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Effect of financial risk management services on household poverty alleviation in Isiolo county, Kenya

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Abstract

Poverty alleviation has been a foremost agenda for successive governments in Kenya over the years. Previous research has mainly focused on identifying the factors affecting the policy implementation process but there is limited literature with a focus on the role of microfinance services in development and specifically its effect on household poverty alleviation especially in Northern Kenya. The main aim of this study was to find out the effect of microfinance services on household poverty alleviation in Isiolo County. The study specifically sought to establish the effect of financial risk management services on poverty alleviation in Isiolo County, Kenya. The study adopted a descriptive research design to assess the extent to which Microfinance services correlates with household poverty alleviation in Isiolo County. The study targeted four microfinance institutions that have operated in the county for the last five years. The target population of the study constituted 4650 beneficiaries of microfinance services in Isiolo County. Out of the 4650 clients of microfinance institutions in Isiolo County, 368 respondents were sampled using Israel's sample size determination formula of 2006. Systematic sampling was employed to obtain a representative sample size. The study used both structured questionnaires and interview guides to collect primary data for the study. The data were analysed using both descriptive and inferential statistics. The mean response for this objective was more than 3.0 and the skewness was between -1.96 and + 1.96 indicating normality of the data. The study concluded that microfinance services play an important role in enhancing household poverty alleviation. Financial risk management was considered to have the highest effect on household poverty alleviation. The study recommended that the microfinance institutions in Isiolo should put a lot of attention to enhancing credit facilities, ensuring capacity building in financial matters, and improving on financial risks management among the household to enhance household poverty alleviation among the households. The results are expected to be of great benefit to the various groups including the households, the government, and the microfinance institutions operating in Isiolo specifically and in Kenya generally.

Keywords: household, Isiolo county, microfinance, poverty alleviation, risk management

Introduction

According to Wellalage and Thrikawala (2021) [31], microfinance is a form of financial development that has primarily focused on alleviating poverty by providing financial services to the poor. Most people, often misperceive microfinance, as being about micro-credit like lending small amounts of money to the poor. Microfinance institutions offer financial services like savings, money transfers, payments, remittances, training, and insurance, among others. According to Mutua (2017) [25], Muhammad Yunus, an economics professor at a Bangladesh University, started offering small loans to local villagers within the 1970s, it had been unclear where the thought would go. The impact of microfinance assumes that microfinance clients are operators of income-generating activities that are constrained by lack of capital or high marginal cost (Hussain, Mahmood & Scott, 2019) [16]. Thus, it is believed that access to 'cheap' capital was used to ease this constraint and allow for an increase in income and profit (Awojobi, 2019) [7].

Microfinance refers to a range of financial services, including and insurance, savings and loans accessible to poor entrepreneurs and small business owners who have no collateral and would not otherwise qualify for a standard bank loan (Anyanwu, 2014). Microfinance banks generally target low-income communities. Loan amounts given range from as low as under Ksh 10,000 to around Ksh 500,000, and operational scale varies from several hundred customers to several millions of customers (Nyakambi, 2014) [26].

Champions of microfinance argue that these services are crucial in development. It is linked with household improvements in economic welfare and helps to empower women by supporting women's economic participation and thus promoting gender equity and it empowers very poor households to protect against risks and to meet basic needs (Aggarwal *et. al,* 2015) [1]. According to Namusonge and Sakwa (2017) [24], in their study on 'Determinants of Financial Performance of Deposit-taking Microfinance Institutions in Kenya' establishes that microfinance is an important tool for poverty eradication in many parts of the world. They target the poor through innovative approaches which include group lending, progressive lending, regular repayment schedules and collateral substitutes.

As of 2017, Kenya had 200 credit only MFI's, there were thirteen licensed Microfinance Banks, eleven had nationwide microfinance bank licenses while two had community microfinance bank licenses (CBK, 2017). Savings and Credit Cooperatives (SACCOs) offering microfinance services are 5000, of which nearly 230 offered front office services in October 2017. (Financial Sector Deepening report 2012). For the licensed microfinance banks in Kenya, KWFT dominates the market with 44.0% share, Faulu Microfinance Bank (38.4%), Rafiki Microfinance bank at (7.3%), SMEP microfinance bank at (3.7%) and Caritas (1.7%) market share to close the top 5 Microfinance banks (CBK 2017).

Household Poverty Alleviation

The Copenhagen Declaration of 1995 described poverty as a condition characterized by stark deprivation of basic human needs including food, sanitation facilities, health, safe drinking water, shelter, education and information. Okibo & Makanga, (2014) [28], described poverty as a material lack and need for shelter, money and assets often characterized by hunger, exhaustion, social exclusion, low-esteem vulnerability, and powerlessness. People living in rural areas describe poverty as food inadequacy, insecurity, and inability to participate in social activities while urban dwellers see poverty as lack of employment, deficiency of capital, scanty social services, and absence of training skills (Okibo & Makanga, 2014) [28].

