Level of Formal Education							Percentage/ Total		Percentage/ Total (M+F)
	Service		Trade		Artisan/ Manufacturing				
	M	F	M	F	M	F	M	F	
None	0	0	0	3	0	0	0(0%)	3(1.2%)	3(1.2%)
Below Standard 8	2	0	5	12	3	0	10(4.1%)	12(5.0%)	22(9.1%)
Form 4	5	2	15	24	2	2	22(9.1%)	28(11.6%)	50(20.7%)
Form 6	15	9	47	42	9	6	71(29.5%)	57(23.6%)	128(53.1%)
Form 6	1	0	2	0	1	0	4(1.7%)	0(0.0%)	4(1.7%)
College / University	5	2	11	14	1	1	17(7.1%)	17(7.1%)	34(14.2%)
<b>Total</b>	<b>28</b>	<b>13</b>	<b>80</b>	<b>95</b>	<b>16</b>	<b>9</b>	<b>124(51.5%)</b>	<b>117(48.5%)</b>	<b>241(100%)</b>

$X^2_{cal} = 176.3$ ;  $df = 25$ .  $X^2_{cal} > X^2_c$ . The Differences in entrepreneurs' level of education based on ME type is significant at 95 per cent confidence level.

M=Male. F=Female.

Source: Research Data

It is observable, therefore, that besides the uneducated, the ME-sector do also provide employment and income to those who have received education at moderate and even higher levels within the study area. The absorption of various cadres of labour, and in particular those with college or university degrees in the ME-sector can be attributed to two factors. First, is the existence of high level of unemployment within the study area and indeed in the rest of the country (RoK, 2002c; 2008a; and 2008c). Second, is based on the fact that education and training are still important factors in the operation of some MEs. Research data shows that some MEs, particularly those in the service and artisan categories that require specific skills were owned and operated by entrepreneurs who had attained post secondary education.

Table 4.2b shows education levels of the entrepreneurs cross-tabulated against the total loan amounts secured from MFIs. It is evident from the Chi-square results that education was a

**Table 4.2b: Cross Tabulation of Total Loans Secured Against Entrepreneurs Education Levels**

Categories of Total Loans Secured (In Ksh)	Frequencies of Entrepreneurs Based on Education Levels						Total/ percentage
	None/ 0 Years	Below 8 Years	8 Years	Form 4	Form 6	College/ University	
<19,999	2	6	15	10	0	3	36(14.9%)
20,000-49,999	1	11	20	52	0	18	102(42.3%)
50,000-99,999	0	5	11	30	1	2	49(20.3%)
100,000-199,999	0	0	3	28	2	8	41(17.0%)
200,000-299,999	0	0	1	4	1	3	9(3.7%)
300,000-399,999	0	0	0	2	0	0	2(0.8%)
500,000-599,999	0	0	0	2	0	0	2(0.8%)
<b>Total</b>	<b>3</b>	<b>22</b>	<b>50</b>	<b>128</b>	<b>4</b>	<b>34</b>	<b>241(100.0%)</b>

$X^2 = 53.803$ ;  $df = 30$ ;  $P = 0.041$  ( $P < 0.05$ ). The Difference is significant.

Spearman's Correlation ( $r$ ) = 0.285.  $P = 0.000$ ,  $P < 0.05$ .  $N = 241$ . Correlation is significant at the 0.01 level, 2-tailed. (Appendix 4)

Source: Research Data

significant factor ( $P < 0.05$ ) in influencing differences in the total loan amounts secured by entrepreneurs. Moreover, entrepreneurs' education levels were significantly correlated with total loan amounts secured by the entrepreneurs. This is because education makes entrepreneurs become less risk averse, in addition to increasing entrepreneurs' awareness of existing loan sources. This finding corroborates evidence from studies by Smith, et al (2001) and World Bank (2001) in which it was observed that there exist a significant correlation between education and credit consumption among entrepreneurs. Thus, the highly educated are likely to secure more loans than the less educated. Further, Wegulo (1995) and Buss (1999) found out that illiteracy and ignorance were inhibiting factors to entrepreneurs' awareness of existing sources of loans.

In addition to determining level of education and access to credit, this study also examined: whether entrepreneurs operating MEs had any form of training; whether the training

was formal or informal; and its relevance to the businesses they were operating. Table 4.2c shows that there were significant differences ( $X^2_{cal} > X^2_c$ ) in entrepreneurs' level of training based on type of ME. It can be observed that 43.2 per cent of entrepreneurs had received some form of training, with 22 per cent of these having received training informally. Out of the 22 per cent that had received informal training, 12 per cent had been certified while 10 per cent had not. Those who received formal training accounted for only 21.2 per cent, with 11.6 per cent, 7.9 per cent and 1.7 per cent of these attaining training levels at certificate, diploma and degree levels, respectively.

**Table 4.2c: Entrepreneur's levels of Training and their Relevance to Businesses Operated**

Entrepreneurs Type and Level of Occupational Training		Type of ME			Total/ Percentage
		Service	Trade	Artisan/ manufacturing	
Informal	Certificate	7(17.1%)	19(10.9%)	3(12%)	29(12.0%)
	Other	8(19.5%)	10(5.7%)	6(24.0%)	24(10.0%)
Formal	Certificate	6(14.6%)	14(8.0%)	8(32.0%)	28(11.6%)
	Diploma	4(9.8%)	12(6.9%)	3(12.0%)	19(7.9%)
	Degree	1(2.4%)	3(1.7%)	0(0.0%)	4(1.7%)
None		15(36.6%)	117(66.6%)	5(20.0%)	137(56.8%)
Total		41(100%)	175(100%)	25(100%)	241(100%)
% Relevance of Entrepreneurs Skills to Business Operated		28(68.3%)	26(14.9%)	22(88.0%)	

$X^2_{cal} = 343.1$ ;  $df = 10$ .  $X^2_{cal} > X^2_c$ . The Differences in entrepreneurs' level of training based on ME type is significant at 95 per cent confidence level.

Source: Research Data

However, all those who indicated they had received training did not have relevant skills in line with the businesses they were operating. For instance, 68.3 per cent, 14.9 per cent and 88.0 per cent of the entrepreneurs in the service, trade and artisan/manufacturing categories, respectively, had trained in skills that were in line with the businesses they were operating.

Interestingly, however, a total of 137 entrepreneurs, accounting for 56.8 per cent of the sample studied, had neither formal nor informal training.

It can be concluded from the above observations that entrepreneurs operating MEs, and in particular majority of those operating MEs in the trade category, lacked skills. This is unlike in both artisan/manufacturing and service sectors, where majority of the entrepreneurs had skills that were relevant to the businesses they operated. Government policy documents (RoK, 1992; 2002a; and 2004) show that most of entrepreneurs in the informal sector lack training and skills required in various trades. Findings from this study corroborate these views and indeed those of Buss (1999), who found that different MEs will require different interventions to improve their business performance.

#### **4.2.3 Number of Income Sources**

Chi-square results in Table 4.3a shows that the differences in entrepreneurs' number of income sources based on entrepreneurs' age distribution was significant ( $X^2_{cal} > X^2_c$ ). Further, it is observed that 35.3 per cent of the entrepreneurs had ME business as their only source of income, contributing 100 per cent of their total incomes. However, 60.2 per cent of the entrepreneurs had 1 additional source of income besides the ME business, with MEs contributing 36.6 per cent of the total entrepreneurs' income. The rest of the entrepreneurs, accounting for 4.6 per cent, had two additional sources of income besides the ME business, with the MEs accounting for 29.5 per cent of their total incomes. Overall, therefore, ME businesses contributed significant levels of income even to entrepreneurs who were engaged in other income generating activities.

Further, data in Table 4.3a shows that majority of the entrepreneurs with one and two additional sources of income besides the ME businesses were in the age groups 25-32, 33-40 and 41-50, comprising 62.3 per cent of the sample. According to Butere-Mumias District Development Plan (2002-2007), these age groups are within the most reproductive age, characterized by high dependency ratios. Data in Table 4.4 confirms that entrepreneurs between age 25 and 50 years had many dependants and were actively engaged in more than one economic

activity so as to generate additional income to meet their household socio-economic responsibilities.

**Table 4.3a: Age Interval, Number of Income Sources and Percentage of ME Income to Total Entrepreneurs' Income**

Age Interval (in years)	Entrepreneurs Frequency Distributions Based on Number of Income Sources			Total	Income Contributed by ME Business as a % of Entrepreneurs' Total Income		
	ME only	ME and One Other*	ME and Two Others*		ME only	ME and One Other	ME and Two Others
18-24	1(0.4%)	0(0.0%)	0(0.0%)	1(0.4%)	100%	0%	0%
25-32	26(10.8%)	18(7.5%)	0(0.0%)	44(18.3%)	100%	40%	0%
33-40	33(13.7%)	77(32.0%)	5(2.1%)	115(47.7%)	100%	35%	30%
41-50	18(7.5%)	47(19.5%)	3(1.2%)	68(28.2%)	100%	30%	28%
51-60	7(2.9%)	2(0.8%)	2(0.8%)	11(4.6%)	100%	28%	27%
>60	0(0.0%)	1(0.4%)	1(0.4%)	2(0.8%)	0%	50%	33%
Total/ Average	85(35.3%)	145(60.2%)	11(4.6%)	241(100%)	100%	36.6%	29.5%

$X^2_{cal} = 208.1$ ;  $df = 10$ .  $X^2_{cal} > X^2_c$ . The Differences in entrepreneurs' number of income sources based on entrepreneurs' age is significant at 95 per cent confidence level.

\*Other occupations include -Government employee/civil servant

- Teacher
- Private sector employee
- Farmer
- Retired officer/pensioner (taken as a source of income)

Source: Research Data

According to Buss (1999), it is expected that entrepreneurs with more occupations have higher incomes and are, therefore, able to secure more financial resources. Chi-square results as

indicated in Table 4.3b show that entrepreneurs' number of income sources based on age was a significant factor ( $P < 0.05$ ) in influencing differences in the total loan amounts secured. Despite this, Table 4.3b and Appendix 4 show that the number of entrepreneurs' income sources was not significantly correlated ( $P > 0.05$ ) with total loan amounts secured. This observation can be attributed to the fact that entrepreneur's numbers of income sources do not directly determine entrepreneurs' level of incomes earned. For instance, an entrepreneur with one occupation that is more rewarding is better off than one with two or more that are not. Thus, the one with the occupation that is well paying is able to secure higher loan amount(s) and still service the loan(s)

**Table 4.3b: Cross Tabulation of Categories of Total Loan Amounts Secured Against Entrepreneurs Number of Income Sources.**

Total Loan Interval 2008-2011 (in Kshs)	Number of Income Sources/Entrepreneurs Frequency			Total/ Percentage
	ME Only	ME and One More	ME and Two More	
< 19999	14(16.5%)	22(15.2%)	0 (0.0%)	24 (15.0%)
20000-49999	38(44.7%)	62(42.8 %%)	2 (18.2%)	105 (42.5%)
50000-99999	12(14.1%)	36(24.8%)	1 (9.1%)	52 (20.4%)
100000-199999	14(16.5%)	20(13.8%)	4(36.4%)	45 (16.7%)
200000-299999	4(4.7%)	3(2.1%)	2 (18.2%)	9 (3.8%)
300000-399999	1(1.2%)	2(1.4%)	2 (18.2%)	4 (0.8%)
500000-599999	2(2.4%)	0(0.0%)	0 (0.0%)	2 (0.8%)
Total	85(100.0%)	145(100.0%)	11 (100.0%)	241 (100.0%)

$X^2 = 28.657$ ;  $df = 12$ ;  $P = 0.004$  ( $P < 0.05$ ). The Difference is significant.

Spearman's Correlation ( $r$ ) = 0.078.  $P = 0.230$ ,  $P > 0.05$ .  $N=241$ . Correlation is not significant at 0.05 level, 2-tailed (Appendix 4).

Source: Research Data.

without much difficulty. Indeed, the data in Table 4.11b depicts clearly that those entrepreneurs who had higher levels of ME income were also able to secure higher total amounts of loans because of their financial eligibility to service the loans. This finding is in a way at variance with



results of a study by Wegulo and Obulinji (2001). In the cited study, carried out among entrepreneurs operating MEs in Mumias Sugar belt, it was found that entrepreneurs who had many sources of income relied less on loans to improve their businesses. It is, thus, the level of income earned that influences entrepreneurs' credit amounts secured rather than the number of income sources.

#### 4.2.4 Marital Status and Dependency Levels

Research findings show that 98.7 per cent of the entrepreneurs had dependants, even though 95.8 per cent (231 entrepreneurs) were married or widowed. Only 3 entrepreneurs, accounting for 1.3 per cent of the sample, were single and without dependants. Dependency levels influence the way income earned by the entrepreneur is spent at the household level to meet basic necessities of life, as shall be elaborated in the Chapters 5 and 7. Table 4.4 shows the frequencies of entrepreneurs based on age intervals, total number of dependants and dependency ratios. Besides dependency levels, marital status of the entrepreneur has a crucial role to play when it comes to entry, management and continued operation of MEs. This is because of the need to provide for the family. For instance, the minimum and maximum ME age in the sample survey was found to be 5 years and 33 years, respectively, with a mean ME age of 8 years (Section 4.2.4). Entrepreneurs who had attained the age of 51 and above were 13 in number and they accounted for 5.4 per cent of the sample. More so, those who were over 51 years and had the ME as the only source of income were only 7, accounting for 2.9 per cent of the sample. The

**Table 4.4: Total Number of Dependants by Entrepreneur's Age- Cohort**

E*	No of Dependants – Categories and Frequency of Entrepreneurs											D*	X*	Z*	DR*
	0	1	2	3	4	5	6	7	8	9	10				
18-24	0	0	1	0	0	0	0	0	0	0	0	2	0.2	1	2:1
25-32	2	1	13	11	10	4	3	0	0	0	0	138	11.8	44	3:1
33-40	1	1	3	8	34	22	35	4	4	3	0	574	49.1	115	5:1
41-50	0	1	4	6	9	7	25	3	7	3	3	382	32.6	68	6:1

51-60	0	1	0	3	2	1	2	0	0	1	1	54	4.6	11	5:1
>61	0	0	0	0	0	0	0	0	0	0	2	20	1.7	2	10:1
Total	3	4	21	28	55	34	65	7	11	7	6	1170	100.00		

N = 241

E\* = Entrepreneur's Age –Interval (in years)

D\* = Total No. of Dependants. All Categories of Entrepreneurs per Age –Interval

X\* = % Distribution of Dependants per Entrepreneurs Age-Interval

Z\* = Number of Entrepreneurs

DR\* = Dependency Ratio

Source: Research Data

rest had one or two other sources of income besides the ME business. Research data shows that entrepreneurs who had ME business as the only source of income had operated them for a longer time period in order to sustain their livelihoods and those of their dependants. Further, for entrepreneurs who had one or two other sources of income besides the ME had no reason to fail in their businesses because MEs too did contribute significantly to monthly incomes and subsequently, their livelihoods (Table 4.3a).

From Table 4.4, it is evident that the least and highest number of dependants per entrepreneur was 1 and 10, respectively, with an average of 5 dependants per entrepreneur. Further, entrepreneurs in the age brackets 25-32 years, 33-40 years and 41-50 years, accounted for 11.8 per cent, 49.1 per cent and 32.6 per cent of the total dependants, respectively. Thus, higher dependency levels were associated with higher age brackets. However, as mentioned earlier, entrepreneur's number of dependants is a crucial factor in ensuring an entrepreneur succeeds in his/her business. To confirm this, Appendix 4 shows that entrepreneur's age was significantly correlated with ME age and the total number of dependants.

#### **4.2.5 Entrepreneurs' Membership to Self-Help Groups**

A part from being members of groups registered for purposes of acquiring loans from MFIs, 231 (representing 95.9 per cent) of the entrepreneurs were members of either

Accumulating and Savings Credit Associations (ASCRA) or Rotating and Saving Credit Associations (ROSCAs). Notably, 24.5 per cent of the 231 entrepreneurs were in women groups, 65.1 per cent in mixed groups, 5 per cent in men groups and 1.2 per cent in youth groups. Only 10 (4.1 per cent) did not belong to any ASCRA or ROSCA. This indicates the importance of ASCRAs and ROSCAs in mobilization of financial resources among the entrepreneurs in the study area. In spite of their meager financial resources, these rural savings and loan schemes are important in providing additional financial resources to business people in the study area. It is evident in Chapter 5 that out of the four sources of credit to the entrepreneurs operating MEs, these rural savings and loan schemes accounted for 4.8 per cent of all the loans received by entrepreneurs between July 2008- and June 2011. In his study of Western Kenya, Alila (2001) did find out that ASCRAs and ROSCAs were indeed important rural financial institutions, providing credit to people engaged in various rural economic activities. Moreover, this observation is noted by Butere District Development Plan (2008-2012).

#### 4.2.6 Entrepreneurs' Reason(s) for Starting Microenterprises

Besides entrepreneurs' characteristics, the study also sought to find out entrepreneurs' reasons for starting and pursuing particular types of businesses. Table 4.5 shows entrepreneurs' responses on why they were operating MEs. It is evident from the Table that 41.5 per cent and 23.2 per cent of entrepreneurs were operating MEs as a means to diversify and supplement their incomes, respectively. However, 35.3 per cent started ME businesses because it was the form of employment available to them. This shows the importance of the informal sector activities in providing peoples' livelihoods in the study area. Further, it is evident from Table 4.5 that 4.1 per cent of the entrepreneurs started their businesses in order to engage members of their families in gainful employment. Moreover, 8.7 per cent of the entrepreneurs who were formally employed in the public and or private sectors started ME business so that they remain gainfully employed after retirement.

**Table 4.5: Entrepreneurs' Reason(s) for Starting ME Business.**

Entrepreneurs Reason(s) for Starting ME Business	Entrepreneurs' Frequency	Percentage
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Only Form of Employment	85	35.3%
Need to Diversify Income	100	41.5%
Need to Supplement Income Sources	56	23.2%
Create Employment for Family Members	10	4.1%
Source of Employment in Retirement	21	8.7%
<b>Total</b>	<b>241</b>	<b>*100%</b>

\* Some entrepreneurs gave more than one reason.

Source: Research Data.

#### 4.2.7 Entrepreneurs' Reason(s) for Pursuing Particular Types of Businesses

Besides operating a ME business, entrepreneurs also had preferences for running businesses in a particular line of production. Table 4.6 shows entrepreneurs' responses indicating why they pursued particular lines of businesses. It is observed from Table 4.6 that 68.3 per cent, 14.9 per cent and 88 per cent of the entrepreneurs operating MEs within the service, trade and artisan/manufacturing categories, respectively, were doing business that was in line with their occupational training. Entrepreneurs in the artisan and service categories are fewer because the two categories of MEs partly require appropriate business or operational skills. This contrasts with those in the trade category, where 85.1 per cent of the entrepreneurs operated businesses that either needed no form of training or were not in their line of occupational training (Table 4.2c).

**Table 4.6: Entrepreneurs' Reasons for Pursuing Particular Types of Businesses**

	MEs Business Category	
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Reason(s)	Service		Trade		Manufacturing/ Artisan		Total	
	Yes	No	Yes	No	Yes	No	Yes	No
In Line With Occupational Training	28 (68.3%)	13 (31.7%)	26 (14.9%)	149 (85.1%)	22 (88.0%)	3 (12.0%)	76 (31.5%)	165 (68.5%)
Required Little Start-up Capital	11 (26.8%)	30 (73.2%)	123 (70.3%)	52 (29.7%)	6 (24.0%)	19 (76.0%)	140 (58.0%)	101 (42.0%)
Suffers Low Competition	16 (39.0%)	25 (61.0%)	9 (5.1%)	166 (94.9%)	23 (92.0%)	2 (8.0%)	48 (19.9%)	193 (80.1%)
Exhibit High Profitability	22 (53.7%)	19 (46.3%)	71 (40.6%)	104 (59.4%)	5 (20.0%)	20 (80.0%)	98 (24.1%)	143 (75.9%)
Ease of Management	10 (24.4%)	31 (75.6%)	63 (36.0%)	112 (64.0%)	3 (12.0%)	22 (88.0%)	76 (31.5%)	165 (68.5%)
Inherited From Parents/ Spouse	1 (2.4%)	40 (97.6%)	1 (0.6%)	174 (99.4%)	1 (4.0%)	24 (96.0%)	3 (1.4%)	238 (98.6%)

Source: Research data

Further, 26.8 per cent, 70.3 per cent and 24.0 per cent of total entrepreneurs within the service, trade and artisan ME categories, respectively, ventured into their line of businesses because their MEs required little start-up capital. Table 4.1a shows that 175 out of the 241 MEs surveyed were in the trade category. It can therefore be concluded that majority of the businesses in the trade category, where female entrepreneurs were the majority, require little start-up capital. The low capitalization levels partly explain why majority of women entrepreneurs have ventured into trade businesses as observed by, among others, Bulow et al (1995), Kibas (1995), Bryden (1998) and IFC (2013). The researchers observe that women tend to venture into activities that require low capital input because they are disadvantaged compared to men when it comes to

acquiring financial capital. Yet business capitation levels have a direct bearing on income levels and subsequently, the loan amounts secured by entrepreneurs (Table 4.10b).

Moreover, Table 4.6 shows that businesses in the trade category suffered the highest level of competition than those in service and artisan/manufacturing categories. The high competition is attributed to the fact that in any business markets or towns, MEs in trade category tend to dominate in terms of multiplicity of numbers and competing/similar businesses. The findings further indicate that 53.7 per cent, 46.3 per cent and 20.0 per cent of entrepreneurs within the service, trade and artisan ME categories, respectively, pursued business in those lines because of perceived high profitability. Only 31.5 per cent of the entrepreneurs across all ME categories acknowledged the ease of managing their businesses, while 1.4 per cent of the entrepreneurs were operating businesses inherited from their parents.

### **4.3 Microenterprise Characteristics**

This sub-section of the chapter discusses four main issues related to credit-assisted MEs. First, the spatial location and distribution of MEs in the study area. Second, sources of business start-up capital. Third, characteristics of MEs, including: type, age, capitalization, income and employment levels and fourth, how ME characteristics influence entrepreneurs' credit utilization levels.

#### **4.3.1 Geographical Location and Distribution of MEs**

Appendix 1 and Figure 3.2 show a total of 40 centres within the 4 sub-counties covered in the survey in which the sampled credit-assisted MEs were located. Out of the 40 centres, 2 and 38 were classified as towns and market centres, respectively, with Butere and Mumias being the only towns. Research data shows significant variations in the location and concentration of MEs in the towns and market centres covered. Mumias Town had the highest concentration of MEs, accounting for 33 per cent of the sampled MEs in the study area. This finding corroborates Butere-Mumias District Development Plan (2002b). Also, CBS (1999) National Baseline Survey shows micro and small enterprises are mainly concentrated in important nodes in Kenya. The

high concentration of MEs in Mumias Town is attributable to the location of the town being in the heart of Mumias Sugar Cane Scheme, where per capita farm incomes are comparatively higher (Obulinji, 1996; and RoK, 2008b; and 2008c). Also, its proximity to Mumias Sugar Company and the fact that the town is the headquarters of Mumias Sub-county, gives the town great impetus to attract investment and grow. These locational advantages have: attracted a number of small businesses which provide employment; influenced the development of infrastructural facilities; and attracted both educated and the uneducated migrants. Thus, majority of the migrants secure employment in informal sector activities (RoK, 2002b; and 2008c). Thus, the high concentration of population in Mumias, coupled with higher purchasing power, has influenced the development of informal sector activities. Further, research data shows that MFIs, located mainly in the Mumias Town, Butere Town and Khwisero Centre, confine their credit services mostly to entrepreneurs who have businesses located within the three nodes and their immediate hinterlands. This, in itself, implies that accessibility and proximity could be important factors influencing entrepreneurs' access to credit facilities/MFIs, as confirmed by the regression analysis in section 4.3.

Despite Butere Town being the second largest in the study area, it only accounted for 2.9 per cent of the sampled MEs. However, other nodes, which were classified as market centres, had significant proportions of MEs than Butere Town. For instance, Matungu and Etenje each accounted for 7 per cent of the sampled MEs. Sabatia and Koyonzo accounted for 6 per cent and 5 per cent, respectively. Unlike Butere Town, the high concentration of MEs population in these market centres is attributed to the fact that all these centres are located within the Sugar Cane Scheme (RoK, 2002b; and 2008c). The rest of the centres covered in the survey had insignificant shares of population of MEs (Figure 3.2 and Appendix 1). A comparative analysis of MEs mean monthly income and capitalization level shows that MEs located in Mumias had a higher mean monthly income and capitalization level of 50 per cent and 40 per cent, respectively, than MEs located in other centres. This is attributed to high market demand for MEs goods and services resulting from both the high population concentration and per capita incomes in Mumias Town and its surrounding hinterland (RoK, 2002b; and 2008c). Tables 4.10b and 4.11b indicate that ME capitalization and income, respectively, were significantly correlated with the total credit secured by entrepreneurs.

### 4.3.2 Sources of Business Start-up Capital

Table 4.7a shows the percentage distribution of the initial sources of business start-up capital for the credit-assisted MEs surveyed. It is evident from the Table that previous employment, profit from other entrepreneurs' businesses, farming and spouses comprised the major sources of business start-up capital. In the same order, they contributed either in-part or whole to 28.2 per cent, 27.8 per cent, 23.2 per cent and 19.1 per cent of the MEs surveyed. Contrary, bank loans, entrepreneurs' retirement benefits and other family members comprised the least contributors, with bank loans accounting for only 2.9 per cent and the last two sources contributing 6.6 per cent each.

A number of deductions can be made from Table 4.7a. First, 28.2 per cent of the entrepreneurs must have been employed at some point in time, either as casual/permanent employees in private/public sector or within the informal sector itself, from where they raised savings for their business start-up capital. Second, banks, MFIs and groups' ASCRAs/ROSCAs were not major sources of business start-up capital in the study area. Precisely, banks and MFIs contributed start-up capital, either in whole or part, to 21.2 per cent of the MEs studied. However, this study found that currently MFIs and banks advance credit only to entrepreneurs already in business. Hence, entrepreneurs who utilized loans from banks and or NGOs as start-up capital for their MEs could simply have diverted funds borrowed from banks and MFIs on the strength of their on-going business projects, formal employment or other forms of collateral.

Further, the high poverty levels in the study area coupled with low or poor bank and NGO networks in the yesteryears also explain the insignificant role of NGOs and banks as sources of business start-up capital. In fact, the proliferation of NGOs and banks in the rural environments and 'the friendly credit' they extended to entrepreneurs within the informal sector can be traced down to less the 8 years ago (RoK, 2008c). This observation is also supported by the fact that the mean age of MEs covered in the study was found to be 8 years, with the oldest being 33 years. It is, therefore, possible to conclude based on the above facts that majority of the entrepreneurs covered in the survey did not have a chance to derive their business start-up capital from the current friendly-credit terms offered by most credit institutions. Third, 46 female entrepreneurs depended on their spouse for business start-up capital, with 16 (13.7 per cent of the total females



in the sample studied) of them depending wholly on their spouses while 30 (25.6 per cent of the total females in the sample studied) depending partly on their spouses (Tables 4.1a, 4.7a and 4.7b).

Further, Table 4.7b shows the number and percentage of MEs that relied on a single source or a combination of two or more sources of business start-up capital. Personal savings

**Table 4.7a: Percentage Distribution of the Initial Sources of Business Start-up Capital Based on ME Category.**

Sources of Initial Business Start-up Capital	Type of MEs (Frequencies and Percentages)						Total/ Percentages	
	Service		Trade		Artisan/Manufacturing			
	Yes	No	Yes	No	Yes	No	Yes	No
NGO Loan	3(7.3%)	38 (92.7%)	21(12.0%)	154(88.0%)	0(0.0%)	25(100.0%)	24(10.0%)	217(90.0%)
Group Loan	4 (9.8%)	37 (90.2%)	10 (5.7%)	165 (94.3%)	6 (24.0%)	19 (76.0%)	20 (8.3%)	221 (91.7%)
Bank Loan	3(7.3%)	38 (92.7%)	4 (2.3%)	171 (97.7%)	0(0.0%)	25 (100.0%)	7 (2.9%)	234 (97.1%)
Profit From Other Business(es)	9 (22.0%)	32 (78.0%)	57(32.6%)	118 (67.4%)	1 (4.0%)	24 (96.0%)	67 (27.8%)	174 (72.2%)
Personal Savings	15 (36.6%)	26 (75.6%)	41(23.4%)	134 (76.6%)	12 (48.0%)	13 (52.0%)	68 (28.2%)	173 (71.8%)
Retirement Benefits	2 (4.9%)	39 (95.1%)	12 (6.9%)	163 (93.1%)	2 (8.0%)	23 (92.0%)	16 (6.6%)	225 (93.4%)
Spouse	8 (19.5%)	33 (80.5%)	33(18.9%)	142 (81.1%)	5 (20.0%)	20 (80.0%)	46 (19.1%)	195 (80.9%)
Other Family Members	4 (9.8%)	37 (90.2%)	9 (5.1%)	166 (94.9%)	3 (12.0%)	22 (88.0%)	16 (6.6%)	225 (93.4%)

Relatives/ Friends	1 (2.4%)	40 (97.6%)	11 (6.3%)	164 (93.7%)	2 (8.0%)	23 (92.0%)	14 (5.8%)	227 (94.2%)
Farming	10 (24.4%)	31 (75.6%)	40(22.9%)	153 (77.1%)	6 (24.0%)	19 (76.0%)	56 (23.2%)	185 (76.8%)

Source: Research Data.

from employment was the single most important source of business start-up capital. It contributed start-up capital to 20.7 per cent of the MEs. In order of importance, it was followed by profit from other businesses, farming, spouses, group loans, retirement benefits, and

**Table 4.7b: Number of MEs Based on Single Source or Combination of Two or More Sources of Business Start-up Capital.**

Source of Business Start-up Capital	Frequency and Percentage of MEs Based On Single-source of Business Start-up Capital
Personal Savings From Employment	86 (35.7%)
NGO –Loan	- (Nil)*
Group Loan	14 (5.8%)
Bank Loan	- (Nil)**
Profit From Other Businesses	23 (9.5%)
Retirement Benefits	8 (3.3%)
Friends and Relatives	4 (1.7%)
Spouse	30(12.4%)
Farming	28 (11.6%)
Combination of 2 or more Sources	48(19.9%***
Total	241(100.0%)

\* Only 4 MEs, 5 MEs and 7 MEs depended on group loans to finance up to 50 per cent, 30 per cent and 20 per cent, respectively, of their business start-up capital.

\*\* Only 1 ME, 2MEs and 3ME depended on Bank-loans to finance up to 25 per cent, 30 per cent and 40 per cent, respectively, of their business start-up capital.

\*\*\* MEs that combined two or more sources of their business start-up capital.

Source: Research Data.

contributions from friends and relatives, which accounted for 16.6 per cent, 14.5 per cent, 12.4 per cent, 6.2 per cent, 3.3 per cent and 1.7 per cent, respectively. Only 24.5 per cent of the MEs sourced their business start-up capital from two or more sources. This included money from banks and NGO loans, among others. According to RoK (2008b; and 2013b), the main sources

of income for majority of households is farming and wage or formal employment. Wegulo and Obulinji (2001) in their study in Mumias area found a significant nexus, in terms of resources flows, between sugar cane farming and the ME sector. The two observations by Wegulo and Obulinji (2001) and RoK (2008b; and 2013b) explain why farming was an important source of business start-up capital. Indeed, the research findings also indicate that over 64.8 per cent of entrepreneurs had other income sources besides the ME business. This also explains why personal savings from employment contributed significantly to ME start-up capital, with some of the entrepreneurs being civil servants, teachers or employees of the private sector. RoK (2008b; and 2013b) note that very few small investors in the study area rely on bank loans to start or expand their business because of high interest rates and lack of collateral. Also, the general fear associated with bank loans in case one fails to repay, he or she will be auctioned and either lose land or other properties. The unwillingness of banks and MFIs to provide MEs start-up capital can have positive ramification on entrepreneurs' credit acquisition levels.

### 4.3.3 Types of MEs

Businesses within the informal sector can be broadly classified into three categories: trade, service and artisan/manufacturing (Republic of Kenya, 1992; Kenya Micro and Small Enterprise Act, 2013). Table 4.8 shows the distribution of sampled MEs surveyed in the study area. It can be observed from the table that MEs in the service, trade and artisan categories accounted for 17.0 per cent, 72.6 per cent and 10.4 per cent, respectively, of the total sample

**Table 4.8: Distribution of Sample MEs Based on Source of Credit**

MFIs (Source of Credit)	Type of MEs			Total/ Percentage
	Service	Trade	Artisan/ Manufacturing	
EFSA	14(34.1%)	58(33.1%)	7(28.0%)	79(32.8%)
BFSA	5(12.2%)	17(9.7%)	4(16.0%)	26(10.8%)
KFSA	6(14.6%)	34 (19.4%)	2(8.0%)	42(17.4%)
PDP	12(29.3%)	53(30.3%)	9(36.0%)	74(30.7%)

K-REP	4(9.6%)	13(7.4%)	3(12.0%)	20(8.3%)
Total	41(17.0%)	175(72.6%)	25(10.4%)	241(100.0%)

Source: Research Data.

surveyed. Those in trade category such as retail shops, groceries, fish selling, cereals, second-hand clothes, etc were the majority. This is because businesses in this category, comparatively, require little start-up capital and some do not necessarily require specific skills to operate (Section 4.1.8 and Table 4.2c). Entrepreneurs, therefore, have easy entry into businesses within the trade category. However, majority of the businesses in the service and artisan categories require higher capital and skills to operate, including among others: bar business, teaching and typing/computer services, saloon (hairdressing), hotel, carpentry, tinsmith, grinding/posho-mill, welding, tailoring, among others. The findings of this study show that the average start-up capital for businesses in the trade category was Ksh. 15,570.31. Businesses in the service and artisan categories had higher average start-up capital, that is, Ksh 30,460.74 and Ksh 21,731.30, respectively.

These findings have implications to all stakeholders in Kenya's ME development policy framework and in particular, those engaged in provision of training services and credit facilities to the informal sector activities. For instance, it is imperative for MFIs and other creditors to apportion credit levels based on ME financial needs. Besides this, entrepreneurs need to be trained in basic business skills, which can contribute positively on business performance. In fact, the relationship between entrepreneurs' training and businesses performance need to be investigated by future researchers.

A part from site-businesses, itinerary-businesses were also captured in the sample studied survey. However, all of the itinerary businesses were in the trade category and accounted for 5.8

per cent of the sampled businesses (representing 14 MEs). Itinerary businesses included: cattle trading, distribution and hawking of manufactured food and non-food items by well established shopkeepers, rotational market traders in fish, and second-hand clothes, etc. As shall be noted later in chapter 6, itinerary businesses/trading registered higher monthly incomes than site-businesses.

