

Influence of Member Income on Table Banking Adoption Among Rural Households A survey of Machakos Country, Kenya

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Abstract

The purpose of the study was to assess influence of the income level on table banking adoption. The study was guided by social capital theory and employed descriptive survey and explanatory research design. The target population was 1084 members of table banking groups in Machakos County. Simple random sampling technique was used to select a sample size of 188 members. The researcher used questionnaires to collect data from members of the group and interview schedule to collect data from table banking group leaders. Data on demographics was analysed by descriptive statistics which included means, frequencies and percentages. Hypothesis was tested by multiple regressions with the aid of SPSS. Results were presented in form of tables, graphs and charts. The study revealed that there is a negative and significant relationship between members' income ($r=-0.163$, $p=0.032$) <0.05) and table banking adoption. This means that the higher the income, the less likely they are to adopt table banking. Thus, encouraging the members to participate in formal and beneficial social networking would go a long way in making sure that the members are well informed in terms of improvement of their saving culture through the adoption of table banking.

Keywords: Members' Income, Social Networking, Adoption, Table Banking

INTRODUCTION

Around the world, poor households save in various forms and for various purposes. Although empirical evidence suggests that the poor would deposit if appropriate financial institutions and savings facilities were available, little progress has been made to establish microfinance institutions (MFIs) as full-fledged financial intermediaries (World Bank, 2013). Today most MFIs offer only credit, and savings mobilization remains the forgotten half of microfinance. People in upcountry Kenya have been challenged to set the pace for saving culture in the country since they are closer to numerous opportunities (Faulu, 2012). Creating a savings culture is very important. Table banking helps the member to save even 50 Kenya shillings a week (Ruto, 2013).

Table banking is a group funding strategy where members save and borrow immediately from their savings on the table, either in short term or long term loans. Within Kenya, table-banking was initially developed by the Poverty Eradication Commission (PEC) under the former Ministry of Planning, targeting Millennium Development Goal (M.D.G) on eradicating abject poverty, especially in rural settings in Kenya (GoK, 2012). Table-banking is anchored on the model of the Grameen bank of Bangladesh and the village savings and loans schemes of Zanzibar (JOYWO, 2014).

In Kenya, Table banking project being an initiative to enable community group members build their financial base and to start small enterprises has proved to be an effective way of local members saving among the groups Resource Oriented Development Initiatives (RODI) works with. The table banking groups have gone beyond financing household activities into small business creation through saving, borrowing their own money and repaying at some interest (R.O.D.I, 2013). However, few studies conducted have tried to show various determinants of table banking. Table Banking Groups in Machakos County have adopted this model and it has rapidly grown. This has been attributed to increased awareness among communities on the importance of informal savings. However, little research has been conducted to establish the influence of income and adoption of informal saving. Savings groups through 'table banking' model have unveiled a vehicle aimed at fulfilling the MDG goals and Economic Recovery Strategy for Wealth and Employment Creation agenda on poverty alleviation among the citizenry (GoK, 2005).

Income is regarded as one of the clearest indicators of socio-economic status and well-being in the developed world (Easterlin, 2001). Despite its importance, there remain issues as to the accuracy of income collected as part of surveys. These include the sensitivity of asking about income; whether weekly, monthly or annual income is reported; respondent knowledge of different definitions of income (gross compared to net for instance); and the more fundamental issue of whether respondents actually know their income. In addition, there is no consensus as to the ideal way to minimise these problems or the best way to collect income data in surveys. Some surveys ask a single question others use a number of more detailed questions, some ask for exact amounts, others for a banded range. These differences all lead to potential bias in the data (Micklewright and Schnepf, 2010; Moore et al., 2000). In this study, the researcher will ask a single question of actual income. The main advantage for this method is that the researcher is able to cluster the income with respect to amounts earned by the respondents.

STATEMENT OF THE PROBLEM

Access to basic banking services in Sub-Saharan Africa remains limited particularly to people with low income, and lags far behind other parts of the developing world. Chaia et al. (2009) combine a number of data sources to estimate that only about 20% of households in Sub-Saharan Africa were banked in the early 2000s. While there has been some progress in recent years, Kendall et al. (2010) obtain similar results using more recent data. While developing countries have only 28% as many bank accounts per adult as do developed countries, the figure in Sub-Saharan Africa is far lower at only 16% (World Bank, 2007). People on low incomes are much more likely to save informally, most often keeping cash at home, or with family members. In many low-income countries, people use mutual savings clubs or self-help groups, for example, savings and credit associations, which build up savers' funds to lend to members of the group. Loans may be long-term, or short-term to cover emergencies. The groups are self-managed, community-based and democratic. Research from the UK found that a high proportion of low-income households saved in informal groups for birthdays and holidays, but did not save for the long term (Dolphin, 2009). Methods of saving were often informal as well as keeping cash at home, it was common to overpay on fuel prepayment meters, or put money into a 'hamper scheme'. These schemes enable people to save towards a basket of food or other goods and are often used to spread the cost of Christmas or other festivals. Creation of informal saving mechanism such as table banking provides people with low income an opportunity to save, proper distribution of income and creating more job opportunities (Sawani and Patterson, 2010).

