

# **An Assessment of the Roles of Micro Financing On the Income Generation of Small Scale Farmers in Kenya: A Case of Trans Nzoia County**

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**Abstract:** *Small scale farming in Kenya and the world at large contributed to economic growth and sustainable livelihood of their families and society. Small scale farmers in Trans Nzoia County are undergoing a vicious circle as poverty is persistent and lingering in their households. The general objective of this study was to assess the roles of microfinancing on the income generation of small scale farmers in Trans Nzoia County. The specific objectives included to assess the role of training service provision on the income generation of small scale farmers, to determine the role of funds transfer service provision on the income generation of small scale farmers, to evaluate the role of insurance service provision on the income generation of small scale farmers and to appraise the role of savings services provision on the income generation of small scale farmers. A descriptive research design was used. The study targeted a population of 51,036 households and a sample size of 150 households. Simple random sampling technique was used. Primary data were collected using structured questionnaires. Data were analysed using frequency tables, percentages and regression analysis. A five-point Likert scale was used to establish the level of agreement with the statements in questionnaires. Ethical consideration was observed throughout the process of study. The research findings revealed that there is strong positive correlation between the dependent and independent variables and that variation in dependent variables is explained statistically by the independent variables. The regression model is significant in explaining the relationship between the variables since  $p < 0.05$ . In conclusion, microfinances' role of funds transfer is the reason why small scale farmers are persistently poor in Kenya as an increment of one unit of funds transfer service results in 26.6% decrease in the income of small scale farmers.*

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## **I. Introduction**

### **1.1 Background to the Study**

The definition of microfinance by the World Bank is that microfinance indulge particularly in relatively small financial transactions using various ways and methods to work with the poor households, microbusiness, small scale farmers and many others who were precluded from accessing banking services by the conventional banks, CBs (World Bank, 1999). Otero (1999) also defined microfinance as that financial institutions that provide financial activities in form of business to low income people and very poor people who are self-employed. These financial activities according to Ledger Wood (1999) mainly include microcredit and savings and sometimes may include insurance activities and funds transfer services. In Kenya, the statute which is the microfinance Act (2006) defines microfinance as a business which receives money in the form of deposits and also receive interest from the same deposits which are lent to those who are in need of finances to finance their business and to provide micro loans to micro enterprises and low income deposit taking and non-deposit taking institution (MFI ACT, 2006). In another way of defining microfinance, Schreiner and Colombet (2001) define microfinance as trying to access small scale deposits and micro credit for the poor people precluded by the mainstream conventional banks. Microfinance in this context, is defined as those financial institutions that provide financial services such as micro credit, savings, insurance and funds transfer services to the poor and near-poor people who were unbanked and were precluded strategically by the mainstream conventional banks. In addition to that, small scale farming as defined by Hoppe and MacDonald (2013), as a farmer who grows and sells agricultural products between the United States \$1000 and \$2500 per year in agriculture. It goes on to further define small scale farmer as that farmer who is constrained by the resource.

In Eastern Europe, in this case Kosovo, has since seen microfinance institutions operate since 1999 which started as programs of economic development brought to the country by international humanitarian organizations. According to the association of microfinance institutions of Kosovo (2010), which states that there are fourteen microfinance institutions operating conspicuously in rural areas of Kosovo which represented

eighteen per cent of the financial sector in connection to the number of loans and seven per cent in the total loans granted. Kosovo being a young state which broke away from Soviet Union had seen an indication in overall increase in number of loans released to small scale businesses. According to Microfinance Institution of Kosovo (2011), Micro Enterprise and small enterprises takes lead in economic activity in Kosovo in the provision of microfinance services and training services and thus play an imperative role in the economic development of the entire region of Kosovo.

In Latin America, Brazil was the pioneer country to develop the formal microfinance in the 1970s despite many challenges posed by its regime which was despotic. Despite the unfavourable social conditions in many countries of Latin America which practiced despotism, microfinance grew in number throughout Latin America from 1950s, coming up with new formal answers to combat problems specific to each country. According to Foundation for International Community Assistance (FINCA), in 2012, the Inter –American Development Bank (IDB) in its report showed that loan combination of the Latin America and the Caribbean micro finance sector stood at United States\$12.3 billion in the year 2009. Peru, a country in South America topped in ranking with the united states \$3.2 billion microfinance portfolio, followed in behind by Ecuador with the United States \$1.7 billion portfolio and Colombia following closely with the united states \$1.4 billion microcredit. At the end of 2009, Latin America and Caribbean microfinance had registered approximately 10.5 million borrowers. IDB further reported that Mexico had the highest number of clients registered in Latin America region with clients reaching in total 2.3 million. Despite the growth in number of clientele in the last three decades whereby it was projected that microfinance services were only accessible to small sectors of the population of Latin America reaching about 1 in 6 in potential of clientele.

According to the New Partnership for Africa’s Development, NEPAD (2008) towards the last months of 2008, Sub Saharan Africa (SSA) had registered (6.5 million microfinance depositors and 6.5 million microfinance borrowers. Despite the fact that there was continued stunted growth of borrowers in 2008, there was still an upsurge in the number of depositors saving their money with the microfinance institution which was showing increase in growth attaining forty percent which was thought to be very high in relation to other regions of the globe.

In Ghana, sustainable disbursement of microcredit funds helps to reduce poverty by begetting income, bringing about jobs, making children enrol in school causing families to obtain health care and make people to be rational and make informed choices that suite their needs (World Bank, 2003). According to the Ghana’s population and housing census in the year 2000, eight percent of the working or employed population were majorly found in the informal sector of micro finance. This group of people did not access credit facilities which hinder them from being financially stable and take them to the next level in terms of wealth creation. The purposes of these loans in Ghana were often put into housing, small business, loans for small scale farming to buy farm inputs like hybrid rice seeds, fertilizers, herbicides, insecticides and other important agricultural tools and equipment. Analysis in Ghana showed that rural and community banks play a very important activity and role in microfinance as they were primarily established to provide loans including small scale farmers, individual and micro enterprises according to non-bank financial institution of Ghana (NBEL) in 2002 clientele increased to GH ₵ 20.68 million from GH ₵ 13.12 in the year 2007. This upsurge in the growth of clients indicated that there was marked improvement.

Microfinance in Kenya did not vary immensely from the rest of the countries on the continent. According to Dondo and Ongila (2006) Kenya’s paper called poverty reduction strategy paper stated that microfinance play very vital and important role in bringing about upsurge in economic growth in the small and medium enterprise (SME) and small scale holders of farmland.

They further stated in 2006 that these were approximately three million, eight hundred thousand Kenyans depending on co-operatives, Kenya post office savings bank and non-governmental organization for microfinance services. The farmers’ problems, according to Ringera (2003) was inaccessibility to formal credit due to poor credit policies associated to loans. This was further demonstrated by Mutua and Mirero (1985) who argued that Kenya’s problems in the provision of microfinance services was that there were no proper structures put in place for loans disbursement, collection repayments and loan recoveries.

Current position in Kenya, according to Barometer in March 2015 shows Kenyan microfinance institutions as optimistic about growth at a national level both for borrower and loan portfolio.

## **1.2 Statement of the problem**

Africa Development Bank (2006) states that microfinance institution is an imperative financial tool that aid in the achievement of hat trick Millennium Development Goals in poverty reduction, economic and gender empowerment. This argument was based on the study that by empowering the poor economically, small scale farmers included, poverty will be alleviated in our society. However Hulme and Mosley in Gevera and Ayuma (2014) concluded from their research on microfinance that the tailor made schemes were not efficient and were ineffective to be of any meaningful use in increasing income generation of small and medium enterprises and

small scale farmers, though they may be looking good. Small scale farmers were undergoing a vicious circle and poverty was still afflicting and lingering in their midst, despite them being served by microfinance to carry on their farming activities. This inadequacy of service rekindled my desire to promptly assess the roles of microfinance institution on the income generation of small scale farmers in Trans Nzoia County. This research, therefore, intends to assess these microfinance roles in generating income for the small scale farmers in Trans Nzoia County.

### **1.3 Research Objectives**

The research was guided by the following objectives:

#### **1.3.1 General Objectives**

The study sought to assess the roles of micro financing on the income generation of small scale farmers in Trans Nzoia County.

#### **1.3.2 Specific objectives**

- i. To assess the role of training services provision on the income generation of small scale farmers in Trans Nzoia County.
- ii. To determine the role of funds transfer service provision on the income generation of small scale farmers in Trans Nzoia County.
- iii. To evaluate the role of insurance service provision on the income generation of small scale farmers in Trans Nzoia County.
- iv. To appraise the role of saving services provision on the income generation of small scale farmers in Trans Nzoia County.

### **1.4 Hypothesis**

The research has the following hypotheses:

H<sub>01</sub>: Training service provision do not have any significant role on the income generation of small scale farmers in Trans Nzoia County.

H<sub>02</sub>: Funds transfer services provision do not have any significant role on the income generation of small scale farmers in Trans Nzoia County.

H<sub>03</sub>: Insurance services provision do not have any significant role on the income generation of small scale farmers in Trans Nzoia County.

H<sub>04</sub>: Savings service provision do not have any significant role on the income generation of small scale farmers in Trans Nzoia County.

### **1.5 Significance of the Research**

The outcome of these research would be of great importance to the academicians and the farmers.

#### **1.5.1 Academicians**

Academicians undertake research in order to find out solutions to pertinent issues that affect the society. The outcome of this research is set to impart knowledge to the academicians in that they would have more insight into the role of microfinance on the income generation of small scale farmers and will be able to advise microfinance institution in terms of writing down newer policies. The recommendations of the researcher would be of imperative use to new researchers as this may guide them to further carry on with the research.

#### **1.5.2 Farmers**

The outcomes of this research would positively impact the small scale farmers as this would unearth microfinance services that are coherent in small scale farming activities. Also, the outcome of this research will enlighten microfinance institutions and shape them to make tailor made products that suit the needs of small scale farmers.