#### 4.3.4 Microenterprise Age

Data in Table 4.9a shows significant differences ( $X^2_{cal} > X^2_c$ ) in ME age, with 74.2 per cent of MEs surveyed having ages between 6 and 15 years old. The latest and oldest business establishments of the sample studied were 5 years and 33 years, respectively. The mean age was 8 years. Thus, the latest and oldest MEs were established in the year 2006 and 1978, respectively. Table 4.9a depicts the age distribution of businesses based on ME types. It evident from Table 4.9a that MEs in the age-group 1-5 years, accounted for 18 per cent of the sample and that there were very few MEs that were over 16 years and above. More so, there was none within the service category. In addition, as the ME age increases the frequency of MEs reduces, implying very few MEs survive for a longer period of time. This finding corroborates that of CBS (1999), which found out that most MEs do not survive to see their 10<sup>th</sup> birthday. Despite this age limit for most businesses, majorities of MEs that were aged 15 years and above were in the trade category and comprised 41.8 per cent of the sample studied. Eighty four point two per cent of MEs that were aged over 10 years were operated by entrepreneurs who mainly depended

**Table 4.9a: ME Age Based on Type of ME.**

ME Age (In Years)	Type of ME			Total/ Percentage
	Service	Trade	Artisan/Manufacturing	
1-5	8(19.5%)	34(19.4%)	1(4.0%)	43(18.0%)
6-10	20(48.8%)	68(38.9%)	9(36.0%)	97(40.2%)

11-15	13(31.7%)	58(33.1%)	11(44.0%)	82(34.0%)
16-20	0(0.0%)	8(4.6%)	2(8.0%)	10(4.1%)
21-25	0(0.0%)	6(3.4%)	2(8.0%)	8(3.3%)
31-35	0(0.0%)	1(0.6%)	0(0.0%)	1(0.4%)
Total	41(100.0%)	175(100.0%)	25(100.0%)	241(100.0%)

Minimum ME age = 5 years

Maximum ME age = 33 years

Range = 28 years

Mean ME age = 8 years

$X^2_{cal} = 163.7$ ;  $df = 10$ .  $X^2_{cal} > X^2_t$ . The Differences in ME age based on ME type is significant at 95 per cent confidence level.

Source: Research Data.

on MEs as their only occupation and source of income. This specific category of MEs contradicts the finding by CBS (1999) on ME age. The implication of this is that there is every reason for greater determination to ensure that the MEs do not fail on the part of the entrepreneurs who rely on them as their only source of income and livelihood. This finding has important policy implications on the part of planners and stakeholders in the development of ME-sector as a source of employment and income generation to the unemployed.

Further, it was observed that business age was directly related to the age of the entrepreneur, especially for those who depended on ME business as the only occupation and source of income. To confirm this, Table 4.9b shows that the total loans secured by entrepreneurs from MFIs significantly varied ( $P < 0.05$ ) with the age of MEs. Also, the total loans secured and business age was significantly correlated ( $P < 0.05$ ), implying the older the ME the higher was the total loan secured. Appendix 4 shows that ME age was significantly correlated with ME income, implying that the older the ME the higher was the income. Table 4.11b confirms that ME income was a significant factor ( $P < 0.05$ ) influencing variability in total loans secured and was also

**Table 4.9b: Cross Tabulation of Categories of Total Loans Secured Against ME Age**



Categories of Total Loans Secured (In Ksh)	ME Age-Interval (In Years)						Total/ Percentage
	Frequencies						
	1-5	6-10	11-15	16-20	21-25	31-35	
<19,999	14	14	6	1	1	0	36(14.9%)
20,000-49,999	19	46	32	2	3	1	103(42.7%)
50,000-99,999	4	17	24	3	1	0	49(20.3%)
100,000-199,999	4	15	17	1	3	0	40(16.6%)
200,000-299,999	1	5	2	1	0	0	9(3.7%)
300,000-399,999	1	0	0	1	0	0	2(0.8%)
500,000-599,999	0	0	1	1	0	0	2(0.8%)
<b>Total</b>	<b>43</b>	<b>97</b>	<b>82</b>	<b>10</b>	<b>8</b>	<b>1</b>	<b>241(100.0%)</b>

$X^2 = 53.706$ ;  $df = 30$ ;  $P = 0.005$  ( $P < 0.05$ ). The Difference is significant.

Pearson Correlation ( $r$ ) = 0.117.  $P = 0.005$ ,  $P < 0.05$ .  $N=241$ . Correlation is significant (Appendix 4)

Source: Research Data.

correlated with the total loans secured. Further, it is also evident from Appendix 4 that the age of MEs and that of the entrepreneurs were significantly correlated, implying the older the entrepreneur the longer s/he has been in business.

#### 4.3.5 MEs Capitalization Levels

Table 4.10a shows ME capitalization levels based on ME category. It is observed that most MEs exhibited low and varied capitalization levels. For instance, the lowest and highest ME capitalization levels were found to be Ksh 4,000 and Ksh 3,000,000, respectively. In the same order, these levels were observed in MEs within the service and trade categories. The mean ME capitalization level was lowest and highest within the artisan/manufacturing and trade categories, respectively. The sample survey shows a wide range in capitalization levels within the trade category, with majority of the MEs found on both extremes of the continuum and exhibiting comparably larger amounts of stock than assets (Section 4.1.8, Tables 4.6 and 4.10a).

**Table 4.10a: Average ME Capitalization Levels Based on ME Category (In Ksh) – As at July, 2008.**

ME Capitalization Categories (in Ksh)	Frequency of MEs in Various Capitalization Categories				ME Average Capitalization Levels in each Category (in Ksh)		
	Service	Trade	Artisan/ Manu- facturing	Total/ Percent	Service	Trade	Artisan/ Manu- facturing
0-15,000	7(17.1%)	18(10.3%)	1(4.0%)	26(10.8%)	10,673.30	12,590.50	9,000.00
15,001-30,000	6(14.6%)	42(24.0%)	9(36.0%)	57(23.7%)	20,483.20	25,610.60	25,063.20
30,0001-45000	6(14.6%)	20(11.4%)	4(16.0%)	30(12.4%)	35,935.40	40,645.20	41,176.10
45,001-60,000	1(2.4%)	8(4.6%)	2(8.0%)	11(4.6%)	52,142.90	51,552.50	52,530.90
60,001-75,000	1(2.4%)	3(1.7%)	-	4(1.7%)	70,750.00	62,756.51	-
75,001-90,000	4(9.8%)	8(4.6%)	2(8.0%)	14(5.8%)	85,120.00	89,603.90	72,381.00
90,001-105,000	3(7.3%)	5(2.9%)	1(4.0%)	9(3.7%)	102,943.20	95,761.00	104,000.00
105,001-200,000	5(12.2%)	32(18.3%)	6(24.0%)	43(17.8%)	180,846.70	170,613.50	180,076.30
200,001-600,000	8(19.5%)	35(20.0%)	-	43(17.8%)	398,011.00	465,150.50	-
600,001-1,000,000	-	2(1.1%)	-	2(0.8%)	-	997,313.80	-
1,000,001-3,000,000	-	2(1.1%)	-	2(0.8%)	-	2,657,148.00	-
<b>Total</b>	41(100.0%)	175(100.0%)	25(100.0%)	241(100.0%)			
<b>Minimum</b>	4,000.00	4,500.00	9,000.00				
<b>Maximum</b>	440,000.00	3,000,000.00	200,000.00				

Mean	102,731.71	129,916.57	65,120.00		
Range	436,000.00	2,995,500.00	191,000.00		
Average Percentage Value of Assets				78.0%	15.0%
Average Percentage Value of Stock				22.0%	85.0%
				80.0%	20.0%

$\chi^2 = 40.604$ ;  $df = 20$ ;  $P = 0.038$  ( $P < 0.05$ ). The differences in ME capitalization are statistically significant based on ME type.

Source: Research Data.

For instance, in the trade category we have simple businesses like selling of groceries, kerosene, fish or second-hand clothes (*Mitumba*), with an average capitalization level of Ksh 5000 each. When these businesses are compared to a well equipped auto-spare, bookshop, boutique shop or hardware, the wide differences in capitalization levels can be well demonstrated. RoK (2002a; 2002b; and 2008c) point out that trade is the major economic activity within the informal sector, particularly in most rural economies. This explains comparably why in the long run MEs within the trade category may acquire higher capitalization levels mainly in the form of business stock than those in the service and artisan categories. Comparably, MEs in the artisan and service categories exhibited higher amounts of assets but very low levels of business stock (Section 4.1.8, Tables 4.6 and 4.10a). Hence, MEs in the service and artisan categories rely more on the growth of their assets in raising their capitalization levels. It follows, therefore, that for one to start and run a business in the service and artisan categories, s/he requires more investments in form of assets than business stock. This is not the case for most businesses in the trade category, where an entrepreneur would require more investments in business stock than assets. Table 4.10a and case-studies 1, 2 and 3 demonstrate the proportion of business assets and stock among different types of MEs.

Further, Table 4.10a shows that 34.5 percent of the MEs had their capitalization levels below Ksh 30,000. Those with capitalization levels between Ksh 30,001- Ksh 90,000, Ksh 90,001- Ksh 200,000, Ksh 200,001- Ksh 600,000 and Ksh 600,001-Ksh 3,000,000 were 24.5 per cent, 21.5 per cent, 17.8 per cent and 1.6 per cent, respectively. Data from Table 4.10a and Figure 4.1 also show that as the levels of capitalization increase in all the three categories of MEs, the frequency of MEs reduces drastically. This finding corroborates that of CBS (1999), which observed that the capitation level for most MEs hardly exceeds Ksh. 5million mark. Also, the Micro and Small Enterprise Act 2013 classifies MEs in Kenya as those businesses with a capitation of up to Ksh. 5 million and employing not more than 10 people.

***Case Study 1: Proportion of Business Assets and Stock in a Micro Enterprise within the Service Category (BFSA Loanee)***

*Jane Mamboleo (not real name) is a female entrepreneur aged 40 years. She started a hotel business in Shatsala Market in the year 2000. Earnings that she saved from her previous employment contributed 70 per cent of the ME start-up capital, while 30 per cent was contributed from a loan she secured from a commercial bank. To start the business, Jane had to rent a business premise, purchase cooking items, utensils and firewood. Also, she purchased food stocks, furniture, acquired a government license and hired two people to assist her conduct the business. At the start of the business, her total ME capitalization was Ksh. 40,000, with business assets accounting for 87.5 per cent (Ksh.35,000) and business stock 12.5 per cent (Ksh. 5,000). Between July 2008 and June 2011, ME capitalization had increased from Ksh. 55,000 to Ksh. 80,000, with business assets accounting for 80% and stock 20%. According to Jane, business stock had not increased much since it was easier to replenish it twice a week or even more times depending on business performance.*

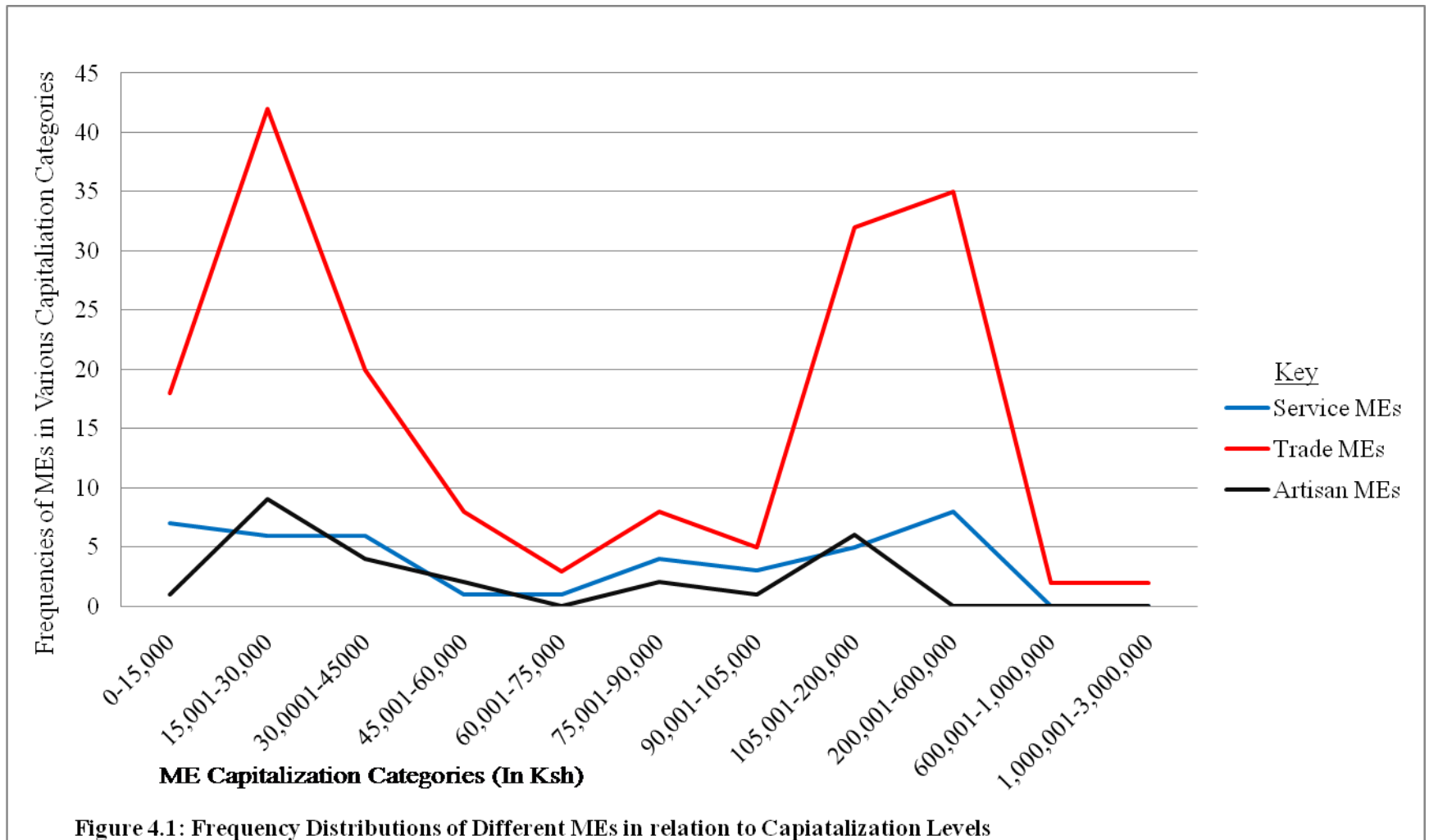
***Case-Study 2: Proportion of Business Assets and Stock in a Micro Enterprise within the Trade Category (EFSA Loanee)***

*John Majimaji (not real name) is a male entrepreneur aged 38 years. He started a butchery business in the year 2004. His business is location in Mumias Town. John obtained business start-up capital from his previous employment and farming, with each source contributing 50 per cent of the total required capitalization. The main items that he required to start the business were a business premise, a weighing scale, a white jacket and tools such as an axe, 2 machetes and a saw. In addition, he hired one person to assist him conduct the business. Also, he acquired a government trade, municipal and health licenses. John and his friend operating a similar business in Mumias Town jointly raised Ksh. 20,000 to purchase one head of cattle, which they shared equally after slaughtering. This was essential at the start of the business given the low and unstable demand, as well as, the perishability nature of meat. The total business capitalization level at the start of business was Ksh. 17000, with business assets accounting for Ksh. 7,000 (41%) and business stock Ksh.  $20,000/2 = 10,000$  (59%) – representing a half head of cattle. Between July, 2008 and June, 2011 business capitalization*

had increased from Ksh. 25,000 to Ksh. 47,000, with business assets accounting for 15% and stock 85%. Business stock had increased from a half head of cattle to two heads of cattle. However, raising stock beyond this level depends on demand, given that meat is a perishable and requires refrigeration. Despite this, the demand levels at the butchery had stabilized at two heads of cattle per week.

***Case-Study 3: Proportion of Business Assets and Stock in a Micro Enterprise within the Artisan Category (EFSA Loanee)***

Miriam Likuyi (not real name) is a female entrepreneur aged 35 years. She started her grinding/posho-mill business in 1998. The business is located in Etenje Market. Before establishing the business she was a farmer. Her business start-up capital comprised 80 per cent from her spouse and 20 per cent from her farming activities. The items that she required in order to enable her start the business included: a business premise which was family-owned, a completely installed grinding-mill (a motor and mill), sifters (3 for the mill and 1 for cereals), a weighing scale, customers' (sitting) wooden bench and one raised/high stool for the machine operator. Also, she had to acquire government licenses and hired labour (1 person to operate the mill). The total business capitalization level at the start of business was Ksh. 210,000, with business assets accounting for Ksh. 180,000 (90%) and business stock 20,000 (10%). Business stock consisted mainly of cereals like maize, millet and sorghum, with cereals re-stocking done fortnightly or whenever the stock was cleared. Between July, 2008 and June, 2011 ME capitalization increased to Ksh. 220,000 from Ksh. 190,000, with business assets remaining the same (assuming zero depreciation) and accounting for 82% (ksh. 180,000) and stock 18% (Ksh. 40,000). Business stock had increased by 100%.



Source: Research Data.

Chi-square and correlation analysis were used to test the significance of ME capitalization in influencing total amounts of credit secured by entrepreneurs. It is observed from Table 4.10b and Appendix 4 that ME capitalization level was significant ( $P < 0.05$ ) in influencing difference in the total amount of credit secured from MFIs by entrepreneurs. In support of this, CBS (1999) also observed that the level of business capitalization was an indicator of the size of loan amounts secured. A study by Wegulo (1995) came up with similar findings. Also, ME capitalization was significantly correlated ( $P < 0.05$ ) to total amounts of credit secured by entrepreneurs from MFIs. The implication of these findings is that those entrepreneurs with higher investment levels are likely to consume more loans, and vice-versa. Further, it is observed from Appendix 4 that ME capitalization was significantly correlated with entrepreneurs' education level, number of employees as well as employment volume and ME monthly income

**Table 4.10b: Cross Tabulation of Categories of Total Loans Secured Against ME Capitalization**

ME Capitalization Categories (In Ksh '000)	Categories of Total Loans Secured (In Ksh) and ME Frequencies							Total
	<19,999	20,000–49,999	50,000–99,999	100,000–199,999	200,000–299,999	300,000–399,999	500,000–599,999	
0 – 15	16	7	3	0	0	0	0	26
15.001 – 30	16	33	7	1	0	0	0	57
30.001 – 45	1	18	5	5	1	0	0	30
45.001 – 60	0	4	6	1	0	0	0	11
60.001 – 75	0	2	1	0	0	1	0	4
75.001 – 90	3	4	3	4	0	0	0	14
90.001-105	0	1	4	2	1	0	1	9
105.001-200	1	17	13	8	4	0	0	43
200.001-600	0	16	5	17	3	1	1	43
600.001 – 1000	0	0	1	1	0	0	0	2
1,000.001 -3000	0	0	1	1	0	0	0	2



Total	37	102	49	40	9	2	2	241
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$\chi^2 = 176.112$ ;  $df = 60$ ;  $P = 0.000$  ( $P < 0.05$ ). The Difference is significant.

Pearson Correlation ( $r$ ) = 0.291.  $P = 0.000$ ,  $P < 0.05$ .  $N=241$ . Correlation is significant (appendix 4).

Source: Research Data

generated from the businesses. As noted in Section 4.2.2 and Table 4.2b, the educated are less risk averse, hence they are likely to consume higher loan amounts and invest more than the uneducated. Also, entrepreneurs who earn more are likely to invest more and at the same time consume more loans. Moreover, the higher the investment, the higher the employment levels. Does this imply that MEs are more labour-intensive or do not invest in labour-saving technologies?

#### 4.3.6 MEs Income Levels

Table 4.11a shows average net monthly income levels based on ME type and categories of ME capitalization. It can be observed from Table 4.11a that the minimum and maximum net monthly ME incomes were Ksh. 3,000 and Ksh. 40,000, respectively. In the same order, these incomes were generated from MEs in the trade and service categories, giving a range of Ksh. 37,000. Further, significant differences ( $P < 0.05$ ) in incomes were observed in all MEs categories, with the highest range and variability observed within MEs in the trade category.

It is also evident from Table 4.11a and Figure 4.2 that average ME income levels increased with rising average levels of ME capitalization. Table 4.11b indicates that ME income was significantly correlated ( $P < 0.05$ ) with the total loans secured by entrepreneurs. Moreover, ME income levels significantly influenced ( $P < 0.05$ ) the differences in the loans amounts secured by entrepreneurs. Appendix 4 further shows that ME incomes were significantly correlated with ME capitalization levels, entrepreneurs' education levels, the number of employees and the total employment volume. These findings suggest that the higher the ME income levels, the more the entrepreneurs are able to secure and service higher amounts of credit. Also, the significant correlation between ME capitalization and income suggests that MEs with higher capitalization levels will generate higher business income. Hence, a combination of higher ME income, ME capitalization and entrepreneur's education levels will influence entrepreneurs to secure higher

amounts of credit. Smith, et al (2001) point out that education makes an entrepreneur less risk averse, enabling entrepreneur with higher levels of education secure more credit than those with low education.

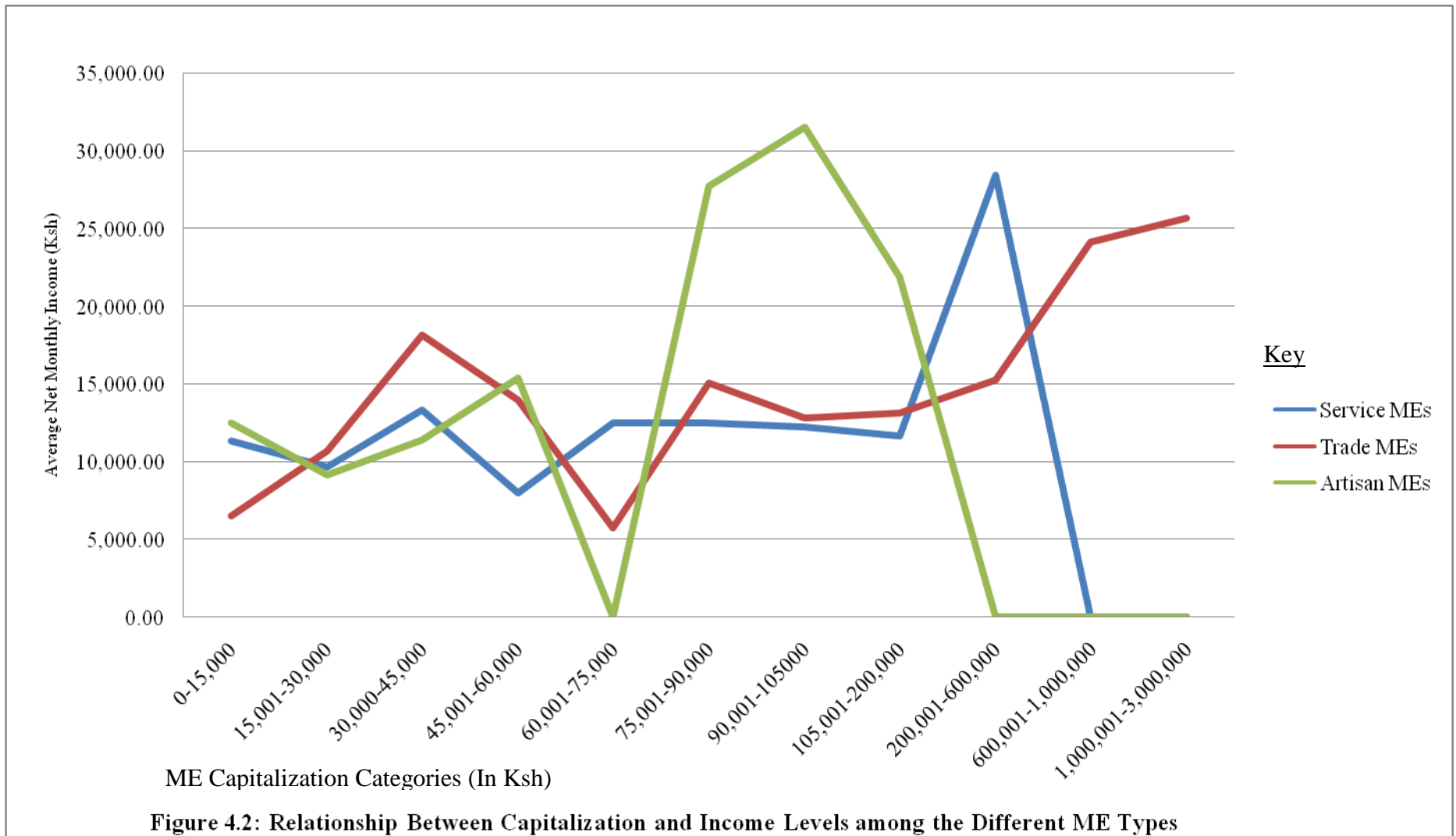
**Table 4.11a: ME Net Monthly Average Income Based on Capitalization Levels and ME Category.**

ME Capitalization Categories (in Ksh)	Frequency MEs in Various Capitalization Categories				Average Net Monthly Income (Ksh)		
	Service	Trade	A/Manuf.	Total	Service	Trade	A/Manuf.
0-15,000	7(17.1%)	18(10.3%)	1(4.0%)	26(10.8%)	11,319.70	6,495.30	12,500.00
15,001-30,000	6(14.6%)	42(24.0%)	9(36.0%)	57(23.7%)	9,657.80	10,694.30	9,119.20
30,000-45,000	6(14.6%)	20(11.4%)	4(16.0%)	30(12.4%)	13,310.50	18,121.50	11,385.70
45,001-60,000	1(2.4%)	8(4.6%)	2(8.0%)	11(4.6%)	8,000.00	13,974.10	15,360.00
60,001-75,000	1(2.4%)	3(1.7%)	-	4(1.7%)	12,500.00	5,717.50	-
75,001-90,000	4(9.8%)	8(4.6%)	2(8.0%)	14(5.8%)	12,500.00	15,011.20	27,725.80
90,001-105,000	3(7.3%)	5(2.9%)	1(4.0%)	9(3.7%)	12,200.00	12,771.20	31,500.00
105,001-200,000	5(12.2%)	32(18.3%)	6(24.0%)	43(17.8%)	11,624.00	13,102.10	21,850.00
200,001-600,000	8(19.5%)	35(20.0%)	-	43(17.8%)	28,452.80	15,228.80	-
600,001-1,000,000	-	2(1.1%)	-	2(0.8%)	-	24,136.40	-
1,000,001-3,000,000	-	2(1.1%)	-	2(0.8%)	-	25,652.20	-
<b>Total</b>	<b>41(100.0)</b>	<b>175(100.0%)</b>	<b>25(100.0%)</b>	<b>241(100.0%)</b>			
<b>Average</b>					<b>13,285.00</b>	<b>12,296.00</b>	<b>18,492.00</b>
<b>Minimum</b>					<b>5500.00</b>	<b>3,000.00</b>	<b>4,000.00</b>
<b>Maximum</b>					<b>40,000.00</b>	<b>35,000.00</b>	<b>30,000.00</b>
<b>Range</b>					<b>34,500.00</b>	<b>32,000.00</b>	<b>26,000.00</b>

A/Manuf = Artisan/Manufacturing.

$\chi^2 = 35.104$ ;  $df = 16$ ;  $P = 0.023$  ( $P < 0.05$ ). The differences in ME incomes are statistically significant based on ME type.

Source: Research Data



Source: Research Data.

**Table 4.11b: Cross Tabulation of Categories of Total Loans Secured Against ME Net**

ME Net Monthly Range of Income (In Ksh)	Categories of Total Loans Secured (In Ksh) and ME Frequencies							Total/ Percentage
	<19,999	20,000- 49,999	50,000- 99,999	100,000- 199,999	200,000- 299,999	300,000- 399,999	500,000- 599,999	
1,001-3,000	2	0	2	0	0	0	0	4(1.7%)
3,001-6,000	10	12	3	0	0	0	0	25(10.4%)
6,001-10,000	18	26	9	7	0	1	0	61(25.3%)
10,001-15,000	4	39	11	12	0	0	0	66(27.4%)
15,001-20,000	2	14	12	6	4	0	0	38(15.8%)
20,001-28,000	0	8	8	6	1	0	1	24(9.6%)
28,001-35,000	0	1	3	8	2	0	1	15(6.2%)
35,001+	0	3	1	1	2	1	0	8(3.3%)
Total	36	103	49	40	9	2	2	241(100.0%)

$X^2 = 123.553$ ;  $df = 42$ ;  $P=0.000$  ( $P<0.05$ ). The Difference is significant.

Pearson Correlation ( $r$ ) = 0.421.  $P = 0.01$  (2-tailed),  $P<0.05$ .  $N=241$ . Correlation is Significant (Appendix 4)

### Monthly Income

Source: Research Data

Furthermore, a comparison of MEs capitalization-income ratios at various ME capitalization categories reveal that businesses that had lower capitalization levels comparably had higher monthly net incomes than those with higher capitalization levels. This observation implies that some businesses do not require higher levels of capitalization so as to generate higher levels of income, as demonstrated by case-studies 4 and 5 on food provisioning and itinerary cattle trading, respectively.

***Case-Study 4: Low capitalization:High Income Food Provisioning ME (KFSA Loanee).***

*John Kibaro (not real name), a male entrepreneur aged 35 years, got involved in hotel/food provisioning business in the year 2002. The hotel business is located in Khumusalaba Market, one of the markets covered in the survey. Before then, he was engaged in farming. John started the small-scale hotel business using part of his household items worth Ksh. 5,500. This included a jiko, a few utensils and some furniture. His uncle supported him by allowing him to operate his hotel business in one of his business premises where he never used to pay rent. Besides the uncle's support, his church pastor gave John Ksh. 1,000. This boosted his start-up capital to the extent that John managed to buy the key items needed to start a small tea-hotel business in the market place. With the help of his wife, John managed to start operating the business, even though it was not legally licensed. John's net daily turnover at the start of the business was between Ksh 300 and Ksh 400. This translated to a monthly income of between Ksh 9,000 and Ksh 12,000. John's business was faced by a number of problems, including: inability to sell all the food cooked in a single day due to inadequate demand; inadequate running capital; harassment from local county council officials, as the business was not licensed; and inadequate hotel facilities such as furniture, utensils, etc. John tried addressing the challenges faced by marketing the business market centre. After a period of 4 month, John had won quite a number of customers and hence able to sustain the business. He also entered into an agreement with a well established shopkeeper (retailer) in the market centre, who would supply him the daily business requirements (trade credit supplies) amounting to Ksh 600. John could then pay the shopkeeper from his business proceeds. This arrangement ensured a smooth and continuous supply of John's daily business requirements. As the business picked up and the food prepared got cleared before the close of the day, John would go for additional supplies from the shopkeeper, any time such a need arose, so as to prepare more food and serve his customers. The business grew overtime. John took the first and second loans from the KFSA of Ksh 7,000 and Ksh 15,000, respectively. Out of two loans totaling Ksh 22,000, John invested only 20 per cent of the loan money in the business, amounting to Ksh 4,400. Thus, his business capitalization increased to Ksh 10,000 as at July, 2011, with business stock and assets accounting for Ksh 3,000 and Ksh 7,000, respectively. The net daily income also grew, ranging between Ksh 700 and Ksh 1,000. This translated to a monthly income of between Ksh. 21,000 and Ksh. 30,000. However, John foresaw the business capitalization level not increase in the future. To him such an*

increase was needless because the business did not require a lot of stock to operate as it was easier to replenish business stock even on a daily basis. What John needed was daily supplies of business stock/inputs.. His business income and customers had stabilized and he was able to pay for his annual County Council Government business licenses. However, according to John, for one to succeed one ought to be disciplined and committed to one's work. For instance, a number of things need to be observed to keep a certain level of customers to enable one compete effectively with other businesses. These include: prudent time management in running the business, repairing and maintaining of hotel facilities and equipment as well as ensuring cleanliness, investing the loan money wisely and preparing a variety of food stuffs for customers. Also, good customer service and relations and taking-up food supply tenders from specific customers on a daily basis, guaranteed a certain level of demand. More so, charging fair food prices to customers gives one a better platform from which to compete business rivals.

***Case-Study 5: Low capitalization:High Income Itinerary Cattle Trading Business (EFSA Loanee).***

Mike Adu (not real name), a male entrepreneur aged 36.5 years, started an itinerary cattle trading business in Shianda Market and Mumias Town in 1999. Before then, he was a sugar cane farmer, from which he raised his business start-up capital. He started the business with one head of cattle worth Ksh. 18,000. He often sold one head of cattle in each centre in a week during market days. His weekly profit at the start of the business was between Ksh 1,000 and Ksh 2,000, translating to a monthly income of between Ksh 8,000 and Ksh 16,000. Mike encountered a number of challenges at the start of the business. These included: legal battles that involved trading in stolen cattle without his prior knowledge; trekking for long distances in search of cattle to purchase for sale; and seasonal fluctuation in prices of cattle. He addressed the problem of trading in stolen cattle by ensuring that before purchasing cattle in any locality, he got consent of the respective village elder and the Sub-Chief. After operating the business for two years, Mike managed to employ two young men to help him in his itinerary business so as to avoid the agony of trekking for long distances in search of cattle. He also improved his price negotiation skills, enabling him to earn better profit margins. Despite the business income having grown over time, Mike could not manage to build his business stock due to many family obligations such as providing food, school fees and other household needs. He secured loans



*from the MFI and 'Wafugaji' group of Ksh. 35,000 and Ksh. 30,000, respectively. He spent 70 per cent of this money, amounting to Ksh. 45,500, in purchasing additional three heads of cattle. This investment, raised his business capitalization level to Ksh 63,000 as at July 2011, enabling him to purchase cattle stock that could last him for two weeks. His net monthly income also grew to between Ksh. 16,000 and Ksh. 32,000. According to Mike, he did not require more stock to improve the business, as it was difficult to handle many heads of cattle whilst he had more manpower. Also, it was not easy to raise business stock and sales due to competition from other cattle vendors. What was important for him was to ensure he replaced business stock promptly.*

#### **4.3.7 MEs Employment Levels**

Informal sector activities are a source of employment in Kenya and other developing countries, especially to those who cannot find jobs in the formal sector (World bank, 1994; UNDP, 2000; and IFC, 2013). This is also true in the study area (RoK, 2002b; 2008c; and 2013a).

