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Article in EPRA International Journal of Economic and Business Review · May 2020

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INFLUENCE OF FINANCIAL LINKAGES ON GROWTH OF INFORMAL FINANCIAL INSTITUTIONS IN HOMA BAY COUNTY OF KENYA

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This study was financed by Kenya National Research Foundation (NRF) -2017 (Year of A ward)

ABSTRACT

Article DOI URL: <https://doi.org/10.36713/epra3196>

Financial linkage is an emerging form of partnership widely practiced between NGOs, formal and informal financial institutions in developing countries. The existing forms include but not limited to financial training, Savings products and Credit Information Sharing (CIS). Informal financial institutions enter into such linkages with an aim of growing the volumes of credit accessed. In Homa Bay County, various forms of financial linkages have emerged with statistics indicating unstable growth in volumes of credit accessed by informal financial institutions. According to Homa bay Women Sacco, the loan disbursed grew by 88.46% between 2015 and 2017. This is in tandem with the institutional theory of complementarity adopted by this study. However, studies on formal-informal financial institutions' relationship and contribution of financial linkages to credit access in developing countries have elicited divergent views. Some reveal that financial linkages offer the best solution to promoting credit access while others indicate that the linkages may reduce access to credit and impact negatively on growth of the institutions. It is on this basis that the study sought to establish the influence of the emerging linkages on growth of informal financial institutions in Homa Bay County. The study was based on the positivists approach to conceptualization and was guided by correlational research design. A total of 300 respondents were selected using stratified sampling technique. Both open and closed-ended pre-tested questionnaires were used to collect primary data. Secondary data were from relevant documents of the institutions. The desired relationships were established through multiple regressions while bivariate associations were determined using Correlational analysis. The study revealed that volumes of group savings and Credit information sharing both had significant relationships with the growth of informal financial institutions. On the other hand, financial training had an insignificant negative relationship with access to credit by the institutions, the negative relationship suggests that through training, the informal financial institution's managers strengthen their internal management mechanisms, thus become less dependent on borrowed funds for their activities. The study thus recommends that the three forms of linkages be strengthened to enhance growth of the institutions in Homa Bay County.

KEY WORDS: *Financial Linkages, Growth, Institutions, County, Kenya*

1.0. INTRODUCTION

1.1. Background to the Study

Financial sector plays a critical role in the development process of any economy by driving high levels of savings to finance a

country's investment needs (KIPPRA, 2013). Most economic systems of developing countries are characterized by financial dualism as evidenced by the existence of both formal financial institutions such as banks, capital markets, insurance, pension

schemes, Savings and Credit Co-operative Organizations (SACCOs) and informal financial institutions such as Rotating Savings and Credit Associations (ROSCAs), and Accumulating Savings and Credit Associations (ASCAs) (Germidis, 1990; Pagura & Kirsten, 2006). However, there is no clear-cut distinction between the two financial institutions. The interpenetration between them in terms of operations and participants some time results in substantial bidirectional flow of resources between them (Germidis, 1990).

According to Germidis (1990), two main arguments are usually put forward regarding the causes of financial dualism. One sees the informal financial institutions' growth as a response to shortcomings of the formal financial institutions which result from financial repression (Germidis, 1990). The other line of argument explains existence of financial dualism and growth of informal financial institutions largely by the intrinsic dualism of economic and social structures in the developing countries and the rural population's attachment to traditional values, customs, flexible and speedy transactions that respond to the needs of those segments of the population who, for whatever reason found themselves excluded from the formal financial institutions. Individuals who subscribe to this thesis favour a more regulated financial system (Germidis, 1990).

Kaburi, et al., (2013) asserts that informal financial institutions have existed for decades and their primary social objective has been and remains alleviation of poverty. Though financially constrained, informal financial institutions have developed both in rural and urban areas, providing alternative and faster means of administering credit services to their members so as to reduce the access problem. Empirical evidence however, suggests a combination of the two analyses regarding the causes and growth of informal financial institutions (Ghate, 1992). Existing literature points to the factors motivating the emergence of the informal financial institutions, with minimal attention to the contribution of financial linkages components in the state of financial dualism especially with regard to the growth or decline in volumes of credit accessed by the informal financial institutions.

