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Influence of micro economic factors on financial sustainability of informal finance groups in Kiharu constituency-Kenya

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ABSTRACT

This article considers the influence of macro-economic factors as integrated factors in financial sustainability of Informal Finance Groups. Informal Finance Groups (IFGs) have become critical in poverty eradication around the world in enhancing access to finance. Despite acknowledgement of this fact, IFGs have been faced with financial constraints as a result of micro factors that affect them. This puts the financial sustainability of the IFGs at risk. In this study, financial instability in informal finance groups is caused by these factors: loan pricing and loan repayment period. This study required to examine the connection between macro-economic factors and financial sustainability of informal finance groups in Kiharu Constituency in Murang'a County. Both primary and secondary data were collected. Findings indicate that there is relationship between macro-economic factors and financial sustainability of informal finance groups. The R value of 0.238 portrayed a positive linear relationship between the loan pricing practices and financial sustainability of Informal Finance Groups, and the R value of 0.354 portrayed a positive linear relationship between the loan repayment period and financial sustainability of Informal Finance Groups. Therefore, the study concluded that the macro-economic factors have an influence on financial sustainability of informal finance groups. The study recommends that the IFGs should devise a standard criteria for optimal pricing of loans to avoid charging exorbitant rates which worsen the poverty situation of the rural residents. Further, the IFGs should also set up loan monitoring systems in place to avoid diversion and defaults.

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Introduction

In every economy, informal finance groups are expected to play a crucial role of poverty alleviation by making available funds to the rural poor. In order to achieve the objective of poverty alleviation and have an impact in the society, IFGs must strive to reach as many poor people as possible (Sa-Dhan, 2008). This can only actualize if these groups remain financially sustainable. However, the sustainability of informal finance groups has come under scrutiny due to high rates of failure and stagnation. In Kiharu, several IFGs among them Mbeti, Mwihoko and Kionereria SHGs (County social services, 2016) disintegrated within a short period of operation.

Several studies on IFGs have been conducted in Europe, Asia and Africa but not much has been written about financial sustainability of these IFGs. Most studies on the sustainability of IFGs have focused on Roscas. These scholars have opted to avoid the Asca model of financing and concentrate on the Rosca model, hence a limitation in scope. Their results cannot be generalized to comprehensively represent other forms of IFGs such as Ascans and SHGs. Other studies conducted on sustainability of Roscas give conflicting conclusions. Anderson, Baland & Karl (2013) concludes that Roscas are never sustainable in the absence of external sanctioning mechanisms. On the other hand Schreiner & Nagarajan (2008), concludes that Roscas are sustainable in the absence of formal contracting social punishment.

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Various documented studies have focused on repayment performance (Crowther & Lauesen, 2016); Deininger & Liu, 2009) and identified loan pricing, repayment period, recovery mechanisms and loan advances as some of the factors influencing default. However, these studies did not expound on the influence of these micro factors on the financial sustainability of IFGs. Previous studies have not investigated the influence of loan pricing and repayment period on financial sustainability of IFGs. This study contributes to existing literature by comprehensively focusing on sustainability of all forms of IFGs from a different geographical region.

This paper aims to (i) determine the influence of loan pricing on financial sustainability of Informal finance groups, and (ii) examine the influence of repayment period on financial sustainability of Informal finance groups. Following the literature review session, this paper concludes with final remarks.

Literature Review

The Social Capital Theory

Xing (2018), defines social capital as features of social life-networks, norms and trust that enable participants to act together more effectively and to pursue shared objectives. The collective action that enables IFGs to function can be present in the initial stages if members are chosen based on pre-existing levels of trust among themselves. Since IFGs are self-regulated social factors are critical element of their performance and consequently sustainability. Outright default was seen as a direct threat to survival of IFGs. Costs of default include social mechanisms as sanctions, peer pressure and social ostracism.

World Bank. (2018), observe that while social pressure was certainly great, people kept a sharp eye on the transaction costs involved in enforcing payment. Roscas function provided members value the benefit of membership more than the benefits of defaulting. Roscas are fairly flexible form of IFG whose survival relied entirely on social pressures and trust for continued operations. In group lending, loans were advanced to the group without tangible collateral but with reliance on guaranteed repayment through group approval and joint liability among

members. The enforceable trust was the source of social capital.