The findings show that MEs covered in the survey on average employed two people, with the total number of people employed varying based on ME type and capitalization levels. For instance, Table 4.12a and Figure 4.3 show that the average number of people employed and the monthly average employment volume generated in man-hours increased with rising levels of capitalization across all the three types of MEs. Comparatively, however, MEs in the service sector employed a higher average number of people than those in the trade and artisan categories. Specifically, Table 4.12a shows that those MEs in the service, trade and manufacturing/artisan categories generated on average 1036 man-hours, 407 man-hours and 574 man-hours, respectively, per month. These man-hours were statistically different ( $P < 0.05$ ) based on ME type. The high level of man-hours generated within MEs in the service sector is attributed to two factors. First, MEs in the service sector employ comparatively more people given the nature of their production, requiring a higher labour-capital ratio (Todaro, 1989). Second, MEs in the service category operate for longer hours in a day and (seven) days in a week. Specifically, research data indicates that MEs in the service category operates for 12 hours or more in a day. Businesses open as early as 6 am and close doors to their customers as late as 11pm in the night. In comparison, majority of MEs in the trade and artisan categories operate averagely for only 8

hours or less in a day, with majority operating for a half-day and or closing their doors to customers on Sundays. Moreover, some of the itinerant traders within the trade category, including cattle and second-hand clothes traders, were operating their businesses for less than 5 hours a day and for a maximum of only 3 days in a week, that is, during market days in given market centres. Also, those operating businesses like butcheries, even though they operated normally for 8 hours a day, they opened their businesses for only a maximum of 3 days, at times even 2 days per week (on market days). Majority of entrepreneurs in the artisan category operated for 6 days a week and 8 hours a day, except for a few (like Posho-Mill businesses) who

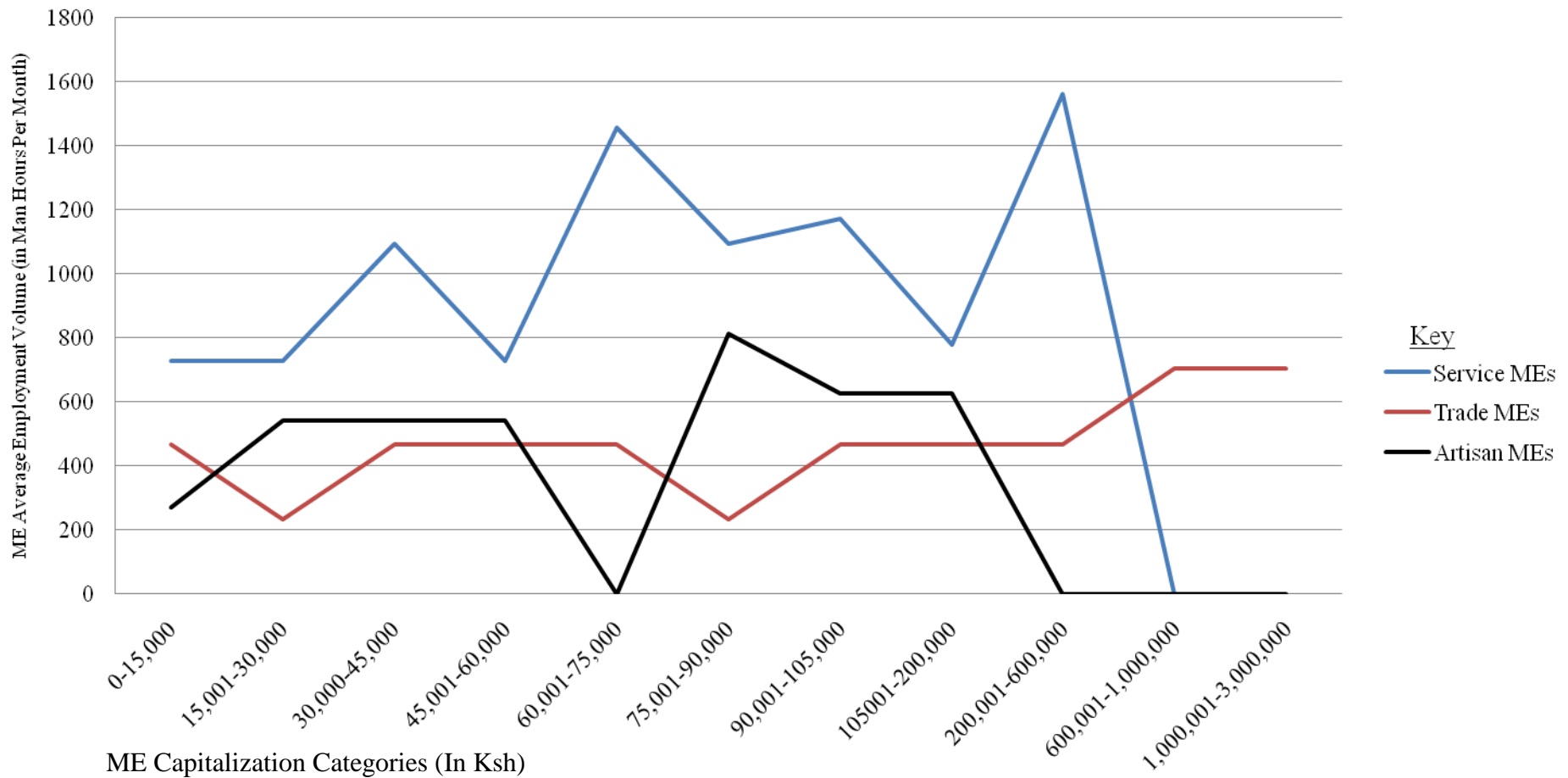
**Table 4.12a: Number of People Employed and Monthly Employment Volume in Man-hours Generate by ME Type and capitalization Levels.**

ME Capitalization Levels (in Ksh)	Average Capitalization Levels (in Ksh)	Frequency ME Category				Average Number of People Employed*			Actual Average Man-hours Per Month		
		Serv	Trade	Man	Total	Serv	Trade	Man	Serv	Trade	Man
0-15,000	7,500.00	7(17.1%)	18(10.3%)	1(4.0%)	26(10.8%)	2	2	1	5096	8424	270
15,001-30,000	22,500.00	6(14.6%)	42(24.0%)	9(36.0%)	57(23.7%)	2	1	2	4368	9828	4860
30,000-45,000	37,500.00	6(14.6%)	20(11.4%)	4(16.0%)	30(12.4%)	3	2	2	6552	9360	2160
45,001-60,000	52,500.00	1(2.4%)	8(4.6%)	2(8.0%)	11(4.6%)	2	2	2	728	3744	1080
60,001-75,000	67,500.00	1(2.4%)	3(1.7%)	-	4(1.7%)	4	2	-	1456	1404	-
75,001-90,000	82,500.00	4(9.8%)	8(4.6%)	2(8.0%)	14(5.8%)	3	1	3	4368	1872	1620
90,001-105,000	97,500.00	3(7.3%)	5(2.9%)	1(4.0%)	9(3.7%)	3	2	3	3510	2340	624
105001-200,000	152,500.00	5(12.2%)	32(18.3%)	6(24.0%)	43(17.8%)	2	2	3	3900	14976	3744
200,001-600,000	400,000.00	8(19.5%)	35(20.0%)	-	43(17.8%)	4	2	-	12480	16380	-
600,001-1,000,000	800,000.00	-	2(1.1%)	-	2(0.8%)	-	3	-	-	1404	-
1,000,001-3,000,000	2,000,000.00	-	2(1.1%)	-	2(0.8%)	-	3	-	-	1404	-
<b>Total</b>		41(100%)	175(100%)	25(100%)	241(100%)	113	304	58	42458	71136	14358
<b>Average</b>						2.76	1.74	2.32	1036.00	406.50	574.32

Serv = service. Man = artisan/manufacturing

$\chi^2 = 25.224$ ;  $df = 14$ ;  $P = 0.044$  ( $P < 0.05$ ). The differences in ME employment are statistically significant based on ME type.

Source: Research Data



**Figure 4.3: Monthly Average Employment Volume Generated in Man-hours by ME Type Based on Capitalization Level**

Source: Research Data.

opened their doors to customers even on Sundays. These factors explain the significant differences in man-hours generated per month between the different types of MEs, with those in trade generating the least man-hours in a month. Table 4.12b and Appendix 4 show that the number of people employed and the ME employment volume were significantly correlated with ME income and capitalization levels, ME age, entrepreneurs' age and the total credit secured by entrepreneurs. Thus, significant differences exist between total amount of loans secured and ME employment levels.

The findings of this study show that both entrepreneurs' and MEs' characteristics are important factors influencing the total amounts of credit secured by entrepreneurs'. Results from chi-square and correlation analyses, show that entrepreneurs' age and education levels; and MEs' age, capitalization, income and employment levels were significant factors ( $P < 0.05$ ) influencing variability in total credit secured by entrepreneurs. All these factors, except for entrepreneur's sex and number of occupations, were also significantly correlated ( $P < 0.05$ ) with total credit secured by entrepreneurs. These findings have two implications. First, the educated are less risk averse. Second (and based on the findings of this study), Table 4.3a shows that as the age of the

**Table 4.12b: Cross Tabulation of Categories of Total Loans Secured Against ME Number of employees**

ME Total Number of Employees	Categories of Total loans Secured (in Ksh) and ME Frequencies							Total/ Percentage
	<19,999	20,000-49,999	50,000-99,999	100,000-199,999	200,000-299,999	300,000-399,999	500,000-599,999	
1	7	26	11	7	0	0	0	51(21.2%)
2	11	56	34	32	12	6	4	155(64.3%)
3	0	7	10	4	3	1	1	26(10.8%)
4	0	0	4	3	1	0	0	9(3.7%)
Total	18	89	59	46	16	7	5	241(100.0%)

$X^2 = 58.714$ ;  $df=24$ ;  $P=0.000$  ( $P < 0.05$ ). The difference is significant.

Pearson Correlation ( $r$ ) = 0.277.  $P = 0.01$ (2-tailed),  $P < 0.05$ .  $N=241$ . Correlation is significant (Appendix 4).

Source: Research Data

entrepreneur increases; the numbers of income sources also increase. However, the increase in entrepreneurs' number of income sources does not significantly raise their incomes. To confirm this, Table 4.3b shows that entrepreneurs' number of occupations was a significant factor ( $P < 0.05$ ) in influencing differences in total loans secured, though the two variables were not significantly correlated ( $P > 0.05$ ). Moreover, ME income was significantly correlated to ME age and capitalization levels, yet ME income significantly influenced the total credit secured by the entrepreneurs. Thus, the higher the ME income, ME age and capitalization levels, the higher the total credit secured by entrepreneurs.

Besides establishing the role of entrepreneurs' and MEs variables in influencing variability as well as the total credit secured by entrepreneurs, it was also important to determine the extent to which these variables accounted for the total credit secured by entrepreneurs. Thus, a multivariate regression model was used to establish the relative strength of selected entrepreneur's and ME variables in explaining total credit secured by entrepreneurs.

A linear regression model requires the data for both the dependent variable and independent variable(s) to be in ratio form. Thus, independent variables such as entrepreneurs' sex, number of income sources and level of education, whose data is categorical, were excluded from the model. Moreover, a logistic regression model, which requires the independent variable(s) to be either in categorical or ratio form, could not be used to analyze the influence of entrepreneurs' sex, number of income sources and education level because the data for the dependent variable (credit) is in ratio form. Yet, logistic regression model requires the dependent variable to be in categorical form with two alternate attributes that can be assigned numerical values. Thus, the following multivariate linear regression model was used to establish the relative strength of selected entrepreneur's and ME variables in explaining total credit secured by entrepreneurs.

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + e.$$

Where:  $y$  = depended variable (total credit secured by the entrepreneur).

$a$  = Constant

$b_i$  = beta coefficients

$x_i$  = independent variables [ME employment volume per month ( $x_1$ ), ME total number of people employed ( $x_2$ ), ME income level ( $x_3$ ), ME capitalization level ( $x_4$ ), ME age ( $x_5$ ) and Age of entrepreneur ( $x_6$ )].

$e$  = Error (stands for factors not included in the model that may have some influence on the depended variable).

The independent variables were entered into the regression model through step-wise regression method. The study also considered the effect of multi-collinearity using tolerance test. Any independent variable that had a tolerance value of more than 0.8 was removed from the model. This is because tolerance test ranges from 0-1 and the closer a variable is to 1, the more related the variables are to the dependent variable. This diagnostic test helped to ensure that the model used provided robust coefficients. Further, tests were done to ensure there was no autocorrelation among independent variables included in the model.

Table 4.13a and 4.13b show the results of the multivariate linear regression analysis from which a number of conclusions are drawn. First, on the basis of significant values, it is only ME income among the independent variables that was found to significantly influence ( $P < 0.01$ ) total credit secured by the entrepreneur. Second, when beta values are considered, the influence of various independent variables on dependent variable in order of magnitude was as follows: ME income ( $\beta = 0.340$  or 34%), ME employment volume per month ( $\beta = 0.213$  or 21.3%), ME capitalization level ( $\beta = 0.179$  or 17.9%), number of people employed in a ME ( $\beta = 0.133$  or 13.3%), ME age ( $\beta = 0.083$  or 8.3%), and entrepreneurs' age ( $\beta = 0.100$  or 10.0%). Three, a summary of the regression model in Table 4.13 shows that the coefficient of determination ( $R$ ) was 0.499 and that of  $R^2$  was 0.249 (which is equivalent of 24.9 per cent). The value of  $R^2$  indicates that the independent variables accounted for only 24.9 per cent of the observed change in the dependent variable. The implication of the regression result is that, even though the independent factors in the regression model were significantly correlated ( $F = 0.000$ ) to total credit secured by entrepreneurs, they only accounted for 24.9 per cent of the dependent variable (total credit secured by the entrepreneurs). Hence, other factors not considered at the initial conceptualization of the model could also be relevant in explaining levels of total credit secured by entrepreneurs.



For instance, factors such as group dynamics, MFIs loaning conditions, entrepreneurs' proximity to MFIs, interest rates charged on loans, among others, could be relevant in explaining entrepreneurs' total credit secured.

**Table 4.13a: Multivariate Linear Regression Analysis of Total Loans Secured (Depended Variable) Versus Selected Entrepreneur's and MEs' Characteristics (Independent Variables)**

	Un-standardized Coefficients		Standardized Coefficients	t	Significance (P values)
	B	Standard Error	Beta		
Constant	-10074.565	20239.846		-0.498	0.619
Age of entrepreneur	9161.811	6065.633	0.100	1.510	0.132
ME Age	1498.171	1098.446	0.083	1.364	0.174
ME Capitalization Level	0.062	0.026	0.179	2.367	0.019
ME Income Level	2.954	0.580	0.340	5.095	0.000
ME Total Employment (Number of People)	-7224.068	4760.832	0.133	-1.517	0.131
ME Employment Volume (per Month)	17.629	7.045	0.213	2.502	0.013

Dependent Variable: Total Loan Secured by Entrepreneur.

Source: Research Data.

**Table 4.13b: Significance Levels of Independent Variables in the Multivariate Linear Regression Model**

Model	Adjusted Standard				Change Statistics				
	R	R Square	R Square	Error Of the Estimate	R Square Change	F Change	df1	df2	Significance F Change
1	0.499(a)	0.249	0.227	67238.84961	0.249	11.043	7	233	0.000

Predators: (Constant), ME Employment Volume (per Month), ME Total Employment (Number of People), ME Income Level, ME Capitalization Level, ME Age and Age of entrepreneur.

Source: Research Data.

#### **4.4 Summary**

A number of research findings on entrepreneurs' and MEs' characteristics and how they influence total credit secured by entrepreneurs have been discussed in this chapter. Entrepreneurs' socioeconomic characteristics examined include: age-sex distribution; education and training; number of income sources; marital status and dependency levels. Also, entrepreneurs' membership to SHGs, reason(s) for starting and pursuing a particular type of businesses have been discussed. The chapter has also presented information on: types of MEs, their geographical location and distribution; sources of business start-up capital; and ME age, capitalization, income and employment levels.

The study findings show that MEs covered in the survey exhibit significant differences in both entrepreneurs' and businesses' characteristics. Overall, entrepreneurs' numbers of occupations and education level; and MEs' age, capitalization, income and employment levels were found to be significant factors influencing differences in amount of credit secured, while entrepreneur's age and sex were insignificant. In addition, entrepreneur's education and ME age, capitalization, income and employment levels were found to be significantly correlated with amount of credit secured, while entrepreneur's number of occupations and sex were insignificant. Despite a number of MEs and entrepreneurs' factors being significant in influencing differences in the amount of credit secured, it was established that the change in the depended variable (credit) attributed to the independent variables (ME income, ME employment volume per month, ME capitalization level, ME total employment, ME age, entrepreneurs' age and entrepreneurs' total number of dependants), though significant, explained only 24.9 per cent of the dependent variable. Notably, therefore, 75.1 per cent of the depended variable is accounted for by other independent factors not investigated by this study.

**CHAPTER FIVE**  
**ACQUISITION, UTILIZATION AND REPAYMENT OF THE TOTAL LOAN-MONEY**  
**SECURED BY ENTREPRENEURS FROM MFIs**

**5.1 Introduction**

This chapter examines three aspects related to objective two, including: loan acquisition; loan utilization; and loan repayment by entrepreneurs operating credit-assisted MEs.

**5.2 Loan Acquisition**

All the MFIs surveyed were found to advance loans to entrepreneurs, but preferably to those who were members of SHGs, operating businesses and registered by the respective MFIs or the Ministry Labour, Social Security and Services. However, entrepreneurs who secured loans on individual basis and not as members of particular groups were not within the scope of this study.

According to K-Rep, KFSA and EKSA, credit secured by entrepreneurs is treated as working capital finance. Hence, an entrepreneur applying for credit must meet certain conditions which may, however, vary slightly from one MFI to the other. First, the entrepreneur must be a member of a registered group for at least three months, and preferably the group must have a minimum of 5 and not more than 12 members. Second, the entrepreneur must be operating a business or an income generating activity(ies). Third, he/she must be at least 18 years and a holder of a national identity card. Fourth, the entrepreneur must be a holder of an active savings account with the respective MFI, which should be at least four weeks old for the holder to be eligible to apply for a loan. The initial maximum loan one can qualify for is four times the amount of shares on one's account.

In addition, the entrepreneur must have undergone eight weeks of training on: proper utilization of the loan money, business management skills and keeping records. Sixth, the entrepreneur must accept to be a guarantor to all other members in a given SHG when securing individual loan(s). In addition, each loanee must be guaranteed by one family member or close

relative. Furthermore, the loan application form must be endorsed by the Sub-Chief of the sub-location where the loanee hails from and endorsed by a commissioner of oaths. Lastly, the loans must be insured. Thus, the loanee is expected to pay one per cent of the total loan secured as insurance fees to cater for unforeseen eventualities, e.g. death, permanent disability, among others.

Acquisition of loans from MFIs has several advantages than those secured from commercial banks. For instance, there is no loan assessment fees and entrepreneurs can acquire loans as small as Ksh.1,000 or Ksh 5,000, which in turn can be repaid in a longer period of time, say a year. Further, MFIs are within reach for most borrowers than banks. For instance, besides Mumias Town, MFIs were located in Butere Town, Matungu and Khwisero market centres, where no single commercial bank branch office or even an outlet was located. It is only in Mumias Town where several banks are located, including: Barclays Bank, Kenya Commercial Bank, Equity Bank and Cooperative Bank. Also, MFIs do not make monthly charges on loanees' accounts, no monthly ledger fees and withdrawal charges are low. Besides the above advantages, loan processing is done in a day. Moreover, services for most MFIs are mobile and clients who cannot communicate in any of the national languages can do so in mother tongue. Further, MFIs do not require those applying for loans to have collateral as a condition. Where necessary, however, household goods can be used as collateral to secure a loan. Otherwise, group members even not known to the MFI for a longer period of time can act as guarantors to a potential group loanee(s).

Besides the advantages of accessing loans from MFIs, lending to entrepreneurs in groups has both economic and non-economic benefits. First, each group member acts as a co-guarantor to any of the group members securing loans from the MFI. The group is, therefore, liable to the MFI in the event that a group member defaults on loan repayment. It is also easier to follow-up the group members than an individual, hence spreading the risks involved in loan repayment. Further, the group's build-up shares/savings with the MFI can be used to offset an outstanding loan of a member who defaults. Second, group members supervise each other's business(es), oversee how the loan money is utilized and ensure that each member repays the loan as required. This instills discipline and ensures members are focused to achieve both individual as well as the

group's goals. Also, some members have knowledge and expertise in certain areas of business management, i.e. financial management, investment, existing or emerging new markets for various products, etc. which is shared, thus enabling corporate business growth.

Third, the group is responsible in evaluating each member's potential or suitability in securing particular loan amounts. Fourth, through regular meetings, each member brings on board his or her own business experiences or skills which help other members in decision-making process. Fifth, members are able to connect or share experiences thus widening their social and professional networks and sixth, groups create opportunities to develop skills and experience.

Between July, 2008 and June, 2011, all the 241 sampled entrepreneurs operating credit-assisted MEs had secured business loans from four different sources, totaling Ksh 18,448,100. These included loans from banks, cooperatives and MFIs, including informal credit sources such as Self-help groups' ASCRAs/ROSCAs. Table 5.1 shows the total loan amounts secured by entrepreneurs from the different sources. It can be noted from the Table 5.1 that MFIs were the main sources of credit, accounting for 88.1 per cent of the total. Banks were the least important source of credit. This is attributed to the fact that, besides the disadvantages associated with bank

**Table 5.1: Total Loan Amounts Secured by Entrepreneurs from Different Credit Sources.**

Source of Loan	Number of Beneficiaries (% Total Entrepreneur s)	Average Number of Loans	Total Loan Amount (Ksh)	Source of loan Percentage of Total	Minimum Loan Borrowed (Ksh)	Maximum Loan Borrowed (Ksh).
MFIs	241 (100%)	2.5	16,253,100.00	88.1%	2,500.00	590,000.00
SHGs' (ASCRAs and ROSCAs)	111 (46.1%)	2.3	881,000.00	4.8%	2,000.00	6,000.00
Banks	9 (3.7%)	2.5	535,000.00	2.9%	5,000.00	100,000.00

Cooperatives	20 (8.3%)	1.8	779,000.00	4.2%	3,000.00	120,000.00
Total/Average	241 (100%)	2.5	18,448,100.00	100.0%	3,750.00	69,750.00

Source: Research Data

loans reviewed above; banks were located only in Mumias Town, making them inaccessible to many micro entrepreneurs. This observation is supported by the findings of this study, which show that loanees of respective MFIs were entrepreneurs who operated MEs located within or close to the centres where the offices of the MFIs were located. For instance, Appendix 1 shows that MFIs served specific geographical regions, with an exception of only K-Rep Bank, which served comparatively a larger spatial area. The implication of this finding is that entrepreneurs close proximity to a MFI could be factor influencing entrepreneurs' credit use.

Informal financial sources such as groups' ROSCAs and ASCRAs were not important credit sources to entrepreneurs in this study. The financial capitation levels of ROSCAs and ASCRAs are dependent entirely on members' financial contributions. Hence, their insignificance as sources of informal credit is attributed to the high poverty levels among households in the study area (Republic of Kenya, 2002b; and 2008c). This is supported by the minimum and maximum loans that were secured from these sources, that is, Ksh 2000 and Ksh 6000, respectively, indicating a low finance capital base of the groups (Table 5.1). However, studies by Alila (1992) and Bryden (1998) in Western Kenya found SHGs' ROSCAs and ASCRAs as important sources of finance in enabling women meet their household needs. Further, studies by Alila (1992; and 1993), Wegulo and Obulinji (2001) and Owuor (2008) observed that farming; personal savings from previous formal/informal employment, relatives and friends were also important sources of credit to micro entrepreneurs in rural Kenya. Despite this, entrepreneurs who were beneficiaries of business credit from SHGs' ROSCAs and ASCRAs were more compared to those who secured loans from banks and cooperatives. Hence, as the research data shows, entrepreneurs rely more on credit from MFIs.

Also, Table 5.1 shows that the total minimum and maximum loans secured from the four credit sources were Ksh. 2,000 and Ksh. 590,000, respectively. Further, the Table shows the range and average loan amounts secured by entrepreneurs from each credit source. Significant

differences, therefore, existed in the loan amounts secured by entrepreneurs. It is also important to note that, on one hand, the frequency of loans secured was higher for MFIs and banks, averaging three loans per entrepreneur. On the other hand, groups and cooperatives had the lowest frequencies, averaging two per entrepreneur.

Table 5.2 further shows the details of the loans secured from each MFI based on: number of beneficiaries, minimum and maximum amounts of loans secured, range and average loan amounts loan amounts secured. Furthermore, Table 5.3 shows information on the minimum, maximum, range, average and total loan amounts secured by entrepreneurs based on credit source and MEs category. Thus, information from Tables 5.2 and 5.3 confirms that differences

**Table 5.2: The Range and Average Loan Amounts Secured by Entrepreneurs from MFIs.**

MFI	Number of Beneficiaries	Loan Amounts (In Ksh)				Total Loan Amount Secured (In Ksh)
		Minimum Amount	Maximum Amount	Range Of Loan	Average Loan	
EFSA	79	10,000	360,000	350,000	53,341.80	4,214,000
PDP	74	2,500	150,000	147,500	41,736.50	3,088,500
KFSA	42	5,000	247,000	269,000	50,104.40	2,975,600
BFSA	26	14,000	180,000	166,000	70038.50	1,821,000
K-REP	20	50,000	590,000	540,000	207,700	4,154,000

Source: Research Data

in the total amounts of loans secured by entrepreneurs did exist between MFIs and types of MEs. As observed in Chapter Four, a number of MEs and entrepreneurs' characteristics explain the differences. However, the findings of the regression model in Chapter Four confirms that other factors not considered in this study could be responsible in influencing differences observed in the total loan amounts secured by entrepreneurs. For instance, the average loan amounts secured from K-Rep by entrepreneurs in various business categories were comparatively higher than loans secured by entrepreneurs from other MFIs. This is attributed to the fact that K-Rep had the highest loan amount limit of Ksh 1,000,000 that could be advanced to a potential borrower.

Hence, credit worthy entrepreneurs secured higher amounts of loans from K-Rep than their counterparts who accessed loans from the other four MFIs covered in the study.

**Table 5.3: Total, Range and Average Loan Amounts Secured by Entrepreneurs from MFIs based on Credit Source and ME Type**

Levels of Loans Secured	ME Category	EFSA	BFSA	KFSA	PDP	K-REP
Minimum Loan Amount Secured (In Ksh)	Service	12,000	20,000	13,000	10,000	130,000
	Trade	10,000	14,000	5,000	2,500	50,000
	Artisan	15,000	17,000	110,000	10,000	90,000
Maximum Loan Amount Secured (In Ksh)	Service	240,000	100,000	220,000	120,000	180,000
	Trade	360,000	180,000	247,000	150,000	590,000
	Artisan	55,000	82,000	200,000	80,000	180,000
Range Loan Amount (In Ksh)	Service	228,000	80,000	207,000	110,000	50,000
	Trade	350,000	166,000	269,000	147,500	540,000
	Artisan	40,000	65,000	90,000	70,000	90,000
Average Loan Amount (In Ksh)	Service	68,357	61,186	66,230	47,522	181,315
	Trade	51,669	86,692	47,477	36,333	277,969
	Artisan	40,000	62,236	36,607	41,355	163,815
Total Loan Amount (In Ksh)	Service	1,047,000	281,000	505,000	606,000	590,000
	Trade	2,897,000	1,303,000	2,160,600	2,083,500	3,174,000
	Artisan	270,000	237,000	310,000	399,000	390,000

Source: Research Data

It is observed from Table 5.4 that frequencies and percentage distributions of entrepreneurs based on total loan amounts secured from all credit sources, MEs categories and entrepreneur's sex. It is evident that 77.9 per cent of the entrepreneurs secured total loans less



than Ksh 100,000 in a period spanning 3 years (July, 2008 – June, 2011). Specifically, 14.9 per cent, 42.7 per cent, 20.3 per cent and 16.6 per cent of the entrepreneurs secured total loan amounts within the loan intervals of Ksh. 19,999 and below, Ksh. 20,000-49,999, Ksh. 50,000-99,999 and Ksh. 100,000-199,999, respectively. Only 5.3 per cent of the entrepreneurs did secure total loans that were between Ksh 200,000 and Ksh 600,000. From the above total amounts borrowed, it can be concluded that most entrepreneurs did not secure maximum financial resources that MFIs could offer to potential borrowers, despite the loaning conditions and the progressive nature of loan amount limits MFIs approve for lending to entrepreneurs at subsequent levels of borrowing. To confirm this, research data shows that all entrepreneurs, except one who secured loans from KFSAs, did not secure the maximum loans that each respective MFI could advance.

**Table 5.4: Percentage Distributions of Entrepreneurs based on Interval of Total Loan Amounts Secured, ME Category and Entrepreneur’s Sex.**

Interval of Total Loan Amounts Secured (In Ksh)	Percentage Distributions of Entrepreneurs by MEs Category and Sex						Total (M +F)		Total (Sample)
	Service		Trade		Manu-facturing/ Artisan		M	F	
	M	F	M	F	M	F			
Below 19,999	3	1	9	20	1	2	13(10.1%)	23(19.7%)	36(14.9%)
20,000-49,999	10	8	32	45	5	3	47(33.1%)	56(47.7%)	103(42.7%)
50,000-99,999	3	2	20	14	6	4	29(23.4%)	20(17.1%)	49(20.3%)
100,000-199,999	9	2	14	12	3	0	26(21.0%)	14(12.0%)	40(16.6%)
200,000-299,999	3	0	1	4	1	0	5(3.5%)	4(3.4%)	9(3.7%)
300,000-399,999	0	0	2	0	0	0	2(1.4%)	0(0.0%)	2(0.8%)
500,000-599,999	0	0	2	0	0	0	2(1.4%)	0(0.0%)	2(0.8%)
<b>Total</b>	<b>28</b>	<b>13</b>	<b>80</b>	<b>95</b>	<b>16</b>	<b>9</b>	<b>124(100.0%)</b>	<b>117(100.0%)</b>	<b>241(100.0%)</b>

M = Male. F = Female

Source: Research Data

The patterns of entrepreneurs' frequencies in the respective loan categories in Table 5.4 conform to those based on MEs capitalization levels (Tables 4.11a and 4.11b). Thus, the number of entrepreneurs reduces with increasing loan categories and capitalization levels. In chapter 4, ME capitalization levels were found to be significantly correlated with the total amounts of loan secured by entrepreneurs.

Moreover, the data in Table 5.4 show that female entrepreneurs secured smaller amounts of loans than their male counterparts. This is evident especially in the first two loan intervals where the proportions of females were higher than that of their male counterparts. In the third, fourth and fifth loan intervals, the proportions of males were higher. While in the sixth and seventh loan intervals, female entrepreneurs were non-existent. Overall, as the loan intervals increase, the proportion of female entrepreneurs decreases, though this decrease is not statistically significant (Table 4.1c). Despite this, female entrepreneurs secured low amounts of loans. This is attributed to the fact that 19.1 per cent of the female entrepreneurs depended on their spouses for financial support (Table 4.9a). Also, most of their businesses had low capitalization levels, yet ME capitalization was found to significantly correlate to total credit secured.

However, limits imposed by MFIs at the initial and subsequent levels of loan borrowing can also influence the total amounts of credit secured by entrepreneurs within a given period of time. For instance, KFSB advanced a maximum of Ksh 10,000 at the initial level of borrowing, repayable in 6 months. The second round of borrowing ranged between Ksh 10,000 to Ksh 30,000 and was repayable in 9 months. The third level ranged between Ksh 30,000 to Ksh 50,000, repayable in a period of 12 months. The maximum loan that could be borrowed amounted to Ksh 200,000, repayable in a period of 2 years. The loan margins for BFSB were different. The maximum loan an entrepreneur could secure at first application was Ksh 20,000, repayable in 9 months. The second was Ksh 40,000, repayable in 12 months and the third, Ksh 60,000 repayable in 15 months. The fourth was Ksh 80,000, repayable in 18 months. The maximum loan that an entrepreneur could be advanced was Ksh 600,000, repayable in 36 months. For K-Rep Bank, the scenario was also different. The maximum loan that could be

advanced at the first round of application was Ksh 30,000. At the second level of application, the maximum was Ksh 50,000 and at the third level, the entrepreneur could secure a maximum loan, amounting to not more than 100 per cent of the previous (second) loan. The maximum that could be borrowed was Ksh 1,000,000. For PDP, the minimum loan was Ksh 5000, the maximum being Ksh 200,000. In short, therefore, loans advanced were progressive in nature and for one to have secured the maximum amount lent by a MFI, he or she must have had a clean record of repayment of the previous loans.

Despite MFIs imposing limits on borrowable loans by entrepreneurs at subsequent levels of borrowing, 74.1 per cent of the entrepreneurs surveyed (that is, 43 out of the 58 entrepreneurs whose MEs capitalization levels were above Ksh 105,000) indicated that the progressive nature of the loan schemes were good for businesses. This is because the loan scheme makes business to grow steadily and sustainably, unless there are other unforeseen problems that impact negatively on business performance. Accordingly, an entrepreneur is able to cautiously invest the credit resources secured and assess the returns, as he or she repays the loan before seeking more financial resources for further investment into business. However, 25.4 per cent of entrepreneurs, whose MEs had low capitalization levels of not more than Ksh.30,000, indicated that the progression nature of the MFIs loans was meaningless to them, as demonstrated by case-study 6 of a vegetable and fruit (grocery) vendor. Evidence from Tables 5.5 and 5.7 show that on

***Case-Study 6: A Vegetable and Fruit (Grocery) Vendor (KFSA Loane).***

*Jane Matembei (not real name), a female entrepreneur aged 37 years, started a grocery business in 2000, whose capitalization was Ksh 7,500. Jane was able to secure her first loan, amounting to Ksh. 3000, which she invested in her grocery business. This raised her capitalization level by 40 per cent. She manage to secure a second loan amounting to Kshs.30,000 simply because she had: successfully serviced the previous loan she had secured from the MFI; and accumulated shares with the MFI to qualify for the loan. Despite this, Jane invested only 10 per cent of the loan money in her business, raising her ME capitalization level by 29 per cent. She used the rest of the money to pay school fees for her children.*

average, 30.7 per cent of the loan money was spent on meeting various household (and personal), rather than business needs. The case-study 6 indicates the lack of proper mechanisms put in place

by MFIs to assess entrepreneurs’ business financial needs, as well as, monitor the way entrepreneurs utilize the loans acquired. In support of this, research data shows that 10 per cent of the SHGs members did acquire loans in spite of the fact that they were not operating any ME businesses. Such loans were advanced on the basis of SHGs members operating savings accounts with MFIs. This implies that the beneficiaries of credit from MFIs may end up either to be people who do not actually need financial capital to improve their businesses. Alternatively, they have other sources of income that they can invest in businesses that qualify them secure the first loan. Thereafter, they can raise their savings/shares with the MFIs and secure much bigger loans for their own, rather than business needs, at the expense of genuine and deserving cases.