In the contemporary context, global financial crisis that started in 2007 in the U.S subprime market, spread to the real side of the global economy in the second half of 2008 and by early 2009, saw the world production go down by 1%, and world trade by 13% and the dramatic expansion of the informal economy across the developed, as well as the developing world, brought to the fore the importance of understanding the relationship between the formal and informal financial institutions (Meagher, 2013).

In Kenya, major trends highlighted by the Fin Access 2009 survey showed a strong expansion of informal finance as well as formal finance use indicating that formal and informal financial institutions are not simply substitutes for each other, but that clients value both their services, and that these different institutional forms may even be complementary (Malkamaki, 2011). This view is supported by new institutional complementarity economists who explain that, formal and informal financial institutions, due to their differential comparative cost advantages, essentially cater for different but connected segments of the financial markets (Braverman & Stiglitz, 1989).

Financial linkage therefore is an emerging necessary form of partnership between financial institutions intended to accrue mutual benefit to all the institutions involved. In developing

countries Kenya included, it is widely practiced between formal and informal financial institutions (Pagura & Kirsten, 2006). This study therefore adopted the institutional complementarity theory by Stiglitz and Braverman (1989) which postulates that sustained institutional growth is likely to be achieved between different institutions through complementary linkages.

According to Germidis (1990) and Pagura and Kirsten (2006), informal financial institutions enter into financial linkages with the aim of realizing growth in terms of membership, volume of savings and credit accessed and that both direct and facilitating financial linkages appear to be able to reduce the high information and enforcement problems that increase transaction costs in rural credit markets. A number of studies therefore have emerged in the current body of knowledge focusing on whether or not financial linkages have contributed to growth of informal financial institutions in developing countries. However, the studies have elicited divergent views concerning the formal-informal financial institutions' relationship and the influence of financial linkages on growth of informal financial institutions.

One school avers that, informal financial institutions are integrated with the formal financial institution through complementary linkages which offer the first best solution to promoting informal financial institutions' growth in terms of credit access (Pagura & Kirsten, 2006) as well as offering new solutions to failing aid-based development models that crowd out established institutions in the markets and reduce the poor to recipients of charity (Pralhad & Hart, 2002; World Bank, 2007). The study by Pagura and Kirsten (2006) however, concludes that there is no single circumstance sufficient to explain the emergence of various types of linkages or the reasons why specific institutions enter into linkages.

The second school of thought on the other hand, believes that the informal financial institutions have a dependent relationship with the formal financial institutions but are being exploited by the latter through strict credit controls like stringent credit eligibility criteria leading to credit rationing despite the potential collateral offered by informal financial institutions' group savings and ability to lower default related risks through group agency. Besides, banks act at times as instruments for siphoning off the savings from poorer to richer and more progressive regions where returns are high and secure (Myrdal, 1968). Hence attempts to use financial linkages are likely to impact negatively on growth of informal financial institutions (Bairagya, 2010).

Homa Bay County which is the study area has experienced an influx of many NGOs whose aim has been to complement government efforts in mitigating the massive need for support and assistance in an attempt to contain poverty related problems (JICA, 2007). According to Population Action International (PAI, 2015), the County performs below the national average on most socio-economic indicators. It scores a 0.46 on the Human Development Index (HDI) - a composite measure of development that combines indicators of life expectancy, educational attainment and income. This is below the national average of 0.56. The County has got five (5) Commercial Banks, two (2) MFIs and a number of financial linkage partners such as Catholic Relief Services (CRS), Maisha development trust (MDT), Plan International and CARE Kenya among others.

Various forms of financial linkages have emerged with statistics from linkage partners indicating that informal

financial institutions are growing in terms of volumes of credit accessed and the number of informal financial institutions accessing the same. For instance, according to Homa bay Women Sacco's 2017 financial report, the loan disbursed grew from Kshs. 15,440,410 disbursed to 19 groups in 2015 to Kshs. 29,098,611 disbursed to 28 groups in 2017 representing 88.46% growth. This is in tandem with the new economic institutional theory of complementarity by Stiglitz and Braverman (1989). However, with results from past studies focusing on formal-informal financial institutions' relationship and whether or not financial linkages have contributed to enhanced credit access in developing countries giving divergent views, it remains unclear as to whether or not the reported growth of informal financial institutions in Homa Bay County are due to the emerging financial linkages.