### **1.6 Scope of the Study**

In this project, the scope of the study covered the origin of microfinance institutions in Bangladesh and the man accredited with this idea Prof. Muhamad Yunus, microfinance in Europe, Latin America, USA, Africa and specifically microfinance in Kenya. More emphasis was on the roles of microfinance, that is, training and capacity building, funds transfer service, insurance service and savings services.

### **1.7 Limitations of the research**

The research was likely not to be complete without the sampling and non-sampling errors that may slightly influence the research outcome which were sampling error and non-sampling errors.

Burns and Grove (2009) stated that the sampling error is the variance between statistics used to predict a population and the actual value and the unknown value of the population. Statistics are used in measuring

samples while parameter measure the whole population. The samples which were generalized may not give true pictures of the population. If the research were to be done on the whole population there was likelihood to be a disparity between the sampling value and that of the population value. It is vividly demonstrated that more sampling errors arise when there was failure to accurately represent all population in the sample, when the respondents misunderstood and misreported and the mistakes that happen when recording and coding the data during analysis. This error often happens because collection of data come from different respondents who may or may not give what is exactly happening or true. Respondents might have been biased or unwilling to take up the questions probed on them.

### **1.8 Operational definition of terms**

**Andragogy** – teaching financial management to adults, that is, microfinance clients.

**Despotism** – This was where absolute power was wielded by governments dictating on its people.

**Due diligence** – being careful in making financial decisions.

**Fully-fledged commercial banks** – banks other than microfinance that were conventional in nature and were licensed by Central bank of Kenya to carry on full banking services.

**Gist** – central reason or the main reason behind a financial decision.

**Green microfinance** – financial service which tried to improve the environment by making our environment look green.

**Hat trick** – three successes of the same kind financial goals within a limited period of time.

**Microfinancing** – giving training, funds transfer, insurance and savings services to the unbanked poor people.

**Palpable collateral** – tangible collateral that were used to secure loans.

**Rendezvous meetings** – these were meetings seen when microfinance clients meet together for their own good.

**Small scale farmers** – farmers that were constrained by resources and their income lie between US\$ 1000 and US\$ 2500 per year.

**Smoothen** – to avoid financial deficiencies, that is, to absorb any financial shocks that may arise in the future.

## **II. Literature Review**

### **2.1 Introduction**

Although microfinance has been overlooked in the economic development literature and policy conversation for many years where the real economy leads and microfinance follows, the past few decades have experienced an increasing attention on microfinance sector concerns in underdeveloped countries. This has been complemented by a progressively extensive empirical literature on microfinance progression and its connection to real economy results. The micro finance sector roles, however, is a multi-faceted one, with access to credits services by the poor only of late achieving more attention than savings, training, insurance and funds transfer services. The recent past has once more seen an explosion in empirical research weighing the impact of microfinance and other interventions to decrease the obstacles to accessing formal micro finance services.

### **2.2 Empirical Literature**

#### **2.2.1 Training Services**

Microfinance institution provide training services to their clients. Training service can also be referred to as financial management training. Bradley (2013) defined financial management as having good judgment in the employment of capital and prudence in the choices of the sources of capital for the purposes of affirming good employment. Microfinance institution enlightened clients on the importance of keeping financial records. In keeping these records, clients were able to weigh if whether they were progressing in the right direction or not. Nayak and Greenfield (1991) noted that cash book was the most important form of keeping financial transactions that took place within that period. Maintaining cash journal does not request proficiency and that it was easy for microfinance institution to advice their clients who were naïve on how to keep expenditure and revenue records. Keeping these records well translate into good financial management practice and performance. Wilson (1996) found out that there was strong connection along the space separating good financial management practice and company's performance, pointing out strongly efficiencies in managing the cash cycle and profits. However, mismanagement would cause the business to fail to meet its objectivity. Chittenden et al (1996) showed studies that relate business failure to poor or careless financial management. It was strongly argued here that for the business to thrive economically there should be prudence and due diligence in financial management processes. The review on training services would not be complete without defining management in the context of finance. One of the early theorists of management defined management as to forecast and plan, to organize, to command, to coordinate and to control (Kelly and Cole, 2015). Microfinance focus was to educate the clients on how to manage their cash. Planning and forecast would relate to planning and forecasting the uses and sources of funds. It also embeds investment planning. On the part of organizing, it was all about putting and harnessing the resources together in order to realize the objectivity of the business.

Coordinating was about directing in the use of funds while controlling was checking about not to deviate from the goal that was destined. Kelly and Cole (2015) definition was used in this context to manage cash which is one of the components of financial management or training services. Microfinance clients are assumed to be naïve and that they require to recognize about the techniques that encompass financial management which the researcher calls financial andragogy. It is very imperative as it is directing adults to using good financial management skills and practices. Personal budget preparation is the most important andragogy that the microfinance institution emphasize to their clients. Jenkins, Stephen, Kermend Philippe (2011) illustrated a simple method of writing a personal budget that is almost a solution to saving. This simple budget appropriated or divided expected income to expected expenses, stipulated savings and debts payment. The budget replicated past spending and personal debt which are the gist for drawing pragmatic budget. This process of making budget deter people from doing impromptu, unnecessary and unessential purchases.

Magner (2007) argues that according to previous studies and research, it is clear that microfinance is an important impetus for the alleviation of poverty among the poor. It received overwhelming reception among the governments, foundations, profit making firms, NGOs and groups on community development (Carr and Zhong, 2002). According to the researches of Daley-Haris (2002), Zhan and Wong (2014) microfinance institutions offered a series of reliable and constant services of income to the poor people. The impacts are seen in affordability of food, healthcare, consumption smoothing, asset buying and getting education. In another related study, Zeller and Meyer (2002), who carried out the research in Bangladesh argued that there was a positive impact of microfinance services on household's consumptions. The consumption of clients in the microfinance program were found out to be increasing as compared to those clients who were not on the program. The result of the research gave the impression that it benefited the poor people and improved their expenditure style.

In another study carried out in Philippines by Kondo, Orbeta, Dingcong, and Infantado, (2008), the research found out positive but marginally significant impact on per capita income, which also relocated on total expenditure per capita. However, they found out regressive impacts on those who were absolutely poor, and in contrast to that, they found out positive influences on the richer households. This research established the fact that to an extent, microfinance did not positively impact on the income generation for the absolutely poor people. In contrast to that, microfinance impacted positively on the income generation of richer households. In another development in Ghana, Ablorh (2011) carried out research and found out that there was an increase in net income for those women who participated on farm income than those who did not participate whose income generation depended entirely on farming activities. This research showed that for there to be positive impacts clients' should participate on more than one activity so as to gain immensely from microfinance institutions.

More reviews on empirical studies showed the relationship between microfinance and investment. In Malawi, Zeller, Diagne and Mataya (1998) carried out research on the impacts of microfinance on investment. The results found out that greater accessibility of microfinance augmented the share of land allocated to hybrid crops. In carrying out agricultural proceedings, farmers depend on credit to buy farm inputs, whereby credits were given in the form of cash or real inputs. When farmers were given farm inputs, it was very easy for the farmer to prepare their farms on time so as to increase their yields. According to this research there was relationship between microfinance on investment in that farmers allocated more land on growing hybrid crops. In another study done by Robinson was that accessing microfinance make poor people to venture into sustainable businesses meant to argument agricultural produce. It not only brought innovation and created employment but also helped them to be vibrant economically to expand and diversify their business (Robinson, Marguerite, 2001, 2002)

Mosley and Hulme (1998) carried out research in seven diverse countries studying thirteen microfinance institution and found out that in all cases the impact of microfinance tended to increase clients income and assets formation. Clients that were able to increase income generation and assets get empowered to get out of the poverty trap. According to Sharma and Buchenriender in Zeller and Meyer (2002) the developing countries where the research was carried out were Bolivia, Malawi, India, Kenya, Indonesia, Bangladesh and Sri Lanka, purchasing power of the poor ones and low income people get better when they were in a position to access finance, because it allows them to increase assets accumulation (Gulli, 1998). Asset accumulation comes as a result of direct use of microfinance services from investing savings profit, for example, buying dairy cow and other assets.

### **2.2.2 Funds Transfer Service**

Funds transfer services was a form of payment service that is offered by conventional banks and microfinance institutions. It is defined as the act of swapping something that is valuable and for a produce or good and service (Summers, 1994). Microfinance institutions mode of offering these services are through electronic funds transfer, debit card, cheques and cash transfer. These services relief microfinance clients time wastage and wastage of funds and thus brought in efficiency and effectiveness. Loans are disbursed through the accounts of the clients and the clients being debits can holders, can access payment from any automated teller machines of

any bank on any day at any time. Withdrawing cash over the counter have a cost but withdrawal of cash through automated teller machines do not attract any cost on withdrawal. Sander and Mukwana, (2003) highlighted that sending or receiving money for payment of wages, payment of business activities, school fees, or for family upkeep is often on both for businesses and individuals.

It requires funds transfer services that are reliable, judicious and competent whereby money would be deposited in one geographical location and withdrawn in another far distant area in urban and rural areas, (Loudon, 2010.) Nowadays, customers demand latest and differentiated financial services. In reality, banks must look for new strategies of marketing their services. With pressure exerted from dynamic and progression of IT, different electronic distribution networks are embraced to meet the needs of consumers of Kenyan banks, (Orbeta, 2001).

Loudon (2003) highlighted that, electronic banking, also called electronic fund transfer (EFT), uses computers and electronic technology as a replacement for cheques. Many financial intermediaries use an automated teller machine (ATM) card and a personal identification number (PIN) for this requirement. On the contrary, this service was very risky as there were bank frauds meted out to the clients by the fraudsters. This vice, as seen most of the time, reduced income of the poor people making them more resistant to technological changes. This would in turn negatively impact on their economic status as their income was lower than expected.