### 5.3 Loan Utilization

As observed in Table 5.5, the frequencies of entrepreneurs and percentage levels of total loan amounts (from all the credit sources) spent by entrepreneurs on MEs needs based on each MFI. Comparatively, entrepreneurs who secured credit from EFSA and K-Rep spent the highest amount of the total loan money on their businesses. Those who secured from BFSA spent the least on their businesses. Only 19.1 per cent of the sampled entrepreneurs (representing 46 entrepreneurs) spent all the total loan money secured on their businesses. A total of 4 entrepreneurs, representing 1.7 per cent of the sample, acquired credit but did not use it to improve their businesses; rather they used the money on meeting their household and other

**Table 5.5: Percentage Levels of Loan Money Spent by Entrepreneurs on ME Businesses based on each MFI**

Percentage Level of Loan Money Spent on ME Businesses	Frequency (Percentage) Distributions of the Entrepreneurs per MFI					Total Distributions of Entrepreneurs (All MFIs)
	EFSA	PDP	KFSA	BFSA	K-REP	

0	3(3.8%)	1(1.4%)	0(0.0%)	0(0.0%)	0(0.0%)	4(1.7%)
10	0(0.0%)	0(0.0%)	0(0.0%)	2(7.7%)	1(5.0%)	3(1.2%)
20	0(0.0%)	3(4.1%)	1(2.4%)	1(3.8%)	0(0.0%)	5(2.1%)
30	2(2.5%)	4(5.4%)	0(0.0%)	3(11.5%)	1(5.0%)	10(4.1%)
40	1(1.3%)	5(6.8%)	1(2.4%)	0(0.0%)	1(0.5%)	8(3.3%)
50	8(10.1%)	13(17.6%)	3(7.1%)	3(11.5%)	3(15.0%)	30(12.4%)
60	5(6.3%)	10(13.5%)	4(9.5%)	4(15.4%)	0(0.0%)	23(9.5%)
70	17(21.5%)	15(20.3%)	10(23.8%)	5(19.2%)	3(15.0%)	50(20.7%)
75	1(1.3%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	1(0.4%)
80	20(25.3%)	11(14.9%)	13(31.0%)	3(11.5%)	3(15.0%)	50(20.7%)
90	1(1.3%)	1(1.4%)	8(19.0%)	0(0.0%)	0(0.0%)	10(4.1%)
95	0(0.0%)	0(0.0%)	1(2.4%)	0(0.0%)	0(0.0%)	1(0.4%)
100	21(26.6%)	11(14.9%)	1(2.4%)	5(19.2%)	8(40.0%)	46(19.1%)
Total	79(100%)	74(100%)	42(100%)	26(100%)	20(100%)	241(100%)
Average %	74.1%	64.2%	73.9%	60.1%	74.0%	69.2%

$X^2_{cal} = 108.459$ ;  $df = 48$ .  $Tab X^2_c = 55.76$ .  $X^2_{cal} > X^2_c$ . The difference is significant at 95% confidence level.

Source: Research Data

personal needs. Significant differences ( $X^2_{cal} > X^2_c$ ) in the levels of the total amount of credit spent on MEs by the entrepreneurs were observed (Table 5.5). Further, research data shows that female and male entrepreneurs on average spent 73 per cent and 65.6 per cent of the total credit secured on their businesses, respectively. A number of studies have shown that women are very keen on issues that touch on improving their household standards of living (Alila, 1993; Bulow et al, 1995; Finamore, 1996; Pickering, et al, 1996; Bryden, 1998; KWFT, 2007). Unlike males, female entrepreneurs received financial support from their spouses in running their businesses (Table 4.7a) and meeting part of their household needs. This can explain why a larger proportion of their total loan money was spent on their businesses.

Overall, however, 69.2 per cent of the total loan money acquired by entrepreneurs was spent on ME businesses. The rest, that is, 31.8 per cent was spent on meeting entrepreneurs'

household and other personal needs (Table 5.7). These findings further confirm that MFIs lack proper mechanisms to: assess and determine entrepreneurs' business credit needs; and monitor how the loan money is utilized by entrepreneurs. This diversion of credit by entrepreneurs to other uses affects the full realization of the effect of credit on MEs. Despite 31.8 per cent of the loan money having been spent on household needs, Table 5.6 indicates that 211 entrepreneurs, representing 87.6 per cent of the sampled entrepreneurs, met over 50 per cent of their business financial investment needs from credit they secured from MFIs. More so, 77.6 per cent met between 76-100 per cent of their business financial needs. Overall, 86.3 per cent of the business financial needs of the sampled entrepreneurs were met. It is thus evident that substantial resources that are not necessarily needed to improve businesses are, therefore, being diverted to other uses.

In spite of the total credit secured not having been spent on ME businesses, it was however important to determine exactly on which ME variables did entrepreneurs spend the credit they secured. Table 5.7 shows the finer details of how the total loan money secured from each MFI was spent by entrepreneurs on MEs and household needs. Figure 5.1 gives a summary of how the total loan money secured by the sampled entrepreneurs was spent. It is evident from the Table 5.7 that there were significant differences ( $P < 0.05$ ) in the proportions of the total loan money spent by entrepreneurs on MEs based on source of credit (MFIs). These significant differences in the proportions in which the total loan money was spent on MEs can be attributed to differences in entrepreneurs' household and business needs. However, it is notable that business stock was the major beneficiary of the total loan money, averaging 63.3 per cent of the

**Table 5.6: Total Loan Percentage Level that Met Business Needs Based on MFIs**

Loan Percentage Interval Level that Met Business Needs	MFIs					TOTAL
	EFSA	PDP	KFSA	BFSA	K-REP	
0-25	3(3.8%)	2(2.7%)	1(2.4%)	1(3.8%)	0(0.0%)	7(2.9%)
26-50	11(13.9%)	5(6.8%)	2(4.8%)	3(11.5%)	2(10.0%)	23(9.5%)

51-75	4(5.1%)	9(12.2%)	4(9.5%)	2(7.7%)	5(25.0%)	24(10.0%)
76-100	61(77.2%)	58(78.4%)	35(83.3%)	20(76.9%)	13(65.0%)	187(77.6%)
Total	79(100.0%)	74(100.0%)	42(100.0%)	26(100.0%)	20(100.0%)	241(100.0%)
Average	86.3%	87.1%	86.4%	87.9%	84.0%	86.3%

Source: Research Data

total loan money spent on MEs across all the five MFIs. A total of 237 entrepreneurs did spend the loan money on purchasing business stock.

Overall, entrepreneurs spent 79.2 per cent of the total loan money spent on businesses on ME capitalization. Further, it is evident from Table 5.7 and Figure 5.1 that hiring labour, training in entrepreneur's business skills and maintenance of equipment were the ME variables that benefitted the least from the total loan money, averaging only 2.49 per cent, 0.5 per cent, and 0.78 per cent, respectively, across all the MFIs. Only 8 entrepreneurs, 1 entrepreneur and 13 entrepreneurs spent the loan money on hiring more labour, training in entrepreneur's business skills and maintenance of equipment, respectively. Training in labour skills was undertaken by an entrepreneur within the artisan/manufacturing category, who was a loanee of K-Rep. It is observed from Table 4.2c that MEs in the artisan category require specific skills for one to operate. Further, the low expenditure on hiring additional labour confirms the insignificant growth in ME employment (discussed further in Chapter 6).

It is also evident from Table 5.7 and Figure 5.1 that diversification and improvement in products accounted for 4.7 per cent and 5.26 per cent, respectively, of the total loan money spent on MEs. Only 49 and 18 entrepreneurs did invest the loan-money in product diversification and improvement in products (as well as technology), respectively. Another ME variable that

**Table 5.7: Expenditure Pattern of the Total Loan Money Secured by Entrepreneurs on ME and Other (Household) Needs Based on MFIs.**

Total Loan Money Secured (in Kshs):	MFIs				
	EFSA	PDP	KFSA	BFSA	K-REP
	4,214,000	3,088,500	2,975,600	1,821,000	4,154,000

Percentage average Loan Money Spent on:	ME Business Needs	74.1%	64.2%	73.9%	60.1%	74.0%	Frequency of Entre- preneurs
	Household Needs	20.3%	31.6%	24.7%	33.8%	23.0%	
	Other Needs	5.6%	4.2%	1.4%	6.1%	3.0%	

[I] Percentage Distribution of Loan Money Spent on ME Needs:

*Purchase of Business Stock	68.28%	63.12%	59.82%	62.63%	62.55%	237
*Purchase of Tools	9.81%	9.93%	13.17%	14.23%	14.25%	9
*Purchase of Raw Materials	3.63%	5.02%	3.24%	3.40%	2.00%	12
Improvement in Products & Technology**	5.00%	4.41%	6.73%	3.96%	6.20%	18
Training in Skills	0.00%	0.00%	0.00%	0.00%	0.50%	1
Hiring More Labour	3.63%	1.60%	2.24%	0.00%	0.00%	15
Product Diversifica- tion***	5.00%	4.54%	4.00%	3.46%	6.50%	49
Expansion, Renovation, Relocation & Purchase of	5.5%	6.42%	3.46%	3.25%	4.00%	17



Business Premise							
Maintenance of Equipment	1.70%	1.08%	0.24%	0.38%	0.50%		13
Loan Part-Repayment	0.75%	1.95%	4.19%	7.88%	1.00%		38
Others	2.78%	0.54%	0.00%	1.15%	1.00%		10
Total	100.0%	100.0%	100.0%	100.0%	100.0%		237

[III] Percentage Distribution of Loan Money Spent on Household and Personal Needs:

Food	29.5%	20.10%	26.25%	24.24%	30.00%		112
School Fees	39.55%	41.20%	35.02%	39.60%	59.16%		147
Medical Expense	5.14%	7.38%	10.24%	8.57%	7.5%		45
Marriage/Dowry	0.00%	0.15%	2.19%	0.00%	1.66%		2
Shelter/House Repair	3.00%	0.00%	4.50%	2.90%	0.00%		10
Funerals	1.47%	3.49%	0.78%	2.38%	0.00%		8
Farming	10.00%	8.24%	6.20%	7.30%	0.00%		189
Purchase of Land	0.00%	0.00%	7.92%	9.40%	0.00%		5
Transport Business	5.30%	4.50%	2.95%	3.70%	0.00%		13
Savings	6.07%	9.94%	4.75%	1.81%	1.68%		61
Total	100.0%	100.0%	100.0%	100.0%	100.0%		195

Note: Percentages on expenditure rounded- off to the nearest decimal point.

Σ \* = ME Capitalization Level (Business resources directly used in output/income generation).

\*\* = Refined products of better quality than the previous ones produced.

\*\*\* = More brands of goods and services.

MEs,  $X^2 = 65.064$ ;  $df = 40$ ;  $P = 0.046$  ( $P < 0.05$ ). The difference is significant.

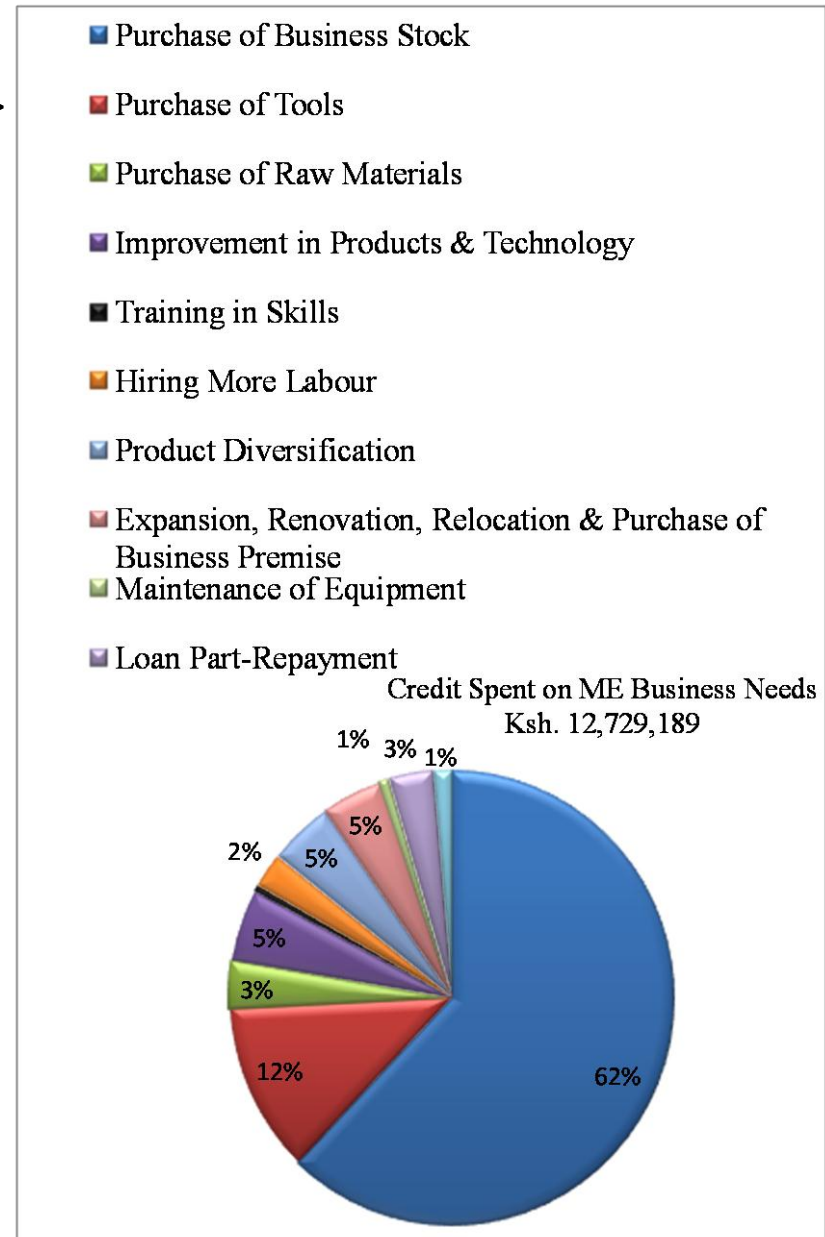
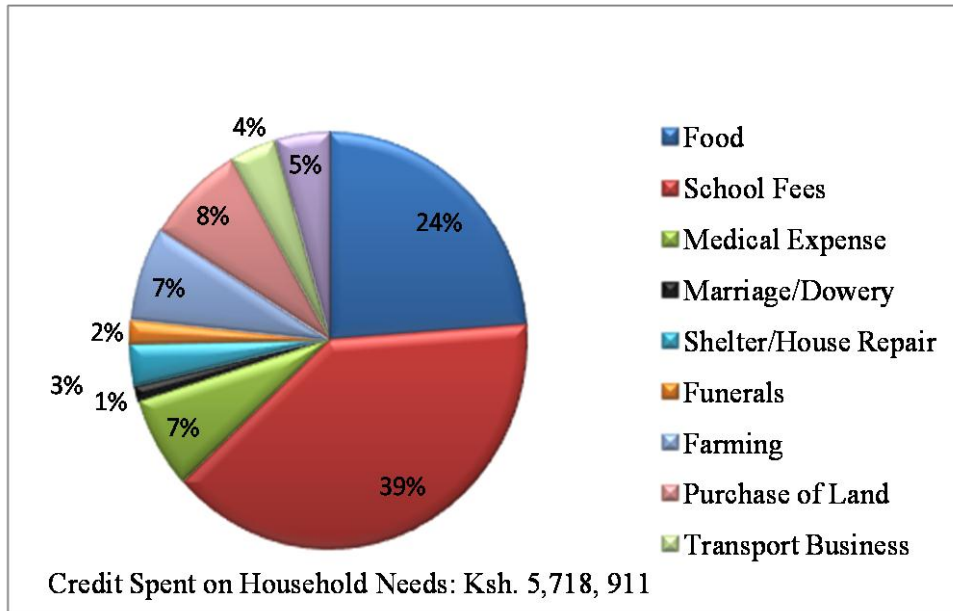
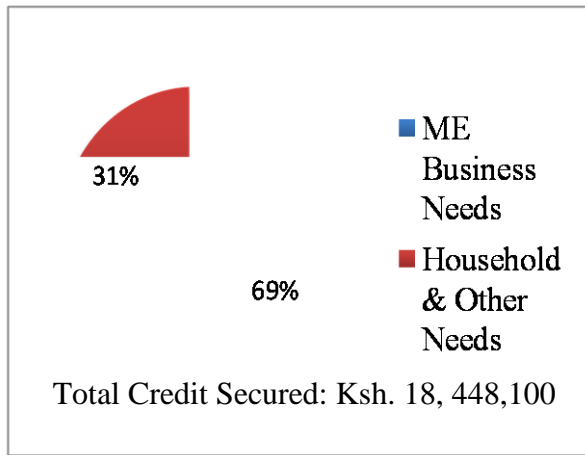
Households,  $X^2 = 56.032$ ;  $df = 36$ ;  $P = 0.035$  ( $P < 0.05$ ). The difference is significant.

Source: Research Data

benefitted from the loan money was renovation and or relocation of business premise. Seventeen entrepreneurs spent money on this item, accounting for 4.53 per cent of the total loan-money.

More interesting is the observation that entrepreneurs used “debt-conversion” strategy in servicing part of the outstanding loans they had secured from MFIs. A total of 38 entrepreneurs participated in this, with an average of 3.2 per cent of the total loan money secured being used to service outstanding loans across all the MFIs. However, ten entrepreneurs did not specify how they utilized on average 1.4 per cent of the loan money spent on MEs.

Apart from ME business, part of the loan money was expended on household needs, including both consumption and investment items. Table 5.7 and Figure 5.1 show that significant differences ( $P < 0.05$ ) exist in the way 195 entrepreneurs spent the loan money on household



**Figure 5.1: Entrepreneurs' Expenditure Pattern of Total Credit Secured**  
Source: Research Data.

needs. Notably, food and school fees expenditure components accounted on average for 26 per cent and 43 per cent, respectively, of the total loan money spent on household needs. These were the largest beneficiaries of the loan-money spent on household needs. RoK (2002b; and 2008c) point out that: 60 per cent of the population in the study area lives below the poverty line; and the study area is food insecure. These can partly explain why entrepreneurs diverted part of the loan-money to meet their household food and school fees needs. A total of 112 and 147 entrepreneurs spent some of the loan money on household food and school fees, respectively.

Farming was also an important household subsector that benefitted from the loan money. On average it accounted for 8 per cent of the total loan money spent by entrepreneurs on households' needs, making it the third important item after household education and food. Table 5.7 shows that a total of 189 entrepreneurs diverted some of the loan-money to farming. Wegulo and Obulinji (2001) found a close relationship between farming and ME-sector in terms of financial resource flows. The relationship between farming and ME-sector is based on the assumption that farming provides household food and generates some financial or non-financial resources that can promote or cushion businesses when they are not doing well.

A part from farming, household medical, funeral and dowry expenses, construction or renovation of dwellings, investment in transport business and purchase of land are other household sub-sectors that benefitted from the loan-money. However, the expenditures on these items were minimal as shown in both Table 5.7 and Figure 5.1, with a few entrepreneurs spending on them. It was also interesting to note that entrepreneurs did not spend all the loan-money secured either on ME or household needs. Some did save part of the loan money, possibly to enable them address business as well as household emergencies. However, those who diverted the funds in order to meet part of their household needs in the 42 case-studies conducted testified by giving some of the following statements in Table 5.8.

## **5.4 Loan Repayment**

For all the credit sources covered in the survey, loan repayments were done in monthly installments, with the repayment period varying depending on the amount secured. The

**Table 5.8: Entrepreneurs’ Responses from Case-Studies as to why they Diverted Loan Money to Household Needs**

Entrepreneurs’ Nature of Responses:	Number of Respondents	Percent Sample
“I did not require all the loan money secured for my business but to pay school fees for my kids.”	4	9.5%
“We did not have any food in the homestead when I secured the loan from the MFI. So I had to spend some on household food needs”	10	23.8%
“We had to repay money for a defaulter in our group.”	3	7.1%
“The loan I secured was much more than what I needed for my business.”	25	60.0%
“I needed money to finance my son’s wedding.”	2	4.8%
“I paid business debts including rent for my business stall.” (These expenditure components could be part of the unspecified ME expenditures in Table 5.7).	4	9.5%
N = 42		100%

Source: Research Data

minimum repayment period was 6 months and the highest 36 months. Smaller loan amounts were repaid in shorter periods, vice-versa. Table 5.9 shows the total loan amounts secured by entrepreneurs from various sources and the average loan repayment periods for all the credit sources covered in the study. Comparatively, MFIs had a longer period of time within which entrepreneurs could repay the loans they had secured for their businesses than any other credit source. According to the Central Bank of Kenya (2007), a longer period of time gives investors adequate time within which they can post better returns from their investments.

Also, the data in Table 5.9 shows that all the credit sources charged varying interest rates on loans secured by entrepreneurs. For MFIs, BFSAs and EFSA charged 15-18 per cent interest rate on loans, while KFSA charged 16 per cent but on reducing balance of the principle loan.

However, PDP charged 20 per cent interest rate on all loans advanced. The scenario was different for K-Rep. Interest rates were fixed regardless of the loan amounts, ranging between 15–20 per cent. Further, it is evident from Table 5.9 that the average interest rate for MFIs was slightly higher than those of other credit sources. Despite this, interest rates for MFIs are stable and do not fluctuate like those of banks. For example, at the start of the year 2012, interest rates

**Table 5.9: Sources of Loans Secured from Different Sources and the Loan Balances as at June, 2011.**

Entrepreneurs' Sources of Loans	Total Amount of Loan Secured (In Ksh)	Average Loan Repayment Period (In Months)	Mean Interest Rate (In % p.a)	Total Loan Balance (In Ksh)	% of Total Loan Paid Back
1 MFIs	16,253,100	7.3	16.35	1,467,076	9.00%
2 SHGs' ASCRAs &	881,000	5.8	9.0	53,788.38	93.9%
3 Banks	525,000	6.0	15.0	18,000	96.60%
4 Cooperatives	779,000	6.0	12.0	1,329.60	99.8%
<b>Total</b>	<b>18,448,100</b>			<b>1,540,192.98</b>	<b>91.7%</b>

Source: Research Data

for bank loans went as high as 24 per cent, dropping to as low as 18 per cent by May, 2012 and 16 per cent by end of December, 2012 (Central Bank Kenya, 2012). This instability in interest rates charged by the banks is quite detrimental to most business people. This is because it interferes with entrepreneurs' planning and management of their businesses, especially as regards servicing their outstanding business loans. Contrary, besides charging higher interest rates, MFIs loans have a number of advantages as discussed earlier in section 5.1 of this chapter.

Further, Table 5.9 shows sources of entrepreneurs' loans, the total loan amounts secured and the total loan balances that were to be repaid by entrepreneurs to their various creditors as at 30th June, 2011. It is evident that entrepreneurs who had secured loans from MFIs between July

2008 and June 2011 had repaid 90.9 per cent of the borrowed money. Overall, entrepreneurs had repaid 91.7 per cent of the total loans secured from various credit sources by June, 2011. Thus, any net growth in ME variables between the experimental and control samples can be attributed to credit, given that entrepreneurs had repaid 92 per cent of total credit secured.

## **5.5 Summary**

This chapter has presented a number of research findings on acquisition, utilization and repayment of microfinance credit by entrepreneurs. Between the year 2008 and 2011, entrepreneurs operating credit-assisted MEs had secured microfinance credit amounting to Ksh. 18,448,100 from four sources, including: MFIs, groups (ASCRA and ROSCAs), commercial banks and cooperatives. However, out of the four sources, MFIs accounted for 88.1 per cent of the total microfinance credit secured.

Notably, entrepreneurs spent, 69.2 per cent and 30.8 per cent of the total microfinance credit secured on MEs and household needs, respectively. A total of 8 ME and 10 household items benefitted from the expenditure of microfinance credit secured, with ME capitalization accounting for 79 per cent of the total credit spent on MEs. By 31<sup>st</sup> June, 2011 entrepreneurs had repaid 91.7 per cent of the total microfinance credit secured, though at varying interest rates of 15-20 per cent, with MFIs charging the highest interest rates.

## CHAPTER SIX

### IMPACT OF CREDIT ON MICROENTERPRISES CAPITALIZATION, INCOME AND EMPLOYMENT LEVELS

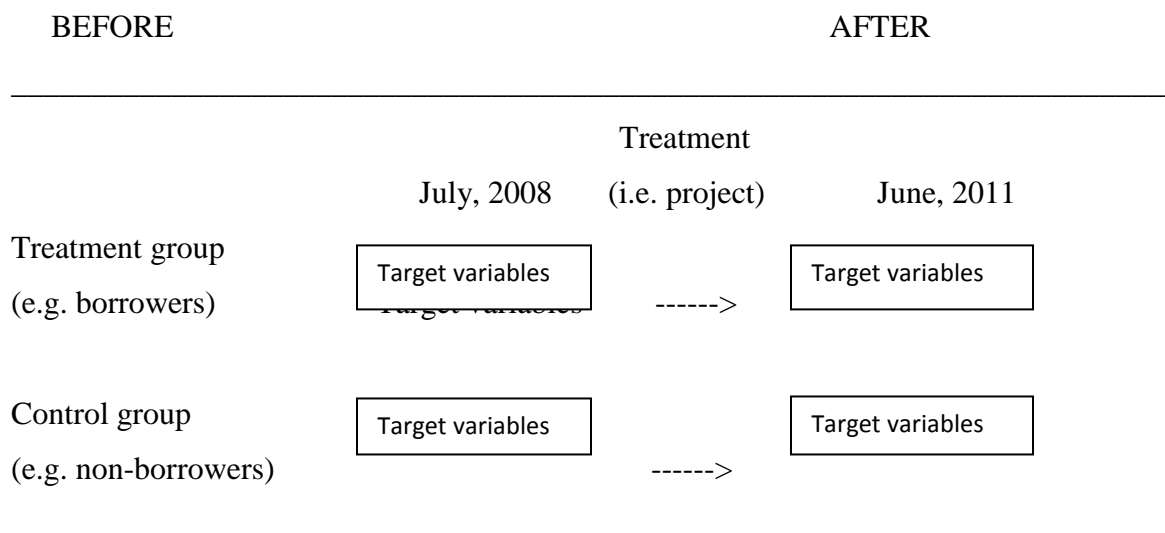
#### 6.1 Introduction

This chapter examines objective three which addresses the impact of loans received by entrepreneurs from different credit sources, between July 2008 and June 2011, on performance of MEs. A number of scholars have recommended the use of control groups besides the target or experimental group in assessing the impact of a development programme and in particular, microcredit on MEs performance (Gaile and Foster, 1996; Sebstad and Chen, 1996; and Mosley, 2012). Control groups provide cross-sectional data that helps in impact assessment. Moreover, time series data can also be used to complement cross-sectional data in determining the impact of credit on MEs. The evaluation of any microfinance programme on MEs aims ideally at knowing not only what happened to the credit-assisted MEs in utilizing the credit, but also why it happened. Thus, the scientist's approach to assessing cause and effect is generally experimental in nature (Gaile and Foster, 1996; Sebstad and Chen, 1996; and Mosley, 2012). Mosley (2012) adds that the incorporation of a control sample creates a controlled environment which takes care of or eliminates extraneous influences such as market demand levels, competition, business site location, pricing of products, among others, in the assessment of the impact of credit on ME variables.

When using time series data to assess the impact of credit on MEs, target variables are compared *before versus after*, demonstrating "progress" or the lack of it in the time trend of specified indicators. However, this method is flawed by the impossibility to separate project and non-project influences. For instance, a microfinance project may claim to have achieved poverty reduction, which may actually be the result of many other factors, including: price fluctuations, changes in government policy, improved infrastructure, or simply better weather (Gaile and Foster, 1996; Sebstad and Chen, 1996; and Mosley, 2012). To put it differently, a project in which the target group's income declines may still be a success if, without it, the outcome would have been worse (Gaile and Foster, 1996; and Mosley, 2012). However, the approach commonly used is the experimental approach or what is referred to as the *control-group method*. It is less



intensive in its data requirements and is already widely used in assessing microcredit impact on MEs. A population which benefitted from say, microcredit is compared to a population which did not receive any such credit. However, the control group method calls for a baseline survey. In the case of this study, the baseline period was July 2008. Despite the shortcomings and difficulties in data collection associated with time series data, a combination of both methods, that is, using time series and cross-sectional data in evaluating ME impact studies is most recommended. This is because it makes the research findings more valid (Gaile and Foster, 1996; and Mosley, 2012). Furthermore, ex-post assessments are also recommended (Mosley, 2012). Figure 6.1 demonstrates the application of the control group approach to microcredit impact assessment, as used in this study.



**Figure 6.1: Control-group Approach to ME Impact Assessment**

Source: Mosley, 2012

It is evident from the Figure 6.1 that both time series data and cross-sectional data analyses are well captured in this approach. The control-group approach, unlike regression analysis, is free of biases associated with regression analysis in those cases where the standard assumptions of the normal linear regression model (normally distributed disturbances, constant variance of the error term, etc.) do not hold. Moreover, it brings out clearly the quantitative impact of a project; in this case, credit in relation to non-credit influences (Mosley, 2012).

Besides the control group approach, simple descriptive statistics and chi-square statistic were used to validate the impact of total credit (from various sources) on ME variables, that is, if there were any significant differences in ME variables *before and after* securing credit. Enterprise performance was measured through a number of ME-process variables, including: (a) ME capitalization (in Ksh); (b) ME income (in Ksh); and (c) ME employment levels (in man-hours).

In addition to tools of analysis mentioned above, case studies were used in establishing the impact of credit on MEs. For instance, carrying out beneficiary assessments using specific or priority sample surveys of target groups through case studies helped determine and evaluate the impact of credit on ME performance.

Focus group discussions (FGDs) could have been an ideal and rapid method of generating data, as well as, analyzing the impact of a particular source of credit on ME variables. However, due to financial limitations, FGDs were not employed in this study.

## **6.2 Impact of Credit on Microenterprises Capitalization, Income and Employment Levels**

As indicated in chapter 5 section 5.1, total credit amounting to Ksh 18,448,100 was secured by sample entrepreneurs in the study area from different sources. Out of this total, MFIs accounted for 88.1 percent of the total credit received, being the largest single source. In fact, sample entrepreneurs cited in case studies acknowledged the comparatively significant role played by MFIs in providing credit. Hence, any positive impact resulting on ME variables was largely attributed to money flowing into the businesses from MFIs. The survey data shows that 89.6 per cent of the respondents, who were owners of credit-assisted MEs, indicated that the total loans they had received had brought profound changes in their businesses, which would not have been possible within a period of 3 years (2008-2011). Only 10.4 per cent of the respondents disagreed with the rest and asserted that no positive change had taken place in their ME variables even after investing the loan money in their businesses. Precisely, data analysis shows that this group of entrepreneurs registered on average -20 per cent and -30 per cent growths in their ME capitalization and ME income levels, respectively. Further, analysis of the research data shows

that 13, 7 and 5 of these entrepreneurs were operating MEs within the trade, service and artisan categories, respectively. Further, Table 3.3 shows that 9 of these entrepreneurs registered poor performance each of -40 per cent in both ME capitalization and monthly net income levels, with 5 of these entrepreneurs operating MEs within the trade category. Two others were operating MEs within the service category, while the other 2 within the artisan category.

Overall, research data shows that significant increases were registered in ME variables such as capitalization and income levels. However, there were insignificant increases in the number of employees and employment volume (in man-hours) generated by the MEs. Other changes that occurred in ME variables mentioned by the respondents included: ME production technology and improvement in quality as well as diversification of products; training in skills; and improvement in business premises, as well as, management of businesses.

Four leads were used to determine the changes in ME variables. First, was to stratify MEs based on business category, i.e. whether in service, trade or manufacturing/artisan. Second, MEs were stratified based on capitalization levels. This stratification was based on the year 2008, taken as the baseline year. Third, was to identify specific quantifiable and non-quantifiable ME variables as well as establishing their values or sizes both in the baseline year, and how these ME variables had changed by June, 2011. Fourth, besides the three leads above, a comparative analysis for the same years was also done for both the experimental and control group samples. Based on the data collected, the following quantifiable ME variables inbuilt in the conceptual model were well captured and thus selected to facilitate the analysis of the impact of credit on ME variables:

- i) ME capitalization level (in Kshs);
- ii) Income level (in Kshs); and
- iii) Employment level (in man-hours and number of people employed).

As explained above and in chapter three, it was prudent to have a control sample to aid in the assessment of the impact of credit on MEs. This made it easier to compare changes in ME variables based on cross-sectional data between the two samples of MEs. The assumption was that all MEs, i.e. whether credit-assisted or non-credit beneficiaries, located in each market/town

centre in the study area, faced more or less similar socioeconomic problems and business related constraints. Hence, any significant changes in ME variables of credit-assisted MEs could be attributed to an external/exogenous or intervention factor, that is, credit.

### **6.2.1 Impact of Credit on MEs Capitalization Levels**

The definition of ME capitalization, as used in this study, is given in chapter 1. Microenterprise capitalization was the only single ME variable that received the lion's share of the total credit secured by entrepreneurs. Table 5.1 shows that entrepreneurs operating credit-assisted MEs secured credit totaling Ksh. 18,448,100.00 from four credit sources. However, it is noted in chapter 5 that only 69.2 per cent of the total loan money secured between July, 2008 and June, 2011 was spent on MEs needs, with ME capitalization alone accounting for, 79 per cent of this money.

It is evident from Table 6.1 that the frequency of both MEs that benefitted from credit and those that did not, decreased with increasing capitalization levels in all ME categories. Further analyses of the data in Table 6.1 shows that in the year 2008, 47 per cent, 12 per cent, 39 per cent, and 2 per cent of credit-assisted MEs had their capitalization levels in the categories ranging between Ksh. 0-45,000, Ksh. 45,001-90,000, Ksh. 90,001-600,000 and Ksh. 600,001-3,000,000, respectively. Comparatively, MEs that did not benefit from any credit had 50 per cent, 17 per cent, 32 per cent, and 1 per cent of their capitalization levels in the categories ranging between Ksh. 0-45,000, Ksh. 45,001-90,000, Ksh. 90,001-600,000 and Ksh. 600,001-3,000,000, respectively. Further analysis shows that, MEs within the trade category for both experimental and control group samples had the highest levels of capitalization levels. For instance, a few of them registered capitalization levels ranging between Ksh. 600,001-3,000,000. RoK (2002a; 2002b; and 2008c) point out that trade is the major economic activity within the informal sector, particularly in most rural economies. This explains comparably why in the long run MEs within the trade category may acquire higher capitalization levels mainly in the form of business stock than those in the service and artisan categories. Tables 6.1 and 6.2 show changes in ME capitalization levels between the year 2008 and 2011.