A clearer course of action as to whether or not to strengthen the formal-informal financial linkages which continue to emerge in Homa Bay County becomes complex in this state of affairs where divergent views from literature exist regarding influence of financial linkages on credit access. This therefore provided the justification for further study into the same to come up with findings that would help policy makers and stakeholders in the financial sector to further aid in the understanding of the relationship between formal and informal financial institutions so as to formulate appropriate policies with regards to financial linkages. The three emerging forms of financial linkages the study sought to consider in its scope were: Financial training, Savings accounts/volumes of group savings and Credit Information Sharing (CIS).

1.2. Problem Statement

Development economists have conducted a number of studies on the influence of financial linkages on growth of financial institutions. However, the studies have elicited divergent views regarding formal-informal financial

institutions' relationship and the influence of financial linkages on growth of informal financial institutions. While one school avers that informal financial institutions are benefiting from financial linkages through enhanced credit access, another school believes that the informal financial institutions are being exploited by formal financial institutions in their linkages through strict credit controls despite the potential collateral of group savings and credit information sharing through group agency. Therefore, attempts to use financial linkages to increase credit access may reduce credit access and impact negatively on growth of informal financial institutions. In the midst of these two divergent views, it remains unclear as to what relationship exists between the reported growth of informal financial institutions in Homa Bay County and the emerging financial linkages in the same county. It is on this basis that the study sought to analyze the influence of financial linkages on the growth of informal financial institutions in Homa Bay County.

2.0. RESEARCH METHODOLOGY

2.1. Study Area

The study focused on Homa Bay County located along the shores of Lake Victoria in western Kenya, between Kisumu County to the north and Migori County to the south, Homa Bay County is home to a rapidly growing population largely attributed to high fertility, which is currently estimated at 5 children per woman, compared to the national average of 4.6 children per woman. The livelihoods of most county residents depend on fisheries and rain-fed small-scale farming, practices that are highly vulnerable to environmental degradation and the effects of climate change. Under CARE's innovative group savings and loans (GS&L) in Homa Bay County, there are 46,986 direct beneficiaries; 38,597 and 8,389 female and male respectively.

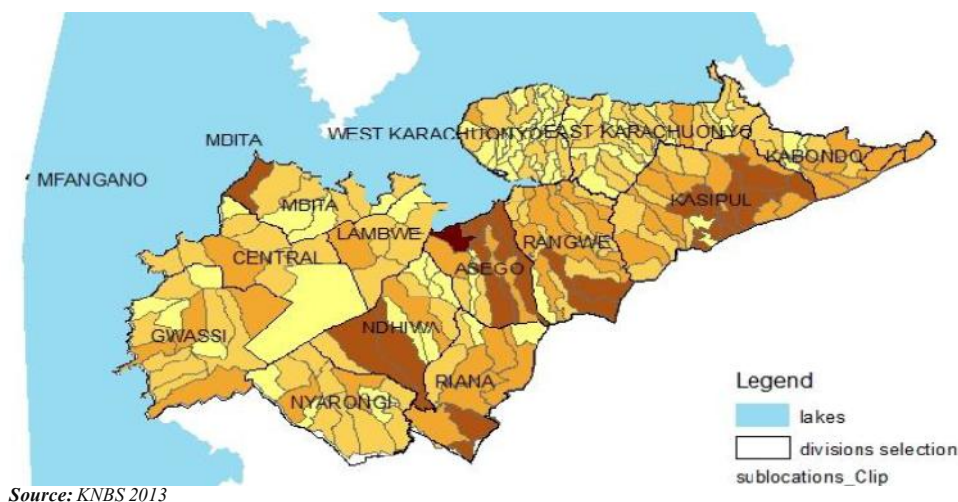


Figure 3.0: Map of Homa Bay County

2.2. Research Design

Correlational research design was used since the study involved determination of the extent to which the values for the factors are related or change in an identifiable pattern. The researcher recognized the fact that there could be other uncontrollable factors influencing the growth of informal financial institutions that did not form part of this study. According to Miller (19195), such a design is appropriate when it is difficult to control for other possible factors that could be causing changes in behaviour.

2.3. Sampling Procedure

The study considered two strata on the basis of locality of respondents. The sample was in the ratio of 1:2 for rural and urban areas respectively, on the basis of the population share of the financially linked informal financial institutions. A systematic random sampling technique was then used to pick individual respondents.