According to World Bank (2015) [33], there is no place where extreme poverty is more evident than in Sub-Saharan Africa. 41.1% of the population, which totals 413 million people, live on under $1.90 a day-the highest rate of extreme poverty in the world. Forecasts also indicate that by 2030, nearly 9 out of 10 extremely poor people will live in Sub-Saharan Africa (World Bank, 2018). Kenya is ranked 8th globally and 6th in Africa among countries with the largest number of people living in extreme poverty and 29% (14.7 Million) of the 52 million people are poor as they consume less than $1.90 (Ksh 200) per day or Ksh 6000 monthly (World Poverty Clock Report, 2018). The Northern Kenya Counties (formerly known as frontier counties) suffer from high and stagnating poverty rates, at around 68% in 2015-18, and they need a multispectral effort to raise the living standards. Educational enrolment rates are far below the national average, especially at the secondary level (Elsafi, Ahmed & Ramanathan, 2019) [13].

Isiolo County

Isiolo County is in the upper eastern region of Kenya covering an area of 25,336.1Km2 and a population of 268,002 (KNBS, 2019) [22]. It has two constituencies: Isiolo North and Isiolo South. Its headquarters are in Isiolo town. According to Kenya Census 2019, an average Household Size is 4.6 members, higher than the country's average figure of 3.9. In terms of education, 67.3% of the population aged 3 years and above have attended school while 32.5% of the population have never stepped into school. Only 21.6% of the population of 96,000 hold a KCPE/CPE certificate and 13.6% for KCSE/CPE certificate. 98.7% of the population above 3-24 years of age are currently attending school while 1.3 % are not. The gross current attendance of school at the pre-primary level for boys is at 78.5% while for girls is 92.9% averaging 85.2% of the population.

In terms of Housing, 61.6% of the population live in their own house, 33.4% live in rented houses while 5% are squatters. 82.5% of those who live in their own houses constructed the houses by cash, 0% by loan and 0.9% for both cash and loan. 54% of those owned houses are one-bedroom, 29.6% two bedrooms and 9.4% three bedrooms. 15% of the houses' roofs are grass-thatched, 1.3% cow dung and 77% corrugated iron sheets (KNBS, 2019) [22]. Furthermore, available data on household income and credit establishes that 11.2% of households whom at least a member sought credit. 57.4% is the proportion of households that sought and accessed credit. 6.6% of credit from microfinance institutions is used for subsistence needs, 2.8% for medical needs, 28.8% for school's fees/education, 0.4% for weddings/ceremonies, 3.6% for purchase of lands, 5.1% for purchase of agricultural inputs, 0.3% for purchase of agricultural machinery and 36.5% for business/investment purposes. In Isiolo County, there are 5 registered deposit taking microfinance institutions according to Central Bank of Kenya records and these are KWFT, Faulu, SMEP Microfinance, Sidian Bank Ltd and First Community Bank. It is, therefore, necessary to assess the extent to which microfinance services has impacted household poverty alleviation in Isiolo County.

Statement of the Problem

According to Aggarwal (2019), poverty alleviation has been a major agenda for successive governments in Kenya since the country's independence because of the universally accepted belief that it is one of the best human-centred approach of achieving economic growth in the country. Isiolo County previously referred to as District in pre-Kenya's 2010 constitution has been one of the affected areas in terms of high poverty levels. Despite programmes to alleviate poverty in Isiolo in the pre-devolution and post-devolution era, 36.1% of Kenyans still live below the poverty line (KIHBS 2016). Development practitioners and scholars have cited microfinance-centred initiatives as one of the solutions in poverty alleviation. As such, research on it cannot be overlooked if Isiolo specifically has to attain the Sustainable Development Goal of eradicating extreme poverty for all people by the year 2030. The thrust of this study was to analyse whether financial risk management facilities provided by microfinance institutions influence household poverty alleviation in Isiolo County.

The objective of the Study

To examine the effect of financial risk management services on household poverty alleviation in Isiolo County, Kenya.

Research hypothesis

$H0_1$: There is no significant relationship between risk management services and household poverty alleviation in Isiolo County.

Literature Review

Sustainable livelihood approach (SLA)

This model was developed by Chambers in the 1980s and further supported by Conway in the 1990s. Studies around 2000 onwards have demonstrated the need to consider and appreciate the contextual issues relating to development programs aimed at improving the wellbeing of the poor and reducing poverty. However, little consideration is deemed to have been given to context particularly livelihood, within the microfinance debate and discourse. Johnson and Rogaly (1997) [18] establish that the use of cross-sectional research repeatedly overlooks how economically underprivileged persons manage their financial matters. This approach (SLA) has achieved approval on a wide scale in the development discourse and therefore guides the design of policy and development programmes targeting alleviating poverty in developing countries (Weeratunge *et al*., 2014) [30]. The approach is deemed to be a comprehensive and multidisciplinary mechanism aimed at enhancing an understanding of the multiple dimensions of poverty (Kébé, 2008).

