

IMPACT OF INFORMAL MICROFINANCE ON RURAL ENTERPRISES

Onafowokan Oluyombo

Department of Financial Studies, Redeemer's University, Mowe, Nigeria Ogun State

E-mail: ooluyombo@yahoo.com

Abstract

The paper set out to examine if rural enterprises that participate and patronise informal microfinance providers are also finding it difficult to grow their business activities. The respondents were classified into two groups – loan and no loan members. This study made use of primary data through the use of impact survey questionnaire administered on 302 business owners in rural areas who are members of cooperative societies and their responses were analysed using cross tabulation analysis, means, pearson chi square test and independent sample t-test. The findings show that members who had access to loan improved their businesses significantly through expansion of business facilities, addition of new products and hiring of more workers more than those without loan.

Keywords: Microfinance, rural enterprises, cooperative, poverty

Introduction

Accessibility to banking services in the rural areas of developing countries in the wake of massive expansion and integration of electronic banking is now becoming a major issue of concern to practitioners, government and researcher due to lack of basic infrastructural facilities in rural areas that could be used as platform for providing this service and the perceived low level of education among the rural dwellers especially in Africa as a result of prolonged civil war, military rule, sit-down syndrome of some of the rulers in the continent and several military coups – successful and unsuccessful.

These events have brought untold hardship on the plight of the rural dwellers and as such the formal banking system in most cases is not within their reach and they have to patronise any available alternatives in such location. Haque and Yamao (2008) observe that rural poor are largely neglected by formal credit sources because they have no access to institutional credit due to collateral

requirements, complex procedures, poor communication and inadequate banking network in the rural areas.

But in the recent times, the alternative to the formal banking system has been between the formal and the informal microfinance providers. Ndiaye (2005) opined that microfinance provides financial services to the market considered as playing a key role in economic development and poverty reduction. This market can be easily referred to as the rural agricultural and business sector where production of basic raw materials takes place. However, where finance is not available to support the productive sector in the plantation of basic raw materials that come from the rural areas, hunger is inevitable. It may be that this lack of credit in rural areas and to the productive sector of many agricultural nations might have worsened the current global food crisis and the increase in cost of food items.

The above means therefore that rural entrepreneurs may not have any other options

than to participate in formal microfinance – where available – or the informal microfinance programme which includes rotational savings scheme, money collectors, non- governmental organisation, money lenders and cooperative societies. However, there is a limit to the funds that can be sourced from these informal finance providers, but despite this, these providers can also be used as substitute to the formal banking system in the rural areas and especially among the poor.

World Bank (2000) observed that micro and small scale entrepreneurs in Nigeria have been underserved by the commercial banks and there is no evidence to contradict this. It is in the light of this gap in rural financial services provision that this study was set up to examine and appraise how rural entrepreneurs that does not have access to either formal banking service and formal microfinance institutions but are participating fully in one of the informal microfinance program – cooperative societies – were able to bring about changes (if any) in their enterprises among members that took loan and those that did not bearing in mind that co-operative societies are privately organised association of individuals of like minds that come together to operate a saving and loan programme among themselves as an informal microfinance program.

Methodology

Data gathering for this study was based on the use of standardised impact survey questionnaire developed by Small Enterprise Education and Promotion Network. Washington, D. C. (SEEP, 2000) to measure the impact of participating in informal microfinance program – cooperative societies - on rural enterprises among those that took loan and those without loan. Members without loan serves as control group for the study because they have the same opportunities with the loan members if they want instead of using non

members who cannot become loan member if they want without first becoming a member of the cooperative. The questionnaires were administered by the researcher and three research assistants on 302 respondents – business owners - that were randomly selected among those who reside and participate in cooperative societies in rural areas of Ogun State, Nigeria between November 2009 and April 2010.

Three main criteria were used in assessing the business impact based on changes to respondent's business activity in the last twelve months prior to the study that could help them to earn more income or be more productive. These changes are measured through respondent's ability to expand size of business facility, addition of new products and employment of more workers in the business. Response from the impact survey questionnaires were presented in tables with the use of simple percentage and further quantitative analysis was carried out using SPSS statistical package version 14.0 for cross tabulation analysis, chi square test and independent samples t-test for statistically significant differences between sample groups in order to established if there is a significant difference between loan members and no loan members that improve their enterprises based on the three hypotheses.

Data analysis and discussion

The result of the data shows that out of the 302 respondents that participated in the impact survey, 79 members have not received loan from the program and this include 11.4 percent of those who have been with the program for six years and above, 36.7 percent for those within two and five years of membership while members with a year and below accounted for 51.9 percent. This information is expected to give a robust analysis of actual determination of impact or otherwise since no loan members are evenly distributed between

new clients – 51.9% - those with membership of a year and below and old clients – 48.1% - who have been with the cooperative for more than a year.

Out of the 223 members that benefited from the program loan, 48.9 percent are male while female accounted for 51.1 percent. The loan beneficiaries are spread between new members – 9.9 percent – and 48 percent for those between two and five years membership

period while program participant of six years and above accounted for 42.1 percent. All other information like gender, marital status and educational attainment are evenly represented among the two groups. However, the family type shows that the majority of the respondents from both groups are monogamous (82.95 percent), while polygamous (17.05 percent) are minimal. This has no direct relationship with the purpose of this work hence it does not affect the findings.