2.4. Population and Sample

Population of the financially linked informal financial institutions operating within Homa Bay County was

estimated by the livelihood officers working with the linkage partners to be 3,000. Cochran (1963) developed the equation shown below to yield a representative sample for a large population

(i.e. for $N > 10,000$).

$$n = \frac{z^2 pq}{e^2} \dots\dots\dots \text{Equation 2.0}$$

Where: n is the sample size, Z^2 is the abscissa of the normal curve that cuts off an area ‘a’ at the tails (1 - a equals the desired confidence level is 95%), $e = 0.05$ is the desired level of precision, p is the estimated proportion/prevalence of an attribute that is present in the population, and q is 1-p.

The value for Z is 1.96 found in statistical tables which contain the area under the normal curve. Some books suggest that if it is impossible to come up with a good estimate for p , one may set p equal to 0.5 to yield the maximum sample size (Daniel, 1999; Lwanga & Lemeshow, 1991). Macfarlane (1997) also suggested that if there is doubt about the value of p , it is best to err towards 50% as it would lead to a larger sample size.

$$n = \frac{(1.96)^2(0.5)(1-0.5)}{(0.05)^2} = 384 \dots\dots\dots \text{Equation 2.1}$$

However, for a small population, (i.e. $N < 10,000$), the formula for finite population correction was required to reduce the sample size slightly (Yamane, 1967). A sample size of 340 respondents therefore was used. However, the response rate was 61.76% which still surpasses 10% of the above target population, which according to Mugenda and Mugenda (2003) is sufficient enough for correlational studies.

2.5. Data Type and Sources

The study used mainly cross sectional data from primary sources (i.e. responses from informal financial institutions’ representatives and livelihood officers in charge of linkage institutions).

2.6. Data Collection Methods and Instruments

Data was collected by the researcher himself assisted by three assistants using both open and closed ended structured questionnaires as the main data collection instrument. One set of questionnaire was administered to the livelihood officers (considered as key informants) working with the formal financial linkage partners/institutions while another set of questionnaire administered to an official representative of the informal financial institution. Observations and interviews were also used where necessary. The selection of these instruments were guided by the nature of data to be collected, time available, area and scope of the study as well as the objective of the study.

2.7. Reliability and Validity Test(s) for Data Collection Instruments

According to Saunders, Lewis and Thornhill (2009), reliability refers to the extent to which the data collection techniques or analysis procedures yield consistent results obtained from numerous tests using the same instrument. While Validity refers to the extent to which results meet generally acceptable standards and can be accurately interpreted and generalized to other populations. To control quality, items with validity and reliability co-efficient of 0.7 or 70% are accepted as valid and reliable in research (Kathuri

& Pals, 1993). Formulated questionnaire was pre-tested on 5 informal financial institutions (respondents) to establish its reliability and validity before necessary adjustments were made and the final questionnaire administered to the respondents. The questionnaire was structured to enhance research objectivity. This allowed for the findings to be pre-coded and analyzed statistically (Sudman & Bradburn, 1982). Both closed and open-ended questions were included in the questionnaires to give respondents an opportunity to freely comment on given issues. Validity was determined using Content Validity Index (C.V.I). The computed CVI was 0.709, implying that the questionnaire items relating to the variables under study were reliable and valid (Kathuri & Pals, 1993).

2.8. Model Specification

The functional model for the study was specified as

$$G_i = f(x_{1i}, x_{2i}, x_{3i}) \dots\dots\dots \text{Equation 2.2}$$

Where: G_i = Growth of an informal financial institution in terms of volumes of credit accessed,

- x_{1i} = Financial training,
- x_{2i} = Savings accounts/volumes of group savings
- x_{3i} = Credit information sharing.

x_{1i}, x_{2i}, x_{3i} , are all forms of financial linkages associated with the individual financial institutions

The estimated model was specified as

$$G_i = S_0 + S_1x_{1i} + S_2x_{2i} + S_3x_{3i} + \sim \dots\dots \text{Equation 2.3}$$

where “ μ ” is a stochastic term which is assumed to have random and real value, normally distributed with a constant variance and zero mean value i.e. $(\mu) \sim N(0, \sigma^2)$.

2.9. Data Analysis

The study used OLS to determine the relationship between growth of financial institutions and the dimensions of financial linkages. OLS technique was preferred because theoretically it follows the Gauss-Markov theorem and the maximum likelihood criterion for a normal regression model. According to Wonnacott and Wonnacott (1979), this would give the opportunity to generate unbiased estimators. Bivariate association between the study variables was determined using Pearson correl statistics.