During the last two decades, an increased emphasis and attention to poverty alleviation, sustainability in the political milieu and people-oriented approaches contributed largely to the prevalence of the adaptation and adoption of livelihood models, frameworks, and definitions in the development discourse (World, 2018). According to Alinovi *et al*., (2010) [4], the assessment of livelihood perspectives and poverty alleviation interventions should focus on empowering the poor by allowing them to create their opportunities, creating an enabling policy and institutional environment and inspiring access to productive assets. This model was used to ascertain how microfinance institutions can be used as avenues for mitigating financial risks by allowing people to get maximum benefits from credit facilities in Isiolo County.

Effect of financial risk management services on household poverty alleviation

According to Gadiyar (2009) [14], a risk is defined as "the possibility of an adverse event occurring" it is also defined as the probability that a decision leads to a different outcome rather than the expected due to the unavailable information about the future. Regarding MFI a financial risk refers to a risk of default, thus, the inability of the borrower to meet his financial obligation as agreed by the MFI (Dubrana, 2010) [12]. According to World Bank (2018), the risk arises when there is a potential that a borrower is not cooperating to meet his obligation or his ability to perform such obligation is affected by factors beyond his control and that could result in financial and economic loss to the financial institution (Mutua, 2017) [25]. In another study by Bodla and Verma, (2009) [9] they considered a financial risk as to the ‘possibility of losses associated with a reduction in the credit quality of borrowers or counterparties in a loan contract.

Previous studies have shown that effective risk management techniques by microfinance institutions can improve the credit portfolio and institutional viability of these institutions (Goldberg & Palladini, 2010) [15]. However, the effect of financial risk management techniques of MFIs concerning their clients particularly in the case of Kenya is yet to receive adequate research attention. The expectation is that both the MFIs and microfinance clients, in this case, are supposed to be entrepreneurial in approach as far as the delivery of microfinance services and the management of their Micro, Small and Medium Enterprises are concerned.

Goldberg and Palladini (2010) [15], further noted that the main argument in this study is that, even though financial risk management practices are essential to safeguarding the credit portfolio, deposits and improve loan recovery of MFIs in Kenya and specifically in Isiolo County. These MFIs must adopt credit risk manag8ment practices that are pro-poor and do not unduly constrain the usefulness and thereby further widens the poverty gap. A study by Ibtissem and Bouri (2013) [17], that sought to assess the framework that can be used by MFI in dealing with the risk associated with lending to the poor. According to the study, risk management is an integral part of microfinance and can therefore not be delinked from it. It further noted that MFIs have to ensure that they have a program on financial risks that face the poor to deal with it.

Research Methodology

This study adopted a cross-section research design. Zheng (2015) [34], establishes that in cross-sectional research, sample surveys are used to obtain information that is generalized to the whole population. The target population of the study is composed of the 4650 microfinance services clients drawn from the four active microfinance institutions operating in the study area. The sample size was determined using Israel (2006) sample determination formulae as shown below.

$$n=\frac{N}{1+N\,(e)^2}$$

Where,

n= sample size

N= population = 4650

e= acceptable error= 5%/ 0.05

$$n=\frac{4650}{1+4650\,(0.05)^2}=368$$

The study employed systematic sampling in order to come up with the sample size for this study, a questionnaire and an interview guide were used as data collection instruments because the researcher sought to collect primary data. An interview guide/schedule was used to collect data from the Key informants. For this study, a sample for the pilot was drawn from among the clientele and the employees of the microfinance institutions in Isiolo town. Connelly (2008) [11], recommends 10% of the sample population to form the pilot study sample. For this study therefore a total of 37 respondents were selected for the pilot study. The research instrument was considered reliable since the Cronbach reliability coefficient of 0.721 was obtained which was above the accepted index of 0.7.This was in agreement with Kothari (2019) [23] who establishes that a Cronbach’s coefficient value of 0.7 and above is considered suitable for any study. The validity of research instruments was also done. For this study, KMO value of 0.665 was computed and used to assess the validity of the instruments. This agrees with findings of Amin *et.al* (2005), who notes that an instrument was considered to be valid if the coefficient of validity index is calculated and a value of 0.6 and above is obtained. Both descriptive and inferential statistics were used to analyze the quantitative data. Inferential statistics were computed to assess the correlation and level of significance between the variables under test. Pearson’s correlation (r) was computed and tested at a significant value of 5%. Analysis of variance was applied to compute the F statistics which is used to measure the adequacy of the model in predicting the outcomes of the variables. The model was said to be a good predictor if the F-calculated is greater than the F-critical and the significant value is less than 5%.

Research Findings and Discussion

Introduction

The findings of the study are presented in this chapter based on the data available from the field survey. The chapter presents the analysis to indicate whether the response rate was adequate for further analysis.