Table 1: Household Demographic Information

		No Loan Members n=79	Loan Members n=223
Percent - female headed household		16.46	12.11
Percent - male headed household		83.54	87.89
Membership Duration	Percent – 0 to 1 year	51.9	9.9
	Percent – 2 to 5 years	36.7	48.0
	Percent – 6 years and above	11.4	42.1
Gender	Percent – male	46.8	48.9
	Percent – female	53.2	51.1

In order to determine if participation in informal microfinance – cooperative - has positive impact on business activities of the respondents, three hypotheses were formulated as stated below:

- i. Participation in cooperative leads to expansion of size of business facility
- ii. Participation in cooperative leads to addition in new products and/or business diversification
- iii. Participation in cooperative leads to increase in number of enterprise employee

Table 2: Improvement to Business Activity

During the last 12 months, did you make any of the following changes to your business activity so that you could earn more income or be more productive?	Percent No Loan Member n=79	Percent Loan Member n=223
i. Expanded size of business facility	35.4%	49.8%
ii. Added new products or diversify their business	13.9%	27.4%
iii. Hired more workers	10.1%	27.4%

- i. Expansion of Business Facility

The result of entrepreneurs that were able to expand the size of their business facility

revealed that 49.8 percent of loan members increased their enterprise facility against 35.4 percent for no loan members. The likely implication of this result is that access to cooperative loan in the rural areas has the potential ability to cause about 14.4 percent positive change in enlarging the size of loan member's business facility above no loan members provided that the loan is used judiciously. However, the responses need to be tested statistically and this led to the development of the following null hypothesis that there is no relationship between participation in cooperative and expansion of business facility

A chi square test was carried out to found out if the relationship between the two cross tabulated variables is significant at 95% confidence level. The chi-square test statistic value is 4.264 with an associated significant level of 0.039 which is smaller than the alpha level of significance of 0.05. It means that the result is significant and the null hypothesis that there is no relationship between participation in cooperative and expansion of business facility is rejected. The result shows that there is statistically significant relationship between participation in cooperative and expansion of business facilities. Put in another way, there is association between being a loan member and expansion of size of business facility.

However, the effect of the association between the two variables determined from the symmetric measure is the Phi coefficient of 0.126 which means that the effect of being a loan member in a cooperative is small in expanding size of business facility. This could mean that there are other things in addition to accessibility to loan that might have assisted the loan members in expansion of their business facility. A Chi-square test for independence (with Yates Continuity Correction) indicated significant association between participation in cooperatives and

expansion of size of business facility, $X^2 (1, n=302) = 4.264, p = .039, \phi = .126$

The chi-square test is very useful in determining whether there is a relationship between variables, but to be able to know if there is a difference in the mean score of the two groups will require a further test called independent samples t-test. The sig. value result of .000 from the t-test reveals that there is significant difference in the variance of the two group meaning that the score in one condition vary much more than the score in the second condition – variance in the two conditions is significantly different. The Sig. (2-Tailed) value is .026 and is less than .05, because of this we conclude that there is a statistically significant difference between the means score of loan members and no loan members that expanded their business facilities. Since the group statistics box revealed that the mean for loan member was greater than the mean for no loan member, we can conclude that cooperative members that took loan were able to expand significantly the size of their business facilities more than no loan members.

An independent samples t-test was conducted to compare enterprise facility expansion scores for loan and no loan members of cooperative societies. There was a significant difference in the scores for loan ($M = 0.4978, SD = 0.50112$) and no loan ($M = 0.3544, SD = 0.48140$) members; $t (142.027) = 2.250, p = 0.026$ (two-tailed). These results suggest that being a loan member does have effect on the ability to expand business facilities. Specifically, the results suggest that cooperative members that took loan were able to expand significantly the size of their business facility more than no loan members.

ii. Addition of New Products / Business Diversification

The second criterion is on addition of new products or business diversification. 13.9 percent of no loan members consent to have added new products in their business while 27.4 percent of loan members have carried out the same. This result could probably be linked to team spirit among members and especially the ability of loan members to take advantage of business opportunity due to accessibility and availability of back up funding from the cooperative. The 13.5 percent difference in favour of the loan members – all things being equal – could help them to own more businesses and could also serve as an inducement for no loan members to take loan for business investment from the cooperative while at the same time encourage loan members to avail themselves of more loan in the future as long as there is more opportunity for expansion in their chosen enterprise.

This result means that participation in financial cooperative as a loan member enhances rapid business growth and diversification, and this performance almost double that of no loan members. However the result is tested statistically through chi-square if there is any differences between the two cross tabulated variable and independent samples t-test for equality of means for the two groups. The null hypothesis to carry out the test is stated as participation in cooperative does not lead to addition of new products in business.