3.0. RESULTS AND DISCUSSIONS

3.1. Results

The results in Table 3.0 reveal that there is a significant but negative correlation between financial training and growth of the informal financial institutions ($r = -0.226, p < 0.05$). This suggests that 22.6% reduction in the volume of credit accessed by the informal financial institutions is associated with financial training *ceteris paribus*. Similarly, CIS has a significant but negative correlation with the growth ($r = -0.326, p < 0.05$), indicating that 32.6% reduction in the volume of credit accessed by the informal financial institutions is associated with credit information sharing. Volumes of group savings however, shows a strong positive association with growth ($r = 0.57, p < 0.05$), a likely indication that 57%

increase in the volume of credit accessed by the institutions is associated with the group savings. Perhaps the higher savings increase their credit worthiness. A significant positive correlation was also noted between financial training and volumes of group savings ($r = 0.410, p < 0.05$), suggesting signs of collinearity. However, collinearity test carried out in

the regression analysis confirms the absence of multicollinearity from the VIF values.

Table 3.0 shows the Pearson correlation coefficient results for correlation between financial linkages and growth of informal financial institutions in Homa Bay County

Table 3.0: Pearson Correlation Coefficient for the forms of financial linkages

		Growth	Financial training	Volumes of group savings	CIS
Growth	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	210			
Financial training	Pearson Correlation	-.226**	1		
	Sig. (2-tailed)	.001			
	N	210	210		
Volumes of group savings	Pearson Correlation	.570**	.410**	1	
	Sig. (2-tailed)	.000	.000		
	N	210	210	210	
CIS	Pearson Correlation	-.326**	-.124	-.085	1
	Sig. (2-tailed)	.000	.074	.219	
	N	210	210	210	210

** Correlation is significant at the 0.01 level (2-tailed).

Source: Field data 2018

Table 3.1 show R^2 value of 0.405 implying that the combined influence of Volumes of group savings, Financial Training and Credit information sharing account for 40.5% of volumes of credit accessed from formal financial institutions. Although the R^2 value is low, i.e. less than 50%, the F- statistic

[F at 3 df = 46.72, P= 0.000] in the ANOVA Table 3.2 is statistically significant, indicating that the estimated model is still good enough to explain the relationship between the explained and the explanatory variables.

Table 3.1: Model Summary for proportion of variance (R^2) values

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				Durbin-Watson
					R^2 Change	F Change	df3	Sig. F Change	
1	.636	0.405	0.396	1.173	0.405	46.72	207	0.000	1.846

a. Predictors: (Constant), CIS, Volumes of group savings, Financial Training

b. Dependent Variable: Volume of credit accessed by the group members

Source: Field data 2018

Table 3.2: Analysis of variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	192.701	3	64.234	46.72	0.000
Residual	283.223	207	1.375		
1 Total	475.924	210			

a. Dependent Variable: Volume of credit accessed (Growth)

b. Predictors: (Constant), CIS, Volumes of savings, Financial Training

Source: Field data 2018

Table 3.3 shows the estimated parameters relating to the three forms of financial linkages viz; volumes of group savings, financial training and credit information sharing. From the table, both volumes of savings and credit information sharing remain significantly influential on the volumes of credit accessed. For every unit change in the volumes of group savings, volumes of credit accessed significantly grows by

54.2% while for every unit change in credit information sharing, volumes of credit accessed significantly drops by 42.1%. The influence of financial training however in this case is statistically insignificant though negative. For every unit change in financial training, volumes of credit accessed drops by 6.0%. The estimated model is expressed as Equation 3.0

$$G_i = 1.820 - .06x_{1i} + .542x_{2i} - .421x_{3i} \dots \dots \dots \text{Equation 3.0}$$

(229) (.067) (.054) (.096)
(7.948) (-.897) (9.988) (-4.384)

Table 3.3: Beta Coefficients of forms of financial linkages

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	1.820	.229		7.948	.000		
Financial Training	-.060	.067	-.053	-.897	.371	.824	1.213
Volumes of group savings	.542	.054	.541	9.988	.000	.983	1.017
CIS	-.421	.096	-.259	-4.384	.000	.831	1.203

a. Dependent Variable: Volume of credit accessed by the group members

Source: Field data 2018

3.2 Discussions

Although the study revealed an insignificant negative relationship between financial training and the volume of credit accessed by informal financial institutions in Homa Bay County, it indicates that as the individuals get trained on financial management strategies, they tend to minimize investments based on expensive borrowed funds. Perhaps this is the justification for the negative relationship. In Indonesia, a similar arrangement exists where programmes linking Banks with Self-Help Groups train and act as intermediaries between banks and the informal financial institutions. In Homa bay county, such intermediaries open accounts with specific banks like co-operative, Barclays and or Equity before or after linking with the groups, train them over a period of time then obtain commercial (bulk) loans which they on-lend to the groups according to their needs and ability to repay. For some groups, financial training discontinues after credit is advanced.