Findings of the Study

Response rate

The study targeted a total of 383 respondents from among the households in Isiolo County, where households aged eighteen and above were considered for the study. A total of 301 questionnaires were returned, screened for completeness, and coded for analysis. This represented a 78.6 % response rate and was considered adequate for use in the analysis. This is following the suggestion by Kothari (2019) [23] that a response rate for field data above 70% is appropriate for use in the analysis. The study sought to find out the response about the demographic factors of the respondents. Among the demographic factors were gender, age distribution, size of the household, current occupation, main source of income and average source of income for the respondents.

Gender of the Respondents

Gender is an important aspect of the household and hence it was very important for this study to understand the distribution of gender as it influences household poverty alleviation. The results are presented in figure 1.

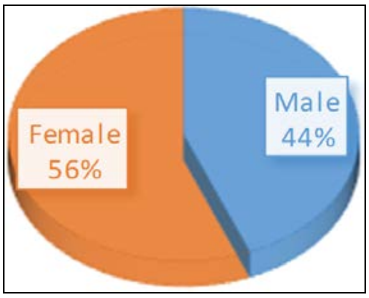

Fig 1: Gender distribution

The results in figure 4.1 show that there were more female respondents than the male who participated in the study. From the figure, 56% of the respondents were female while 44% were male. This implies that during the study more females were available than males to respond to the questionnaire. This could be associated with the pastoralist lifestyle among the communities in Isiolo where it was expected that more females would be available for the study as they were at home as compared to the males who were out with their livestock.

The study also sought to determine the age distribution of those who responded to the questionnaire. The results were distributed as shown in figure 4.2.

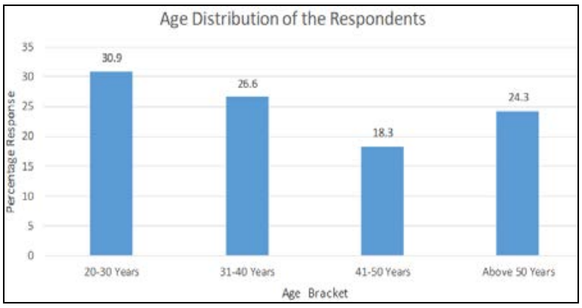

Fig 2: Age bracket of the respondents

The study sought to establish the age bracket of the respondents as it influences household poverty alleviation. The study considered the respondents who were above 18 years. The results also established that most of the respondents (30.9%) who participated in the study were aged between 20-30 years followed by 26.6% who were aged between 31-40 years. Finally, 24.3% who were aged above 50 years and the last group that participated in the study were aged between 41-50 years. This implies that most respondents were in their early adulthood and their late years. This could be as a result of the fact that most people aged between 41-50 years were out of their homes on official work and hence most of them were not home to participate in the study. The study also sought to establish the size of the household as it has a direct effect on the household poverty level and hence it is a determinant of the household poverty alleviation. The results were presented in figure 3.

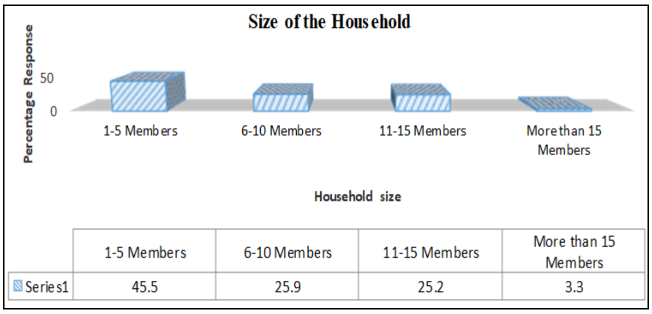

Fig 3: Response on household size

The results show that in most of the households 45.5% were small with between 1-5 members followed by the next category of 25.9% with between 6-10 members and 25.2% with 11-15 members. Only 3.3% of the households had a family size of more than 15 members. This shows that most families were not very large and hence could be in a position to manage their households' poverty situation.

The other demographic factor that was the occupation of the household head. This was important because of its contribution to understanding the poverty position of the household in the study area. The results were presented in table 1.

Table 1: Response to current occupation

Activity	Frequency	Per cent
Farming	62	20.6
Business	106	35.2
Formal Employment	91	30.2
None	42	14.0
Total	301	100.0

The results in table 1 indicate that most of the respondents 35.2% who participate in the study were businesspeople, followed by 30.2% who were in formal employment, 20.6% are farmers and 14.0% indicated that they did not engage in any form of occupation at the time of the study. This implies that most of the household heads participated in activities that were self-driven for their income to reduce poverty at the household level.

The source of income was also studied on how it influences the level of poverty and its alleviation among families in Isiolo. The results were presented in table 2.