### **2.2.3 Insurance services**

Microfinance did not offer only microcredit services but did offer other services such as micro insurance, savings facilities, money transfers, social intermediation, green microfinance social services and enterprise development services (Ledgerwood, 1999). This research sought to assess the role of microfinance on provision of insurance services on the income generation of small scale farmers in Kenya. Insurance for crop failure in Kenya was a forgotten idea and many farmers lost income in the event of occurrence of catastrophe. Zeller, Shrieder, von Braun, and Heidhues (1997) termed insurance as forgotten third after savings which Robert Vogel in 1980s termed it a forgotten half of finance. Microfinance institutions insure crops against any loss because they were not ready to lose their money in the event of catastrophe since they were the financiers. Microfinance institution did also assure the lives of their clients such that in the event of death, microfinance institution would be indemnified by the insurance firm and that no family member of the deceased would be forced to pay the debt of the deceased. Insuring crops saved the farmer of his income as the farmer is assured of a stable income at the end of the season. Most recent estimates showed that there are about five hundred million microfinance clients in the countries rated as development. It was envisaged that it would pass the one billion figure by the end of this decade (micro insurance network 2013). Crops insurance and livestock insurance are among those leading to the rapid increase in clientele as insurance companies broadened the geographic scope and range of insurance services that a retailer made to suit low income people. Microfinance institutions insure crops and livestock on behalf of the farmers and thereby making premium part of the loan disbursed. This premium is proportionate to the probability and cost of the risk as Churchill (2006) argues that microfinance is guarding low-income people against specific risk and the consideration being the regular monthly premium that is equivalent to the probability that was equivalent to the probability of the risk. The premium paid is for both the life assurance of the debtor and insurance for either crops or livestock depending on what the client invested in. Martines (2012) argued that micro insurance provide the poor to access services of insurance products in pursuit of poverty alleviation and provide complete insurance guard to the people who have interest in microfinance business. Farmers in this case are protected against crops failure and death of livestock thus reducing poverty level in the society as no farmer is bound to lose property. In other words, crop insurance smoothen fluctuations in the income of the policy holder which are consequences of exogenous causes, for example, the state of nature. Friedman and Savage (1948) termed that as a theory of trade-offs whereby the trade-off is between big losses that are firmly relied on not to happen and small losses which may be firmly relied on to happen that the premium payment represent. All in all, microfinance through micro insurance undertakes two insurance, one against the crop failure, and the other assures against the lives of the clients when one takes up a loan in any microfinance institution, assurance was taken for his own life and also, insurance is taken for him against the crops failure for which the loan disbursed was used to finance. In such situations neither the microfinance institution nor the farmer lose in the event of a catastrophe. The micro insurance indemnifies the farmer, and the farmer is made to be able to repay the debt that microfinance institution had advanced. This would smoothen income for both the microfinance institution and the micro creditor (Friedman and Savage, 1948).

### **2.2.4 Savings services**

Finlay and Price (2014) defined savings as the variance between disposable income and consumption. A lot of financial institutions in underdeveloped economies supply savings products with no progress made to merit products' design (Ashraf, Karlan, Yin, 2006). Savings is a paramount to households as it smoothen

consumption in the future (Karlan, et al, 2006). The future is volatile and the need to save arises in order to absorb the unpredictable shocks. However, the designs tailored by microfinance institutions suit their needs and no proper designs have been made to suit the needs of the small scale farmers. Microfinance institutions would just want deposits from the poor, only to give out as loans and in the process do not care about the poor, thus leaving them in financial quagmire. The rate of interest given to depositors is very low as juxtaposed to the rate they charge the loan borrowers. This rate of interest disparity was the cause why poor people may not derive any meaningful income from microfinance institutions (Mudida 2011). Apart from giving meagre interest rates, the government on the other hand charge withholding tax at the source. This further reduces income of the poor people. Savings did not smoothen consumption of the poor people but smoothen consumption of microfinance institutions and the government as they reap so much than the poor (Saleemi 2014).

Microfinance institutions have two-fold objectives. Markowski (2002) argue that microfinance institutions have dual missions to undertake in providing financial services and creating wealth for the organization. Simanowitz and Walter (2002) argued that microfinance works hand in hand to accommodate both social mission and commercial mission. More emphasis is put on financial and institutional performance than maximizing opportunities for the poor. Morduch (2004) argued that the trade-offs of institutional performance and maximizing opportunities for the poor is achieved when microfinance institutions have sound managements and understand vividly the market of their clients. Pawlak and Matul (2004) argued that microfinance institutions should emphasise maximizing opportunities for the poor first as institutional performance was achieved in the long-run. Morduch (2004) argued that achieving enough profits by microfinance and very strong social performance is the ultimate goal of microfinance though it was neither easy nor impossible. Due to the predicaments afflicting the poor people, they resort to informal savings instead of the formal savings. But again it is still costly to them since deposit collectors are engaged and this implies negative return on savings (Rutherford, 2000). Based on false assumption, Kempson (1998, 2000) and Whyley (2000) argued that informal saving is not considered as saving at all. But according to Grameen Bank (2000) informal saving is considered saving as savings is established when a group of people in their rendezvous meetings and in agreement, come together, agreeing to make regular donations to the common fund which is then disbursed as a loan to one member of the group in one cycle. This model, Harper and Malcom (2002) is a very rampant strategy of saving and credit. Harper further stated that the members of the group are often and usually made up of neighbours and friends who create social interaction. This paradigm of rotating savings and credit association is very popular among the women (Harper and Malcom, 2002). This model existed and was used in Africa for many years. In Ghana, it is called Susu. Little (1957) described Susu in the context of rotating, savings and credit associations. In Kenya according to Bouman (1995) rotating, savings and credit associations, (ROSCA), is also called Mabati, Nyakinyua, itega, mkutanoya wanawake and mikutano ya wazee in some of Kenyan dialects. Mkutano is a Kiswahili name, when translated, it is the rendezvous. This is a kind of meeting that is normally identified with certain group of the demography. As aforementioned, it is the meeting of the women or the meeting of the men. It therefore depicts a meeting of special class or group of a society. Today, in the Western part of Kenya, it is named "muganda" or "Jumuiya." In this form or type of ROSCA members contribute daily, weekly or monthly, basis whereby only a single member is awarded the loan. The rest of the members wait for their time to receive their loans. (Bouman 1995)

The informal savings that are gathered together informally are seen as more reachable and suitable for short term needs of the poor (Chapman, 2003, Dominy and Kempson, 2006 and Whyley, 2000). However, informal savings is traditionally typified with small amounts of contribution (Kempson, 1998, Dominy and Kempson, 2006). On the contrary, (Kempson, 1998, and Whyley and Kempson, 2000) argued that the amount of contributions saved can rise up with time. According to Kempson and Finney (2009), saving is distinguishable in three categories. These categories are putting money into the savings, saving up and putting money aside. They further argued these distinguishable categories confirm reasons as to why poor people save and the distinctive ways of saving. In putting money into savings, which many people tend to believe as saving, happens when disposable income remain after all cash outflows have been met. Money saved in this mode is traditionally deposited into formal savings accounts and usually saved when there is no specific long term needs (Kempson, 1998). Saving up on the other hand usually relate to money that is kept for meeting ad hoc purposes that constitute huge expenditure. The last category, putting money aside involves putting aside money for regular expenses in the household and may be kept away from the households' safety (Kempson, 1998). However, small scale farmers save their money, that is, the profits derived from the sale of their farm produce awaiting the next planting season and also for precautionary motives. In other words, microfinance institutions need to reason and understand clearly why and how small scale farmers save and then make products tailored to meet their needs and expectations. (Kempson et al 2009).

**2.2.5 Government polices**

Government of Kenya regulate banking sector, microfinance included, through the Central Bank of Kenya (Mudida 2011). This regulatory measures may have some effects on the operation of microfinance institutions. CBK may want to increase money circulating in the economy thus making microfinance institutions lower the rate of interest on savings which ultimately lower the income of the savers, who in this case are the small scale farmers. This intervening variable, government policy, lower the amount of income generated by small scale farmers.

**2.3 Research gaps**

Research gaps are explained as important questions for which there is “poor quality” of existing literature (Chou, 2009). He further explained evidence to be of poor quality if the result was uncertain because of series of procedural shortcomings, sparse data or results that were not consistent. The researcher identified empirical researches on impacts of microfinance and poverty alleviation on microfinance clients, microfinance and poverty reduction, microfinance on savings, impacts of microfinance on assets and there exists gaps in the study of micro financing on the income generation of small scale farmers.

Due to poverty and the scanty availability of literature on the role of micro financing on the income generation of small scale farmers, the researcher was agitated to promptly assess the roles of microfinance on the income generation of small scale farmers in Kenya.

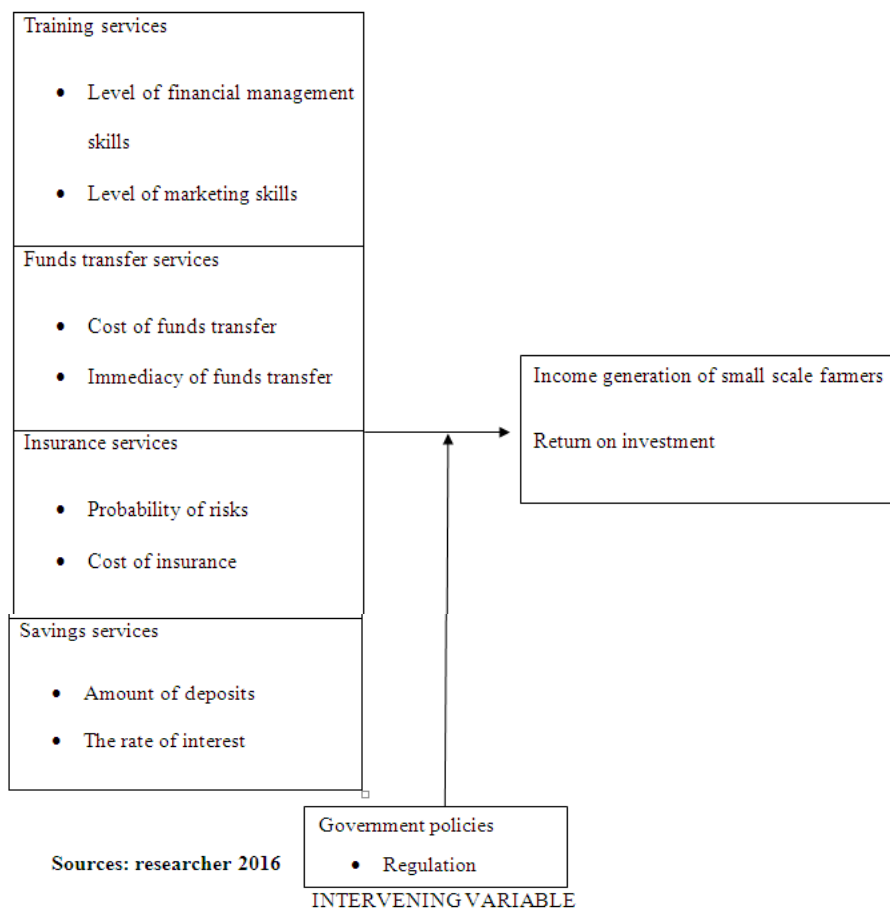
**2.4 Conceptual frame work**

According to Victoria, Huttly, Fuchs, and Olinto (1997) conceptual framework represents a guide for the employment of multivariate techniques which assist the interpretation of their outcomes in the light of a social and logical knowledge. Conceptual framework explains the role of micro financing on the income generation of small scale farmers.