Further, using 2008 as the baseline year, Table 6.2 shows the changes in mean, minimum and maximum capitalization levels for both credit-assisted and non credit-assisted MEs. It is

**Table 6.1: Average Levels and Changes in ME Capitalization (in Ksh) Based on ME Category and Levels of Capitalization- July, 2008 to June, 2011.**

Type of ME	Range Value of ME Capitalization Levels in July 2008 (in Ksh '000)	Frequency of MEs		Category Average ME Capitalization Levels in July, 2008 (in Ksh)		Category Average % Change in Average Value of ME Capitalization 2008-2011 (in Ksh)		Category Average ME Capitalization Levels in June, 2011 (in Kshs)	
		Credit-Assisted	Non Credit-Assisted	Credit-Assisted	Non Credit-Assisted	Credit-Assisted	Non Credit-Assisted	Credit-Assisted	Non Credit-Assisted
Service	0-15	7	4	10,673.50	14,745.10	180.00%	27.50%	29,885.80	18,800.00
	15.001-30	6	8	20,483.20	29,477.10	143.33%	36.25%	49,636.90	40,162.50
	30.001-45	6	5	35,935.40	44,945.90	185.00%	48.00%	102,415.90	66,519.90
	45.001-60	1	1	52,142.90	59,166.70	250.00%	20.00%	182,500.20	71,000.00
	60.001-75	1	1	70,750.00	74,900.00	60.00%	0.00%	113,200.00	74,900.00
	75.001-90	4	2	85,120.80	89,085.10	107.00%	17.50%	176,200.10	104,675.00
	90.001-105	3	2	102,943.20	104,000.00	102.33%	25.00%	208,285.00	130,000.00
	105.001-200	5	6	180,846.70	190,807.70	37.00%	21.67%	247,760.00	232,155.70
	200.001-600	8	2	398,011.60	518,461.50	125.62%	30.00%	897,993.80	674,000.00
	600.001-1,000	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-

Total		41 (17%)	31 (23%)			-	-		
Average		-	-			132.14%	28.24%		
Trade	0-15	18	23	12,590.00	14,396.70	121.70%	24.13%	27,913.14	17,870.60
	15.001-30	42	16	25,610.60	29,824.60	73.78%	17.81%	44,506.10	35,136.40
	30.001-45	20	6	40,645.60	44,971.20	82.90%	27.50%	74,340.00	57,338.30
	45.001-60	8	4	51,552.20	59,176.50	72.12%	27.50%	88,732.20	75,450.00
	60.001-75	3	4	62,756.51	74,864.60	51.67%	20.00%	95,182.80	89,837.50
	75.001-90	8	7	89,603.90	85,833.60	23.01%	21.43%	110,221.80	104,227.70
	90.001-105	5	7	95,761.90	104,207.70	131.00%	20.71%	221,210.00	125,789.10
	105.001-200	32	21	170,613.50	199,948.50	51.66%	27.62%	258,752.40	255,174.30
	200.001-600	35	4	465,150.50	578,100.00	63.87%	25.00%	762,242.10	722,625.00
	600.001-1,000	2	-	997,313.80	-	19.50%	-	1,191,790.00	-
	1,000.001-3,000	2	1	2,657,148.00	2,000,000.00	35.00%	50.00%	3,537,149.80	3,000,000.00
Total		175(73%)	93(68%)			-	-		
Average		-	-			66.02%	26.20%		
Artisan	0-15	1	1	9,000.00	14,000.00	392.00%	20.00%	44,280.00	16,800.00
	15.001-30	9	4	25,063.21	29,299.60	112.22%	37.50%	53,189.14	40,287.00
	30.001-45	4	2	41,176.10	43,561.40	147.50%	42.50%	101,910.80	62,075.00
	45.001-60	2	2	52,530.90	59,608.70	115.00%	15.00%	112,941.40	68,550.00
	60.001-75	-	-	-	-	-	-	-	-
	75.001-90	2	2	72,381.00	88,565.20	110.00%	15.00%	152,000.10	101,850.00

	90.001-105	1	1	104,000.00	95,000.00	35.00%	00.00%	140,400.00	95,000.00
	105.001-200	6	1	180,076.30	200,000.00	73.67%	35.00%	312,738.50	270,000.00
	200.001-600	-	-	-	-	-	-	-	-
	600.001-1,000	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-
Total		25(10%)	13(9%)			-	-		
Average		-	-			140.80%	27.5%		

Service –  $\chi^2 = 47.604$ ; df = 30; P = 0.022 (P<0.05). The differences in ME capitalization are statistically significant.

Trade -  $\chi^2 = 1.179$ ; df = 66; P = 0.000 (P<0.05). The differences in ME capitalization are statistically significant.

Artisan -  $\chi^2 = 32.816$ ; df = 20; P = 0.035 (P<0.05). The differences in ME capitalization are statistically significant.

Source: Research Data.

observed that there were differences in the mean, minimum and maximum ME capitalization for the two samples in the base year, as well as, the year 2011. However, Table 6.1 and Figure 6.2 show that the highest percentage change in ME capitalization was registered among the credit-assisted MEs than those MEs that did not receive any credit.

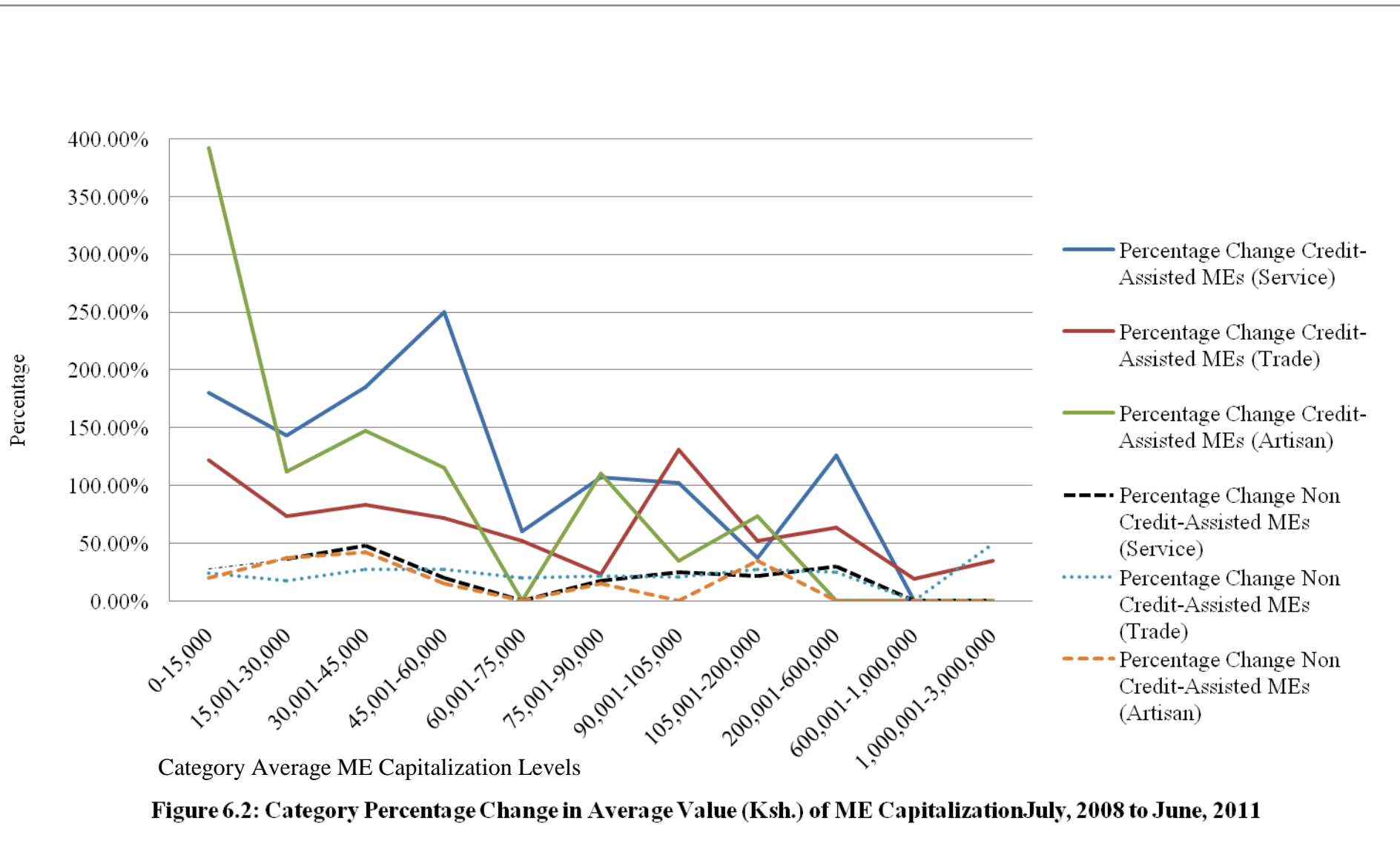
**Table 6.2: Changes in Capitalization Levels for Credit-Assisted and Non Credit-Assisted MEs – July, 2008 to June, 2011**

Type of ME		ME Capitalization Levels (in Ksh)			
		Credit-Assisted MEs		Non Credit-Assisted MEs	
		Year 2008	Year 2011	Year 2008	Year 2011
Service	Mean	102,732.00	238,482.10	81,274.20	104,226.00
	Minimum	4,000.00	9,286.00	5,000.00	6,412.00
	Maximum	440,000.00	1,021,416.00	550,000.00	705,320.00
	N	41		31	
Trade	Mean	129,917.00	215,688.00	91,739.00	115,775.00
	Minimum	4,500.00	7,471.00	2,000.00	2,524
	Maximum	3,000,000.00	4,980,600.00	2,000,000.00	2,524,000.00
	N	175		93	
Artisan	Mean	65,120.00	156,808.00	62,282.30	79,410.00
	Minimum	9,000.00	21,672.00	14,000.00	17,850.00
	Maximum	200,000.00	481,600.00	200,000.00	2,055,000.00
	N	25		13	

Source: Research Data

Credit-assisted MEs operating in the service, trade and artisan categories registered 132 per cent, 66 per cent and 141 per cent growth in capitalization levels, respectively. The average change in ME capitalization level for the entire sample was 113 per cent. Those MEs that did not receive credit in the service, trade and artisan categories registered 28.24 per cent, 26.2 per cent and 27.5 per cent growth in ME capitalization, respectively. The average change in ME capitalization level for the entire sample was 27.3 per cent. However, for the credit-assisted MEs,





Source: Research Data.

the highest growth was registered among MEs operating in the service and artisan categories (Table 6.1 and Figure 6.2). This observation is explained by the fact that MEs in the service and artisan categories had lower levels of capitalization than those in trade. Hence, significant amounts of investments made would have significant impacts on capitalization levels. Notably, credit received significantly impacted average value of ME capitalization levels for credit-assisted MEs as shown in Table 6.1 and Figure 6.2. To confirm this, chi-square analyses in Table 6.1 show significant differences ( $P < 0.05$ ) in average values of MEs capitalization levels between the experimental and control samples for all ME categories. These research findings corroborate those of Bryden (1998) and Kibas (2001), who observed significant growth in ME capitalization resulting from credit.

Further evidence from Table 6.1 and Figure 6.2 show that the percentage change in ME capitalization levels for credit-assisted MEs was relatively higher for those MEs at lower levels of capitalization. In particular, the lower the level of ME capitalization, the higher was the percentage increase in ME capitalization levels, vice-versa (see also chapter 5, section 5.1 on total loan amounts secured and the percentage of the same spent on MEs needs). In chapter 5, it is evident that majority of entrepreneurs operating MEs within lower levels of capitalization secured loans in excess of what they actually required for their business needs. Alternatively, the loans they secured were far much beyond the level of their MEs capitalization levels. Hence, investing large proportions of that money raised their MEs capitalization levels by significant margins.

### **6.2.2 Impact of credit on MEs Income Levels.**

In order to determine entrepreneurs' incomes generated from MEs, entrepreneurs were asked to choose the interval within which their lowest and highest net monthly incomes fell. From this information, the mean monthly net income was computed for each entrepreneur. Table 6.3 gives a summary of the data on MEs net monthly income levels based on ME category and capitalization levels. The assumption is that MEs within a given capitalization category face more or less similar business challenges and have similar business characteristics and potential in a given market/town centre. Hence, this makes comparisons made on income generated for any

**Table 6.3: Average Net Monthly Levels and Changes in ME Income (in Ksh) Based on ME Category and Levels of Capitalization- July, 2008 to June, 2011.**

Type Of ME	Range Valued of ME Capitalization Levels in July 2008 (in Ksh '000)	Frequency Of MEs		Category Average ME Net Monthly Incomes Levels in July, 2008 (in Ksh)		Category Average % Change In Average ME Net Monthly Income 2008-2011 (in Kshs)		Category Average ME Net Monthly Income in June 2011 (in Kshs)	
		Credit-Assisted	Non-Credit-Assisted	Credit-Assisted	Non-Credit-Assisted	Credit-Assisted	Non-Credit-Assisted	Credit-Assisted	Non-Credit-Assisted
Service	0-15	7	4	11,319.70	7,316.30	38.57%	22.50%	15,685.71	8,962.50
	15.001-30	6	8	9,657.80	9,254.30	53.33%	20.62%	14,808.33	11,162.50
	30.001-45	6	5	13,310.50	8,121.00	27.50%	24.00%	16,970.83	10,070.00
	45.001-60	1	1	8,000.00	11,370.00	60.00%	25.00%	12,800.00	14,212.50
	60.001-75	1	1	12,500.00	17,280.00	30.00%	25.00%	16,250.00	21,600.00
	75.001-90	4	2	12,500.00	12,500.00	27.50%	17.50%	15,937.00	14,687.50
	90.001-105	3	2	12,200.00	21,500.00	16.67%	20.00%	14,233.33	25,800.00
	105.001-200	5	6	11,624.00	17,486.10	9.00%	20.00%	12,670.00	20,983.33
	200.001-600	8	2	28,452.80	21,500.00	32.50%	20.00%	37,700.00	25,800.00
	600.001-1,000	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-

Total	41 (17%)		31 (23%)		-		-		
Average	-		-		32.80%		21.62%		
Trade	0-15	18	23	6,495.30	5,296.60	37.77%	20.86%	8,948.61	6,401.50
	15.001-30	42	16	10,694.30	8,729.60	34.07%	20.62%	14,337.85	10,529.68
	30.001-45	20	6	18,121.50	10,420.80	51.25%	26.67%	27,408.75	13,200.00
	45.001-60	8	4	13,974.10	14,711.50	45.00%	16.25%	20,262.50	17,102.08
	60.001-75	3	4	5,717.50	10,605.30	53.33%	18.75%	8,766.67	12,593.75
	75.001-90	8	7	15,011.20	8,142.20	33.13%	10.71%	19,984.37	9,014.28
	90.001-105	5	7	12,771.20	9,255.10	18.00%	17.85%	15,070.00	10,907.14
	105.001-200	32	21	13,102.10	11,656.00	29.84%	21.67%	17,011.71	14,182.14
	200.001-600	35	4	15,228.80	14,760.00	31.71%	20.00%	20,057.85	17,712.00
	600.001-1,000	2	-	24,136.40	-	37.50%	-	33,187.50	-
	1,000.001-3,000	2	1	25,652.20	31,500.00	15.0%	20.00%	29,500.00	37,800.00
Total	175(73%)		93(68%)		-		-		
Average	-		-		35.14%		19.33%		
Artisan	0-15	1	1	12,500.00	8,000.00	30.00%	15.00%	16,250.00	9,200.00
	15.001-30	9	4	9,119.20	8,217.20	32.22%	23.75%	12,055.55	10,168.75
	30.001-45	4	2	11,385.70	8,000.00	31.25%	25.00%	14,943.75	10,000.00
	45.001-60	2	2	15,360.00	14,400.00	25.00%	25.00%	19,200.00	18,000.00
	60.001-75	-	-	-	-	-	-	-	-
	75.001-90	2	2	27,725.80	12,500.00	55.00%	20.00%	42,975.00	15,000.00

	90.001-105	1	1	31,500.00	12,500.00	10.00%	20.00%	34,650.00	15,000.00
	105.001-200	6	1	21,850.90	25,000.00	30.83%	20.00%	28,587.50	30,000.00
	200.001-600	-	-	-	-	-	-	-	-
	600.001-1,000	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-
Total		25(10%)	13(9%)			-	-		
Average		-	-			30.6%	21.25%		

Service –  $\chi^2 = 21.926$ ;  $df = 13$ ;  $P = 0.050$  ( $P < 0.05$ ). The differences in MEs incomes are statistically significant.

Trade -  $\chi^2 = 75.333$ ;  $df = 25$ ;  $P = 0.000$  ( $P < 0.05$ ). The differences in MEs incomes are statistically significant.

Artisan -  $\chi^2 = 6.232$ ;  $df = 8$ ;  $P = 0.621$  ( $P > 0.05$ ). The differences in MEs incomes are not statistically significant.

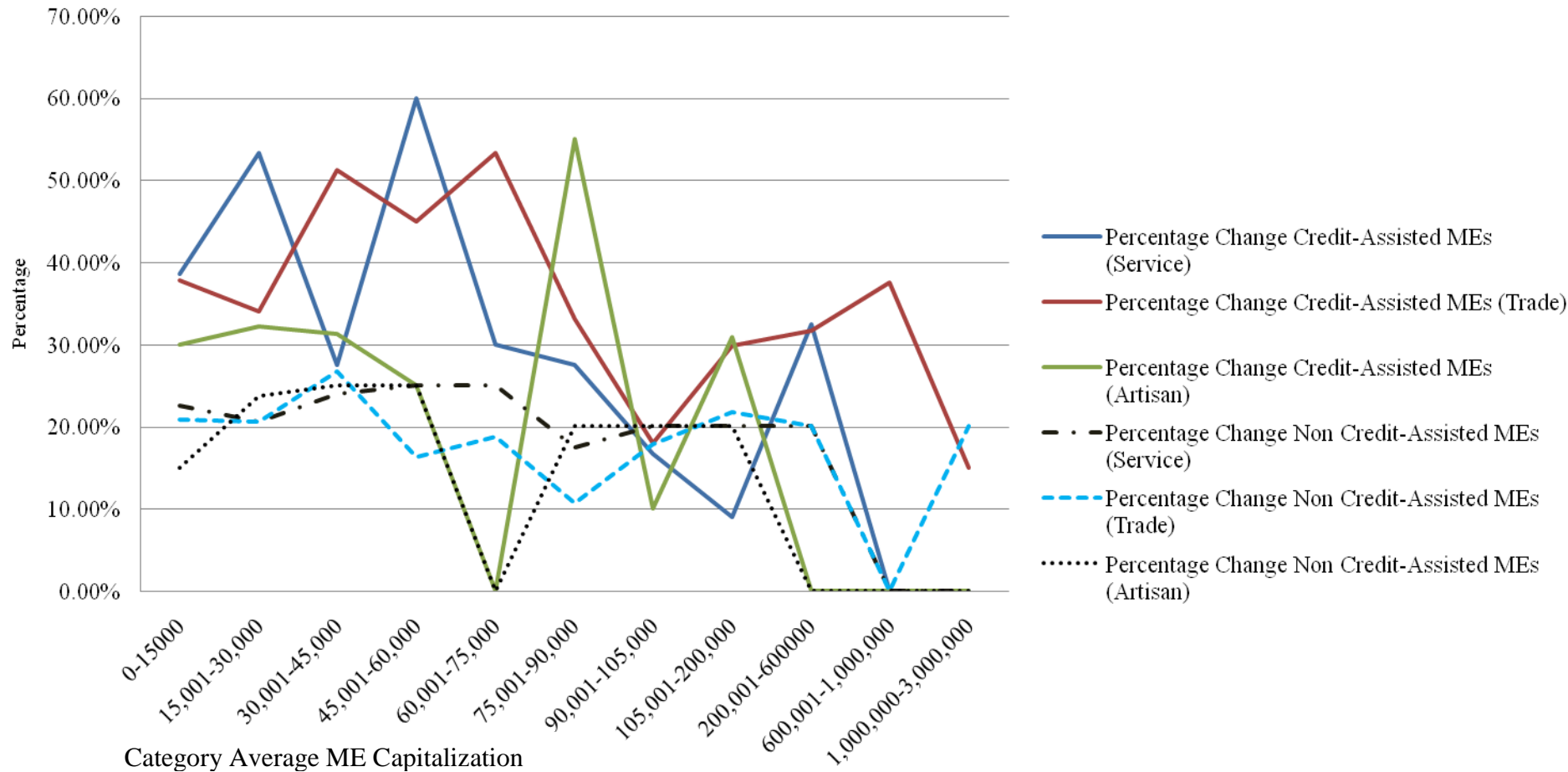
Source: Research Data

cohort of MEs between the experimental and control group samples valid.

A number of observations are made in Table 6.3 about ME income in the baseline year, 2008. Generally, the average net monthly incomes generated from MEs increased with increase in ME capitalization levels in all the ME categories for both experimental and control group samples. In fact, Table 4.11b and Appendix 4 confirm that ME income was found to be significantly correlated ( $P < 0.05$ ) with ME capitalization level (section 4.2.5). That is, the higher the level of capitalization the higher the income. However, some businesses within some higher levels of capitalization registered lower net monthly average incomes compared to those businesses within the preceding capitalization levels. The reasons for this are explained in chapter 4 section 4.2.6. It was established that some businesses did not necessarily require higher levels of capitalization to generate higher net monthly incomes. Moreover, it is evident from Table 6.3 and Figure 6.3 that generally the average percentage changes or growths in average net monthly incomes were comparatively higher in MEs within lower than higher levels of capitalization for the two samples studied. This observation is a replica of what was observed in Table 6.1 concerning ME capitalization levels. As briefly explained above, the reasons for these similar observations are to be found also in chapter 4.

It is also evident in Table 6.3 and Figure 6.3 that the highest mean percentage growth in incomes was registered among MEs within the trade category, yet Table 6.1 shows that this category of MEs registered the lowest growth in capitalization levels. The answer to this is explained in chapter 4, where it is observed that income for most businesses (within the trade category) depends more on the rate of business turn-over than the level of ME capitalization.

Table 6.4 further shows that in the baseline year the highest mean net monthly income for credit-assisted MEs was Ksh. 18,500, which was observed within MEs in the artisan category, where the lowest and highest net monthly incomes were Ksh. 3,000 and Ksh. 40,000, respectively. However, the lowest and the highest net monthly incomes were observed in MEs within the trade and service categories, respectively. The highest mean net monthly income for non credit-assisted MEs was Ksh. 11,144, having been observed within MEs in the service category. Further, the lowest and highest net monthly incomes for non credit-assisted MEs



**Figure 6.3: Category Percentage Change in Average ME Net Monthly Income (Ksh.), July 2008 to June 2011)**

Source: Computed from Survey Data, 2011

were Ksh 4,000 and Ksh 31,500, respectively.

In order to determine how MEs net monthly incomes had changed, entrepreneurs who had received credit and those who had not, were asked to state by what percentage their incomes had changed between 2008 and 2011. This information was used to compute the net monthly incomes generated from MEs in 2011 for each ME category as well as capitalization levels based

**Table 6.4: Changes in ME Net Monthly Average Incomes Levels for Credit-Assisted and Non Credit-Assisted MEs – July, 2008 to June, 2011.**

Type of ME		ME Net Monthly Average Income Levels (in Ksh)			
		Credit-Assisted MEs		Non Credit-Assisted MEs	
		Year 2008 (Baseline Year)	Year 2011	Year 2008 (Baseline Year)	Year 2011
Service	Mean	13,285.00	21,642.50	11,144.20	13,554.00
	Lowest	5,500.00	7,304.00	4,000.00	4,865.00
	Highest	40,000.00	53,120.00	25,000.00	30,405.00
	N	41		31	
Trade	Mean	12,296.00	16,617.00	9,488.00	11,322.00
	Lowest	3,000.00	4,054.20	4,000.00	4,773.20
	Highest	35,000.00	47,299.00	31,500.00	37,589.00
	N	175		93	
Artisan	Mean	18,492.00	24,150.00	10,436.00	12,654.00
	Lowest	4,000.00	5,224.00	7,500.00	9,094.00
	Highest	30,000.00	39,180.00	25,000.00	30,313.00
	N	25		13	

Source: Research Data.

on incomes in the baseline year, 2008. Table 6.3 shows the computed data on net monthly incomes. It is evident from Table 6.3 that the highest percentage change in mean net monthly incomes was among the credit-assisted MEs, ranging between 31 per cent and 35 per cent across the three categories of MEs, with a mean of 32.8 per cent for the sample. For MEs that did not



receive any credit, the mean net monthly incomes were between 19 per cent and 22 per cent for all categories of MEs (control sample), with a mean of 20.7 per cent for the sample. Due to this percentage increases, Table 6.4 shows that the changes in lowest and highest net monthly incomes for credit-assisted MEs rose from Ksh. 3,000 to Ksh. 4,054 and from Ksh. 40,000 to Ksh. 53,120, respectively, while the highest mean net monthly income rose from Ksh. 18,492 to Ksh. 24,150.

Comparatively, the changes in lowest and highest net monthly incomes for MEs that did not benefit from credit rose from Ksh. 4,000 to Ksh. 4,773 and from Ksh. 31,500 to Ksh. 37,589, respectively, while the highest mean net monthly income rose from Ksh. 11,144 to Ksh. 13,554. From the chi-square analyses, these figures show significant variations as well as changes in incomes generated from credit-assisted MEs. Further, the growth in mean net monthly incomes was significant among credit-assisted MEs than those MEs that did not receive any credit at all levels of ME capitalization levels. Thus, given that the two samples of MEs face more or less similar business environment, then the significant differences in income growth depicted in Table 6.3 and Figure 6.3 can be attributable to credit received for the experimental sample.

From the discussion above and the chi-square results presented in Table 6.3, it is concluded that credit-assisted MEs operating in the service and trade categories registered significant changes ( $P < 0.05$ ) in ME average net monthly incomes than MEs that did not receive any credit. These changes were, however, not significant ( $P > 0.05$ ) for credit-assisted MEs in the artisan category, though they registered relatively higher incomes compared with MEs that did not receive credit. The insignificant growth in MEs in artisan category is attributed to constraints and slow growth in market demand for products, as cited by 70 per cent of the entrepreneurs in the artisan category. Hence, the differences in growth of incomes between the two samples of MEs can be attributed to credit. Bryden (1998) in her study of SHGs activities in Butere area observed similar research findings of increases in ME incomes resulting from credit received.

Performance of a ME can be influenced by a number of factors. Case-studies and interviews with key informants (some of whom were entrepreneurs operating MEs) revealed that poor ME performance could be attributed to a number of factors. First, was lack of training on

loan usage. This partly led to inappropriate utilization of credit secured, with substantial amounts being diverted to other personal needs instead of being invested as expected.

Second, was lack of openness and sharing of business information among SHG members. Some group members operated their businesses in secrecy and were not open to other group members concerning the way they utilized credit secured from MFIs. Such members missed out on the groups' rich non-financial business resources and sharing of personal business experiences (on emerging business investment and market opportunities) with other group members, which help one to learn how well to manage his/her business. Such information makes it easy for each group members to make informed choices and decisions concerning their businesses. Further, it was difficult to assess effectively the potentiality or suitability of non-cooperating SHG members in securing loan amounts commensurate with their ability to repay. Thus, the chances of such members securing loan amounts which were beyond their repayment capability based on their business incomes were feasible. Such huge amounts of loans secured impacts negatively on the performance of their businesses. More so, groups help in networking. For instance, members are able to share and widen their social and professional networks. Also, one's enthusiasm and commitment strengthens the group and helps members to achieve their individual and group's goals. Thus, members who were unwilling to cooperate with their group members missed out on these benefits.

Three, extraneous factors such as entrepreneurs' dependency ratios or household expenses, low market, competition from other businesses and business site or location within given market centres, were also factors contributing to the poor performance of MEs.

Research findings further indicate that itinerant businesses registered higher business incomes than immobile/site-businesses. Fourteen credit-assisted itinerant businesses within the trade category were covered in the survey (representing 5.8 percent of the experimental sample). Four, 6 and 4 of them had their ME capitalization levels falling within Ksh. 15,001-30,000, Ksh. 30,001-45,000 and Ksh. 45,001-60,000, respectively. In the same order, they had a monthly mean income of Ksh. 12,000, Ksh. 16,000 and Ksh. 20,000 in the baseline year, 2008 and in the year 2011, their monthly mean incomes had risen to Ksh. 16,000, Ksh. 20,000 and Ksh. 25,000.

Comparatively, these incomes were higher than incomes for other MEs in the respective ME capitalization levels within the trade category (Table 6.3). All the 14 Itinerary traders covered in the case-studies indicated that higher market turnover was the main factor in influencing higher incomes.

Findings from case-studies further showed that 30 out of the 33 entrepreneurs who registered impressive growth of 40 per cent and above in their businesses, acknowledged the importance of investing wisely and a substantial amount of credit secured in the business. This impacted positively on business performance. Moreover, these entrepreneurs contended that the sale of complimentary goods or provision of complimentary services as a marketing strategy improved sales and incomes. This was made possible by utilizing part of the loan money to purchase additional business stock. Also, securing supply tenders ensured a ready and guaranteed market for one's business. Moreover, competitive and appropriate/consumer-tailored pricing through products re-packaging, business advertisements, prudent business management (including timeliness in business operation, continuous products/services supply, good customer relations and care, cleanliness of business premise and frequent business auditing) had a positive impact on business income. Relocation of business site and reliance on business stock-credits (from major wholesale suppliers, especially Indian businessmen) were also crucial leads in marketing and business survival strategies. All these strategies impacted business incomes.

The 8 entrepreneurs whose businesses performed dismally, registering -40 per cent and below in growth, acknowledged that diversion of the loan funds on other personal needs other than business, impacted negatively on their business performance. On average, the 8 entrepreneurs diverted 80 per cent of the total loan money secured to non-business needs. Despite this, the entrepreneurs had to service the loans secured using proceeds from their business, yet their businesses had not benefitted significantly from the total loans they had secured. However, entrepreneurs whose businesses performed well did acknowledge that their close cooperation with their group members did to a large extent help them to manage their businesses well, impacting positively on business performance. As indicated earlier, cooperation among group members is associated by a number of business advantages that impact positively on business performance.

Moreover, all the 41 entrepreneurs covered in the case studies acknowledged that social responsibilities on the part of the entrepreneur can affect business performance negatively. This is because an entrepreneur is expected to draw more resources from the business in meeting his/her social responsibilities than can be regenerated. This is irrespective of whether one has other income sources a part from ME business or not. What counts is how well the entrepreneur manages his/her business and not the number of income sources s/he has. For instance, 50 per cent of those whose businesses registered impressive growth had the businesses as the only occupation. While 44.4 per cent, 33.3 per cent and 22.2 per cent of entrepreneurs whose businesses registered negative growth in monthly income had ME business as the only occupation, ME business and one additional occupation and ME and two additional occupations, respectively.

### **6.2.3 Impact of credit on MEs Employment Levels.**

Table 6.5 shows the average levels and changes in ME employment levels between 2008 (baseline year) and 2011 (assessment year) based on ME category and capitalization levels. Further, data on employment levels is given for credit-assisted MEs and those MEs that were not credit beneficiaries during the assessment period, spanning three years.

Microenterprise employment volume (E) was determined by the formula:

$E = (L \times T \times D)$ , where:

E = Total ME employment volume (in man-hours).

L = Total number of people employed in a given ME (numerical value).

T= Total number of hours worked per day

D=Total number of days a ME business operates in a week/month.

In order to determine MEs employment levels, entrepreneurs were asked to give data on the total number of people employed, the number of days worked per week and the hours worked per day. This data was collected for both the experimental and control group samples. The data was used to compute ME employment volume per month using the above formula. In this study, one month was taken to be equivalent to four weeks.

**Table 6.5: Average Levels and Changes in ME Employment (in man-hours) Based on ME Category and Levels of Capitalization- July, 2008 to June, 2011.**

Type of ME	Range Valued of ME Capitalization Levels in July 2008 (in Ksh '000)	Frequency of MEs		Category Average No. of Employed in MEs in July, 2008		Category Average MHRs Generated in MEs Per Month in July, 2008		Category Change in Average No. of People Employed & the % Change in MHRs in MEs Between July, 2008- June, 2011		Category Average MHRs Generated Per Month in July, 2011 and the Average % Change in MHRs in MEs Between 2008-2011	
		CA	NCA	CA	NCA	CA	NCA	CA	NCA	CA	NCA
Service	0-15	7	4	2	2	5,096	2,912	2(0.0%)	2(0.0%)	5,096(0.0%)	2,912(0.0%)
	15.001-30	6	8	2	3	4,368	8,736	2(0.0%)	3(0.0%)	4,368(0.0%)	8,736(0.0%)
	30.001-45	6	5	3	2	6,552	3,640	3(0.0%)	2(0.0%)	6,552(0.0%)	3,640(0.0%)
	45.001-60	1	1	2	2	728	728	2(0.0%)	2(0.0%)	728(0.0%)	728(0.0%)
	60.001-75	1	1	4	3	1,456	1,092	4(0.0%)	3(0.0%)	1,456(0.0%)	1,092(0.0%)
	75.001-90	4	2	3	3	4,368	2,184	4(33.3%)	3(0.0%)	5,823(33.3%)	2,184(0.0%)
	90.001-105	3	2	3	3	3,510	2,340	4(33.3%)	3(0.0%)	4,679(33.3%)	2,340(0.0%)
	105.001-200	5	6	2	2	3,900	4,680	3(50.0%)	3(50.0%)	5,850(50.0%)	7,020(50.0%)

	200.001-600	8	2	4	3	12,480	2,340	5(25.0%)	4(33.3%)	15,600(25%)	3,119(33.3%)
	600.001-1,000	-	-	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-	-	-
Total		41 (17%)	31(23%)	113	77	42,458	28,652	133(17.7%)	85(10.4%)	50,152(18.12%)	31,771(10.9%)
Average		-	-	2.76	2.48	1,036	924.3	3.24(17.4%)	2.74(10.5%)	1223.22(18.1%)	1,024.9(10.9%)
Trade	0-15	18	23	2	1	8,424	4,500	2(0.0%)	1(0.0%)	8,424(0.0%)	4,500(0.0%)
	15.001-30	42	16	1	1	9,828	3,744	1(0.0%)	1(0.0%)	9,828(0.0%)	3,744(0.0%)
	30.001-45	20	6	2	1	9,360	1,404	2(0.0%)	1(0.0%)	9,360(0.0%)	1,404(0.0%)
	45.001-60	8	4	2	1	3,744	936	2(0.0%)	1(0.0%)	3,744(0.0%)	936(0.0%)
	60.001-75	3	4	2	1	1,404	936	2(0.0%)	1(0.0%)	1,404((0.0%)	936(0.0%)
	75.001-90	8	7	1	1	1,872	1,638	2(50.0%)	1(0.0%)	2,808(50.0%)	1,638(0.0%)
	90.001-105	5	7	2	1	2,340	1,638	2(0.0%)	1(0.0%)	2,340(0.0%)	1,638(0.0%)
	105.001-200	32	21	2	2	14,976	9,828	2(0.0%)	2(0.0%)	14,976((0.0%)	9,828(0.0%)
	200.001-600	35	4	2	2	16,380	1,872	3(50.0%)	2(0.0%)	24,578(50%)	1,872(0.0%)
	600.001-1,000	2	-	3	-	1,404	-	3(0.0%)	-	1,404(0.0%)	-
	1,000.001-3,000	2	1	3	3	1,404	702	4(33.3%)	4(33.3%)	1,872(33.3%)	936(33.3%)
Total		175(73%)	93(68%)	304	120	71,136	27,198	349(14.8%)	121(0.83%)	80738(13.5%)	27,432(0.9%)
Average		-	-	1.74	1.3	406.50	292.50	1.994(14.6%)	1.30(0.0%)	461(13.5%)	295(0.9%)
Artisan	0-15	1	1	1	1	270	260	1(0.0%)	1(0.0%)	270(0.0%)	260(0.0%)
	15.001-30	9	4	2	2	4,860	2,160	2(0.0%)	2(0.0%)	4,860(0.0%)	2,160(0.0%)
	30.001-45	4	2	2	2	2,160	1,080	2(0.0%)	2(0.0%)	2,160(0.0%)	1,080(0.0%)
	45.001-60	2	2	2	2	1,080	1,080	2(0.0%)	2(0.0%)	1,080(0.0%)	1,080(0.0%)

	60.001-75	-	-	-	-	-	-	-	-	-	-
	75.001-90	2	2	3	2	1,620	1,080	3(0.0%)	2(0.0%)	1,620(0.0%)	1,080(0.0%)
	90.001-105	1	1	3	2	624	540	3(0.0%)	2(0.0%)	624(0.0%)	540(0.0%)
	105.001-200	6	1	3	3	3,744	624	3(0.0%)	3(0.0%)	3,744(0.0%)	624(0.0%)
	200.001-600	-	-	-	-	-	-	-	-	-	-
	600.001-1,000	-	-	-	-	-	-	-	-	-	-
	1,000.001-3,000	-	-	-	-	-	-	-	-	-	-
Total		25(10%)	13(9%)	58	26	14,358	6,824	58(0.0%)	26(0.0%)	14,358(0.0%)	6,824(0.0%)
Average		-	-	2.32	2	574.32	524.92	2.32(0.0%)	2(0.0%)	574.32(0.0%)	524.92(0.0%)

Service –  $\chi^2 = 37.466$ ;  $df = 35$ ;  $P = 0.357$  ( $P > 0.05$ ). The differences in MEs employment are statistically insignificant.