Table 2: Response on the main source of income

Activity	Frequency	Per cent
Farming	44	14.6
Business	139	46.2
Formal Employment	94	31.2
All the above	24	8.0
Total	301	100.0

The results in table 4.2 clearly show that most of the respondents 46.2 % earned their income through business activities, 31.2 % earned income through formal employment, 14.6% earned it through farming and the rest 8% said they earners their income from all the activities indicated. This implies that most of the households earn their income from other sources, not formal employment.

The study further sought to find out the average income earned by the respondents. The income of a household has an influence on the poverty level of the family in the sense that it influences the level of activity that the people can engage in to reduce the poverty. The results are presented in figure 4.

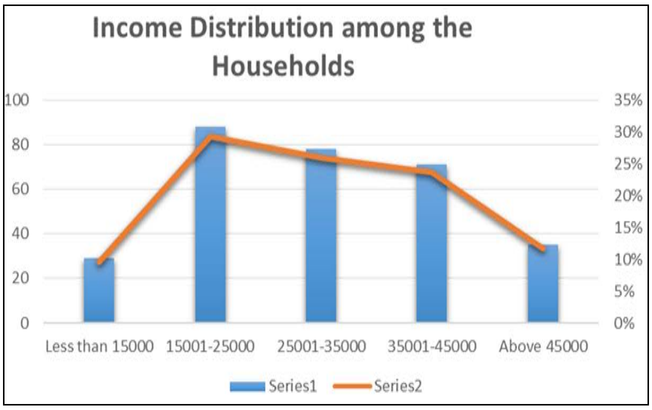

Fig 4: Income distribution among the household

The results show that in most of the households 29.2 % earned between Ksh. 15000 to Ksh. 25 000 followed by 25.9% who earned between Ksh. 25,000 and 35000. Only 23.6% earned between Ksh 35000 and 45000, 11.6% earned above Ksh. 45000 while 9.6% earned less than Ksh. 15000. This shows that most of the households live below the 1 dollar that is they earn less than Ksh 100 per day which is a clear indication that they have little income to help them manage their poverty level. This agrees with the findings of Okibo and Makanga (2014) who also noted that most of the households who use microfinance services have low incomes below Ksh. 25000.

The study also sought to find out the kind of microfinance services that the households participate in to reduce their poverty level. The study sought to establish how these programs assist the households to reduce their level of poverty. The results were presented in figure 5

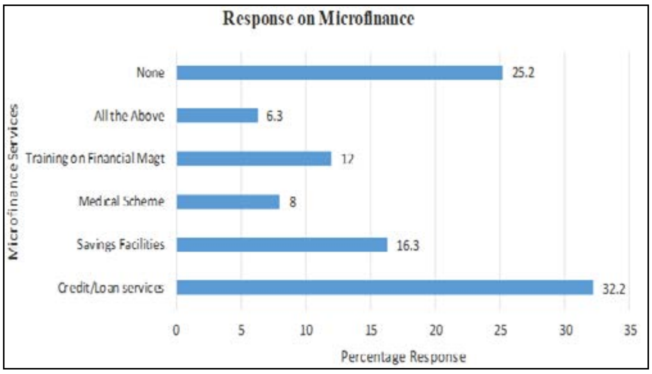

Fig 5: Microfinance services available

The results in figure 4.4 show that among the services that the respondents receive from the microfinance institutions are the credit /loan services to which 32.2% of the respondents noted, followed by savings facilities (16.3%), training received 12% while those who did not receive any services were 25.2%. This show that most respondents received credit and loans and savings services through microfinance institutions. The results are also supporting the findings of Obeng (2011) who noted that microfinance institutions have played a major role in reducing the poverty level among households through the provision of credit services.

Descriptive findings

The study sought to examine the effect of financial risk management services on household poverty alleviation in Isiolo County, Kenya. The study used frequency, mean and skewness to analyze and present the descriptive findings.

Effect of financial risk management on household poverty alleviation

The objective of the study was to establish the effect of financial risk management on household poverty alleviation. The respondents were asked to rate the various statements on the five scale Likert where: 1=Very Low Extent; 2 = Low Extent; 3= not sure; 4= High Extent; 5=Very High Extent. The results are presented in Table 3

Table 3: Effect of financial risk management on household poverty alleviation

Statement Items	1	2	3	4	5	Mean	SD	Skewness
Through microfinance services, most people understand how to effectively plan for their financial resources to mitigate the credit risk hence improved livelihoods in Isiolo County	2.3%	6.0%	13.0%	47.5%	31.2%	3.99	.945	-1.084
Microfinance services have improved people's evaluation skills on selecting key investment projects hence improved living standards in Isiolo County	4.3%	5.6%	15.0%	33.9%	41.2%	4.02	1.086	-1.124
The majority of loan users in Isiolo County have been able to avoid making hasty financial decisions reducing risks associated with credit facilities	2.0%	7.6%	19.9%	40.9%	29.6%	3.88	.985	-.756
Microfinance programs have assisted most of the people who acquire them to access relatively cheap credit for improving their living standards in Isiolo County	2.0%	8.3%	10.3%	45.8%	33.6%	4.01	.976	-1.073
Microfinance institutions offer services that have helped to cushion many business operations hence alleviating poverty at the household level in Isiolo County	0.7%	8.3%	19.9%	39.9%	31.2%	3.93	.949	-.630