Dinçer & Hacıoğlu (2014), posited that social capital facilitated access to credit by borrowers. On the other hand, it yielded approval, expedited transactions while insuring against risk of default for the lenders. Social capital potentially provided a range of enforcement mechanisms for default in environments where recourse to the legal system was costly or impossible.

This theory was important in this study as it explained the importance of social capital as an intervention for loan recovery and also mechanism to minimize cases of loan default that influence the sustainability of IFGs.

Research and Methodology

A research design is the conceptual structure in which research is conducted (Kothari, 2013). This study has adopted survey research design in examining sampled IFGs leaders. The study was quantitative in nature. The study was conducted in Kiharu Constituency in Murang'a County, Kenya. The target population was Leaders of the Informal Finance Groups in Kiharu Constituency, which comprises of 600 IFGs (County Social Services Officer, 2016).

Sampling design

The Fisher formula was used to obtain a sample size for the study. Stratified sampling method was used in the research study to classify the respondents into various categories based on their geographical distribution as shown in the formula and table below.

Table 1: Population

Location	Population	Sample
Kahuhia	135	19
Mbiri	128	18
Mumbi	123	17
Mukuyu	110	15
Mugoiri	104	14
Total	600	83

Source: Author

Data collection

The study adopted questionnaires and interview guides as instruments. The respondents were asked to indicate the factors that were important in their opinion along a five-point Likert scale.

Data analysis methods

Data analysis was done using descriptive statistics, mainly frequencies, percentages, mean scores, and standard deviation. The results have been presented in table form. Descriptive statistics mainly correlation and regression analysis were used to analyse the data. Data respondents were summarized using frequencies and percentages determined mean scores were used to analyse the data. Standard deviation was used to determine whether there were variations in responses of the informal finance groups being studied.

Results and Discussion

Aspects of Loan Pricing and Financial Sustainability

The study sought to establish the influence of loan pricing and financial sustainability of Informal Finance Groups in Kiharu Constituency in Murang'a County. Numerous indicators on loan pricing were considered and the findings were summarised in the Table 2 below.

Table 2: Descriptive Statistics of Loan Pricing Practices

Loan Pricing Practices	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	Std. Dev.
Interest is based on loan amount	68.9	25.2	4.9	0	0	3.5231	.64001
Interest is based on repayment period	4.6	6.2	69.2	10.8	9.2	4.4000	.78661
Loan interest criteria is different for every loan	9.8	5.5	5.0	68.5	11.2	3.2769	.94386
Members earn interest on savings	58.5	23.1	18.5	0	0	4.0154	.71790
Members do not earn interest on savings	0	0	18.4	17.4	64.2	2.8308	.96127

A high percentage of 94.1% agreed that interest is based on loan amount with a mean of 3.5231 and standard deviation of .64001. A low percentage 10.8% and 15.3% indicated that loan interest is based on repayment period and loan interest is different for every loan with a mean of 4.4000 and 3.2769 respectively. 58.5% of the respondents agreed that all members earn interest on savings with a mean of 4.0154 and standard deviation of .71790. A high percentage 81.6% dis-agreed that members do not earn interest on their savings with a mean of 2.8308 and standard deviation of 0.96127.

The finding of the study that the loan interest is based on loan amount and that the members earn interest on their savings support Gonzalez (2014), who narrated that basing loan interest on loan amount and having the group members earn interest from their savings is a major factor in ensuring financial sustainability of Informal Finance Groups. Moreover, this is an indication that most of the IFGs arbitrarily set interest rates on loans to avoid complex bookkeeping. Most groups attributed this to cost cutting on expert services which saves the groups on additional staff costs that affect sustainability. Majority of the groups distributed a part of their profit to members as savings on interest to motivate members to adopt the culture of savings and reduce instances of exit from the IFG. Those groups that did not share out profit as interest on savings attributed this to the need for diversifying their sources of income to enable the groups remain financially sustainable.