Literature shows that complementary financial linkages have resulted into expanded outreach in terms of the number of individuals who access commercial bulk loans. For instance, according to Pagura (2006), in Philippines, the bulk (four-fifths) of operational funds or loans to individuals by rural informal lenders come from commercial banks. Wachira and Kihiu (2012) submit that financial literacy remains low in Kenya and household access to financial services is not based on level of financial literacy but rather on such factors as income levels, level of education, marital status, gender, age and distance from banks. Alessie, Maarten and Lusardi (2011) observed that there is a strong positive association between financial literacy and household net worth, and that financial training influences the savings plan with respect to stock

market participation. A study by Alice et al. (2014) equally submit that through the Village Savings and Lending Associations (VSLAs) as a first step in addressing the barrier of inadequate financial understanding, financial training has helped the group members to double their savings over a period of one year. This would in essence avail more funds for internal lending with the likelihood of reducing borrowings from expensive external sources or formal financial institutions. A number of respondents together with the banks and other linkage partners interviewed confirmed that on average, ceteris paribus; volumes of group savings are compounded by factor three (3) to arrive at the amount of credit to be advanced to a group. Linkage partners such as Homa Bay women Sacco, ECLOF, MDT, CRS, and CARE among others, in some instances acted as intermediaries between banks and the informal financial institutions. They open accounts with specific banks, link up with the groups and encourage them to save with the linkage partners through the savings accounts opened for the groups. They then train them over a period of time before obtaining commercial (bulk) loans which they on-lend to the groups according to the groups' needs and ability. The intermediary institutions are then responsible in ensuring that repayment is made through the accounts they have with the respective banks.

Holding other factors constant, the findings of this study agree with the third school of thought but disagree with both the first and second schools of thought with regards to relationship between the formal and informal sector.

The third school of thought believes that the informal financial sector is integrated with the rest of the economy through complementary linkages (ILO, 1991). Through complementary linkages like group savings with the formal financial institutions, informal financial institutions are able

to enhance the volumes of credit accessed from formal financial institutions as the latter also benefits from the collateral of group savings/agency.

The first school on the other hand avers that informal financial sector is an autonomous segment of the economy producing mainly for consumption within the sector (Bairagya, 2010). According to the second school, the informal financial sector has a dependent relationship with the formal financial sector but is being exploited by the latter through strict credit controls despite the potential collateral of group savings (Myrdal, 1963). Myrdal (1963) argues that trade/linkage operates (as a rule) with fundamental bias in favour of the richer/formal financial institutions or stronger and progressive regions and in disfavor of the poorer/informal financial institutions or weaker and less developed regions, and that the banking system, if not regulated to act differently tends to become an instrument for siphoning off the savings from poorer regions to the richer and more progressive ones where returns are high and secure. This perhaps may happen only in cases where regulatory authorities have failed to perform their functions.

In South Africa where the 'People's Benefit Scheme' initiated by First National Bank and designed to permit group members to borrow against the collateral of the group's savings had to be terminated owing to the fact that the Scheme was overly complicated (Verhoef, 2001). Holding other factors constant, this however appears not to be the case with informal financial institutions in Homa Bay County. According to Odongo and Kendi (2013), banks still prefer individual lending which is more wasteful and cannot effectively address the borrowers' financial needs. However, this has not ruled out the influence of volumes of group savings and its collateral role in access to credit as exhibited from the results. In their view, group lending appears to command an edge over individual lending in mitigating loan default. Interestingly, other previous studies which have looked at group savings submit that on various occasions, many banks have introduced savings products specifically designed to accommodate indigenous savings clubs and informal financial institutions (Aliber, 2015).