Trade -  $\chi^2 = 1.005$ ;  $df = 68$ ;  $P = 0.006$  ( $P < 0.05$ ). The differences in MEs employment are statistically significant.

Artisan -  $\chi^2 = 25.411$ ;  $df = 24$ ;  $P = 0.384$  ( $P > 0.05$ ). The differences in MEs employment are statistically insignificant.

CA = Credit-assisted, NCA = Non Credit-assisted, MHRs = Man-hours (Employment volume).

Source: Research Data

It is evident from Table 6.5 that the average number of people (rounded off to the nearest whole number) who were employed in 2008 per credit-assisted ME in the service and trade categories was 3 and 2, respectively. Also, those in artisan category employed an average of 2 people per ME. Similarly, for those MEs that did not receive any credit, the average number of people employed per ME in the service, trade and artisan was 2, 1 and 2, respectively. More so, when the actual averages of people employed are considered, it is evident from Table 6.5 that the averages were higher for MEs in the service category, followed by those in artisan category and lower for those MEs in the trade category. It is also evident that the actual number of people employed or the man-hours generated per month per ME increased with increasing capitalization levels in all the three categories of MEs, as well as, in both samples studied. In fact chapter 4, section 4.2.5 confirms a significant correlation ( $P < 0.05$ ) between the number of people employed and ME capitalization levels for the credit-assisted MEs.

Further, the average man-hours generated per month in 2008 from credit-assisted MEs in the service, trade and artisan categories were 1036, 406.5 and 574.32, respectively. Similarly, those generated from MEs that had not received any credit were 924.3, 292.5, and 524.92, respectively. It is also observed that the average man-hours generated per month increased with increasing ME capitalization levels. From the data on man-hours generated, it can further be observed for both samples of MEs that those in the service category generated higher man-hours than those in the trade and artisan categories. Micro enterprise in the service category generated higher man-hours because they employed more people, as well as, operated for longer hours and days in a week than those in the trade and artisan categories (section 4.2.6).

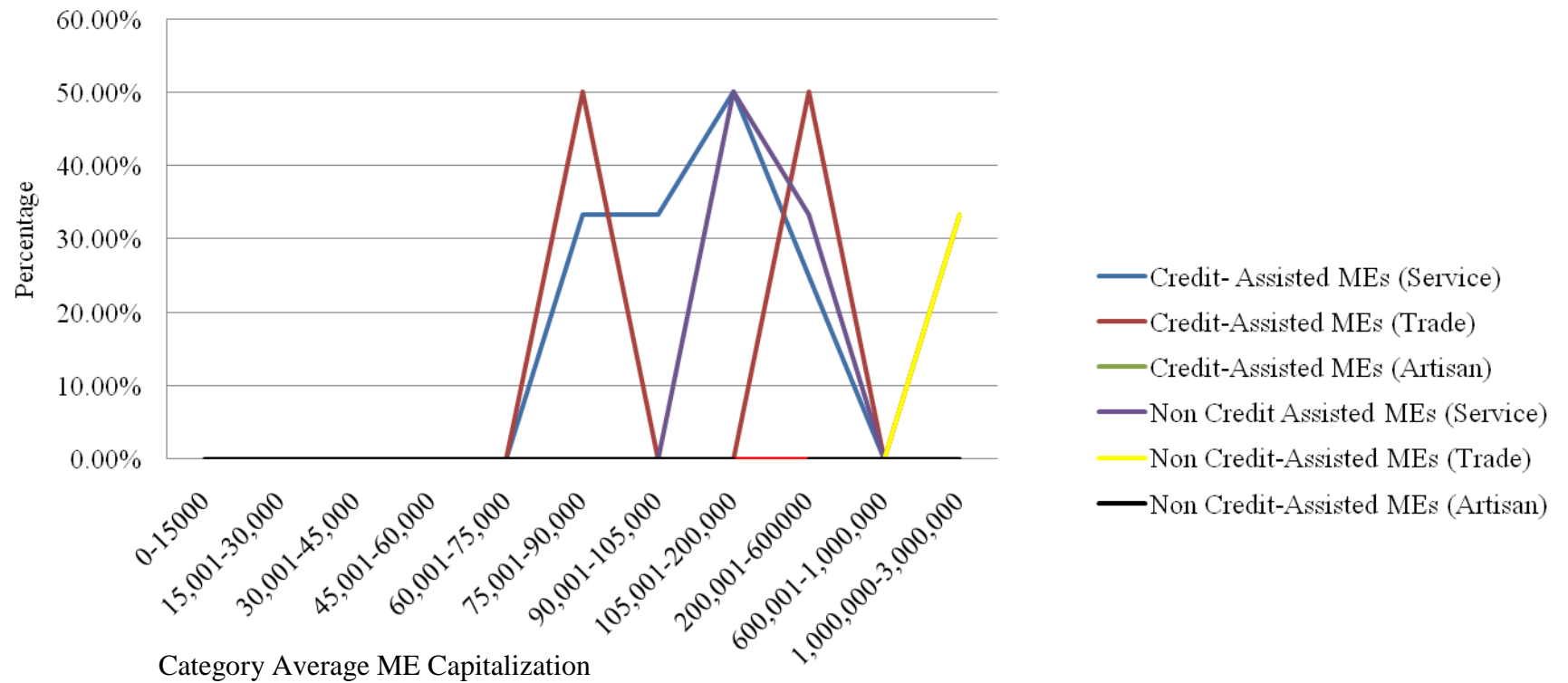
The average numbers of people employed in 2011 per credit-assisted ME in the service, trade and artisan categories remained largely the same, that is, 3, 2 and 2, respectively. However, when the actual averages in the numbers of people employed were computed for credit-assisted MEs within the service and trade categories, they showed slight increases of 17.4 per cent and 14.6 per cent, respectively. However, for MEs within the artisan category, there were no changes registered in the average number of people employed. The average number of people employed in 2011 for MEs that had not received credit remained the same in the trade and artisan



categories. However, for MEs in the service category, the average number of employees per ME increased from 2 to 3, registering an average growth of 10.5 per cent.

When the total changes in man-hours for credit-assisted MEs were computed for 2011, it was observed that those within the service, trade and artisan categories were generating average monthly man-hours of 1223, 461 and 574.32, respectively. Thus, MEs within service and trade categories registered growth rates of 18.1 per cent and 13.5 per cent, respectively. Those within artisan category registered no growth in man-hours generated per month. For MEs that did not receive any credit; the average man-hours generated per month was 1024.9, 295 and 524.93 for MEs within the service, trade and artisan categories, respectively. This represented an increase of 10.9 percent, 0.9 percent, zero percent, respectively. Table 6.5 and Figure 6.4 show that the percentage increase in actual averages of the numbers of people employed per ME and the average monthly man-hours generated from all categories of MEs, at all levels of capitalization, reveals that credit-assisted MEs generated higher values for both variables than those MEs that did not receive any credit. Further, the greatest share of the increase in average number of people employed and the average man-hours generated per month was contributed by MEs within the higher levels of capitalization and in particular, MEs within the service and trade categories. There was no growth in employment in MEs within the artisan category.

Table 6.5 and Figure 6.4 further show that credit-assisted MEs registered a clear-cut edge over the increases in actual averages in the numbers of people employed, as well as, the average man-hours generated per month per ME in the three categories of MEs. However, the changes in the values for both variables for the experimental and control samples were insignificant ( $P > 0.05$ ) as confirmed by chi-square results shown in Table 6.5. This suggests that MEs seemingly did not generate significant growth in employment; rather they helped in creating sources of employment to new entrants into the informal sector activities. To confirm this observation, Table 5.7 shows that only a total of Kshs.181,879 was spent by credit-assisted entrepreneurs, who were beneficiaries of loans from only three MFIs, namely: EFSA, PDP and KFSA on hiring additional labour. This explains the insignificant changes in both the actual number of people employed and man-hours generated by credit-assisted MEs between the years 2008 and 2011.



**Figure 6.4: Category Change in Average Employment Volume (Man-hours) in MEs, July 2008 to June 2011**

Source: Research Data.

### **6.3 Other Impacts of Credit on Microenterprises**

Besides ME capitalization, income and employment levels, data elicited from the questionnaire and case-studies pointed to the fact that credit received by entrepreneurs indeed impacted positively on other ME variables, including:

1. Production technology and improvement in quality, as well as, diversification of products, especially for MEs in manufacturing/artisan category;
2. Skills training;
3. Expansion, renovation, relocation and purchase of business premise/stalls;
4. Maintenance of equipment; and
5. Management of enterprises.

However, it was not possible to carry out an in-depth study to ascertain the extent and magnitude to which credit impacted these ME variables. This was due to technicalities involved in measurement and collection of data on these ME variables. Hence, these are areas future researchers can investigate.

### **6.4 Summary**

This chapter has discussed research findings on the impact of credit on MEs capitalization, income and employment levels in the period covered by the survey (2008-2011). An experimental research design, involving a comparison between credit-assisted MEs (experimental sample) and non-credit assisted MEs (control group sample), was used in ascertaining the impact of credit on MEs performance. The control group sample was used so to ensure that the influence of other market factors, other than credit, on the growth of credit-assisted MEs is held constant. Thus, a comparative analysis of the credit-assisted MEs and non-credit assisted MEs shows significant differences and growth in ME capitalization and incomes for credit-assisted MEs. However, there was insignificant differences and growth in ME employment levels for both credit-assisted and non-credit assisted MEs. Further, research findings show that the greatest share of the increase in both capitalization and incomes were

evident in MEs characterized with higher levels of capitalization for both samples and more so, in MEs within the service and trade categories.

Other important ME variables mentioned by entrepreneurs for having benefitted positively from credit secured but which this study did not ascertain, included: production technology and improvement in quality, as well as, diversification of products, especially for ME in manufacturing/artisan category; training in skills; expansion, renovation, relocation and purchase of business premise/stalls; maintenance of equipment; and management of enterprises.

## CHAPTER SEVEN

### INCOME GENERATED FROM CREDIT-ASSISTED MICROENTERPRISES AND ITS IMPACT ON ENTREPRENEURS' LIVELIHOODS

#### 7.1 Introduction

This chapter discusses objective four concerning the extent to which income generated from credit-assisted MEs impacted entrepreneurs' household incomes and their livelihoods.

Descriptive statistics were used to determine how entrepreneurs' incomes earned from credit-assisted MEs were spent on household consumption and investment. Tabulation of household economic portfolio model was used to show the following: the percentage contribution of income generated from MEs to total entrepreneurs' household incomes; and how entrepreneurs spent income earned from their MEs and other income sources on investment and consumption. The expenditure patterns of entrepreneurs' household incomes were analyzed based on entrepreneurs' number of income sources and age. Kekar and Cho (1982) and Abdullah and Duasa (2010) point out that age and number of income sources/occupations are important factors influencing an individual's levels of income and how it is spent.

As explained earlier in section 1.7 of Chapter 1, the World Bank (1994) has indicated that determining the impact of a project on (improvement of) livelihoods of a target population is difficult. This is because of the difficulty in analyzing the fungibility associated with the expenditure of such income, especially where the beneficiary in question has more than one source of income. Despite this, the link between impact indicator (such as livelihoods) and process indicators (such as growth in ME capital, incomes, and employment, etc.) of a project may be well established and used in the assessment of the impact indicator livelihoods (World Bank, 1994). In fact, such an analysis, according to the World Bank (1994), can to a great extent reduce the cost of data collection and save on time.

Microfinance institutions provide credit to entrepreneurs operating MEs with the sole purpose of improving their business incomes and livelihoods. Analyzing the impact of income generated from MEs on entrepreneurs' livelihoods may equally be difficult. This is because of

the difficulty in analyzing the fungibility associated with the expenditure of such income, especially where an entrepreneur has more than one source of income. However, in this study, the Household Economic Portfolio Model (HEPM) was used to determine MEs incomes before and after receiving credit, percentage contribution of MEs income on entrepreneurs' total monthly incomes and the computation of entrepreneurs' household monthly incomes. According to Dunn and Valdivia (1996), the (HEPM) - an approach relatively unique to micro credit programme evaluation - treats the sources of revenues and expenditures of a household as a portfolio to which a small business contributes. In short, it looks at sources from which households acquire money or income and where they spend it to understand the (relative) impact of a programme. Tables were then used to show how entrepreneurs' households' incomes were spent on consumption and investment items. Also, carrying out case studies helped determine and evaluate the relative strengths associated with ME income and other entrepreneurs' sources of income(s), if any, on their livelihoods. A total of 46 entrepreneurs were identified for case studies, with 5 entrepreneurs declining interviews. Out of 41 entrepreneurs covered in case studies, 33 had registered good performance in their businesses, while 8 had performed poorly. Thus, case studies conducted with 33 entrepreneurs helped shed light on the impact of incomes earned from MEs on entrepreneurs' households' livelihoods. Further, context based analysis of cases where the entrepreneur had secured credit and relied entirely on ME business as a source of income, helped shed more light on the impact of credit on ME income and entrepreneurs' livelihoods.

## **7.2 Entrepreneurs' Number of Income Sources and the Percentage Contribution of Micro Enterprises Incomes to Total Households' Incomes**

Appendix 5 shows the frequencies of entrepreneurs based age interval in relation to number of income sources. It is evident from Appendix 5 that in the base year 2008, 35.3 per cent of the entrepreneurs relied entirely on ME business, contributing 100 per cent of their total monthly incomes. However, 60.2 per cent of the entrepreneurs had 1 additional source of income, with the ME businesses contributing an average of 36.6 per cent of the total monthly incomes. While 4.6 per cent of the entrepreneurs had two additional sources of income, with the ME businesses accounting for 29.4 per cent of their total monthly incomes. It may, therefore, be observed that

MEs contributed significantly to entrepreneurs' total monthly incomes, even for those engaged in other income generating activities. This indeed confirms the MEs were important sources of income to entrepreneurs covered in the survey.

The average percentage growth in MEs monthly incomes between the year 2008 and 2011 and their percentage contribution to entrepreneurs' total average monthly incomes were used to compute entrepreneurs' average total MEs monthly incomes in 2011 based on entrepreneurs age categories and number of occupations. Also, entrepreneurs' proportions of their total incomes contributed by the MEs per month in the year 2011 were used to compute entrepreneurs' average total monthly incomes earned from all their occupations/income sources. Moreover, information given by entrepreneurs concerning the percentage contribution levels of their average total monthly incomes to their average total households' monthly incomes was used to compute their average total household monthly incomes. Deriving entrepreneurs' average total household monthly incomes was based on the assumption that there could be other members of the households, such as the entrepreneurs' spouses and children, contributing to total households' incomes on a monthly basis. This could be in the form of income earned from their spouses' or children's occupations or remittances. Appendix 5 shows data on all these categories of entrepreneurs' monthly incomes.

It is evident from Appendix 5 that in the year 2008 MEs generated a total of Ksh. 3,307,044.80 per month. This included Ksh. 1,166,220.00, Ksh. 1,988,852.70 and Ksh. 151,972.10 for entrepreneurs with ME business as the only source of income, entrepreneurs with one and two additional sources of income, respectively, besides the ME business. In the same order, these incomes increased by 23.4 per cent, 33 per cent and 42 per cent, raising the total MEs incomes generated in the year 2011 to Ksh. 1,421,513, Ksh. 2,545,779 and Ksh. 208,793, respectively. This gave an average increase of 32.8 per cent of the total incomes generated by MEs per month, raising it to a total of Ksh. 4,176,085 per month. These levels of total incomes generated by MEs for the three categories of entrepreneurs raised the percentage incomes generated by MEs, out of the total entrepreneurs' incomes, to 100 per cent, 43.4 per cent and 34.2 per cent for entrepreneurs with a ME as the only source of income, a ME with one and two additional sources of income, respectively.

Entrepreneurs' average total incomes per month were computed based on the percentage contributions of MEs incomes to entrepreneurs' total incomes per month. Based on this computation, entrepreneurs' average total monthly incomes in 2011 were determined. It was found out that those entrepreneurs who had a ME as the only source of income earned a total of Ksh. 1,421,513. While entrepreneurs who had one and two additional sources of income besides the ME business earned a total of Ksh. 6,482,778 and Ksh. 631,199, respectively. The monthly incomes for the three categories of entrepreneurs amounted to a total of Ksh. 8,535,490.

Entrepreneurs' average total household monthly incomes in the year 2011 were computed. This computation was based on percentage contribution of entrepreneurs' average total monthly incomes to average total households' incomes. It is evident from Appendix 5 that those entrepreneurs who relied on MEs as the only source of income contributed 89 per cent of their average total household monthly incomes. Those who had one and two additional sources of income besides the ME business contributed 82 per cent and 81.25 per cent, respectively, of their average total household incomes per month. This implies that on average, entrepreneurs did contribute a large proportion of income to their average total households' monthly incomes. However, other sources, i.e. from their spouses and or remittances from other family members as well as friends, though meager, did contribute some income to entrepreneurs' total household monthly incomes. Taking entrepreneurs' average total monthly incomes per month as a percentage of average total household incomes, entrepreneurs' average total household incomes in the year 2011 were computed as shown in Appendix 5. Households where entrepreneurs depended entirely on ME business as the major source of income generated a total household monthly income of Ksh. 1,653,203. For households in which entrepreneurs had one and two additional sources of incomes besides the ME generated total household monthly incomes of Ksh. 8,392,987 and Ksh. 820,084, respectively. Overall, entrepreneurs surveyed had a total household monthly income of Ksh. 10,866,274.

### **7.3 Expenditure Patterns of Entrepreneurs' Total Households' Incomes.**

An entrepreneur or a household can have more than one source of income. It then becomes difficult to separately determine how income from each source is spent (Reardon *et al*, 1997; and Christopher *et al*, 2009). However, Dunn and Valdivia (1996) point out that one way



to overcome this problem is to employ the Household Economic Portfolio Model (HEPM). The model treats the sources of incomes and expenditures of a household as a portfolio to which a small business contributes. In short, it looks at sources from which households acquire money or income and where they spend it to understand the (relative) impact of such income on household livelihoods.

Kekar and Cho (1982) and Abdullah and Duasa (2010) have noted that individuals' age and number of income sources have a direct bearing on income levels and the way it is spent. For instance, as the number of income sources increase, an individual's income also increases. Advancement in age is also accompanied by changing individual's expectations, tastes and preferences, family or community roles and responsibilities. Thus, age and number of occupations affect the way individuals spent their incomes (Kekar and Cho, 1982; and Abdullah and Duasa, 2010). Hence, entrepreneurs' expenditure patterns of total household incomes were analyzed based on their age and number of occupations.

Table 7.1a and Figure 7.1 show expenditure patterns of households' income for entrepreneurs who relied mainly on ME business as their source of income. It is evident that this category of entrepreneurs spent 70 per cent of their monthly household incomes on consumables. This included expenses on food, medical, school fees needs, among others. Of the total household income spent on consumables, food accounted for 65 per cent, while school fees 20 per cent. Other household needs accounted for 15 per cent. Overall, household consumables accounted for a larger share of the total household incomes, particularly for entrepreneurs in age categories 25-32 years, 33-40 years, 41-50 years and 51-60 years who had higher dependency levels (Table 4.4). Entrepreneurs in age category 18-24 years did spend a lower percentage of their incomes on household consumables because of low dependency ratio (Table 4.4). It is also observed from Table 7.1a that entrepreneurs in age category 18-24 years were investing a higher percentage of their income in MEs and other household investments than those in the subsequent age categories. This is attributed to the high levels of their savings, low dependency ratio (Table 4.4) and the high ambition to prosper business-wise, as well as, economically.

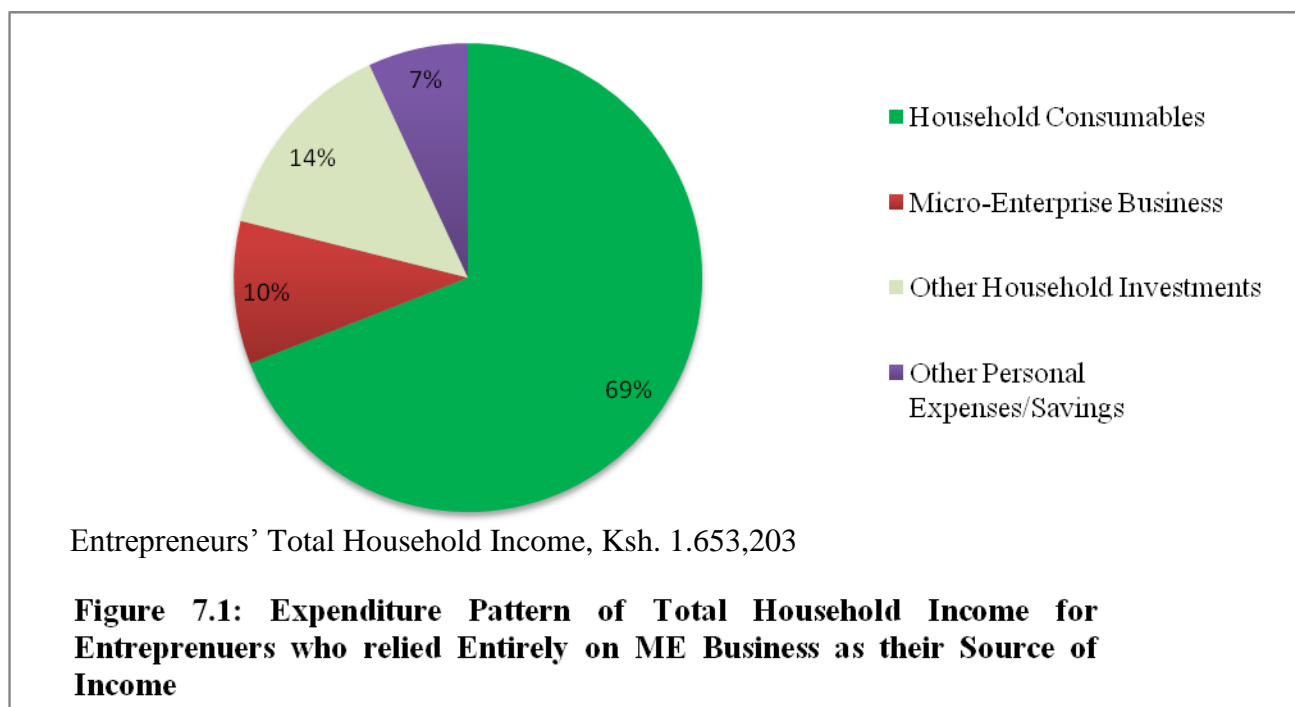
**Table 7.1a: Expenditure Pattern of Total Household Income for Entrepreneurs who relied entirely on ME Business as their Source of Income.**

Age Intervals of Entrepreneurs Operating only ME Business (in Years)	Average Total Household Incomes Per Month (in Ksh)	Per cent Expenditure Patterns of Entrepreneurs' Total Household Incomes				
		Household Consumables	Micro- Enterprise Business	Other Household Investments	Other Personal Expenses/ Savings	Per cent Total
18-24	19,376	40%	20%	30%	10%	100%
	560,140	70%	7%	18%	5%	100%
25-32	610,471	80%	8%	9%	3%	100%
	344,854	85%	5%	10%	0%	100%
33-40	118,362	75%	10%	5%	10%	100%
	-	-	-	-	-	-
41-50						
51-60						
>60						
Total Average	1,653,203	70.0%	10.0%	14.4%	5.6%	100%
Per cent	100%					
ME Income of Total						

Source: Research Data

Further, it is evident from Table 7.1a and Figure 7.1 that the category of entrepreneurs under discussion spent 10 per cent of their total household incomes on ME business, 14.4 per cent on other household investments and 7 per cent on other personal expenses. From the percentages shown in Table 7.1 and Figure 7.1, it can be noted that very little proceeds from

MEs were ploughed back to the businesses. This observation confirms the importance of credit in boosting business capitalization and income levels. Other household investments included: purchase of livestock and ox-plough equipment; purchase of small pieces of land; investing in transport business, especially ‘*boda boda*’ motorbikes, among others. While other personal expenses included leisure, burial expenses, bride price and savings, among other undisclosed expenses.



Source: Research Data.

Out of the other household investment items listed above, farming alone accounted for 60 per cent of the 14.4 per cent of the total household income expended on this item. Wegulo and Obulinji (2001) in their study on ‘the nexus between sugar cane farming and MEs in Mumias area’, observed that a significant relationship existed between the two sectors in terms of financial resource flows. The investment of entrepreneurs’ meager resources in other income generating sub-sectors at the households shows that rural dwellers in the study area are diversifying their income sources. Republic of Kenya (2008c) attributes income diversification practices to declining and unstable incomes arising from households pursuing only one occupation.

Table 7.1b and Figure 7.2 show how entrepreneurs with one additional source of income besides the ME business spent their total household monthly incomes. It is evident that entrepreneurs in this category spent 63 per cent of their total household monthly incomes on consumables. This included expenses on food, medical, school fees needs, among others. The percentage of the total household income spent on consumables is lower than that of entrepreneurs who relied entirely on ME business as their source of income. However, given that

**Table 7.1b: Expenditure Pattern of Total Household Income for Entrepreneurs who had One Additional Source of Income besides the ME Business**

Age Intervals of Entrepreneurs Operating a ME Business and with one Additional Source of income (in Years)	Average Total Household Incomes Per Month (in Ksh)	Per cent Household Expenditure Patterns of Total Household Incomes				
		Household Consumables	Micro-Enterprise Business	Other Household Investments	Other Personal Expenses/Savings	Per cent Total
18-24	-	-	-	-	-	-
	935,635	60%	10%	20%	10%	100%
25-32	4,189,273	75%	10%	10%	5%	100%
	3,110,847	75%	8%	15%	3%	100%
33-40	121,830	60%	15%	13%	12%	100%
	35,402	45%	18%	8%	29%	100%
41-50						
51-60						
>60						
Total Average	8,392,987	63.0%	12.2%	13.2%	11.8%	100%
Per cent	36.6%					

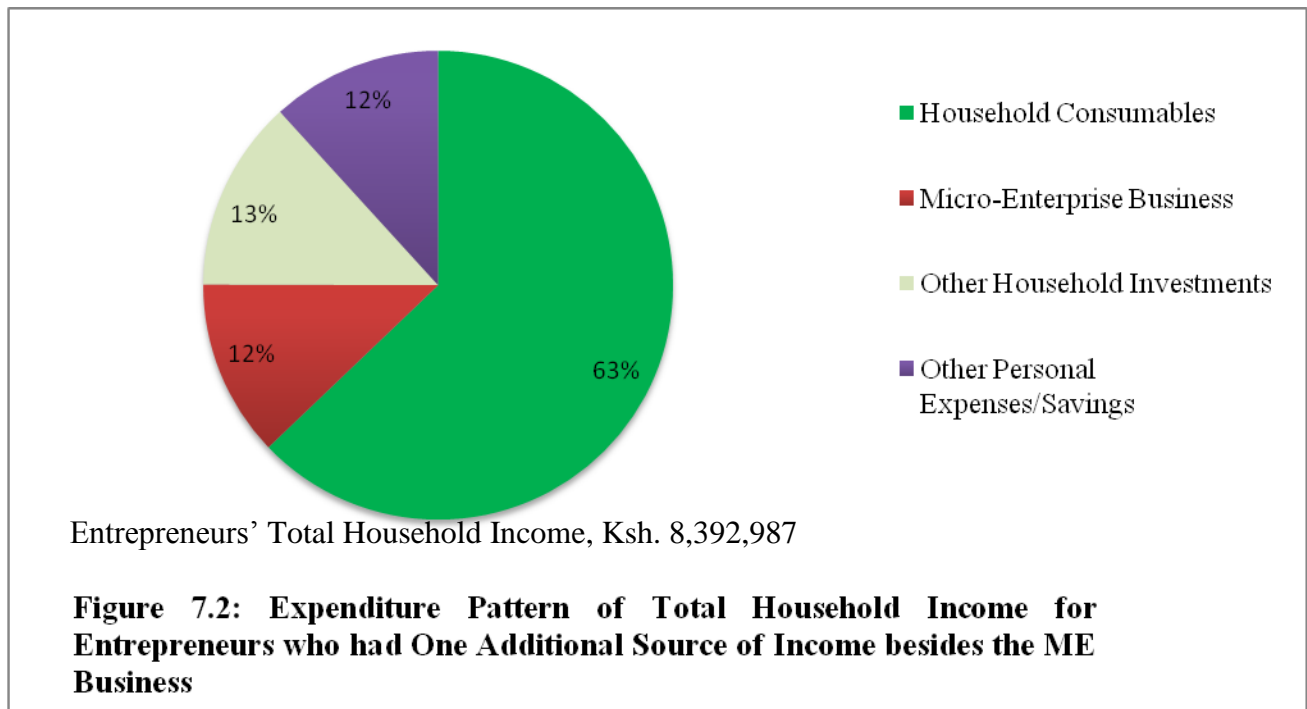
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ME Income  
of Total

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Source: Research Data

households in both categories of entrepreneurs had similar dependency ratios, then the lower percentage of income spent on consumables for this category of entrepreneurs can be attributed to higher total household income levels derived from additional occupation. It is clear that additional occupation reduces the percentage contribution of MEs incomes to total households' monthly incomes. Adedeji (2013) notes that most of the household consumables have inelastic demand. Hence, an increase in household incomes does not necessarily increase their consumption levels. This is true particularly for food, which comprised the largest component of the household consumables, accounting for 50 per cent of the total households' expenditures.



Source: Research Data.

School fees and other household needs accounted for 25 per cent each of total household incomes. Overall, consumables accounted for a larger share of the total household incomes. This

is true particularly for entrepreneurs in age categories of 33-40 years and 41-50 years who had many dependants (Table 4.4) and spent 75 per cent each of their total household incomes on consumables.

Table 7.1b and Figure 7.2 further show that on average entrepreneurs who had one additional source of income besides the ME business spent 12.2 per cent, 13.2 per cent and 11.8 per cent of their total household incomes on ME business, other household investments and personal expenses, respectively. From the data in Table 7.1b, it can also be observed that little income from ME businesses was ploughed back to the businesses. However, entrepreneurs in the age categories 51-60 years and above 60 years invested more in ME businesses than those in the middle age categories. This is attributable to low dependency levels and relatively higher average incomes among the two age categories of entrepreneurs (Tables 4.4 and Appendix 5).

Out of the 12.2 per cent of the income spent on ME business per month, business capitalization accounted for 62 per cent of this proportion, while 38 per cent of the income was spent on other ME variables. It is also observed that entrepreneurs, particularly those who were aged 60 years and above, had invested the least in other household investments compared to those in the preceding age categories. The reason for the low investment in other household activities is attributed to high levels of savings of their total household incomes, which stood at 29 per cent. Out of the 13.2 per cent of the total household monthly income directed towards other household investments, farming alone accounted for 40 per cent of this income, while 60 per cent was spent on other household investment items.

Table 7.1c and Figure 7.3 show the pattern of expenditure of total household incomes for entrepreneurs who had two additional sources of income besides the ME business. This category of entrepreneurs spent 61.25 per cent of their total household monthly incomes on consumables, including expenses on food, medicines/health and school fees. In actual figures, the income spent on consumables for this category of entrepreneurs was higher compared to entrepreneurs who had one additional income besides the ME business. Given that entrepreneurs who had two additional incomes besides the ME business were fewer in number, but had similar dependency level like those who had one additional source of income, then it can be concluded that the former category of entrepreneurs enjoyed relatively better livelihoods. Out of the total household

consumables, food alone accounted for 48 per cent of the total expenditure, while school fees and other household needs accounted for 30 per cent and 22 per cent, respectively. The comparatively high dependency levels, particularly for entrepreneurs in the age categories 33-40 years, 41-50 years and 51-60 years (Table 4.4) explain the high expenditures on household consumables.