**Figure 2.1: Conceptual Framework**

INDEPENDENT VARIABLES

DEPENDENT VARIABLE





### III. Research Methodology

#### 3.1 Research Design

The study adopted a descriptive research design to assess micro financing on the income generation of small scale farmers. This type of design was adopted as it was the most suitable in describing a phenomenon at that moment (Kothari, 2009). Best, John and Kahn, (2007) defined descriptive research as comprising collection of quantitative and qualitative data in order to answer questions or test hypothesis regarding the up-to-date status of the subject of the study. Mugenda and Mugenda (2003) noted that the design sought to distinguish the nature of factors encountered in a given condition, determine the extent in which they exist and unearth the links that exist in their midst. The research design was relevant in this study because it begot statistical information concerning independent variables on dependent variable under study. It helped the researcher in assessing training services, funds transfer services, insurance services and savings services provision. The design in its capacity, enabled the researcher to carry out a study using relevant literature which was studied and a further field work to collect primary data applying qualitative data collection methods.

#### 3.2 Geographical Description of the Study Area

Trans Nzoia County is one of the forty seven counties in Kenya created after promulgation of the new constitution in 2010. Kenya sits in East Africa on the continent of Africa. Trans Nzoia County is bounded to the north by West Pokot County, to the East by Elgeyo-Marakwet County, to the south by Uasin-Gishu and Kakamega Counties and to the west by both Bungoma County and Uganda. It lies approximately between latitude 0° and 52' and 1°18' North of equator and longitude 34°38' and 35°23' east of the Greenwich Meridian. Trans Nzoia County is headquartered at Kitale town, 380 kilometres North West of Nairobi. The area of study covers five sub counties namely, Trans Nzoia East, Kiminini, Saboti, Endebess and Kwanza.

#### 3.3 Target Population

Population is defined as the total number of people, objects or characteristics that are being considered (Ozo, Oro, Ani and Ugwu, 2007). According to the report acquired from the Ministry of Agriculture of Trans Nzoia County (2016), there were 51,036 households practising small scale farming. Their farmland range from 2.5 to 5 acres. The table below represent population by sex, household, density, acreage and census years.

**Table 3.1: Population by Sex, Households and Density, Acreage, and Census Years**

Census Year	Male	Female	Total	House holds	Acreage 2.5 – 5 30% of total House holds	Area (Sq. Km)	Density (pop/km <sup>2</sup> )
1969	65,035	59,324	124,361	—	—	2,495	50
1979	136,152	127,611	264,063	—	—	2,495	106
1989	197,874	195,808	393,682	72,669	—	2,467	160
1999	286,836	288,826	575,662	116,122	—	2,487	231
2009	407,172	411,585	818,757	170,117	51,036	2,496	1041

Source: Ministry of Agriculture, Trans Nzoia County

#### 3.4 Sample and Sampling techniques

##### 3.4.1 Sample size

Sample size was arrived at using the formula of Niasurma (2000). The formula given as:

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where

n = sample size

c = coefficient of variation (0.5)

e = level of precision (0.05)

N = population (51,036)

$$\text{Sample size} = \frac{51036 \times (0.5)^2}{0.5^2 + (51036 - 1)0.05^2}$$

$$n = \frac{51036 \times 0.25}{0.25 + (51035 \times 0.0025)}$$

$$n = \frac{12759}{0.25 + 12.4975} = \frac{12759}{127.837} = 99.807$$

$$n = 100$$

Therefore, sample size was 100 which was the minimum, plus 50 which caters for non-response that may arise. The sample size constituted of 150 households, with each sub county having a sample size of 30 households across Trans Nzoia County.

Table 3.2: Sample size in sub counties

Sub County	Households
Cherangany	30
Kwanza	30
Kiminini	30
Saboti	30
Endebess	30
Total	150

### 3.4.2 Sampling Technique

The sampling technique that was applied in this research was simple random sampling. In the words of Saleemi (2014) simple random sampling is where each individual is chosen randomly and entirely by chance. It was applied to avoid partisanship and that it would be a subset of statistical population in which each member of the subject has an equal probability of being chosen. In each sub-county, there were 30 respondents whom were chosen randomly by way of picking lucky numbers between one and thirty. Those beyond thirty would not be considered as respondents.

### 3.5 Instruments of Data Collection

Data collection instruments were tools used to extract data from the respondents. Questionnaires and interview schedules therefore were the instruments used in the study.

Dwivedi (2006) defined questionnaire as a device for extracting answers to questions by using a set of questions. The questionnaires were preferred because the study was concerned with collection of opinions, insights and moods which were not observable (Oso and Onen, 2005).

Interviews were the most prevalent forms of data collection in qualitative research Saleemi (2014). Saleemi (2014) argued that the aim of an interview is to gain open subtle descriptions of different aspects of the subjects' life world. Interview schedules were used to probe farmers who were illiterate. The questionnaires and interview schedules were pretested to determine its validity and reliability.

#### 3.5.1 Pilot Testing of the Instrument

A piloting was undertaken by five small scale farmers in the county under study. These farmers were not included in the process of doing the research. A data entry screen was developed using these questionnaires and the data keyed in and analysed. Results were used to make the necessary adjustments and corrections (Mugenda and Mugenda, 2003). The essence of piloting was to determine the accuracy and consistency of the instrument prior to administering to the respondents.

#### 3.5.2 Validity

Validity is the extent to which an instrument measures what is looking forward to measure (Kothari, 2009). According to Leedy and Ormrod (2005) and Silverman (2005), content and construct validity are supposed to be established by referring the instruments for professional judgement to confirm if it measures what it purports to measure. The supervisor gave the confirmation. Chou (2009) argued that results are not valid when there are series of procedural shortcomings and sparse data collected. Factors affecting validity were taken care of and as such subject variability, more than three months duration given for data collection, research tools sensitivity, size of subject population, population characteristics, descriptive explicitness of the independent variable, data collection methodology and the effect of the research environment was addressed fully. Anastasi and Urbina (1997) defined that content validity is the systematic examination to determine whether the instruments incorporate a representative sample of the deeds to be measured. In this case the questionnaire had items covering all areas of small scale farming and micro financing discussed in the literature. This involves the extent to which the content of the test was congruent to the domain related to the construct.

Again, validity was confirmed by the application of what was called test validity. Messick (1995), described test validity as a construct that various inferences generating from test scores might require unique types of evidence with no different validities. Test validity was therefore the degree to which evidence and theory support the interpretation of test scores contained by supposed uses of test.

#### 3.5.3 Reliability

Reliability refers to the extent to which findings can be replicated by another researcher (Silverman, 2005). Kothari (2009) termed it as an internal consistency of the research instrument.

In this research, reliability was confirmed by the use of Cronbach's alpha coefficient. Fraenkel and Wallen (2006) defined Cronbach alpha as an internal consistency or reliability coefficient for an instrument requiring only one test administration. Cronbach's alpha was used over the other methods since it was a general form of Kuder-Richardson 20 formula used on tests where more than one answer was possible (Fraenkel and

Wallen, 2006). They further defined Cronbach's alpha as an internal consistency and reliability coefficient for an instrument requiring only one test operation. This reliability coefficient should lie between 0 and 1, though there could be negative figures since it is a bipolar but negative numbers are disregarded (Fraenkel and Wallen 2006). They further stated that the Cronbach's acceptable level of coefficient is 0.8.

### **3.6 Data Collection Procedure**

A letter of approval was sought from the office of Postgraduate Studies, Kisii University. The letter was used to acquire a research authorisation from the National Commission of Science, Technology and Innovation (NACOSTI). After securing the permit, the researcher sought another permission for field entry from the County Commissioner of Trans Nzoia which was also permitted. The questionnaires were availed by the researcher to the respondents thereby allowing the process to take about thirty minutes for respondents' digestions.

Interviews were conducted by the researcher. Respondents who took part in this interview were visited and appropriate dates were booked for one-on-one interview.

Data collection procedures used in this regard was primary data, that is, it was extracted for the very first time. Saleemi (2014) defines primary data as data that is collected first time, which could be collected directly or indirectly. Saleemi further argued that it is original in its state and shape of raw material. Primary data collection is highly reliable, relatively cheap and gives more relevant and accurate information (Saleemi 2014). Secondary data was also used in this study. Secondary data is the data that is retrieved from the existing records such as journals, periodicals, central bank reports, universities, governments, and individual research works (Saleemi, 2014).