The study findings indicated that most of the respondents 47.5% and 31.2% agreed and strongly agreed that through microfinance services, most people understand how to effectively plan for their financial resources to mitigate the credit risk hence improved livelihoods in Isiolo County. The results also indicated that only 2.3% and 6.0% of the respondents strongly disagreed with the statement. The mean response was 3.99 with a standard deviation of. 945 and skewness of -1.084 and this implies that microfinance services influence peoples understanding of financial resources and how they can influence their credit risk to enhance their household livelihood.

The results also show that most respondents 33.9% and 41.2% agreed and strongly agreed that microfinance services have improved people's evaluation skills on selecting key investment projects hence improved living standards in Isiolo County. Only 4.3% and 5.6% disagreed with the statement. This implies that through microfinance services the households can improve their risk evaluation skills and hence this enhances their poverty alleviation level.

The results also indicated that most respondents 40.9% and 29.6% agreed and strongly agreed that the majority of loan users in Isiolo County have been able to avoid making hasty financial decisions reducing risks associated with credit facilities. Only 2.0% and 7.6% disagreed with the statement. The mean response was 3.88 with a standard deviation of. 985 and skewness of -.756. This indicates that microfinance services assist households to make good financial decisions on investment to reduce the credit risk associated with loans.

The study also sought to examine whether microfinance programs have assisted most of the people who acquire them to access relatively cheap credit for improving their living standards in Isiolo County. The results indicated that most of the respondents 45.8% agreed and 33.6% strongly agreed with the statement while only 2.0% and 8.3% disagreed and strongly disagreed. The mean response was 4.01 with a standard deviation of. 976 and skewness of -1.073. This implies that microfinance services have had an effect on financial risk management and hence enhanced household poverty alleviation.

The results also showed that most of the respondents 39.9% and 31.2% agreed with the statement that microfinance institutions offer services that have helped to cushion many business operations hence poverty at the household level in Isiolo County. The results also show that 0.7% and 8.3% of the respondents disagreed with the statement. The results support the findings of previous studies such as Dubrana (2010), who noted that financial risks do occur when the borrowers are faced with a challenge and are unable to pay their loan obligation when it falls due. Ibtissem and Bouri (2013), also indicated that microfinance institutions have different ways of dealing with the challenges associated with the financial risks and participation of the households in these meeting assist the households to a great extent.

Household Poverty Alleviation

The dependent variable of the study was household poverty alleviation, and this was also assessed on a five scale Likert. The respondents were asked to rate the various statements that defined household poverty alleviation. The responses were presented in table 4

Table 4: Response on household poverty alleviation

Statement Items	1	2	3	4	5	Mean	SD	Skewness
Microfinance services have enhanced the adequacy of food supply among the households in Isiolo County hence combating food insecurity	4.0%	5.6%	9.6%	37.2%	43.5%	4.11	1.053	-1.335
Microfinance services have enabled households to raise funds which have promoted access to education in Isiolo County	6.3%	7.6%	8.6%	28.9%	48.5%	4.06	1.203	-1.255
Microfinance services have assisted households to access better health care in Isiolo County hence household poverty alleviation	6.0%	8.6%	12.6%	36.2%	36.5%	3.89	1.169	-1.013
Microfinance programs have promoted improved living standards for the people of Isiolo County	0	26.2%	12.6%	24.6%	36.5%	3.71	1.210	-.334
Improved nutrition has been enhanced in Isiolo County due access to appropriate microfinance programs by the people	8.6%	10.3%	12.6%	35.5%	32.9%	3.74	1.257	-.861
Increased family self-reliance in Isiolo County has been necessitated by Microfinance services hence household poverty alleviation	2.0%	8.6%	16.9%	41.2%	31.2%	3.91	1.001	-.823

The results indicated that Microfinance services have enhanced the adequacy of food supply among the households in Isiolo County hence combating food insecurity. This was agreed upon by most of the respondents 37.2% agreed and 43.5% strongly agreed while 4.0% and 5.6% disagreed with the statement. The mean response was 4.11 with a standard deviation of 1.053and a skewness of -1.335. This implies that microfinance services have enhanced food supply among households in Isiolo County.

The results also indicated that most respondents 28.9% agreed and 48.5% strongly agreed that Microfinance services have enabled households to raise funds which have promoted access to education in Isiolo County. Only 6.3% strongly disagreed and 7.6% disagreed with the statement. The mean response was 4.06 with a standard deviation of 1.203 and skewness of -1.255 which implies that the data was normally distributed and hence the results indicated small levels of variations.