Even though the proportion of income spent on other household investments was more or less the same across the three categories of entrepreneurs, those in category one (ME as the only source of income) and three (ME and two additional sources of income) in the age-cohorts 18-24 and 41-50, respectively, spent the highest incomes on other household investments. Those in the age-cohort 18-24 had low dependency ratio and thus able to invest and grow their assets, besides diversify their income sources. However, those in the age-cohort 41-50 had the highest dependency levels (Table 4.4), hence the need to diversify their assets so as to be able to

**Table 7.1c: Expenditure Patterns of Total Household Income for Entrepreneurs who had Two Additional Income Sources besides the ME Business.**

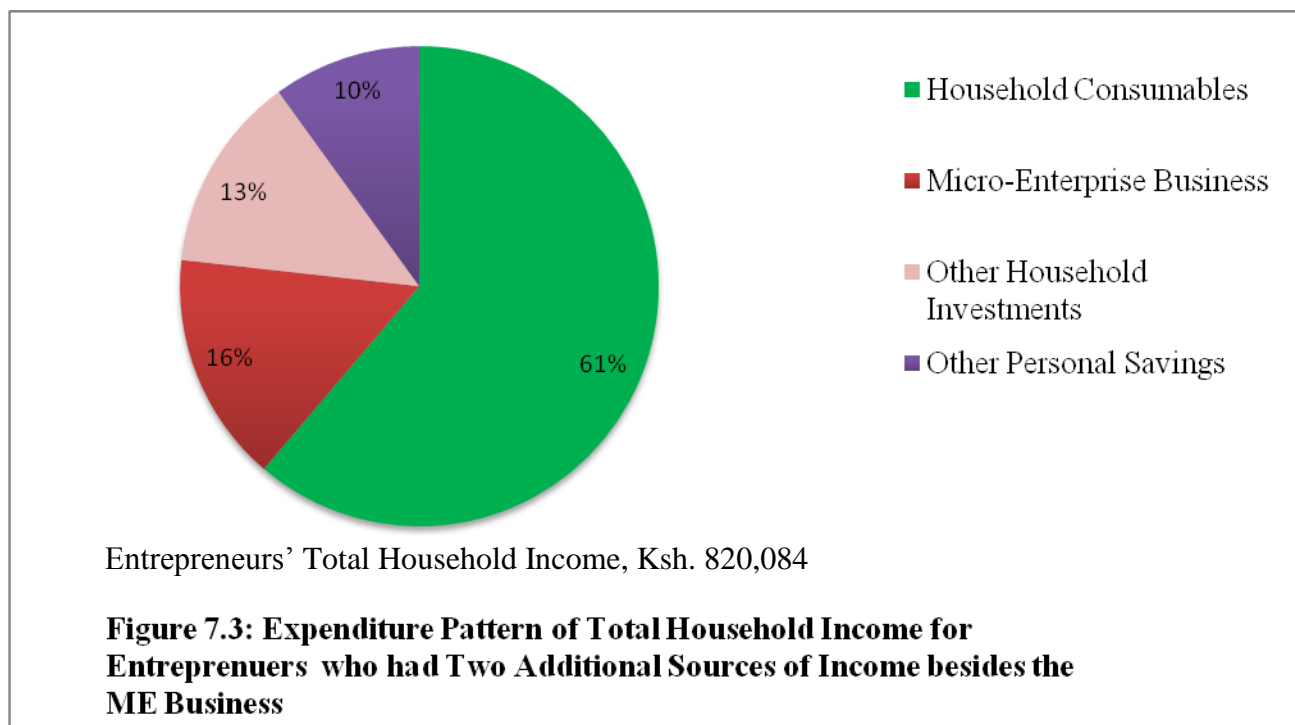
Age Intervals of Entrepreneurs Operating a ME Business and with Two Additional Sources of Income (in Years)	Average Total Household Incomes Per Month (in Ksh)	Per cent Household Expenditure Patterns of Total Household Incomes				
		Household Consumables	Micro-Enterprise Business	Other Household Investments	Other Personal Expenses/Savings	Per cent Total
18-24	-	-	-	-	-	-
	-	-	-	-	-	-
25-32	395,060	70%	12%	12%	6%	100%
	201,046	60%	10%	22%	8%	100%
33-40	155,200	65%	18%	6%	11%	100%

41-50	68,778	50%	22%	13%	15%	100%
51-60						
>60						
Total	820,084					
Average		61.25%	15.5%	13.25%	10.00%	100.00%
Per cent	29.4%					
ME Income						
of Total						

Source: Research Data

generate additional incomes to sustain their dependants. Also, it can be observed from Tables 7.1b and 7.1c that those entrepreneurs in the age category 60 years and above spent 29 per cent and 15 per cent, respectively, of their household monthly incomes on personal issues as well as savings. That proportion of savings is relatively high in comparison to entrepreneurs in other age categories. Table 4.4 shows that these entrepreneurs aged 60 years and above had very low dependency levels, making it a possible explanation for the high levels of saving.





Source: Research Data.

It is observed from Table 7.1c and Figure 7.3 that on average entrepreneurs who had two additional sources of income besides the ME business spent 15.5 per cent, 13.25 per cent and 10 per cent of their total household income on ME business, other household investments and personal expenses/savings, respectively. From the above percentages, it can be noted that this category of entrepreneurs ploughed back the highest proportion of their monthly incomes on ME businesses than those entrepreneurs who depended entirely on ME business for their income and those who had one additional source of income besides the ME business. However, those who had two additional occupations and in the age categories 51-60 years and 60 years and above invested more than those in the middle age categories. As mentioned earlier, entrepreneurs in the advanced ages had low dependency levels and comparatively higher incomes, as well as, more income sources. This partly explains why some of the entrepreneurs relied little on credit from MFIs. A study by Wegulo and Obulinji (2001) found out that entrepreneurs with higher incomes, and more income sources relied less on credit to run their businesses.

Microenterprise businesses benefitted 15.5 per cent of the total household monthly income, with ME capitalization accounting for 60 per cent of this proportion, while 40 per cent was shared among a number of ME variables. Furthermore, other household investment items accounted for 13.25 per cent of the total household monthly income, where farming alone accounted for 30 per cent of this proportion. The proportion spent on farming was the lowest among the three categories of entrepreneurs. This is because this category of entrepreneurs cast their investment net wider, thus, spreading or apportioning their limited resources to a range of other household investments.

From the discussions above, it can be concluded that variations were established in the way the three categories of entrepreneurs spent their average total household incomes on the four items in Tables 7.1a, 7.1b and 7.1c, based on entrepreneurs' age intervals and number of occupations. Moreover, the actual amount of income spent on household consumables, ME businesses, other household investments and other personal expenses/savings increased with increasing entrepreneurs' number of income sources.

#### **7.4 Impact of Expenditure Pattern of Total Households' Incomes on Entrepreneurs' livelihoods**

Three leads were used to determine the impact of incomes from MEs and subsequently entrepreneurs' total household incomes on livelihoods of entrepreneurs and their family members. First, was determining the entrepreneurs' total household incomes and how it was spent. As explained earlier, entrepreneurs' total household incomes were computed from entrepreneurs' ME incomes, incomes from other entrepreneurs' sources of income, if any, spouse's incomes and incomes from other household members, including remittances from children (Appendix 5). Second, context based analysis of cases where the entrepreneur had the ME business as the only source of income were done. This helped shed more light on the role of MEs on livelihoods at the household level. Last, carrying out beneficiary assessments using specific or priority sample surveys of target groups through case studies was also done.

Tables 7.1a, 7.1b and 7.1c show the entrepreneurs' total households incomes and how they were spent. It is observed that higher proportions of income for the three categories of

entrepreneurs were spent on household consumables. Entrepreneurs who depended entirely on ME as the only source of income, one and two additional sources of income besides the ME spent 70 per cent, 63 per cent and 61.25 per cent, respectively, of their total household incomes on household consumables. In same order, out of the total proportion of total household incomes spent on consumables, the entrepreneurs spent: 65 per cent, 50 per cent and 48 per cent on food; 20 per cent, 25 per cent and 30 per cent on school fees; and 15 per cent, 25 per cent and 22 per cent on other household consumables such as health/medicines, transport and energy, among other needs, per month. Abdullah and Duasa (2010) points out that household income spent on consumption of food, education, medical expenses, energy and transport, among other items has a direct bearing on household livelihoods.

Moreover, Appendix 5 shows that entrepreneurs, who depended entirely on ME business as their source of income, registered a 23.4 per cent rise in their ME income between July 2008 and June 2011. In the same period, ME income for entrepreneurs who had one and two additional sources of income besides the ME business grew by 33 per cent and 42 per cent growth, respectively. Thus, any increase in entrepreneurs' total household incomes, arising from improved ME incomes, will directly have a positive impact on livelihoods through increased consumption of goods and services.

Further, entrepreneurs who depended entirely on ME business as the only occupation registered a 23.4 per cent growth in their business income between July 2008 and June 2011. The growth in their ME income accounted for 89 per cent of the entrepreneurs' total household incomes per month (Appendix 5). This is quite a significant proportion of total household incomes. Hence, any increase in ME incomes will have a significant impact on household incomes and livelihoods. More so, case studies of 41 entrepreneurs were done. Entrepreneurs surveyed acknowledged the role ME businesses played in improving their livelihoods. Table 7.2 shows entrepreneurs' responses regarding the impact of growth in MEs incomes on their livelihoods. From the table, it is evident that 41 entrepreneurs covered in the case studies acknowledged the important role ME businesses played in improving their livelihoods. Fourteen of them, who had ME business as the only source of income, relied literary on MEs incomes for

all their household needs, including: ensuring food security, improving their shelter/housing and school fees. For those entrepreneurs who had one or two additional sources of income besides

**Table 7.2: Entrepreneurs' Responses Regarding the Impact of Growth of MEs Incomes on their Livelihoods.**

Type of Question Asked	Category of Entrepreneur/Nature of Response/Frequency of Entrepreneurs												Total/ Frequency of Entrepreneurs					
	Strongly Agree			Agree			No Impact			Strongly Disagree			Disagree					
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Is the ME business your main source of income?	*	*	*	14	*	*	*	*	*	*	*	*	*	*	*	14	*	*
Does the ME business contribute significantly to your total income?	14	*	*	*	25	2	*	*	*	*	*	*	*	*	*	14	25	2
Has the growth of your business improved and stabilized your income?	14	25	2	*	*	*	*	*	*	*	*	*	*	*	*	14	25	2
Has the growth in ME business income improved your financial ability to ensure food security at the household?	14	25	2	*	*	*	*	*	*	*	*	*	*	*	*	14	25	2
Has the growth in ME business income enabled you to invest and improve your farming?	*	14	2	*	*	*	*	*	*	*	*	*	*	*	*	*	14	2
Has income generated from the ME business enabled you to construct or improve your house/shelter?	4	6	*	*	*	*	*	*	*	*	*	*	*	*	*	4	6	*
Has Income generated from the ME business enabled you to meet part of school fees	14	10	*	*	15	2	*	*	*	*	*	*	*	*	*	14	25	2

requirements for your children?						
Has income generated from the ME business enabled you invest in other non-farm income generating activities?	* 5 *	* 2 1	* * *	* * *	* * *	* 7 1

Note: **1**- Represents entrepreneurs who depend entirely on ME as the main source of income (A total of 14 entrepreneurs were covered in the case studies). **2**- Represents entrepreneurs with one additional source of income besides the ME business (A total of 25 entrepreneurs were covered in the case studies). **3**- Represents entrepreneurs with two additional sources of income besides the ME business (A total of 2 entrepreneurs were covered in the case studies).

\* - Cells that are void indicate lack of responses from entrepreneurs covered in the case-studies.

Source: Research Data

the ME business, did acknowledge the significant role their businesses played in improving their total household incomes. This enabled them to improve their household food situation, invest more in farming, improve their shelter, meet their school fees needs and invest in transport business so as to generate additional income for their households.

It is also important to note that even the eight entrepreneurs, covered in the case studies, whose MEs did not perform well, acknowledged enjoying better livelihoods because of the incomes generated from their MEs, whilst they could have been worse off if they were not operating the businesses.

## **7.5 Summary**

This chapter has presented research findings on the impact of incomes generated from credit-assisted MEs on entrepreneurs' households' incomes and livelihoods. Specifically, the chapter has examined entrepreneurs' number of income sources and the percentage contribution of incomes generated from credit-assisted MEs on entrepreneurs total households' incomes. Also covered in the chapter are the expenditure patterns of entrepreneurs' total households' incomes and their impact on entrepreneurs' livelihoods.

The findings of the study show that credit-assisted MEs contributed significant proportions of incomes to entrepreneurs' total households' incomes, including entrepreneurs who had one or two additional sources of income besides that earned from ME businesses. Further, the expenditure pattern of entrepreneurs' household monthly income shows that a large proportion of the income was spent on household consumables. Furthermore, MEs and other household investment items benefitted from the expenditure pattern of entrepreneurs' household monthly income. Hence, any substantial growth in credit-assisted MEs incomes impacted positively on entrepreneurs' livelihoods through increased consumption of goods, services and investments. Evidences from case-studies also confirm that incomes generated from credit-assisted MEs impacted positively on entrepreneurs' livelihoods.

## CHAPTER EIGHT

### SUMMARY OF KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 8.1 Introduction

The objectives of this study were to: determine MEs and entrepreneurs' characteristics of SHGs members and their influence on amount of microfinance credit secured from MFIs; analyze the expenditure pattern of microfinance credit secured from MFIs by entrepreneurs who are members of SHGs; and determine the impact of microfinance credit on performance of MEs owned by entrepreneurs who are members of SHGs. In addition, the study sought to assess the extent to which income generated from microfinance credit-assisted MEs impacted entrepreneurs' household incomes and their livelihoods. This chapter, therefore, gives: a summary of key findings; conclusions; recommendations; and research gaps based on the objectives of this study.

#### 8.2 Summary of Key Findings

A summary of key findings of this study are presented in this section. First, majority (94.2 per cent) of the entrepreneurs operating credit-assisted MEs were in the age interval 25-50 years. Females and male accounted for 48.5 per cent and 51.5 per cent, respectively, of the credit-assisted entrepreneurs. Entrepreneurs operating credit-assisted MEs had attained levels of education that range from primary to university level, with majority (53.1 per cent) of them being form four graduates. Notably, 43.2 per cent of entrepreneurs had trained in various trades, with 68.3 per cent, 14.9 per cent and 88.0 per cent of the entrepreneurs in the service, trade and artisan/manufacturing categories, respectively, having trained in skills that were in line with their businesses. Further, 35.3 per cent of the entrepreneurs relied entirely on ME business as their source of income, while 64.7 per cent had additional sources of income besides the ME business. Entrepreneurs' age, sex, level of education, level of training and number of income sources were found to be significantly different ( $P < 0.05$ ).



Microenterprises in the trade category were the majority, accounting for 72.6 per cent of the sample, with 72.4 per cent of MEs aged between 6 and 15 years. The youngest and oldest MEs were 5 years and 33 years, respectively, with a mean age of 8 years. Microenterprises exhibited varied capitalization levels of between Ksh. 4,000 and Ksh. 3,000,000. The frequency of MEs reduced in number as MEs capitalization levels increased. The net monthly ME incomes varied too, with the minimum and maximum incomes being Ksh. 3,000 and Ksh. 40,000, respectively. Microenterprise incomes increased with rising levels of ME capitalization. The average employment level per ME was 2 people, with employment level increasing with rising ME capitalization levels. However, MEs in the service category generated the highest employment volume (1036 man-hours per month). Microenterprise age, capitalization, income and employment were found to be statistically different ( $P < 0.05$ ).

Overall, entrepreneurs' number of occupations and education level; and MEs' age, capitalization, income and employment levels were significant factors ( $P < 0.05$ ) influencing differences in amount of credit secured, while entrepreneur's age and sex were insignificant ( $P > 0.05$ ). In addition, entrepreneur's education, ME age, capitalization, income and employment levels were found to be significantly correlated ( $P < 0.05$ ) with amount of credit secured, while entrepreneur's number of occupations and sex were insignificant ( $P > 0.05$ ). Despite a number of MEs and entrepreneurs' factors being significant in influencing differences in the amount of credit secured, it was established that the change in the depended variable (credit) attributed to the independent variables (ME income, ME employment volume per month, ME capitalization level, ME total employment, ME age, entrepreneurs' age and entrepreneurs' total number of dependants), though significant ( $F = 0.000$ ), explained only 24.9 per cent of the dependent variable. Notably, therefore, 75.1 per cent of the depended variable is accounted for by other independent factors not investigated by this study.

Second, between July 2008 and June 2011, entrepreneurs operating credit-assisted MEs had secured total credit amounting to Ksh. 18,448,100 from four sources: MFIs, groups (ASCRA and ROSCAs), commercial banks and cooperatives, with MFIs alone accounting for 88.1 per cent of the total credit secured. Microfinance institutions have set conditions which entrepreneurs must qualify in order to secure loans. However, 25.4 per cent of entrepreneurs,

whose MEs had low capitalization levels of less than Ksh. 30,000, had secured loans in excess of what they actually needed for their businesses. Out of the total credit secured by the entrepreneurs, 69.2 per cent and 30.8 per cent was spent on MEs and household needs, respectively. Notably, only 1.7 per cent and 19.1 per cent of the entrepreneurs spent all the credit secured on their household/personal and businesses needs, respectively. A total of 8 ME and 10 household items benefitted from the total credit secured, with ME capitalization, accounting for 79 per cent of the total credit spent on MEs. By 31<sup>st</sup> June, 2011 entrepreneurs had repaid 91.7 per cent of the total credit secured, though at varying interest rates of 15-20 per cent, with MFIs charging the highest interest rates.

Third, the growth in average values of ME capitalization and net monthly incomes for both experimental and control samples were noted between the year 2008 and 2011 based on ME type and capitalization categories. Credit-assisted MEs registered a sample mean growth of 113 per cent in capitalization level, while MEs that did not receive credit had a mean sample growth of 27.3 per cent. Moreover, credit-assisted MEs registered a sample mean growth of 32.8 per cent in mean net monthly income. Comparatively, MEs that were not credit beneficiaries had a sample mean growth of 20.7 per cent. Thus, given that the two samples of MEs face more or less similar business environment, then the significant differences ( $P < 0.05$ ) in the growth of ME capitalization and income is attributed to credit received for the experimental sample.

Both credit-assisted MEs and MEs that did not receive credit employed on average 2 people, with MEs in the service category employing relatively more people and generating more man-hours per month than those in artisan and trade categories. However, insignificant growth and differences ( $P > 0.05$ ) in the number of employees and employment volume (in man-hours) for both experimental and control samples of MEs were noted between the year 2008 and 2011. The percentage change in the monthly man-hours generated per ME from both samples of MEs at all levels of capitalization, reveals that credit-assisted MEs generated higher values for both variables than those MEs that did not receive credit. Further, the greatest share of the increase in both variables was contributed by MEs in the higher levels of capitalization and more so, in MEs within the service and trade categories in both samples. Thus, employment level and the average

man-hours generated per month for credit-assisted MEs were significantly correlated with ME capitalization level.

Other important ME variables mentioned by entrepreneurs for having benefitted positively from credit secured but which this study did not ascertain, included: production technology and improvement in quality, as well as, diversification of products, especially for ME in manufacturing/artisan category; training in skills; expansion, renovation, relocation and purchase of business premise/stalls; maintenance of equipment; and management of enterprises.

Fourth, 35.3 per cent of entrepreneurs operating credit-assisted MEs relied entirely on ME business as their source of income. However, 60.2 per cent and 4.6 per cent of the entrepreneurs had one and two additional sources of income, respectively, besides the ME business. In the baseline year 2008, ME income contributed 36.6 per cent and 29.4 per cent of entrepreneurs' monthly incomes for entrepreneurs who had one and two additional sources of income, respectively, besides the ME business. Between the year 2008 and 2011, ME incomes for entrepreneurs who relied entirely on ME business as a source of income, entrepreneurs who had one and two additional sources of income besides the ME business, grew by 29.4 per cent, 33 per cent and 42 per cent, respectively. These raised the contribution of ME income to entrepreneurs' monthly income for those who had one and two additional sources of income besides the ME business to 43.4 per cent and 34.2 per cent, respectively. Thus, substantial increases in ME incomes were noted for all the three categories of entrepreneurs. Further, ME incomes contributed a large proportion of entrepreneurs' monthly incomes in year 2008 and 2011 for both entrepreneurs who had one and two additional sources of income besides the ME business. In the year 2011, monthly incomes for entrepreneurs who relied entirely on ME as their source of income, those who had one and two additional sources of income besides the ME business accounted for 89 per cent, 82 per cent and 81.3 per cent, respectively, of their households' incomes. Thus, all the three categories of entrepreneurs contributed large proportions of income to their households' monthly incomes.

The expenditure pattern of entrepreneurs' household monthly income based on entrepreneurs' age category and number of income sources shows that on average 64.4 per cent,

12.4 per cent, 13.6 per cent and 9.6 per cent of entrepreneurs' household monthly incomes was spent on household consumables, ME business, other household investments and personal expenses, respectively. Food and school fees accounted for 54.3 per cent and 25 per cent, respectively, of the total household expenditure on consumables, with other household consumables accounting for 20.7 per cent. ME capitalization accounted for 62.3 per cent of the 12.4 per cent of the total household income spent on ME business per month, with 37.7 per cent expended on other ME variables. Other household investments included: crop farming, purchase of livestock and ox-plough equipment, purchase of small pieces of land and investing in transport ('*boda boda*') business. Farming alone accounted for 43.3 per cent of the 13.6 per cent of the total household income expended on other household investments. Investments in farming and other income generating activities have a direct bearing on entrepreneurs' households' nutrition and incomes. Other personal expenses included leisure, burial expenses, bride price and savings, among other undisclosed expenses. Hence, any substantial growth in MEs incomes resulting from the effect of microfinance credit will impact positively entrepreneurs' and households' monthly incomes and livelihoods through increased consumption of goods, services and investments.

Further, case-studies of 41 entrepreneurs, acknowledged the role MEs played in improving their incomes and livelihoods. Fourteen of them, who had ME business as the only occupation, relied literary on ME income for all their household needs. In addition, entrepreneurs who had one or two additional sources of income besides the ME business, did acknowledge the role their MEs played in generating and improving their total monthly incomes. This enabled them to improve their household food situation, invest more in farming, improve their shelter, meet their school fees needs and invest in income generating activities. Also, eight entrepreneurs, covered in the case-studies, whose MEs did not perform well, acknowledged enjoying better livelihoods because of the incomes generated from their MEs, whilst they could have been worse off if they were not operating their MEs.

### **8.3 Conclusions**

In reference to the objectives and hypotheses stated, a number of conclusions are made from the findings of this study. First, there exist significant differences ( $P < 0.05$ ) in

entrepreneurs' socioeconomic profile and ME characteristics based on ME type, including: entrepreneurs' age, sex, education levels, skills attained, number of income sources; and ME age, capitalization, income and employment volume. Despite significant differences ( $P < 0.05$ ) in entrepreneurs' and MEs' characteristics, only entrepreneurs' numbers of occupations and education levels; and MEs' age, capitalization, income and employment levels were found to be significant factors ( $P < 0.05$ ) influencing differences in total credit secured by entrepreneurs. Entrepreneurs' age and sex are not. In addition: entrepreneurs' age, education levels; and ME age, income and employment levels were significantly correlated ( $P < 0.05$ ) with total credit secured by entrepreneurs. Entrepreneurs' sex and number of income sources were not.

Second, despite a number of MEs and entrepreneurs' factors being significant in influencing differences in the amount of credit secured, it was established that the change in the depended variable (credit) attributed to the independent variables (ME income, ME employment volume per month, ME capitalization level, ME total employment, ME age, entrepreneurs' age and entrepreneurs' total number of dependants), though significant ( $F = 0.000$ ), explained only 24.9 per cent of the dependent variable. Notably, therefore, 75.1 per cent of the depended variable is accounted for by other independent factors not investigated by this study.

Third, credit given to entrepreneurs by MFIs is purposely meant to improve the performance of their MEs. However, entrepreneurs did not spend all the credit secured on improving their businesses, rather substantial amounts of credit were diverted to other household and personal needs. Micro enterprise capitalization was the largest beneficiary, accounting for 79 per cent of the total credit secured and spent on MEs. Food, school fees and farming accounted for 26 per cent, 43 per cent and 8 per cent, respectively, of the total loan money spent on household needs, making them the three largest beneficiaries. Despite this, significant differences ( $P < 0.05$ ) were noted in the way the total loan money secured by entrepreneurs was spent on MEs and household needs based on each MFI.

Fourth, microfinance credit secured by entrepreneurs significantly ( $P < 0.05$ ) impacts MEs capitalization and incomes. However, there was insignificant ( $P > 0.05$ ) growth and differences in the number of employees and employment volume (in man-hours) generated by both samples of

MEs. Seemingly, the ME sector does not generate significant growth in additional employment from existing units, rather for new potential entrants into the sector.

Fifth, incomes generated from credit-assisted MEs impacted positively on entrepreneurs' and households' monthly incomes and their livelihoods, irrespective of whether the entrepreneurs had additional sources of income besides the ME or not. The impact on livelihoods was evidenced through: increased entrepreneurs' households' consumption of goods and services; and increased household investments in farming and other income generating activities.

## **8.4 Recommendations**

Based on the key findings and conclusions of this study, the following recommendations are suggested to: Kenya and Kakamega County Governments, MFIs and entrepreneurs. These recommendations, if considered will ensure: improved entrepreneurs' access to microfinance credit; entrepreneurs utilize credit secured appropriately; and credit significantly impact MEs performance and subsequently, entrepreneurs' household incomes and livelihoods.

### **8.4.1 Improving Access to Credit**

National policies that touch on promotion of education of the citizens are essential. This will make graduates, at whatever level of schooling and who want to join the ME sector, less risk averse and therefore consume more credit. Entrepreneurs' number of income sources was found to be significant in influencing total credit secured. Therefore, entrepreneurs should be encouraged to diversify their sources of income by venturing into other economic activities.

Kenya and Kakamega County Governments should focus on policies that can offer better prices and wider markets for ME products and services, both at the domestic and international levels. Besides raising MEs incomes, improved markets will also increase ME production capacity (capitalization) levels. Improved ME incomes and capitalization will impact positively on entrepreneurs' credit demand.

MFIs should consider the following: remove stringent measures on the loan amounts that can be secured by entrepreneurs, especially at the initial and subsequent levels of borrowing; and minimize the conditions that entrepreneurs should meet in order to qualify for loans. Also, MFIs should source for cheaper financial resources for onward lending to entrepreneurs at reduced interest rates. Cheaper credit will enable entrepreneurs retain more disposable ME income, besides improve business performance through increased investments.

#### **8.4.2 Ensuring Better Use of Credit and its Impact on MEs performance and Subsequently, Entrepreneurs' Incomes and Livelihoods**

To ensure better use of credit that will impact ME performance and subsequently entrepreneurs' livelihoods, MFIs should come up with mechanisms that can evaluate and assess entrepreneurs' credit needs, besides monitor and audit how entrepreneurs spend the loan money secured. For instance, initiating SHGs self-control mechanism, where each group members watches-over how other group members spend credit secured and file confidential reports with credit officers of MFIs will help minimize misuse of credit. Also, there is need to sensitize group leaders and members on the importance of utilizing credit for the intended purpose besides, investing in the most productive areas of their business. In addition, MFIs can train their credit officers with skills that will enable them to effectively monitor and audit credit usage by entrepreneurs.

Furthermore, MFIs should consider developing an effective assessment mechanism of entrepreneurs' business financial needs and approve credit amounts based on MEs needs and entrepreneurs' ability to service loans secured. Microfinance institutions can also consider lending to potential entrepreneurs who want to start new businesses in the informal sector, other than those already operating MEs. Such a consideration in combination with provision of ME-sector infrastructure and services by the County Government will ensure growth in ME employment as the existing units were found to insignificantly generate additional growth in employment. Increased employment opportunities will also ensure that form four graduates, who were the majority, secure employment in the ME-sector upon completing school and failing to secure jobs in the formal sector. However, investment in new businesses can be enhanced

through corresponding expansion in market for MEs products and services so as to sustain new investors in business.

### **8.4.3 Recommendation for Future Research.**

A number of issues emerging from the research findings, which may as well comprise the limitations of this study, remain either unresolved or new observations were made that require further investigations. First, the role of other factors not examined in this study that explain total credit secured by entrepreneurs need to be investigated. For instance, the role of factors such as group dynamics, entrepreneurs' proximity to MFIs, MFIs loaning conditions, high interest rates charged on secured credit, among other non-project influences such as market demand for MEs product/services, entrepreneurs' ignorance/awareness of existing credit channels/institutions, need to be investigated.

Second, the role and effectiveness of microfinance institutional mechanisms on assessment and evaluation of entrepreneurs' business financial needs that ensures efficient allocation and use of scarce credit resources. Moreover, research on the appropriateness of the group mechanism in overseeing the use, as well as, repayment of the loan money and how this affects business performance.

Third and last, besides ME capitalization, income and employment levels, data elicited from the questionnaire and case-studies pointed to the fact that credit received by entrepreneurs indeed impacted positively on other ME variables, including:

1. Production technology and improvement in quality, as well as, diversification of products, especially for MEs in manufacturing/artisan category;
2. Skills training;
3. Expansion, renovation, relocation and purchase of business premise/stalls;
4. Maintenance of equipment; and
5. Management of enterprises.



However, it was not possible to carry out an in-depth study to ascertain the extent and magnitude to which credit impacted these ME variables. This was because of technicalities involved in measurement and collection of data on these ME variables. Hence, these are areas future researchers can investigate.

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**APPENDIX 1: CREDIT SOURCES, TOTAL POPULATIONS AND SAMPLE SIZES OF CMES AND NCMEs AND THEIR LOCATION IN TOWN/MARKET CENTRES IN BUTERE, MUMIAS, MATUNGU AND KHWISERO SUB-COUNTIES.**

Market centres/ location of MEs			Butere FSA			Khwisero FSA			K-Rep			Ekeru FSA			Pioneer Development Programme			Total		
			T	Sv	M	T	Sv	M	T	Sv	M	T	Sv	M	T	Sv	M	T	Sv	M
1. Sabatia	CMEs	N	53	7	6	20	-	-							-	7	-	73	14	6
		S	8	1	1	3	-	-							-	1	-	11	2	1
	NCMEs	N	10	3	2	10	-	-							-	4	-	20	7	2
		S																	3-1	1
2. Mulambo	CMEs	N	13	-	-													13	-	-
		S	2	-	-													2-2	-	-
	NCMEs	N	4	-	-													4	-	-
		S																	1	-
3. Inaya	CMEs	N	7	-	-	27	-	-										34	-	-
		S	1	-	-	4-1	-	-										5-1	-	-
	NCMEs	N	-	-	-	4	-	-										4	-	-
		S																	1	-
4. Butere	CMEs	N	33	13	-													33	13	-
		S	5	2	-													5	2	-

	NCMEs	N	26	6	-												26	6	-
		S																4	1-1
5. Shatsala	CMEs	N	7	7	6												7	7	6
		S	1	1-1	1												1	1-1	1
	NCMEs	N	7	6	4												7	6	4
		S																1	1
6. Iranda	CMEs	N	7	-	-												7	-	-
		S	1	-	-												1	-	-
	NCMEs	N	4	-	-												4	-	-
		S																1	-
7. Lunza	CMEs	N	-	-	7	6	13	-						7	-	7	13	13	14
		S	-	-	1	1	2-1	-						1		1	2	2-1	2
	NCMEs	N	-	-	2	14	13	-						-	-	4	14	13	6
		S																2	2
8. Shikunga	CMEs	N	-	7	6												-	7	6
		S	-	1	1-1												-	1	1-1
	NCMEs	N	-	6	2												-	6	2
		S															-	1	1
9. Eshibuche	CMEs	N	-	-	7												-	-	7
		S	-	-	1												-	-	1

	NCMEs	N	-	-	-													-	-	-
		S																	-	-
10. Ekeru	CMEs	N									7	-	-	40	7	-	47	7	-	
		S									1-1	-	-	6	1	-	7-1	1	-	
	NCMEs	N									15	-	-	12	6	-	27	6	-	
		S															4	1	-	
11. Koyonzo	CMEs	N									13	-	-	67	-	6	80	-	6	
		S									2	-	-	10-1	-	1	12-1	-	1	
	NCMEs	N									13	-	-	28	-	8	41	-	8	
		S															6	-	1	
12. Harambee	CMEs	N												60	-	-	60	-	-	
		S												9-1	-	-	9-1	-	-	
	NCMEs	N												20	-	-	20	-	-	
		S															3-1	-	-	
13. Mwitoti	CMEs	N												13	-	7	13	-	7	
		S												2	-	1	2	-	1	
	NCMEs	N												12	-	3	12	-	3	
		S															2	-	1	
14. Mumias	CMEs	N							87	27	33	196	53	20	73	11	13	356	91	66
		S							13	4	5-3	29	8	3	11	2	2	53	14	10-3

	NCMEs	N							50	28	14	30	12	6	15	13	7	95	53	27
		S																	14	8-3
15. Shibale	CMEs	N										13	-	-	33	7	13	46	7	13
		S										2-1	-	-	5-1	1	2	7-2	1	2
	NCMEs	N										5			15	10	19	20	10	19
		S																	3	2
16. Ibinda	CMEs	N													7	-	-	7	-	-
		S													1	-	-	1	-	-
	NCMEs	N													13	-	-	13	-	-
		S																	2-1	-
17. Shiakula	CMEs	N													6	6	6	6	6	6
		S													1	1	1-1	1	1	1-1
	NCMEs	N													13	9	3	13	9	3
		S																	2	2
18. Ejinja	CMEs	N													20	-	-	20	-	-
		S													3-1	-	-	3-1	-	-
	NCMEs	N													12	-	-	12	-	-
		S																	2	-
19. Shianda	CMEs	N	6	-	-										13	13	-	19	13	-
		S	1	-	-										2	2	-	3	2	-



	NCMEs	N	4		-									10	10	-	14	10	-
		S																2	2
20. Munami	CMEs	N												7	7	-	7	7	-
		S												1	1	-	1	1	-
	NCMEs	N												10	4	-	10	4	-
		S																2-1	1
21. Imanga	CMEs	N								7	-	-	7	-	-	14	-	-	
		S								1	-	-	1	-	-	2	-	-	
	NCMEs	N								7	-	-	5	-	-	12	-	-	
		S														2	-	-	
22. Eluche	CMEs	N	-	-	7					13	-	-	7	7	-	20	7	7	
		S	-	-	1					2	-	-	1	1	-	3	1	1	
	NCMEs	N	-	-	3					6	-	-	7	2	-	13	2	3	
		S														2	1	1-1	
23. Matungu	CMEs	N								47	27	20	13	-	7	60	27	27	
		S								7-2	4	3-1	2	-	1	9-2	4	4-2	
	NCMEs	N								14	11	6	6	-	3	20	11	9	
		S														3	2	1-1	
24. Musanda	CMEs	N											7	6	-	7	6	-	
		S												1	1	-	1	1	-

	NCMEs	N												14	7	-	14	7	-		
		S																2	1	-	
25. Emakale	CMEs	N												7	-	-	7	-	-		
		S												1	-		1	-	-		
	NCMEs	N												8	-	-	8	-	-		
		S															1	-	-		
26. Panyako	CMEs	N												-	-	7	-	-	7		
		S												-	-	1	-	-	1		
	NCMEs	N												-	-	-	-	-	-		
		S															-	-	-		
27. Etenje	CMEs	N									51	13	20	-	-	7	51	13	27		
		S									8-3	2	3-1	-	-	1	8-3	2	4-1		
	NCMEs	N									13	10	3	-	-	2	13	10	5		
		S															2	2	1		
28. Kasewe	CMEs	N									7	-	-				7	-	-		
		S									1	-	-				1	-	-		
	NCMEs	N									6	-	-				6	-	-		
		S															1	-	-		
29. Isongo	CMEs	N											33	-	-				33	-	-

		S										5	-	-				5	-	-
	NCMES	N										15	-	-				15	-	-
		S																2	-	-
30. Mung'ang'a	CMEs	N										7	-	-				7	-	-
		S											1	-	-				1	-
	NCMES	N										6	-	-				6	-	-
		S																	1-1	-
31. Lusheya	CMEs	N										7	-	-				7	-	-
		S											1	-	-				1	-
	NCMES	N										6	-	-				6	-	-
		S																	1	-
32. Khwisero	CMEs	N	-	7	-	73	6	7				26	-	-				99	13	7
		S	-	1	-	11	1	1				4-2	-	-				15-2	2	1
	NCMES	N		7	-	13	-	5				7	-	-				20	7	5
		S																	3	1
33. Mulwanda	CMEs	N				33	-	6										33	-	6
		S					5	-	1										5	-
	NCMES	N				12	-	5										12	-	5
		S																	2	-

34. Manyulia	CMEs	N				20	14	-										20	14	-	
		S				3	2	-											3	2	-
	NCMEs	N				7	7	-											7	7	-
		S																		1	1
35. Khumutibo	CMEs	N				20	6	-											20	6	-
		S				3	1	-											3	1	-
	NCMEs	N				6	7	-											6	7	-
		S																		1	1
36. Kilingili	CMEs	N				13	7	-											13	7	-
		S				2	1	-											2	1	-
	NCMEs	N				15	8	-											15	8	-
		S																		2	1
37. Ikolomani	CMEs	N				7	-	-											7	-	-
		S				1	-	-											1	-	-
	NCMEs	N				8	-	-											8	-	-
		S																		1	-
38. Ekonjero	CMEs	N				7	-	-											7	-	-
		S				1	-	-											1	-	-
	NCMEs	N				6	-	-											6	-	-

		S																1	-	-
39. Khumusalaba/ Khushiku	CMEs	N				13	7	-										13	7	-
		S				2	1	-										2	1	-
	NCMEs	N				13	8	-										13	8	-
		S																2-2	1	-
40. Dudi and Muhanda	CMEs	N				7	-	-										7	-	-
		S				1	-	-										1	-	-
	NCMEs	N				11	-	-										11	-	-
		S																2	-	-
Total	CMEs	N	126	41	39	246	54	13	87	27	33	427	93	60	387	73	73	1273	288	218
		S	19	6	6	37	8	2	13	4	5	64	14	9	58	11	11	191- 16	43-2	33-8
	NCMEs	N	76	36	20	137	51	17	70	37	21	163	40	21	221	69	54	667	233	133
		S																100-7	35-4	20-7

**Notes:-**

- ME - Microenterprise.  
FSA - Financial Services Association.  
T - Trade (ME trade category).  
Sv - Service (ME Service category).  
M - Manufacturing /Artisan (ME Artisan category).