### **3.7 Data analysis procedure**

Quantitative and qualitative data was generated by use of questionnaires and interview schedules. Data was analysed through multiple linear regression method. Yan and Xin (2009) defined multiple linear regression as having more than one explanatory variable and one scalar variable. In this research, the explanatory variables were training services, funds transfer's services, insurance services and savings services. The only scalar variable was income. The scalar variable was denoted Y while the explanatory variable denoted X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> and X<sub>4</sub>. The multiple linear regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where

Y = Scalar variable (dependent) income

X<sub>1</sub> = Training service (explanatory variable)

X<sub>2</sub> = Funds transfer service (explanatory variable)

X<sub>3</sub> = Insurance service (explanatory variable)

X<sub>4</sub> = Savings services (explanatory variable)

β = constant

ε = term error

This multiple regression uses the four independent variable aforementioned to predict the outcome of income.

Another method that was used to analyse the data was the use of the measure of central tendency, which in this case were the averages, namely, mean, median and mode. Also measures of dispersion, that is, standard deviation was used. Graphically bar graphs were used to analyse the data.

#### **3.7.1 Assumptions of the regression model**

Gaus-Markov Model assumptions were adopted in the study in order to guarantee that ordinary regression estimation model works. The assumptions were the following: First, the model assumed the linear relationship where the dependent and independent variables were in linear manner. Secondly, the model assumed that distribution of population took a normal distribution. Lastly, the study assumed that error terms were uncorrelated and that the errors had an expected value zero.

### **3.8 Ethical Consideration**

Mugenda and Mugenda (2003) defined ethics as that brand of philosophy which covers one's way of behaviour and acts as a guide to one's way of behaviour. Before commencing the research, the researcher sought permission from School of Postgraduate Studies to carry out the study. After clearance from the relevant school, the researcher sought permit from NACOSTI. Informed consent was acquired from all respondent before collecting data (Bodgan and Biklen, 1998). The researcher observed total confidentiality and regards forming secrets adopted by small scale farmers in doing their farming activities. Once more, the information extracted

from the respondents shall be free from interference and business. Ethical considerations were followed all along in undertaking the whole process of this study.

#### IV. Data Analysis, Results and Discussions

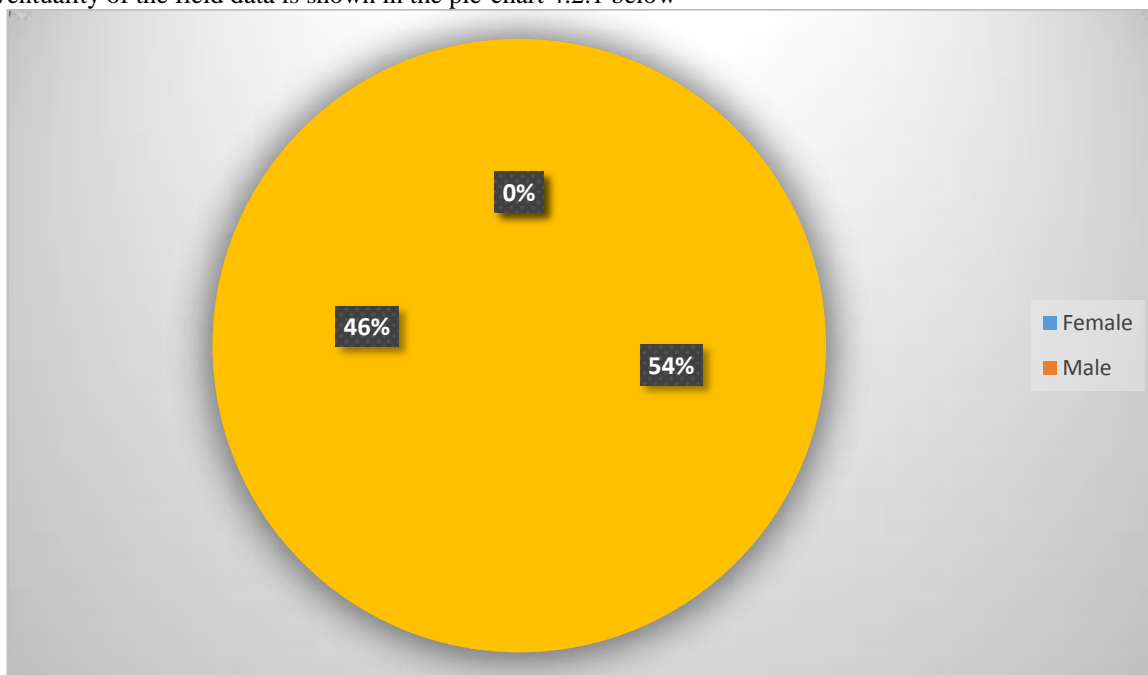
##### 4.1 Response Rate

The researcher distributed 150 questionnaires that were duly approved to the respondent and 122 questionnaires were filled and returned .The response rate was 81%, thus the study findings are not poised to be abrogated.

##### 4.2 Demographic Characteristics of the Respondents

###### 4.2.1 Gender of the respondents

The study sought to establish the gender position of the small farmers who participated in the study. The eventuality of the field data is shown in the pie-chart 4.2.1 below



Source: field data, (2017)

Majority of the respondents were female taking 54% representing 66 female. The reason leading to this number was partly because of feminization of poverty, lack of collateral to take up loans from the conventional banks and that women were fairly committed to repaying their microcredits than their male counterparts. 46% were male representing 56 respondents. This was because men own assets and that they have collateral to secure loans from conventional banks, don't have huge palatability of social groupings and gatherings like women since micro credits are formerly given to member groups, they are serious defaulters and they are known to divert loans disbursed.

###### 4.2.2 Age of the Respondents

The study sought to establish the age of the small scale farmers who took part in the study. The outcome of the field data is shown in table 4.2.2 below.

**Table 4.2.2 Age of the small scale farmers**

Age group category	frequency	Percentage
Younger than 24 years old	13	11%
Between 25-34	20	16%
Between 35-44	31	25%
Between 45-54	44	36%
Older than 55 years	14	12%
Total	122	100%

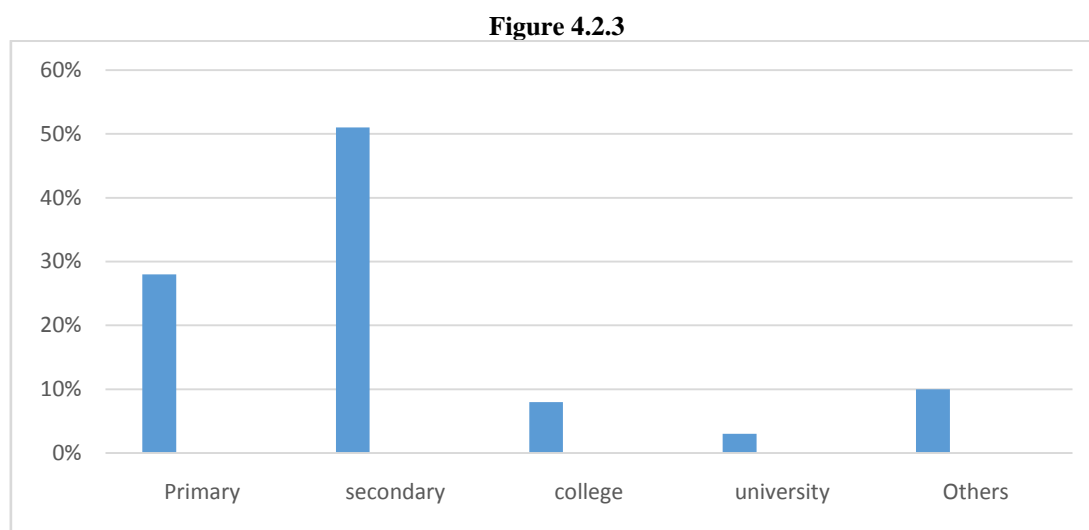
Source: field data, (2017)

Majority of the respondents fell within the range of 45 to 54 years old consisting of 36% representing 44 respondents. This was because this group consisted of parents paying capitation in the form of secondary,

college and university fees and that they had little to plough back to their farming activities hence they looked for micro credits to finance their farming activities. 25% representing 31 respondents fell within the range of 35 to 44 years. This was so because the group consisted of people interested in creation of their wealth. 16% representing 20 respondents fell within the range of 25-34 years old. 12% representing 14 respondents were over 55 years while 11% representing 13 respondents were younger than 24 years old. Majority of those younger than 24 years were not interested in farming activities since they were still searching for white collar jobs and carrying out motor bike business. Majority of those with 55 years are people who own assets and so they can acquire credits from conventional banks.

**4.2.3 Educational Level of the Small Scale Farmers.**

The study sought to establish the educational background of the small farmers. The results received are shown in figure below:



**Source: field data, (2017)**

From the above figure, 28% of the respondents had attained primary level of educations, 51% had secondary level of education while 8% had college level of education and only 3% had university level of education. 10% had no formal education. This implies that majority of the respondents are sagacious, dynamic and receptive of technological and innovative changes that lead to making wise and sound investment decisions. The level of education one attains is likely to influence the kind of decisions one makes and thus affect the viability and performance of the farming activities.

**4.2.4. Motivation to Self-employment**

Variable	frequency	Percentage
Need for financial autonomy	9	7.4%
Insufficient family income	58	47.5%
Entered family business	08	6.6%
Due to redundancies	04	3.3%
Family tradition	17	13.9%
Source of employment	16	21.3%
Total	122	100

**Source: Field data, (2017)**

Table 4.2.4 shows that a total of 58 (47.5%) of the farming activities were established because small scale farmers had insufficient family income while 26 (21.3%) entered small scale farming activities as a source of employment. 17 (13.9%) joined farming activities because it was family business tradition while 8 (6.6 %) as it was the family business. 9 (7.4%) sought financial autonomy while as 4 (3.3%) were because of redundancies.