Table 3: Model Summary for Loan Pricing Practices

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.238 ^a	.057	.048	1.00213

a. Predictors: (Constant), Loan Pricing Practices

Table 3 showed the values of R and R² for the model fitted of 0.238 and 0.057 respectively. The R value of 0.238 portrayed a positive linear relationship between the loan pricing practices and financial sustainability of Informal Finance Groups. The R² value of 0.057 implied that 5.7% of the variation in financial sustainability in Informal Finance Groups was explained by the model $Y = \beta_0 + \beta_1 X_1$.

Table 4: ANOVA for Loan Pricing Practices

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	19.371	5	3.8742	3.632	.003 ^b
	Residual	67.392	64	1.053		
	Total	86.763	69			

a. Dependent Variable: Financial Sustainability

b. Predictors: (Constant), Loan Pricing Practices

An ANOVA was carried out which as from Table 6.3 showed the F statistic p value of 0.003. Since the p value of the F- statistic was less than 0.05, it implied that considering the simple regression model fitted above loan pricing practices had significant effect on financial sustainability of Informal Finance Groups.

Table 5: Coefficients for Loan Pricing Practices

Model		Unstandardized Coefficients		Standardized Coefficients		T	Sig.
		B	Std. Error	Beta			
1	(Constant)	2.546	.400			6.696	.000
	Loan Pricing	.235	.112	.238		2.258	.003

a. Dependent Variable: Financial Sustainability

The results of coefficients to the model $Y = 2.546 + 0.253X_1$ indicates that loan pricing is statistically significant at the 0.05 level of significance as shown on Table 6.4. This was because the p value of 0.003 was less than 0.05. The constant term implied that at zero consideration of loan pricing, financial sustainability would be at 2.546, increasing the loan pricing would increase the financial sustainability by 0.235. The finding of the study support Johnson, (2008), who noted that loan pricing is paramount in improving the financial sustainability of village microfinance groups. This implies that loan pricing is paramount for the financial sustainability on Informal Finance Groups.

Aspects of Loan Repayment Period and Financial Sustainability

The study sought to establish the influence of loan repayment period on financial sustainability of Informal Finance Groups in Kiharu Constituency in Murang'a County. Various constraints on loan repayment period were analysed and the findings were summarised in the Table 6 below

Table 6: Descriptive Statistics of Loan Repayment Period Practices

Loan Repayment Period Practices	SA(%)	A(%)	N(%)	D(%)	SD(%)	Mean	Std. Dev.
Frequency of Repayment is weekly	47.2	29.4	23.4	0	0	4.3826	.78393
Frequency of Repayment is monthly	9.2	44.6	10.8	18.5	16.9	2.7692	1.14249
Maximum duration of loan is less than 1 year	0	64.6	32.3	3.1	0	3.6154	.55035
Maximum duration of loan is exactly one year	26.2	38.5	35.4	0	0	3.9077	.78508
Maximum duration of loan is more than one year	0	50.8	24.6	21.5	3.1	3.2308	.89738
Grace period for loans is 1-30 days	13.8	35.4	29.2	18.5	3.1	3.3846	1.04122
Grace period for loans is over 30 days	0	56.9	43.1	0	0	3.5692	.49904
There exists no Grace period for loans	0	0	29.2	30.8	40.0	4.0154	.78047
More than 20% of Loans are overdue	0	43.1	53.8	3.1	0	3.4000	.55340
Between 21% to 50% of loans are overdue	55.4	24.6	20.0	0	0	4.3538	.79904
More than 50% loans are overdue	0	50.8	24.6	21.5	3.1	3.2308	.89738