On whether Microfinance services have assisted households to access better health care in Isiolo County hence household poverty alleviation the results indicates that most of the respondents 36.2% and 36.5% agreed and strongly agreed respectively while 6.0% and 8.6% disagreed with the statement. The mean response was 3.89 with a standard deviation of 1.169 and skewness of -1.013. The results imply that households can access better health care as a sign of poverty alleviation.

On whether Microfinance services have promoted improved living standards for the people of Isiolo County. The results show that most of the respondents (24.6%) and (36.5%) agreed and strongly agreed with the statement while 26.2% disagreed. The mean response was 3.71 with a standard deviation of 1.210 and skewness of -.334, this implies that microfinance services affect the poverty alleviation level among households in Isiolo county. The results also indicate that most of the respondents 35.5% and 32.9% agreed and strongly agreed that improved nutrition has been enhanced in Isiolo County due to access to appropriate microfinance programs by the people, only 8.6% and 10.3%disagreed with the statement. With a mean of 3.74, a standard deviation of 1.257 and skewness of -.861, the results indicate that microfinance services have improved nutrition among households.

The results also show that most respondents 41.2% agreed and 31.2% strongly agreed that microfinance services have increased family self-reliance in Isiolo County has been necessitated by Microfinance services hence household poverty alleviation. Only 2.0%and 8.6% disagreed with the statement. The mean response was 3.91 with a standard deviation of 1.001 and skewness of -.823. The results, therefore, imply that microfinance services have increased family reliance in Isiolo and this has assisted households to alleviate their poverty. Reports from UNCDF (2006) and Kiiru (2007) have all indicated that microfinance services are very critical in the poverty alleviation process at the household level. The findings of this study, therefore, are supported by findings by other scholars on the effect of microfinance service on poverty alleviation in Isiolo.

Correlation analysis

The nature of the relationship between household income and household poverty alleviation was determined by testing the correlation between the variables. According to Cohen, West and Aiken (2013), the nature of a relationship between variables under test is tested using correlation analysis. The analysis helps to test the linearity of the study variables to make inferences about the entire population. This study used Pearson correlation (r) to test whether the relationship between the variables was significant or not at a 95% level of confidence as shown below.

Table 5: Correlations analysis

Variable		Household poverty alleviation
Financial risk management services	Pearson Correlation	.969**
	Sig. (2-tailed)	.000

The study sought to find out the correlation between financial risk management and household poverty alleviation. The results indicated that ($r=.969^{**}$; $p < 0.05$). This show that there is a very high positive and significant correlation between financial risk management and household poverty alleviation. These results are in support of other studies that have noted that there is a significant statistical (Agrawal, 2019) between microfinance services and the alleviation of poverty at the household level. Similarly, Akingunola, Olowofela and Yunusa (2018) in their study also noted that microfinance services have a significant correlation with household poverty alleviation and that households that have been able to embrace these services can attest to the correlation.

Test of hypothesis

The study used the Analysis of variance test to either accept or reject the null hypothesis. ANOVA is used to compute the F statistic which is a measure of the variance in the means of the test variables. The ANOVA is used to test the hypothesis and establish whether the test is significant at a 5% level of significance. It also helps in checking whether the model fit is appropriate in making an inference to the entire study population. The study also established the model fitness by comparing the F- calculated and F-critical values.

The hypothesis stated that there is no significant effect between risk management services and household poverty alleviation in Isiolo County. The results were presented in table 6.

Table 6: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	158.925	1	158.925	4578.494	.000[b]
Residual	10.379	299	.035		
Total	169.303	300			

The results show that the F statistic was significant at a 5% level of significance implying that the model is a suitable predictor. This is based on the fact that the model fitness by comparing the F- calculated and F-critical values. From the table, it is noted that the F calculated, $F_{0.05, 1,299,} = 158.925$, was greater than F-Critical, $F_{0.05, 1, 299} = 3.873$; the results, therefore, show that the model fits well in explaining the relationship that exists between financial risk management and household poverty alleviation among households in Isiolo county. Since the F calculated is greater than the F critical then the null hypothesis is rejected implying that there is a statistical relationship between financial risk management and household poverty alleviation.

Simple linear regression analysis

Regression analysis is a tool that assists the researcher to further understand the magnitude of the relationship between the variables. It helps to establish whether the relationship is just by chance or is statistically viable for making predictions of the population. It is also used to test the effectiveness of a variable in predicting the effect of the independent variable on the dependent variable. The results for this study are summarized in the regression model summary shown in Table 7.