**4.3 Farming Profile**

**4.3.1 Type of Farming Activity**

The study sought to establish the type of farming activities engaged in. The findings are shown in table 4.3.1

**Table 4.3.1 Type of Farming Activities**

Type of farming	frequency	percentage
Horticultural	23	19%
Dairy	37	30%
Maize	62	51%
Total	122	100

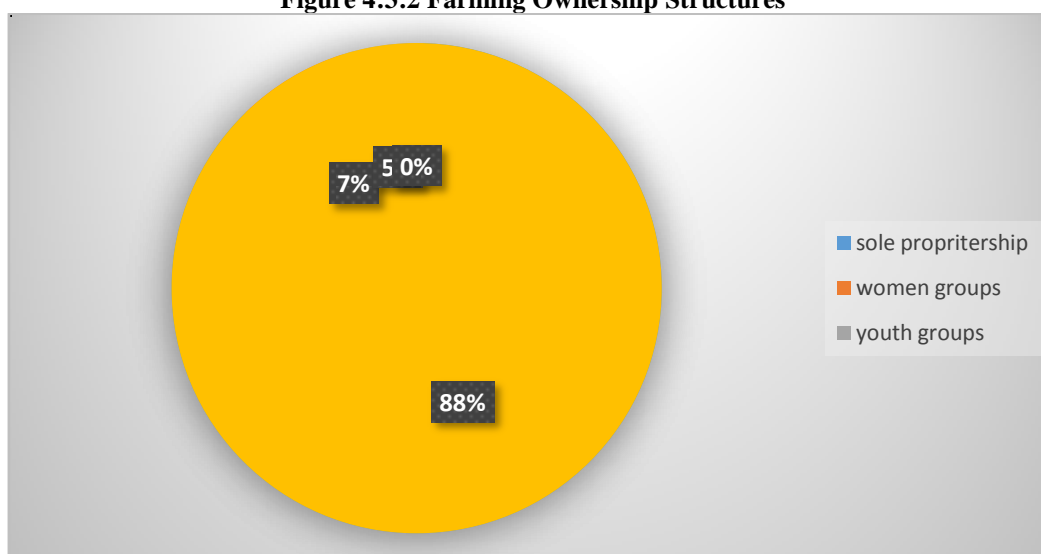
Source: field data (2017)

The findings indicated that 62 (51%) of the respondents practiced maize farming while 37 (30%) engaged in dairy farming. The rest of the respondents being 23(19%) did horticultural farming.

#### 4.3.2 Farming Ownership Structure

The study sought to find out the ownership structure of the farming activities who participated in the study. The findings of the study are shown below:

**Figure 4:3:2 Farming Ownership Structures**



Source: field data, (2017)

Most of the small scale farmers who participated in the study operated as sole proprietors (88.7%) and a few operating as women groups and youth groups representing (7.6% and 5.0 %) respectively.

#### 4.3.3 Duration of Farming Establishment

The study established the length of the time the small scale farmers had practiced their farming activities. The study findings are shown below in the table 4.3.3

**Table 4.3.3 Duration of farming establishment**

Period of establishment	frequency	percentage
Less than 3 years	16	13.12
4-7 years	27	22.13
8-11 years	48	39.34
Over 12 years	31	25.41
Total	122	100

Source: field data, (2017)

The findings of the study indicate that 39.3% representing 48 respondents had been in operation for a period between 8-11 years while 25.4% representing 31 respondents had been operation for over 12 years. 22.1% representing 27 respondents had operated between 4-7 years as 13.1% representing 16 respondents had less than 3 years in operation.

#### 4.3.4 Geographical Location of Farmlands

The study sought to find out the geographical locations of the farmlands. The study findings are shown in table 4.3.4

**Table 4.3.4 Farmlands location**

Farming location	frequency	percentage
Rural farming	118	97%
Urban farming	04	03%
total	122	100

Source: field data, 2017

The findings indicate that most of the farmlands are situated in rural areas taking 97% representing 118 respondents while 03% representing 4 respondents are situated in urban areas.

#### 4.4 Training Services

Respondents were asked to indicate their proficiency in the under-mentioned skill sets by using a five-point scale where 5=strongly agree, 4=agree, 3=undecided, 2=disagree and 1=strongly disagree. Findings are presented in the table below.

	Strongly agree	agree	undecided	disagree	Strongly disagree	N	Mean	Std. Deviation
Farmers have knowledge in book keeping	58 47.5%	29 23.8%	05 4.1%	13 10.7%	17 13.9%	122	3.80	1.475
Farmers have knowledge in marketing skills	67 54.9%	27 22.1%	03 2.5%	18 14.8%	07 5.7%	122	4.06	1.300
Farmers have knowledge for compliance with state tax laws	52 42.6%	30 24.6%	09 7.4%	15 12.3%	16 13.1%	122	3.71	1.452
Farmers have high analytical skills	68 55.7%	28 23%	04 3.3%	17 13.9%	05 4.1%	122	4.12	1.230
Farmers have guidelines on procurement of farm inputs	40 32.8%	37 30.3%	14 11.5%	19 15.6%	12 9.8%	122	3.61	1.346
Valid N (list wise)						122		

The study revealed that respondents agreed with the statements in the above table since the mean values were ranging between 3.61 and 4.12. Respondents agreed that farmers have knowledge in book keeping (M=3.80, SD=1.475). This therefore affirms that farmers kept records pertaining to financial transactions such as purchases, sales, receipts and payments in their books. By keeping these financial records farmers were able to ascertain easily the amount of profit earned in a given period of time. The study further revealed that respondents agreed that farmers have knowledge in marketing skills (M=4.06, SD=1.300). By farmers acceding to this, it demonstrates that they knew the markets where they could take their products that earned to them more revenues, that they understood pricing techniques and that they knew the time when to dispose of their produce to fetch highest prices when demand is at the peak. Again, the study revealed that respondents agreed that farmers have knowledge for compliance with state tax laws (M=3.71, SD=1.452). This portrays that farmers file their returns with the Kenya Revenue Authority on time to avoid penalties imposed due to non-compliance or lateness in filing their returns which in return can reduce profitability. Furthermore, the results revealed that respondents agreed that farmers have high analytical skills (M=4.12, SD=1.230). In farmers having analytical skills this manifests that farmers have abilities in collecting, sieving and analyse information, solve problems and make sound financial decisions. These capabilities can help solve farmers' problems, increase productivity as well as benefitting productivity. Once more the study revealed that respondents agreed that farmers have guidelines on procurement of farm inputs (M=3.61, SD=1.346). This illustrates that farmers knew where to buy certified seeds and fertilizers which are scientifically proven to increase productivity and resistance to diseases and pest thus reducing cost of production.

According to this independent variable, farmers agreed that they were skilled as a result of training programmes with an average mean of 3.86 and an average standard deviation of about 1.3606.

#### 4.5 Funds Transfer Services

Respondents were asked to indicate their achievement on funds transfer services by using a five-point scale where 5=strongly agree, 4=agree, 3=undecided, 2=disagree and 1=strongly disagree. Findings are presented in the table below.

	Strongly agree	agree	undecided	disagree	Strongly disagree	N	Mean	Std. Deviation
Funds transfer services are convenient and reliable in your local community	37 30.3%	33 27%	09 7.4%	14 11.5%	29 23.8%	12 2	3.29	1.577
Costs attached to funds transfer services are reasonable	52 42.6%	30 24.6%	09 7.4%	10 8.2%	21 17.2%	12 2	3.57	1.454
Confidentiality and secrecy observed	57 46.7%	29 23.8%	02 1.6%	21 17.2%	13 10.7%	12 2	3.79	1.450
Farmers have trust and faith in funds transfer agencies	51 41.8%	30 24.6%	09 7.4%	24 19.7%	08 6.5%	12 2	3.75	1.350
Customer support services are reliable	48 39.3%	38 31.2%	03 2.5%	07 5.7%	26 21.3%	12 2	3.61	1.561
Valid N (listwise)						12 2		

The study revealed that respondents had mixed feelings on funds transfer services. Respondents were undecided regarding funds transfer services being convenient and reliable in their communities as shown by the mean value of (M=3.29, SD=1.577). Farmers are non-committal to this due to the restrictions on limits regarding payments and sometimes farmers make payments to wrong accounts. Again, it may take a long period of time to supply farm inputs by microfinance institutions thus subjecting farmers to miss dry planting seasons which is the best planting period and hence reduce yields of output. The study further revealed that respondents on the other hand agreed that costs attached to funds transfer services are reasonable (M=3.57, SD=1.454). Farmers acknowledge that cost incurred on funds transfers are not exorbitant and that they are cheap compared to other means of making payments. In this regard they are optimistic to reap more as costs are reduced tremendously. Again, the study revealed that respondents agreed that confidentiality and secrecy observed (M=3.79, SD=1.450). Farmers accept that Confidentiality and secrecy is observed by microfinance institutions in that they don't disclose financial transactions of the clients. This will not only expose clients to theft and hackings of information but also make farming more safe and profitable by encouraging use of funds transfer for online purchases of farm inputs. Again, the study revealed that the respondents agreed that farmers have trust and faith in funds transfer agencies (M=3.75, SD=1.450). Farmers agreed that they have trust and faith in funds transfers agencies in that funds will reach their wish of destination and the mode is safe for use. Trust and faith create confidence which is good for both the farmer and microfinance institutions. Once more, the study revealed that the respondent agreed that customer support services are reliable (M=3.61, SD=1.561). This demonstrates that in the event of a mistake on transmission of fund, funds transfer agencies take the initiative of following up the matter thus retrieving whatever lost during transmission. This will not put farmers on risk and hence do not interfere with the farmers' profitability. Moreover, farmers agreed that they are supported by microfinance institutions by enabling farm transfers to the farmers. Concerning the above results, small scale farmers agreed with the above statements with an average mean of 3.602 and an average standard deviation of about 1.5512.

#### 4.6 Insurance Services

Respondents were asked to indicate their achievements on insurance services by using a five-point scale where 5=strongly agree, 4=agree, 3=undecided, 2=disagree and 1=strongly disagree. Findings are presented in the table below.