Alice et al. (2014) argue that the linkage component of BOC has proved to be a model that works and that informal financial institutions welcome the fact that they can keep their funds in a safe place and that they are treated as equals by the banks. According to Aliber (2015), the savings clubs or informal financial institutions in principle also present a huge opportunity for the banks to take in additional deposits without incurring same transactions costs as would apply to individuals.

According to Aryeetey and Udry (1995), a loan involves the exchange of current resources for future resources which is a promise. If a loan transaction occurs in a risky environment and if a complete set of markets for contingent commodities does not exist, then the promised transfer of future resources may not be certain. The character of the loan transaction will then be influenced by the risks faced by the parties involved, and by their knowledge of each other and the activities they undertake

From the regression results, Credit Information Sharing (CIS) is negatively related to volumes of credit accessed by the informal financial institutions in Homa Bay County. These findings are in tandem with IFC (2012), which shows that in the absence of credit information sharing, access to broad, timely and reliable information especially about off-balance

sheet exposures tend not to be regulated. As a result, there have been multiple borrowings and financial over-indebtedness which have led to suicides of poor farmers and repayment crisis like in the case of Andhra Pradesh in India. Financial institutions have therefore, resorted to serious credit application screening to save their clients from the burden of multiple borrowings as well as protect themselves (formal financial institutions) from the possible risks of bad debts.

Therefore, when this information (credit repayment history or ability) is shared, informal financial institutions' abilities and inabilities with respect credit repayment are exposed and the formal financial institutions tend to use it to regulate the borrowings. More often, the informal financial institutions expose much of their weaknesses in the process and the formal financial institutions thus concentrate on prime risks and leave a large vacuum in the credit markets for the informal credit markets to fill according to Gahadassi (1998). This perhaps explains the negative effect of credit information sharing on volumes of credit accessed from formal financial institutions by groups. According to Aliber (2015), there exists of a notion that it is better for Micro Finance Institution (MFI) to create new borrowing groups according to its preferences than to try to accommodate existing groups which come with histories and dynamics that are not conducive to loan repayment. This notion perhaps has also played a role in the significant negative effect that CIS has on credit access by groups.

4.0. CONCLUSIONS AND RECOMMENDATIONS

From the results and discussions, the study concludes that although financial training had insignificant influence on the credit access/ growth of informal financial institutions in the study area, all the three variables (Financial training, volumes of group savings and credit information sharing) are important predictors of credit access/ growth of informal financial institutions.

The import of complementary financial linkages advanced by new institutional economists such as Stiglitz and supported by bottom of the pyramid (BoP) literature according to Meagher (2013), cannot be gainsaid. From the findings of this study, there exists evidence that when the best of both worlds (i.e. the resources and technological capacity of the formal economy/formal financial institutions and the indigenous knowledge, human face and local embeddedness of the informal sector/informal financial institutions) are combined through complementary linkages, sustained institutional growth is likely to be achieved as submitted by Braverman and Stiglitz (1989). Therefore, based on the findings of this study, the researcher recommends the following:

Financial training though has insignificant negative influence on the volumes of credit accessed by the groups, it should be strengthened as it has the potential of enhancing the managements' financial decision making skills more especially with regard to sources and costs of borrowed funds. Group savings with formal financial institutions has the capacity to provide the collateral against default risks associated with individual lending and it has an edge over individual lending in mitigating loan defaulting. Therefore, the need for informal financial institutions to maintain group accounts with the formal financial institutions where they can keep their savings with an aim of building collateral for future borrowings is highly encouraged.

Finally, CIS has played a very important role in ensuring that ease of doing business is enhanced. According to IFC (2012) the benefits of credit reporting include among others, identification of good borrowers (who typically outnumber bad borrowers by a factor of 10 to 1) and access to external funding which is necessary for sustained institutional growth. According to IFC (2012), because of credit information sharing, Egypt's ranking in the Doing Business indicator improved greatly.

In cases where CIS has been lacking or inadequate, financial institutions have found it difficult to deal with systemic risk issues stemming from widespread and concentrated exposure to credit risks in the financial markets. Borrowers have equally engaged in multiple borrowings, suffered financial over indebtedness which in some cases has led to reported suicides thereby significantly affecting the industry like it happened in the repayment crisis in Andhra Pradesh. CIS therefore due to its significant though negative influence on growth of informal financial institutions, should be strengthened to save both the lenders and borrowers from the risks of bad debts and the burden of multiple borrowings and their impacts to the industry. The net effect of CIS to the financial sector is far likely to be positive to the financial market stability.

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