Table 7: Simple linear regression model summary

Model	R	R Square	Adjusted R Square	Change Statistics					Durbin-Watson
				R Square Change	F Change	df1	df2	Sig. F Change	
	.969[a]	.939	.938	.939	4578.494	1	299	.000	1.740

From the results, the values of R represent denotes the correlation between the dependent and the independent variables. The regression analysis for financial risk management and household poverty alleviation is established to have a very strong, positive and significant (R =0.969; p-value = 0.000). R square which indicates the proportion of variance in the dependent variable that can be explained by a unit change in the independent variable was also computed and the results show that a unit change in household income can only explain a 93.9% change in household poverty alleviation (R^2 = 0.939).

Summary, Conclusion and Recommendations

Introduction

The study sought to assess the effect of financial risk management on household poverty alleviation. The study collected data using a questionnaire and the data was analysed both descriptively and inferentially. This chapter gives a summary of the findings, makes conclusions and recommendations based on the findings.

Summary of findings

The findings were summarised as follows;

Demographic variables

The study sought to establish various demographic variables since they influence the household's poverty level. For this study, gender was considered important because decision making at the household level is influenced by gender. The study established that most of the respondents who participated were female. It was also established that the majority of the respondents were young between the ages of 20-30 years. The study further note dthat the size of the family was between 1-5 members. It was also estblished that most respondents were businesspeople who earned their income from a business. Isiolo being a dry area, it is expected that farming is not done to a great extent hence people opt to get into business for their livelihood. The income level was estimated to average between Ksh 15000 – 25000 among households. This translates to about Ksh 500 per day for a family of 5 which is not enough. It was also established the major service they received from microfinance institutions was the credit facilities and financial risk management services.

Effect of financial risk management on household poverty alleviation

The objective of the study was to assess the effect of financial risk management on household poverty alleviation. The study established that most of the respondents agreed that through microfinance services, most households have an effective plan for their financial risk hence reduced household poverty in Isiolo County. This implies that microfinance services influence peoples understanding of financial resources and how they influence their credit risk to enhance their household livelihoods. The results further showed that the majority of the respondents agreed that microfinance services have improved people's evaluation skills on selecting key investment projects hence improved living standards in the study area. This implies that through microfinance services the households can improve their risk evaluation skills and hence this enhances their poverty alleviation level.

The study also established that most respondents agreed that the majority of loan users in Isiolo County have been able to avoid making hasty financial decisions reducing risks associated with credit facilities. This indicates that microfinance services assist households to make good financial decisions on investment to reduce the credit risk associated with loans. The study also established that microfinance programs have assisted most of the people who acquire the loans to access relatively cheap credit for improving their living standards in Isiolo County. This implies that microfinance services have had an effect on financial risk management and hence enhanced household poverty alleviation.

The results also established that most of the respondents agreed that microfinance institutions offer services that have helped to cushion many business operations hence poverty at the household level in Isiolo County. This implies that the microfinance services assist the households in poverty alleviation by cushioning them on business operations through financial assistance. The results indicated that microfinance service on financial risk management has assisted the respondents to enhance their financial risk management skills and hence improve their poverty alleviation at the household level. The study also established that there was a correlation between financial risk management and household poverty alleviation. Indicating that a reduction in financial risk management reduces household poverty level among households in Isiolo County.

Conclusion

The study also concluded that household poverty can be alleviated through financial risk management. The results indicated that when the households are sensitised on how effectively to manage their financial risks then the level of poverty will be reduced as they will be able to make wise decisions regarding investments and general use of their income. Knowledge of Financial risk management is therefore seen as a prerequisite for household poverty alleviation not just in Isiolo County but also in other counties.

The study generally concludes that microfinance services offered by the microfinance institutions in Isiolo County influence household poverty alleviation. In conclusion, this study showed that microfinance services have the potential to alleviate poverty especially in enhancing household livelihood. Microfinance is a viable tool for increasing the income of the households through, increased credit facilities, savings culture, capacity building and financial risk management among the households in Isiolo County.

Recommendations

This study recommends that;

MFIs should expand their credit facilities to more households to help them enhance their income-generating activities to see their progress and challenges. The institutions need to ensure that they make it easier for the households to access these credit facilities through relaxed measures for the loans.

MFIs should also ensure that they reach out to many rural poor and increase awareness of the need for a savings culture among the households. Through an effective savings culture, households can accumulate enough finances for investment and hence a poverty reduction.

MFIs should enhance capacity building among the households to enlighten people on microfinance services and also to use the platform to enhance the ability of the households not only to develop their skills in business but also to be able to manage their finances effectively.

The study also recommends that MFI should enhance their financial risk management training among the Households to minimise the risks that affect their financial investment. This is expected to help them manage their financial resources for investment.

Areas for Further Studies

From the study and related conclusions, the researcher recommends further research in determining the other microfinance services not examined in the current study to establish whether the effect on poverty alleviation would be consistent with the results of the current study on the effect of microfinance programs on poverty alleviation.

This study was limited to microfinance services offered by Microfinance institutions operating in Isiolo County only and how they affect poverty alleviation among the households. There is, therefore, a need for further study to cover other counties and provide a comparison to the current study findings.

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