	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	N	Mean	Std. Deviation
Insurance policy premiums are affordable to small scale farmers	60 49.2	21 17.2%	08 6.6%	06 4.9%	27 22.1%	122	3.66	1.629



Probability of occurrence of catastrophe is high in your locality	55 45.1%	33 27%	01 0.80%	19 15.6%	14 11.5%	122	3.79	1.444	
Insurance firms compensate the farmers immediately in the event of occurrence of a risk	41 33.6%	37 30.3%	09 7.4%	13 10.7%	22 18%	122	3.51	1.495	
Insurance firms offer good customer support services	58 47.5%	24 19.7%	06 4.9%	09 7.4%	25 20.5%	122	3.66	1.604	
Insurance firms put the need of the clients first	39 31.9%	30 24.6%	11 9%	13 10.7%	29 23.8%	122	3.30	1.584	
Valid N (list wise)							122		

Findings revealed mixed feelings among respondents concerning their achievements on insurance services. Respondents were not sure whether insurance firms put the need of the clients first (M=3.30, SD=1.584). This implies that farmers could not explain insurance firms commitment to putting customers' needs first, meaning microfinance institutions put their interest first at their expense of the farmers. On the other hand, respondents agreed that insurance policy premiums were affordable to small scale farmers (M=3.66, SD=1.629). This demonstrate that insurance firms offered simple, affordable and effective insurance products that reduce risks from droughts and other catastrophic shocks. Further analysis disclosed that respondents agreed that probability of occurrence of catastrophe is high in their locality (M=3.79, SD=1.444). This affirmed that farmers need to be cushioned from the shocks in the event of catastrophe since the locality is prone to catastrophic happenings. Again, respondents agreed that insurance firms compensate the farmers immediately in the event of occurrence of a risk (M=3.51, SD= 1.495). This shows that farmers lived without worries and fears of their future, pay capitation and feed their families even in the event of drought, gain access to micro credits and offer services for farms and families and invest in their preferred cash crops. Finally, respondent agreed that insurance firms offer good customer support services (M=3.66, SD=1.604). This depicts that farmers agreed that insurance firms were customer centric firms and upheld relationships beyond insurance by providing complete communication and solutions that were satisfactory. They endeavored to solve customers' concerns in responding promptly addressing grievance redress officers.

Going by the above results, farmers agreed on the above statements concerning insurance services with an average mean of 3.584 and an average standard deviation of about 1.5512.

#### 4.7 Savings Services

Respondents were asked to indicate their achievements on savings services by using a five-point scale where 5=strongly agree, 4=agree, 3=undecided, 2=disagree and 1=strongly disagree. Findings are presented in the table below.

	Strongly agree	Agree	undecided	disagree	Strongly disagree	N	Mean	Std. Deviation	
Microfinance institutions offer reasonable rates of interest on savings	42 34.4%	34 27.9%	13 10.6%	18 14.8%	15 12.3%	122	2.52	1.374	
Microfinance institutions offer bonus interest rates on savings	46 37.7%	33 27%	-	13 10.7%	30 24.6%	122	1.92	1.125	
There is accessibility in depositing your savings	32 26.2%	34 27.8%	23 18.9%	08 6.6%	25 20.5%	122	1.78	.975	
Microfinance institutions offer sufficient online savings services	36 29.5%	45 36.9%	13 10.7%	21 17.2%	07 5.7%	122	1.77	1.043	
Opening a savings account is very easy	47 38.5%	26 21.3%	-	20 16.4%	29 23.8%	122	3.25	1.508	
Valid N (listwise)							122		

Findings revealed mixed feelings among respondents concerning their proficiency in savings services. Respondents were not sure if microfinance institutions offer reasonable rates of interest on savings (M=2.52, SD=1.374). This portrays that microfinance institutions did not offer rates of interest on savings that were satisfactory to their clients thus farmers were keeping their money with microfinance just for safe keeping and not to earn attractive interest. Again farmers were not sure if opening a savings account is very easy (M=3.25,

SD=1.508). This means that microfinance institution have not automated their process of opening savings accounts as juxtaposed with convectional banks. This once more portrays that there exist bureaucracy in opening savings account. On the other hand, respondents disagreed that Microfinance institutions offer bonus interest rates on savings (M=1.92, SD=1.125). This affirms that microfinance institutions do not give incentives on savings and thus savings do not add much value to the income of the farmers. Further analysis shows that farmers disagreed that there is accessibility in depositing their savings (M=1.78, SD=.975). This means that members undergo risks of losing money since one member is trusted to take their deposit to the branch office which is geographically located far away. Some members ended up misusing members' savings hence make members pay double in terms of regular savings. Lastly, farmers disagreed that microfinance institutions offer sufficient online savings services (M=1.77, SD=1.043). This depicts that microfinance institution are yet to digitize their operations.

From the above deductions, farmers disagreed with the statements regarding savings services with an average mean of 2.248 and an average standard deviation of about 1.205

#### 4.8 Return on Investment

Respondents were asked to indicate achievements on returns on investment by using a five-point scale where 5=strongly agree, 4=agree, 3=undecided, 2=disagree and 1=strongly disagree. Findings are presented in the table below.

#### Return on Investment

	Strongly agree	Agree	undecided	disagree	Strongly disagree	N	Mean	Std. Deviation
My children are enrolled in the best schools	10 8%	18 15%	-	41 34%	53 43%	122	3.89	1.329
I have expanded my farming activities	06 5%	21 17%	-	33 27%	62 51%	122	4.02	1.286
I have enough food for my family consumption	23 18.9%	16 13.1%	-	36 29.5%	47 38.5%	122	3.56	1.559
I have access to clean and safe water	03 2%	18 15%	-	38 31%	63 52%	122	4.16	1.150
I have proper and decent housing	11 9%	15 12%	-	22 18%	74 61%	122	4.09	1.385
Valid N (listwise)						122		

Findings revealed that respondents agreed with the following statements. Respondents affirm that their children were enrolled in the best schools (M=3.89, SD=1.329). This proves that farmers were able to pay capitation for their children from the proceeds of farming activities arising from the services of microfinance institutions. Further analysis shows that farmers agreed that they had expanded their farming activities (M=4.02, SD=1.286). This depicts that there is increase in terms of acreage under cultivation and also improvement in animals rearing. Further analysis shows that farmers agreed they had enough food for their families consumption (M=3.56, SD=1.5559). This discloses that due to microfinance services, farmers were able to sell some of their produce and at the same time remained with sufficient food stuffs for their consumption. Again, farmers agree they had access to clean and safe water for their use (M=4.16, SD=1.150). This portrays that farmers were connected to piped water that is safe for use by human beings. It also proved that farmers will not spend more on treatment of water born e diseases arising from use of contaminated water. Lastly, farmers agreed that they had proper and decent housing (M=4.09, SD=1.385). This means that proceeds from farming activities were used to build good houses for the farmers.

In general, farmers agreed with the above statements on return on investment with an average mean of 3.944 and an average standard deviation of about 1.34118.

#### 4.9 Regression Results

A multiple regression analysis was performed to test the relationship between the independent variables and the dependent variable. The results are presented in the tables below.

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	of the Durbin-Watson
1	.996 <sup>a</sup>	.991	.991	.12198	.664

a. Predictors: (Constant), X4, X3, X2, X1

b. Dependent Variable: Y

Model summary table offers the R, R<sup>2</sup>, adjusted R<sup>2</sup> and the standard error of the approximation which was used to determine how good the regression model fitted the data.

The “R” column represents the value of R, which is the multiple correlation coefficient. R is considered as a one measure of the quality of the prediction of the dependent variable in this case income generation. The value of 0.996 indicates a good level of prediction.

The “R Square” column represent the R square value which is the coefficient of determination. This is the proportional variance in the criterion variable that is explained by the explanatory variables. Statistically, it is the proportion of variation accounted for by the regression model and beyond the mean model. It can be deduced that the value of 0.991 explains 99.1% of the variability of the dependent variable, income generation, by the independent variables. The standard error of the estimate is .12198 which is the measure of the accuracy of predictions.

**Anova**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	193.294	4	48.324	3.248E3	.000 <sup>a</sup>
	Residual	1.741	117	.015		
	Total	195.035	121			

a. Predictors: (Constant), X4, X3, X2, X1

b. Dependent Variable: Y

The F-ration in the above ANOVA table tests whether the overall regression model is a good fit for the data. The table shows that the independent variables statistically significantly predicts the dependent variable, F (4,117) = 3.248E3, P < .0005. That is, the regression model is a good fit of the data.

**Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.041	.047		.890	.376
	X1	.543	.092	.620	5.875	.000
	X2	-.221	.085	-.266	-2.606	.010
	X3	.226	.019	.202	11.954	.000
	X4	.465	.037	.476	12.498	.000

a. Dependent Variable: Y

The general form of the equation to predict income generation from training services, funds transfer services, insurance services and savings services is: Predicated “Income generation” = .041 + .543X<sub>1</sub> - .221X<sub>2</sub> + .226X<sub>3</sub> + .465X<sub>4</sub>.

The unstandardized coefficients indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant. The unstandardized coefficient, B<sub>1</sub>, for training services is equal to 0.543. This means that the dependent variable, income varies with the independent variable (training services) by 0.543 when other independent variables are held constant. The unstandardized coefficient for B<sub>2</sub> for funds transfer services is equal to -0.221. This portrays that income generation varies with funds transfer service by -0.221 when other independent are held constant. Further analysis that the unstandardized coefficient of B<sub>3</sub> is 0.226. This indicates that income generation varies with insurance service by 0.226 when other independent variables are held constant. For B<sub>4</sub> the unstandardized coefficient is 0.465. This shows that the independent variable (income generation) varies with the independent variable (savings services) by 0.465 when other independent variables are held constant.

From the above table, the multiple regression equation can be rewritten as:

$$Y = .041 + .620X_1 - .266X_2 + .202X_3 + .476X_4 + .12198$$

**V. Summary, Conclusions and Recommendations**

**5.1 Summary of findings**

The general objectives of the study was to assess the role of microfinance on the income generation of small scale farmers in Trans Nzoia County, Kenya. In order to deal with this objective, four specific objectives were put into consideration. The specific objectives were to assess the role of training service provision on the income generation of small scale farmers in Trans Nzoia County, to determine the role of funds transfer service provision on the income generation of small scale farmers in Trans Nzoia County, to evaluate the role of

insurance service provision on the income generation of small scale farmers in Trans Nzoia County and to appraise the role of savings services provision on the income generation of small scale farmers in Trans Nzoia County.