CMEs	-	Credit-assisted Microenterprises (Experimental sample).
NCMEs	-	Non-credit-assisted microenterprises (Control Sample).
S	-	Sample size.
N	-	Population of study.

### **Summaries**

- 1) Total centres covered - 40.
- 2) Total populations: (i) CMEs =1779.  
(ii) NCMEs = 1033.
- 3) - CMEs Sample(s) - 267 (15% of the population).  
-Respondent level - 241, equivalent to 90% of the sampled.
  - MEs in trade category - 175 (sampled = 191).
  - MEs in service category - 41 (sampled = 43).
  - MEs in Artisan category - 25 (sampled = 33).
- 4) -NCMEs Sample(s) - 155 (15% of the population).  
-Respondent level - 137, equivalent to 88% of the sampled.
  - MEs in trade category - 93 (sampled = 100).
  - MEs in service category - 31 (sampled = 35).
  - MEs in Artisan category - 13 (sampled = 20).

Source: Research Data

**APPENDIX 2**

**RESEARCH QUESTIONNAIRE**

**TOPIC OF STUDY: THE IMPACT OF MICROFINANCE CREDIT ON  
MICROENTERPRISES MANAGED BY MEMBERS OF SELF-HELP GROUPS IN  
BUTERE, MUMIAS, MATUNGU AND KHWISERO SUB-COUNTIES, KENYA.**

**NAME OF RESEARCHER: MR. H. W. OBULINJI – A Ph.D. STUDENT  
(REGISTRATION/ADMISSION NUMBER – ND13/0211/07).**

**RESEARCH PERMIT NUMBER: NCST/5/002/R/284.**

**INSTITUTION: EGERTON UNIVERSITY**  
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**DEPARTMENT OF GEOGRAPHY**  
**P.O BOX 536, EGERTON.**

**RESEARCH DURATION: JULY, 2011 – DECEMBER, 2011.**

**QUESTIONNAIRE USED BY THE RESEARCHER IN COLLECTING DATA FROM ENTREPRENEURS OPERATING MICROENTERPRISES THAT HAVE RECEIVED CREDIT FROM MICROFINANCE INSTITUTIONS AND THOSE THAT HAD NOT RECEIVED ANY CREDIT).**

**NOTE TO RESPONDENT: INFORMATION YOU VOLUNTEER FOR THIS INTERVIEW WILL BE TREATED AS STRICTLY CONFIDENTIAL AND WILL UNDER NO CIRCUMSTANCES BE DIVULGED TO ANYBODY ELSE BUT USED FOR THE INTENDED RESEARCH PURPOSE(S) ONLY.**

**FGDQ – IMPLY FOCUS GROUP DISCUSSION QUESTION.**

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**PART ONE: RESPONDENT’S/ENTREPRENEUR’S BACKGROUND (APPLICABLE TO ENTREPRENEURS THAT HAVE RECEIVED CREDIT AND THOSE THAT HAVE NOT)**



- 1.0 Indicate /do not indicate the name of the micro enterprise owner/entrepreneur .....
- 1.1 Sex of the entrepreneur (Tick appropriately): (a) Male (b) Female.
- 1.2 Age of the entrepreneur (Tick appropriately): (a) 18 – 24 yrs (b) 25 – 32 yrs (c) 33 – 40 yrs (d) 41 – 50 yrs (e) 51 – 60 yrs (f) Above 60 yrs.
- 1.3 Entrepreneur's years of schooling/level of education (Tick appropriately):  
 (a) None/0 yrs (b) Below 8yrs (c) 8 yrs (d) Form 4 (e) Form 6 (f)Others specify).....
- 1.4 State entrepreneur's current number of household dependants:  
 (a) Who are members of the nucleus family .....  
 (b) Who are members of the extended family .....
- 1.5 Indicate type and level of occupational training received by the entrepreneur if any  
 (Indicate and tick level applicable):  
 (a) Formal ..... (i) Certificate (ii) Diploma (iii) Degree.....  
 (b) Informal ..... (i) Certificate (ii) Others (specify) .....
- 1.6 Ethnicity of the entrepreneur (Tick appropriately): (a) Luhya (b) Kikuyu (c ) Kisii (d) Luo (e) Other (specify).....
- 1.7 Are you a member of any registered self-help group? (a) Yes (b) No
- 1.8 If yes, give the name and type of self-help group:  
 (a) Name .....

(b) Type (Tick appropriately) (i) Women group (ii) Men-women (mixed) group (iii) Men group or (iv) Youth group?

(c) How many members are in the group? .....

1.9 What are your main occupations? [List occupations in descending order of importance i.e (a) Farmer (b) Government employee/civil servant (c) Private sector employee (d) Retired officer/(pensioner) (e) Self-employed/ME-Business]

1. ....

2. ....

3. ....

4 Other(s) specify .....

**PART TWO: MICROENTERPRISE CHARACTERISTICS (APPLICABLE TO OWNERS OF MICROENTERPRISES THAT HAVE RECEIVED CREDIT AND THOSE THAT HAVE NOT)**

2.0 Which type of a micro enterprise do you operate? (a) Service ..... (b) Trade ..... (c) Artisan/Manufacturing ..... (Tick where applicable & indicate type of microenterprise, i.e saloon, hotel, mtumba, etc.)

2.1 Which year did you start the business? .....(Yr)

2.4 Where is the business located? .....

2.3 What reasons made you to operate a micro enterprise business? (Tick appropriately): (a) Is the only form of employment (b) Need to supplement household income (c) Need to diversify household income (d) Create employment for my spouse/children (e) Make me productive in retirement (f) Other(s) specify .....

2.4 What reasons made you choose to operate the **type** of business stated in 2.0? (Tick appropriately): (a) It is in my line of training (b) It required little start – up capital (c) Suffers low competition from other businesses (d) Profitability levels are high (e) Ease of management (f) Inherited from parents/spouse/children (g) It does not require specific training (h) Other(s) specify.....

2.5 Tick the source(s) as well as indicate the percentage(s) of the initial business start-up capital in the table below.

<u>Source</u>	<u>Percentage Source</u>
(a) NGO – loan	.....
(b) Group loan	.....
(c) Bank loan	.....
(d) Profit from other business(es)	.....
(e) Personal savings from employment	.....
(f) Retirement benefits	.....
(g) spouse	.....
(h) Other family members	.....
(i) Friends and Relatives	.....
(j) Other Sources (Specify) .....	.....
<b>Total .....</b>	<b>100%</b>

2.6 What was the initial size of the following business variables at the start of the business and at the end of July, 2008?

<b>At start of</b>	<b>At July, 2008</b>
<b>business</b>	

- (a) Total value of assets (Kshs) .....
- (b) Total value of stock (Ksh) .....
- (b) Total number of employees:           Self .....
- Family members .....
- Hired labour .....

2.7. What was the net monthly range of income:

(Choose and insert correct range of incomes from the options provided below): (a) Below Kshs. 1,000 (b) Kshs. (1,001 – 3,000) (c) Kshs. (3,001 – 6,000) (d) Kshs. (6,001 – 10,000) (e)Kshs. (10,001 – 15,000) (f) Kshs. (15,001 – 21,000) (g) Kshs. 21,001 – 28,000) (h) Kshs. (28,001 – 35,000) (i) Kshs. (35,001 and above) (j) Other(s) specify.....

(a) at the **start of the business. ....(Kshs)**

(b) at the July, **2008 .....(Kshs)?**

2.8 How many hours do you operate the business in a day? ..... (hours).

2.9 How many days do you operate the business in a week? ..... (days).

2.10 Out of the total employment (in Man-hours) generated by all the occupations in Q1.9 above, what percentage was being contributed by the microenterprise in a month by July, 2008? .....(%)

2.11 Out of your total income generated from all the occupation(s) in 1.9 above, what percentage was contributed by the microenterprise in a month by July, 2008? ..... (%)

2.12 Where do you sell your produce? (Tick where applicable): (a) The market place and immediate areas around the market where the business is located (b) Other market places in the district. (c) Outside the district.

**PART THREE: INFORMATION ON LOAN ACQUISITION, USAGE AND REPAYMENT (ONLY APPLICABLE TO OWNERS OF MICROENTERPRISES WHO**

**HAVE RECEIVED CREDIT FROM MICROFINANCE INSTITUTIONS AND OTHER SOURCES)**

3.0 Indicate against each loan source in the table below the number and amount of loan(s) you have secured for the business between July, 2008 and to date, interest charged against each loan source and the loan balances to date.

.....

Source(s) of Loan	Number and total amounts of loans secured (Ksh)			Loan repayment period (months)			Interest rate charged per loan per year			Total loan balance to date (Ksh)
----------------------	---	--	--	---	--	--	--	--	--	---

.....

	1	2	3	1	2	3	1	2	3	(specify loan)
--	---	---	---	---	---	---	---	---	---	----------------

.....

Names  
of MFIs

1_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
2_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
3_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Names  
of Groups.

1_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
2_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
3_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Names

of Banks.

1 \_\_\_\_\_

2 \_\_\_\_\_

Name of

Cooperative

\_\_\_\_\_

Other(s)

Specify \_\_\_\_\_

Total \_\_\_\_\_

3.1 By what percentage did the loan(s) you secured in Q 3.0 above meet your business investment and operational needs? .. ..... (%).

3.2 Of the following business and entrepreneur's variables which ones do you think influenced the total amount of loan-money you secured from the credit sources identified in Q 3.0 above? (a) My age (b) My income level (c) My diversified sources of income (c) Profitability level of my business (d) Financial assistance from my spouse (e) MFI saving level (f) Other(s) specify .....

3.3 Are there reasons that make you prefer to secure a loan from the MFI or group?

1 ..... 2 ..... 3 ..... 4 ..... 5 .....

3.4 What conditions must one fulfill so as to secure a loan from:

The Group? (i) ..... (ii) .....(iii) Other(s) specify. ....

The MFI? (i)..... (ii) ..... (iii) Other(s) specify .....

- 3.5 (a) Why do MFIs lend loans to members in a group rather than an individual? .....
- (b) Have all members in your group secured a loan(s) between July 2008 and June, 2011?  
.....
- (c) Are there group members who have secured loans without meeting MFI loaning conditions? Yes/No.
- (d) If yes, explain the reasons why they managed to secure a loan(s) without meeting the MFIs loaning conditions .....

3.6 What is the mode of repayment of principle loan (i.e weekly, monthly or negotiable) from:  
(i) The group? ..... (ii) The MFI? .....

3.7 How appropriate is the mode of loan repayment in Q3.6 (a) and Q3.6 (b) above in running/operating your business? (Tick where applicable)

(a) It makes one to manage business well so as to be able to generate income with which to service the loan secured from the MFI/group.

(b) It does not give one adequate time to generate income from the business. Hence, one is compelled either to borrow money or download part of his/her business stock/capital so as to enable one service the loan secured from the MFI/group.

3.8 In the table below indicate whether or not the **MFI or the group** in which you belong advice, monitor and audit loan usage ?

	<b>MFI</b>	<b>Group</b>
(i) Advice on how to utilize the loan	(a) Yes (b) No	(a) Yes (b) No
(ii) Monitor loan usage	(a) Yes (b) No	(a) Yes (b) No
(iii) Audit loan usage	(a) Yes (b) No.	(a) Yes (b) No

3.9 Out of the total money received from all the credit sources between July 2008 and to date, indicate what percentage you spent on:

(a) Improving your business i.e purchase of additional stock, tools, etc ..... (%).

(b) Household needs i.e food, school fees, etc ..... (%).

(c) Others (specify) ..... (%).

3.12 Out of the total **loan-money** spent on business needs, indicate what percentage you apportioned on each business variable below (where applicable based on the business type operated):

- (i) Purchase of stock ..... (%)
  - (ii) Purchase of capital/tools .....(%)
  - (iii) Improvement or change in technology .....(%)
  - (iv) Purchase of raw materials .....(%)
  - (v) Training in needed labour skills .....(%)
  - (vi) Hiring more labour ..... (%)
  - (vii) Product improvement ..... (%)
  - (viii) Product diversification ..... (%)
  - (ix) Output expansion .....(%)
  - (x) Expansion of business premise .....(%)
  - (xi) Renovation of business premise .....(%)
  - (xii) Relocation of business premise .....(%)
  - (xiii) Purchase of business premise .....(%)
  - (xiv) General maintenance of business equipment .....(%)
  - (xv) Part-repayment of loan ..... (%)
  - (xvi) Other(s) specify .....(%)
- Total** **100 (%)**

3.13 Out of the total loan money spent on household and other needs, indicate what percentage you apportioned on each need below (where applicable):

- (i) Food ..... (%)
- (ii) School fees ..... (%)
- (iii) Medical expenses ..... (%)
- (iv) Marriage (dowry) ..... (%)
- (v) Funerals ..... (%)
- (iv) Other(s) specify ..... (%)



**Total 100 (%)**

**PART FOUR: IMPACT OF MICROFINANCE INSTITUTION/NGO AND OR GROUP  
LOANS ON A MICROENTEPRISE BUSINESS (APPLICABLE TO  
MICROENTERPRISES THAT HAVE RECEIVED CREDIT AND THOSE THAT HAVE  
NOT)**

4.0 Whether you have received credit for your business or not, how have the following micro enterprise variables changed (where applicable) between January 2008 and to date?

- (a) Changes in the value of business assets/capital ..... **(% increase/decrease)**
- (b) Changes in business stock ..... **(% increase/decrease)**
- (c) Changes in business production technology (where applicable). (a) Increased a lot (b) increased slightly (b) Did not increase. If yes/no, explain how .....
- (d) Changes in the number of employees: (a) Yes (b) No. If Yes/No, State current number of current employees: (i) Family members...(ii). Hired labour ...
- (e) Changes in self and employees' business skills (i.e. through training). (a) Yes (b) No. If yes/no, explain how .....
- (f) Changes in service(s)/output(s) - (Levels and diversity)
  - (i) Increased variety of products/services. (a)Increased a lot (b) increased slightly (b) Did not increase. If yes/no, explain how .....
  - (ii) Increased levels of output(s)/Service(s) ..... **(% increase/decrease)**
  - (iii) Improved quality of output(s)/service(s). (a)Increased a lot (b) increased slightly (b) Did not increase. If yes/no, explain how. ....
- (g) Changes in market niche/size (a) Yes (b) No. If yes/no, explain how ...
- (h) Changes in average net monthly income (Ksh) of the business.....**(% increase/decrease)**
- (i) Changes in business premise/stall (i.e. expansion/relocation/modernization). (a) **Yes** (b) No. If yes/no, explain how.....

- 4.1 Has the **increased/decreased** performance in your business between July, 2008 to date affected the percentage of income contributed by the ME in relation to the total income earned from all your occupations in Q1.9 above in a month? **Yes/No.**
- 4.2 If yes in Q4.1 above, what is the percentage of income now contributed by the ME? .....(%).
- 4.3 If no in Q4.1 above, what is the percentage of income now contributed by the ME? ..... (%).
- 4.4 Has the **increased/decreased** performance in your business between July, 2008 to date affected the percentage of employment (in man-hours) contributed by the ME in relation to total employment generated from all your occupations in Q1.9 above in a month? **Yes/No**
- 4.5 If yes, what is the percentage of employment (in man-hours) now contributed by the ME? .....(%)
- 4.6 If no, what is the percentage of employment (in man-hours) now contributed by the ME? ..... (%)
- 4.7 Has relocation of business in 4.0 (i) above (if any) improved your sales and profits?  
(a) Yes (b) /No.
- 4.8 If your business has not recorded any positive changes in the variables in Q4.0 above (where applicable) since July, 2008 to date, what reasons can you give for the poor performance? .....
- 4.9 Apart from MFI/group/bank/cooperative credit society loan(s), explain how loans received from other sources in Q3.1 ( i.e from friends and relatives, savings from salary, farming, etc -if any) have helped you improve or expand your business? .....

**PART FIVE: EXPENDITURE PATTERN OF THE TOTAL INCOME EARNED BY THE ENTREPRENEUR FROM ALL HIS/HER OCCUPATIONS**

- 5.1 What percentage do the incomes you earn from all your occupations in Q 1.9 above account for out of the total income earned at the household level in a month? ..... (%)

- 5.2 How do you spend the income you earn from your microenterprise business? (a) Make a monthly budget on how to spend the income earned from the business (b) I do not make a monthly budget but spend the income earned from the business on a daily basis.
- 5.3 What percentage of your total income earned (from all the occupations in Q1.9 above) between July, 2008 and to date was spent on your monthly household consumption needs, microenterprise needs, as well as other household investments? (Indicate by ticking where applicable in the table below).

% of total income earned	% Income Spent on household Consumption needs	% Income Spent on Micro enterprise needs	% Income Spent on Other household investments	Other income (specify, i.e. loan repayment, assist.to relatives)
100%	----- (%)	----- (%)	----- (%)	----- (%)

Other income (specify items on which income was spent on) \_\_\_\_\_

- 5.4 Of the total income spent on consumption, micro enterprise business and other household investment needs, indicate in the table below the percentage spent on each item within the 3 broad categories of expenditure in the same period (Between July, 2008-to date).

Category of Items	% of Income
<b>1. Household Consumables (100%)</b>	
(a) Food purchase/production (farming)	-----
(b) Medical expenses	-----
(c) School fees	-----
(d) Shelter	-----
(e) Transport	-----
(f) Energy (lighting and cooking)	-----

(g) Other(s) specify -----  
**100%**

**2. Micro enterprise Business (100%)**

(a) Business stock/capital/tools -----  
 (b) Repayment of loans -----  
 (c) Start of new business -----  
 (d) Training in needed skills -----  
 (e) Expansion/renovation/relocation/purchase of business premise .....  
 (f) General maintenance of equipment .....  
 (g) Hiring more labour .....  
 (h) Product or output diversification/expansion/improvement .....  
 (i) Improvement or change in technology .....  
 (e) Others (Specify) -----  
**100%**

**3. Other Household Investments (100%)**

(a) Purchase of livestock -----  
 (b) Commercial buildings -----  
 (c) Purchase of land/plots -----  
 (d) Transport business -----  
 (e) Investment in farming (cash crops, tools,  
 Machines/ox-plough) -----  
 (f) Other(s) Specify -----  
**100%**

---

**PART SIX: OVERALL ASSESSMENT OF THE LOAN (S) RECEIVED FROM MICROFINANCE INSTITUTIONS AND GROUPS (ONLY APPLICABLE TO MICROENTERPRISES THAT HAVE RECEIVED CREDIT)**

6.0 What problems did you encounter as you utilized the loan obtained from: (i) The MFI?...

(ii) The group? .....(For example, Unfavourable growth in market, lack of adequate capital to expand business, low profits that cannot be reinvested back into business, limited sources of investment capital, stiff competition from similar businesses, transport problems, social problems that consumed most of the profits, etc).

**Note: More information will be elicited during mini-case studies.**

6.1 What advice would you give to:

- (a) Members of your group who are loanees?.....
- (b) The group on how to make the group's credit scheme more efficient and effective in promoting members businesses? .....
- (c) The credit officers of the MFI that advanced a loan to you regarding:
  - (i) Size and progression nature of the loan?.....
  - (ii) Suggestions on loan repayment.....
  - (iii) Nature and type of loan advanced? .....

**Note: Section 6.1 will provide a basis for further discussions in Mini-case studies.**

**THANK YOU FOR TAKING TIME TO COMPLETE THIS QUESTIONNAIRE. A FOLLOW-UP INTERVIEW(S) IN FORM OF FOCUS GROUP DISCUSSIONS (FGDs) OF 6-12 INTERVIEWEES/RESPONDENTS WILL BE CONDUCTED LATER. PLEASE INDICATE BELOW BY TICKING APPROPRIATELY IF YOU WILL BE WILLING TO PARTICIPATE IN THE FGDs**

Willing to attend  Not willing to attend  Tel No. ....

**APPENDIX 3**  
**CASE-STUDIES: GUIDING THEMES (QUESTIONS) FOR INTERVIEWS OF**  
**SUCCESSFUL/UNSUCCESSFUL ENTREPRENEURS**

**TOPIC OF STUDY: THE IMPACT OF MICROFINANCE CREDIT ON  
MICROENTERPRISES MANAGED BY MEMBERS OF SELF-HELP GROUPS IN  
BUTERE, MUMIAS, MATUNGU AND KHWISERO SUB-COUNTIES, KENYA**

**NAME OF RESEARCHER: MR. H. W. OBULINJI – A Ph.D. STUDENT  
(REGISTRATION/ADMISSION NUMBER – ND13/0211/07).**

**RESEARCH PERMIT NUMBER: NCST/5/002/R/284.**

**INSTITUTION: EGERTON UNIVERSITY  
FACULTY OF ENVIRONMENT AND RESOURCES DEVELOPMENT  
DEPARTMENT OF GEOGRAPHY  
P.O BOX 536, EGERTON.**

**RESEARCH DURATION: JULY, 2010 – DECEMBER, 2010.**

**SECTION A: ENTREPRENEUR'S AND MICROENTERPRISE DETAILS**

- 1.0 Name of the entrepreneur.
- 1.1 Sex.
- 1.2 Age.
- 1.3 Business location (Market centre).
- 1.4 Source of MFI loan.
- 1.5 Entrepreneur's business related skills acquired (if any).

**SECTION B: GUIDING THEMES FOR INTERVIEWS WITH SUCCESSFUL/UNSUCCESSFUL ENTREPRENEURS**

- 2.0 Entrepreneur's occupational structure.
- 2.1 Prudent business management.
- 2.2 Sources and nature of business capitalization
- 2.3 Nature of market and output characteristics.
- 2.4 Loan acquisition, utilization and repayment:
  - 2.4.1 Sources of loans.
  - 2.4.2 Loan utilization levels on ME and household needs and its impact on business performance.
  - 2.4.3 Loan repayment mode, as well as, levels and its impact on business performance.



- 2.5 Business growth, survival and marketing strategies.
- 2.6 Business income, expenditure on consumption and investment in business, as well as, other income generating activities and impact on entrepreneurs households' livelihoods.
- 2.7 Overall and type of assistance an entrepreneur got in operation of his/her business.
- 2.8 Business problems encountered and how they were addressed.

**APPENDIX 4**

**RESULTS OF CORRELATION ANALYSES BETWEEN ENTREPRENEURS' AND MEs CHARACTERISTICS AND THE TOTAL AMOUNT OF CREDIT SECURED BY ENTREPRENEURS FROM MFIs.**

**Correlation Analysis of Total Loans Secured Versus Entrepreneurs' and MEs Characteristics (Ratio Data).**

Variables	Pearson Correlation	Total Loans Secured By Entrepreneurs	Age of Entrepreneurs	Total Dependants	Age Of MEs (2008)	MEs Capitalization (2008)	MEs Total Number of Employees (2008)	MEs Net Monthly Incomes (2008)	MEs Total Employment Volume (2007)
Total Loans Secured By Entrepreneurs	Correlation Coefficient	1.000	.146(*)	.081	.175(**)	.291(**)	.277(**)	.421(**)	.298(**)
	Sig. (2-tailed)		.023	.208	.006	.000	.000	.000	.000
	N	241	241	241	241	241	241	241	241
Age of Entrepreneurs	Correlation Coefficient	.146(*)	1.000	.476(**)	.305(**)	.091	.116	.067	.077
	Sig. (2-tailed)	.023		.000	.000	.160	.073	.303	.236
	N	241	241	241	241	241	241	241	241
Total Dependants	Correlation Coefficient	.081	.476(**)	1.000	.260(**)	.079	.149(*)	.075	.126

	Sig. (2-tailed)	.208	.000		.000	.224	.021	.245	.052
	N	241	241	241	241	241	241	241	241
Age of MEs (2008)	Correlation Coefficient	.175(**)	.305(**)	.260(**)	1.000	.082	.073	.150(*)	.028
	Sig. (2-tailed)	.006	.000	.000		.203	.259	.020	.670
	N	241	241	241	241	241	241	241	241
MEs Capitalization (2008)	Correlation Coefficient	.291(**)	.091	.079	.082	1.000	.274(**)	.330(**)	.264(**)
	Sig. (2-tailed)	.000	.160	.224	.203		.000	.000	.000
	N	241	241	241	241	241	241	241	241
MEs Total Number of Employees (2008)	Correlation Coefficient	.277(**)	.116	.149(*)	.073	.274(**)	1.000	.546(**)	.744(**)
	Sig. (2-tailed)	.000	.073	.021	.259	.000		.000	.000
	N	241	241	241	241	241	241	241	241
MEs Net Monthly Incomes (2008)	Correlation Coefficient	.421(**)	.067	.075	.150(*)	.330(**)	.546(**)	1.000	.401(**)
	Sig. (2-tailed)	.000	.303	.245	.020	.000	.000		.000

	N	241	241	241	241	241	241	241	241
MEs Total Employment Volume (2007)	Correlation Coefficient	.298(**)	.077	.126	.028	.264(**)	.744(**)	.401(**)	1.000
	Sig. (2- tailed)	.000	.236	.052	.670	.000	.000	.000	
	N	241	241	241	241	241	241	241	241

\*Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

Source: Research Data

**Correlation Analysis of Total Loans Secured Versus Entrepreneurs' Characteristics (Categorical Data)**

Variables	Spearman's rho	Total Loans Secured by Entrepreneurs	Sex of Entrepreneurs	Entrepreneurs' Schooling Level	Entrepreneurs' Ethnicity	Entrepreneurs' Formal Training	Entrepreneurs' Informal Training	Entrepreneurs' Number of Occupations
Total Loans Secured by Entrepreneurs	Correlation Coefficient	1.000	-.208(**)	.285(**)	-.040	-.193(**)	-.006	.078
	Sig. (2-tailed)		.001	.000	.532	.003	.932	.230
	N	241	241	241	241	241	241	241
Sex of Entrepreneurs	Correlation Coefficient	-.208(**)	1.000	-.154(**)	.022	.108(*)	.155(**)	-.260(**)
	Sig. (2-tailed)	.001		.003	.675	.036	.002	.000
	N	241	241	241	241	241	241	241
Entrepreneurs' Schooling Level	Correlation Coefficient	.285(**)	-.154(**)	1.000	.031	-.197(**)	.131(*)	.107(*)
	Sig. (2-tailed)	.000	.003		.550	.000	.011	.038
	N	241	241	241	241	241	241	241
Entrepreneurs' Ethnicity	Correlation Coefficient	-.040	.022	.031	1.000	-.052	.089	-.040

	Sig. (2-tailed)	.532	.675	.550		.316	.083	.442
	N	241	241	241	241	241	241	241
Entrepreneurs' Formal Training	Correlation Coefficient	-.193(**)	.108(*)	-.197(**)	-.052	1.000	-.160(**)	-.134(**)
	Sig. (2-tailed)	.003	.036	.000	.316		.002	.009
	N	241	241	241	241	241	241	241
Entrepreneurs' Informal Training	Correlation Coefficient	-.006	.155(**)	.131(*)	.089	-.160(**)	1.000	-.061
	Sig. (2-tailed)	.932	.002	.011	.083	.002		.233
	N	241	241	241	241	241	241	241
Entrepreneurs' Number of Occupations	Correlation Coefficient	.078	-.260(**)	.107(*)	-.040	-.134(**)	-.061	1.000
	Sig. (2-tailed)	.230	.000	.038	.442	.009	.233	
	N	241	241	241	241	241	241	241

\*Correlation is significant at the 0.05 level (2-tailed)

\*\* Correlation is significant at the 0.01 level (2-tailed)

Source: Research Data

**APPENDIX 5: ENTREPRENEURS' AGE INTERVAL, NUMBER OF INCOME SOURCES AND PERCENTAGE CONTRIBUTION OF ME INCOME TO ENTREPRENEURS' AND TOTAL HOUSEHOLDS' INCOMES.**

Age Interval (in years)	Frequency Entrepreneurs Based on Number of Income Sources			Total	Entrepreneurs' Average Total ME Incomes Generated Per Month in 2008 (in Ksh)			Per cent Entrepreneurs' Incomes Contributed by ME Businesses Per Month in 2008			Per cent Entrepreneurs' Average Change in ME Incomes Per Month (2008-2011)		
	ME	ME+1	ME+2		ME	ME+1	ME+2	ME	ME+1	ME+2	ME	ME+1	ME+ 2
18-24	1 (0.4%)	0 (0.0%)	0 (0.0%)	1 (0.4%)	13,720	-	-	100%	-	-	34.16	-	-
25-32	26 (10.8%)	18 (7.5%)	0 (0.0%)	44 (18.3%)	356,720	246,891	69,078	100%	40%	-	25.62	24.68	-
33-40	33 (13.7%)	77 (32.0%)	5 (2.1%)	115 (47.7%)	452,760	1,056,147	27,631	100%	30%	30%	18.79	30.29	35.82
41-50	18 (7.5%)	47 (19.5%)	3 (1.2%)	68 (28.2%)	246,760	644,661	13,816	-	50%	30%	-	47.12	56.81
51-60	7 (2.9%)	2 (0.8%)	2 (0.8%)	11 (4.6%)	96,040	27,432							
>60	0 (0.0%)	1 (0.4%)	1 (0.4%)	2 (0.8%)	-	13,716							
Total	85 (35.3%)	145 (60.2%)	11 (4.6%)	241 (100%)	1,166,220.0	1,988,852.7	151,972.1	100%	36.6%	29.4%	23.4	33	42
Average													



**APPENDIX 5 CONT'D**

Per cent Entrepreneurs' Average Incomes Contributed by ME Businesses Per Month in 2011			Entrepreneurs' Average Total ME Incomes Generated Per Month in 2011 (in Ksh) – <b>X1</b>			Computed Entrepreneurs' Average Total Incomes Per Month in 2011 (in Ksh) – <b>X2</b>			Entrepreneurs' Average Total Incomes as a Percentage of Total Household income Per Month in 2011		
ME	ME+1	ME+2	ME	ME+1	ME+2	ME	ME+1	ME+2	ME	ME+1	ME+2

100%	0%	0%	18,407	-	-	18,407	-	-	95%	-	-
100%	47%	0%	448,112	307,824	-	448,112	654,945	-	80%	70%	-
100%	40%	33%	549,424	1,340,567	91,259	549,424	3,351,418	276,542	90%	80%	70%
100%	36%	35%	293,126	839,929	56,293	293,126	2,333,136	160,837	85%	75%	80%
100%	34%	30%	112,444	37,280	39,576	112,444	109,647	131,920	95%	90%	85%
0%	60%	35%	-	20,179	21,665	-	33,632	61,900	-	95%	90%
100%	43.4%	34.2%	1,421,513	2,545,779	208,793	1,421,513	6,482,778	631,199	89%	82%	81.25%

## APPENDIX 5 CONT'D

Computed Entrepreneurs' Average Total Household Incomes Per Month in 2011 (in Ksh) – X3		
ME	ME+1	ME+2
19,376	-	-
560,140	935,635	-
610,471	4,189,273	395,060
344,854	3,110,847	201,046
118,362	121,830	155,200
-	35,402	68,778
1,653,203	8,392,987	820,084

Note: ME = Microenterprise only.

ME+1 = Microenterprise and one additional occupation.

ME+2 = Microenterprise and two additional occupations.

Other occupations/income sources included: - Government employee/civil servant.

- Teacher.

- Private sector employee.

- Farming.

- 'Retired officer/pensioner'.

**X2 - X1** = Entrepreneurs average total incomes generated from other occupation(s).

**X3 - X2** = Household incomes generated by other household members other than the entrepreneurs.

Source: Research Data

## **APPENDIX 6: RESEARCH PERMIT**