On average 76.6% agreed that loan repayment period in was done weekly with a mean of 4.3826 and standard deviation of 0.78393. A low percentage 35.4% indicated that loan repayment period was done monthly with a mean of 2.7826 and standard deviation of 1.12386. A high percentage 64.6% and 64.7% agreed that maximum loan duration was less than one year and exactly one year respectively with a mean of 3.6154 and standard deviation of 0.55035 and 3.9077 and standard deviation of 0.78508 respectively. 75.4% of the respondents agreed that the loan repayment period was not more than one year with a mean of 3.2308 and standard deviation of 0.89738. A higher percentage of respondents 78.4% and 56.9 agreed that there exists a grace period for the loans with of less than 30 days and more than 30 days respectively with a mean of 3.3846 and standard deviation of 1.04122 and a mean of 3.5692 and standard deviation of 49904 respectively. Moreover, 43.1% of the respondents indicated that 20% of loans taken were overdue while 80% of the respondents reported that between 21% to 50% of the loans were overdue. Additionally, 50.8% of the respondents indicated that more than 50% of the loans in the IFGs were overdue. The finding of the study that Informal Finance

Groups need to observe loan repayment period loan grace periods and overdue loans concurs with Schreiner (2008), who noted that loan repayment period and the frequency of repayments plays a great role in financial sustainability of the Informal Finance Groups. Furthermore, he articulated that the observance of the grace period that loans are given and the maximum duration the loans are given are vital constraints in the financial sustainability of IFGs.

Table 7: Model Summary for Loan Repayment Period Practices

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.354 ^a	.125	.116	1.07494

a. Predictors: (Constant), loan repayment period

Table 7 showed the values of R and R² for the model fitted of 0.354 and 0.125 respectively. The R value of 0.354 portrayed a positive linear relationship between the loan repayment period and financial sustainability of Informal Finance Groups. The R² value of 0.125 implied that 12.5% of the variation in financial sustainability was explained by the model $Y = \beta_0 + \beta_2 X_2$.

Table 8: ANOVA for Loan Repayment Period Practices

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.632	4	2.408	2.327	.008 ^b
	Residual	69.784	65	1.0736		
	Total	79.416	69			

a. Dependent Variable: Financial Sustainability

b. Predictors: (Constant), Loan Repayment Period Practices

An ANOVA was carried out which as from Table 8 showed the F statistic p value of 0.008. Since the p value of the F- statistic was less than 0.05, it implied that considering the simple regression model fitted above loan repayment period had significant effect on financial sustainability of Informal Finance Groups.

Table 9: Coefficients for Loan Repayment Period Practices

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	2.032	.454	0	4.246	.000
	Loan Repayment Period	.348	.114	.354	3.063	.008

a. Dependent Variable: Financial Sustainability

The results of coefficients to the model $Y = 2.032 + 0.348X_2$ indicates that inventory management is statistically significant at the 0.05 level of significance as shown on Table 9. This was because the p value of 0.008 was less than 0.05. The constant term implied that at zero consideration of loan repayment period, financial sustainability would be at 2.032, increasing the loan repayment period would increase the financial sustainability by 0.348. The finding of the study asserts earlier finding by Johnson, (2008), who opined that the longevity of an Informal finance Group is tied on the aspect of loan repayment period constraints and when this constraints are kept on check, then the financial sustainability of the Informal Finance Group is guaranteed.

Conclusions

From the findings of the study, loan pricing is positively related to financial sustainability. This implies that the higher the interest rates the more sustainable the IFGs are. This concurs with Steinwand (2011) who argues that the key to financial sustainability is to charge an interest rate that is high enough to cover operating costs, loan losses and interest and adjustment expenses. The finding is also in line with the financial systems approach as supported by institutions that stress the need for financial sustainability, efficiency and outreach (Snodgrass, 2016). This approach calls for microfinance providers to aggressively pursue sustainability through raising interest rates and lowering costs. The finding agrees with the observation by Sebstad & Chen (2016), who note that another way of maintaining sustainability is to increase profits by increasing interest rates.

Loan repayment period is negatively related to financial sustainability. Longer repayment period reduces sustainability which can be attributed to cash inflows that are not so frequent. This is inconsistent with Schmidt, Seibel & Thomes (2016), who found out that coefficient of monthly and term repayment have positive sign. His argument is based on consideration that longer repayment period lowers risk of default. However this study found out that IFGs cash flows are affected by not so frequent in flows. Loan repayment period is an important aspect in the financial sustainability for the informal finance group's project; however, lack of adherence in the loan repayment policies greatly affects the financial sustainability of the groups and creates possible conflicts that end up splitting the group members.

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