The first specific objective assessed the role of training services provision on the income of small scale farmers and the findings revealed that farmers agreed that they had knowledge in book keeping, marketing skills and compliance with state tax laws. Also revealed was that farmers agreed that they had high analytical skills and guidelines on procurement of farm inputs. Revealed again was that farmers were undecided on proficiency on financial planning and management skills in drafting a business plan, preparing cash budget and preparing profits and loss account.

The second specific objective was to determine the role of funds transfer service provision and the findings showed that farmers were undecided on conveniences and reliability of funds transfer service. However, farmers agreed that cost attached to funds transfer services were reasonable, confidential and secrecy observed, farmers had trust and faith in funds transfer agencies and customer support services were reliable.

The third specific objective was to evaluate the role of insurance service provision and the findings portrayed that farmers were not sure whether insurance firms put the needs of the clients first. On the other hand, farmers agreed that insurance policy premiums were affordable to small scale farmers, probability of occurrence of catastrophe was high in their locality, insurance firms compensated farmers immediately in the event of occurrence of a risk and that insurance firms offered good customer support services.

The last specific objective was to appraise the role of savings services provision and the findings revealed that farmers were not sure if microfinance institutions offered reasonable rates on savings as well as whether opening a savings account was very easy. However, farmers disagreed that microfinance institutions offered bonus interest rates on savings, there was accessibility in depositing their savings and that microfinance offered sufficient online savings services .

## **5.2 Conclusions**

The study revealed that there is strong relationship between independent variables (training services, funds transfer service, insurance services and savings services) and dependent variable (income), hence null hypothesis refuted as income is statistically significantly predicted by independent variables. Also revealed is that income is statistically explained positively by training, insurance and savings services while funds transfer service is negatively explained as increment of one standard deviation of funds transfer service cause 26.6% decrement in the income of small scale farmers. Therefore funds transfer service is the reason why small scale farmers are poor in Kenya.

## **5.3 Recommendations**

The recommendations and suggestions pertaining the research are outlined below:

5.3.1 Microfinance institutions to invariably cultivate partnership by not offering training services sparingly but to offer dogging financial training services. Microfinance institutions should invest in retraining its employees to offer customised services suiting the needs of small scale farmers as well as embracing technological advancement since technology is ever changing.

5.3.2 Microfinance institutions should supply farm inputs on time so that small scale farmers can carry out dry planting as this would increase yields since farmers transmit their money on time but supplies are availed late after the planting season.

5.3.3 Microfinance institutions should lobby insurance providers to lower their premiums and at the same time be prompt in reimbursement in the event of catastrophe.

5.3.4. The microfinance institutions should inculcate savings culture among small scale farmers.

5.3.5 The researcher suggests for further research on income generation of the small scale farmers and microfinance roles to determine the degree of relevance in the modern economy that is delicate and sensitive.

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**APPENDICES**

**APPENDIX A: LETTER TO THE RESPONDENTS**

**Dear respondents,**

I am a student at Kisii University pursuing a course leading to a Master of Business Administration Degree. I am carrying out an assessment on the roles of micro financing on the income generation of small scale farmers, a case study of Trans-Nzoia County.

The attached questionnaire has been designed to help gather data from respondents.

This information sought was totally for academic purpose and I assure you of strict confidentiality.

**Yours Faithfully,**

**Eliud Maritim Birech**

**Appendix B: Questionnaire**

Please kindly fill in the questionnaire as accurately as possible. Any information received will be accorded all manner of confidentiality it deserves and be used solely for the purpose of the research. Put a tick in the appropriate box or circle designated that best answers each question.

**PART A: PERSONAL DETAILS**

- 1.1 Your name \_\_\_\_\_
- 1.2 Indicate your gender \_\_\_\_\_
- 1.3 What is your age bracket?
  - Younger than 24 years old [ ]
  - Between 25 and 34 years old [ ]
  - Between 35 and 44 years old [ ]
  - Between 45 and 54 years old [ ]
  - Older than 55 years old [ ]
- 1.4 Please indicate your highest level of education:
  - Primary [ ]
  - Secondary [ ]
  - College [ ]
  - University [ ]
  - None [ ]
- 1.5 Identify factors that possibly motivated you to small scale farming
  - Need for financial autonomy [ ]
  - Role models [ ]
  - Insufficient family income [ ]
    - Inclined family farming activities [ ]
    - Redundancy [ ]
    - Family traditions [ ]

**Part B: Small Scale Farming Details**

- 2.1 Indicate the type of farm sales:
  - Retail sales [ ]
  - Wholesale [ ]
- 2.2 What form of farming ownership is your farming activity?
  - Sole proprietorship [ ]
  - Youth group [ ]
  - Women group [ ]
- 2.3 How long have you been in this activity?
  - Less than three years [ ]
  - Four to seven years [ ]
  - Eight to eleven years [ ]
  - More than twelve years [ ]
- 2.4 Indicate the location of your farming activities.
  - Rural [ ]
  - Urban [ ]

**Part C: Training Services**

3.1 Indicate your proficiency in the under-mentioned skill sets by using the following five-point scale:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Farmers have knowledge in book keeping					
Farmers have knowledge in marketing skills					
Farmers have knowledge for compliance with state tax laws					
Farmers have high analytical skills					
Farmers have guidelines on procurement of farm inputs					

3.2 Indicate your proficiency on financial planning and management skills.

Skill	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Draft a business plan					
Prepare cash budget					
Prepare profit and loss account					

**Part D: Funds Transfer Services**

4.1 Indicate your achievements on the under-mentioned statements by using the following five-point scale:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Funds transfer services are convenient and reliable in your local community					
Costs attached to funds transfer services are reasonable					
Confidentiality and secrecy observed					
Farmers have trust and faith in funds transfer agencies					
Customer support services are reliable					

**Part E: Insurance Services**

5.1 Indicate your proficiency in the under-mentioned skill sets by using the following five-point scale:

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Insurance policy premiums are affordable to small scale farmers					
Probability of occurrence of catastrophe is high in your locality					
Insurance firms compensate the farmers immediately in the event of occurrence of a risk					
Insurance firms offer good customer support services					
Insurance firms put the need of the clients first					

**Part F: Savings Services**

6.1 Indicate your achievements on the under-mentioned statements by using the following five-point scale:

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
Microfinance institutions offer reasonable rates of interest on savings					
Microfinance institutions offer bonus interest rates on savings					
There is accessibility in depositing your savings					
Microfinance institutions offer sufficient online savings services					
Opening a savings account is very easy					



**Part G: Return on Investment**

7.1 Indicate your position in the undermentioned indicators by using the following five-point scale

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
My children are enrolled in the best schools					
I have expanded my farming activities					
I have enough food for my family consumption					
I have access to clean and safe water					
I have proper and decent housing					

**Appendix C: Work Plan**

ACTIVITY	January – 15 <sup>th</sup> July, 2016	15 <sup>th</sup> October 2016	November 2016
Proposal preparation			
Defending proposal			
Data collection and analysis			
Compilation			
Submission of final report			

**Appendix D: Budgetary Allocation**

	PARTICULARS	AMOUNT (KSh.)
	Cost of computer time	10,000
	Cost of stationery	5,000
	Printing and photocopying	10,000
	Binding costs	10,000
	Travel expenses	20,000
	Internet browsing costs	10,000
	Miscellaneous	10,000
	<b>TOTAL</b>	<b>75,000</b>

**Appendix E: Population by Selected Age Groups and Sex**

Population by selected age group and sex 2009

AGE COHORT	MALE	FEMALE
0-4	71,466	69,784
5-9	66,252	65,658
10-14	56,015	55,927
15-19	46,552	44,979
20-24	35,746	40,730
25-29	29,631	31,381
30-34	24,395	24,115
35-39	19,142	19,018
40-44	13,642	14,207
45-49	12,019	12,778
50-54	9,318	9,325
55-59	6,902	6,799
60-64	5,311	4,989
65-69	3,381	3,711
70-74	2,762	2,788
75-79	1,892	2,096
80+	2,627	3,201
NS	119	99
<b>TOTAL</b>	<b>407,172</b>	<b>411,585</b>

Source: Ministry of Agriculture, Trans Nzoia County

Population by selected age group and sex 2009

AGE	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
UNDER 1	26,277	25,336	51,613	50.9	49.1	3.2
3-5"	75,721	72,179	147,900	51.2	48.8	9.2
3-13'	193,067	170,224	363,291	53.1	46.9	22.7
14-17	68,119	66,185	134,304	50.7	49.3	8.4
18+	440,999	464,568	905,657	48.7	51.3	56.5
UNDER 5	91,732	87,458	179,190	51.2	48.8	11.2
15-29	205,317	199,913	405,230	50.7	49.3	25.3
15-65	460,861	436,966	897,827	51.3	48.7	56
<b>TOTAL</b>	<b>804,582</b>	<b>798,743</b>	<b>1,603,325</b>	<b>50.2</b>	<b>49.8</b>	<b>100</b>

Source: Ministry of Agriculture, Trans Nzoia County

**Urban population by major towns and sex 2009**

Urban Area	Male	Female	Total	% Female	% Male of Total
Kitale Town	54,065	52,122	106,187	49.1	50.9
Kiminiini	5,367	6,292	11,659	54	46

Source: Ministry of Agriculture, Trans Nzoia County

**Stratification table**

Strata	Population	Proportion	Sample Size
Maize farmers	30,030	59%	59
Dairy farmers	18,090	35%	35
Horticultural farmers	2,916	6%	6
<b>TOTAL</b>	<b>51,036</b>	<b>100%</b>	<b>100</b>

Source: Ministry of Agriculture, Trans Nzoia County

Birech Eliud Maritim "An Assessment of the Roles of Micro Financing On the Income Generation of Small Scale Farmers in Kenya: A Case of Trans Nzoia County" *IOSR Journal of Business and Management (IOSR-JBM)* 20.8 (2018): 72-97.