The chi-square test statistic value is 5.079 with an associated significant level of 0.024 this is smaller than the alpha level of significance of 0.05. It means that the result is significant and the null hypothesis that participation in cooperative does not lead to addition of new products in business is rejected. The result shows that there is statistically significant relationship between participation in cooperative and addition of new products. Put in another way, there is association between being a loan member and ability to add new

products to business. However, the effect of the association between the two variables determined from the symmetric measure in the above table is the Phi coefficient of 0.139 which means that the effect of being a cooperative loan member is small in adding new products or diversifying crops. This may be that addition of new products could have been aided by other factors more than accessibility to loan. A Chi-square test for independence (with Yates Continuity Correction) indicated significant association between participation in cooperatives and addition of new products, $X^2(1, n=302) = 5.079, p = .024, \phi = .139$

The independent samples t-test result of .000 from the sig. value means that there is significant difference in the variance of the two groups meaning that the score for loan member vary much more than the score for no loan member - variance in the two conditions is significantly different. The Sig. (2-Tailed) value is .007 which is less than .05, because of this we conclude that there is a statistically significant difference between the means score of loan members and no loan members that added new products to their business. Since the group statistics box revealed that the mean for loan member was greater than the mean for no loan member, we can conclude that cooperative members that took loan were able to significantly add new products to their business more than no loan members. An independent samples t-test was conducted to compare addition of new products for loan and no loan members of cooperative societies. There was a significant difference in the score for loan ($M = 0.2735, SD = 0.44678$) and no loan ($M = 0.1392, SD = 0.34841$) members; $t(174.536) = 2.724, p = 0.007$ (two tailed). These results suggest that being a loan member does lead to adding new products to business. Specifically, the results suggest that cooperative members that took loan were able

to significantly add new products to their business more than no loan members.

iii. Ability to Hire More Workers

Rural business that is able to hire more workers signifies that the enterprise is doing well compared to other businesses in the same community. The result of a question to know those that hired more workers within the last twelve months produced 27.4 percent and 10.1 percent responses for loan and no loan members respectively. This means that loan members are able to create more employment opportunity for the people than no loan members. This in turn will cause improvement in the economic well being of the employees since loan members are 2.71 times better off than no loan members in increasing their employees. If this information is known to the community, it could lead to drift in workers from no loan members business to loan members. Moreover, it can be interpreted that loan members would find it a lot easier to pay their employee remuneration as at when due compared to no loan members since they have access to loan facility from the cooperative. Participation in cooperative is not related to hiring more workers – serves as the null hypothesis

The chi-square test statistic value is 8.869 with an associated significant level of 0.003 this is smaller than the alpha level of significance of 0.05. It means that the result is significant and the null hypothesis that participation in cooperative is not related to hiring more workers is rejected. The result reveals that there is a statistically significant relationship between participation in cooperative and hiring of more workers. This shows an association between being a loan member and hiring more workers. A relationship has been confirmed by the chi square test, but the effect of the association between the two variables determined from the symmetric measure is the Phi coefficient of 0.180 which means that the

effect of being a loan member in a cooperative is small in hiring more workers. Put in another way, it means that loan membership of cooperative does not contribute much to an entrepreneur's ability to hire more workers in the business. Other factors more than loan could have contributed to hiring of more workers by loan members. A Chi-square test for independence (with Yates Continuity Correction) indicated significant association between participation in cooperatives and expansion of size of business facility, $X^2(1, n=302) = 8.869, p = .003, \phi = .180$

The result of the independent student t-test sig. value .000 means that the variance in the two conditions is significantly different - the score in one condition varies much more than the score in the second condition. The Sig. (2-Tailed) value is .000 and is less than .05, because of this we conclude that there is a statistically significant difference between the mean score of loan members and no loan members that hired more workers in their enterprise. Since the group statistics box revealed that the mean for loan member was greater than the mean for no loan member, we can conclude that cooperative members that took loan were able to significantly hire more workers in their enterprise more than no loan members. An independent samples t-test was conducted to compare scores for hiring more workers between loan and no loan members of cooperative societies. There was a significant difference in the score for loan ($M = 0.2735, SD = 0.44678$) and no loan ($M = 0.1013, SD = 0.30361$) members; $t(201.844) = 3.794, p = 0.000$ (two tailed). These results suggest that being a loan member is related to hiring more workers in an enterprise. Specifically, the results suggest that cooperative members that took loan were able to significantly hire more workers in their enterprise more than no loan members.

Conclusion

This paper has been concerned with knowing the changes that occurs to rural enterprises whose owners are members of rural financial cooperatives and to find out if there is a significant difference computed statistically between the business performances of members with loans and those without loans. The statistical results from the data gather using chi-square test suggested that in all the three impact assessment criteria – expansion of business size, addition of new products and hiring of more workers – there is a significant difference between loan members and no loan members. Moreover, the results of the independent samples t-test for all the criteria also agrees with the chi-square result and these results suggest that being a loan member does have effect on the ability of cooperative members to improve their enterprises. These results are in agreement with the findings in some other African countries of Burkina Faso and Kenya by Larocque et al (2002) and Morris and Barnes (2005) respectively. Specifically, the results suggest that cooperative members that took loan were able to significantly increase their enterprises in the rural areas more than no loan members.

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