However, in the last decade, the adoption of table banking among the low income earners has witnessed a tremendous increase (Ruto, 2013). This has been attributed to increased awareness among communities on the importance of informal savings as a tool of poverty reduction. Despite the increase in adoption, World Bank report (2013), indicates that Kenya's poverty level in some rural areas remain at 62%. This means, if table banking and other forms of informal savings are successfully modelled, the overall level of savings and investment will increase and push economic growth rates thus reduce poverty. Studies on table banking in Kenya have given little attention on how income levels of household affect their decisions to engage in table banking. This study hypothesized that

H01: There is no significant relationship between members' income levels and table banking adoption.

LITERATURE REVIEW

introduction

This section reviewed both theoretical and empirical literature related to members income and table banking adoption. To understand this relationship, relevant theoretical underpinnings and empirical studies were reviewed. A conceptual framework, which formed a basis of comparison of data analysis and the models or relevant theories, was developed. The chapter goes on to identified knowledge gaps that were as a result of analyzing the theoretical and empirical literature

Theoretical review

Social capital theory

Coleman, often identified as the 'father' of social capital theory, offers a broad interpretation of social capital as a type of resource available to an economic actor through her relationship with others, and defined by its function: It is not a single entity but a variety of entities with two elements in common: they all consist of some aspect of social structures and they facilitate certain actions of actors – whether personal or corporate actors – within the structure Social capital is a sociological concept which has been applied to a variety of issues in recent times. Bard, 1985 defined the concept as “the aggregate or the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition. As the concept experienced considerable theoretical and empirical analysis various other definitions have emerged over the years. Baker (1990) defined the concept as a “resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors”.

According to Omola (2012) assume that being a member of an informal group made a greater contribution to social capital if the group was more heterogeneous across kinship groups, more inclusive and horizontal and better functioning. Hence the contribution of each group to social capital was made an equally weighted sub-index of these three characteristics. Other studies which have used characteristics of group membership as proxy for social capital include Maluccio et al. (2008). The main characteristics considered were gender composition, group performance, income heterogeneity and measures of meeting attendance by group members. Both studies found positive and significant impact of social capital on household welfare.

Member's Income Levels and table banking adoption

Kulikov, Paabut and Staehr (2007) study how household characteristics affect saving behaviour in Estonia by using household budget surveys for 2002-2005. They controlled

income and income variability, various measures of wealth and proxies for credit access as well as household composition, education and the employment status of the household head and of other members of the household. They used two different saving measures, the saving rate and the log saving rate. They found that higher levels of income lead to higher levels of saving.

For Philippines, Bersales et al. (2006) analyse the Family Income and Expenditure Survey (FIES) for seven non-consecutive years. They conduct a descriptive study using micro data. They observe that there are sizeable regional differences in aggregate savings. They also found that saving increases with income and that the lowest income quintile disservices.

Chamon and Prasad (2008) in their analysis found positive relationship between income and savings which increases over time. Controlling for education, occupation, industry and others, they argue that the positive relationship between income and joining informal savings group is driven by the fact that households choose to save the transitory part of the idiosyncratic income shocks. Anderson and Baland (2008) use data from ROSCA in a low-income neighbourhood in Nairobi, Kenya to argue that ROSCA participation is a strategy married women use to protect household savings against claims by husbands for immediate consumption.

Kulikov, Paabut and Staehr (2007) considering a more comprehensive definition of wealth concluded that there is no significant effect of ownership of real estate on saving, while ownership of durable consumer goods reduces household saving. Ownership of stocks of various financial assets and liabilities, and accessibility to liquid assets affect saving negatively. However, if wealth is in the form of productive assets such as farm land, it can have a positive impact on saving. Larger land ownership helps the farmers to benefit from economies of scale and, hence, higher production and earning. Secured land ownership can be used as collateral for loans by the farmers (Ambec, and Treich, 2007). Credit if utilized for improving the productivity of land enhances the income level of the households, leading to higher saving. Thus, farm size can significantly and positively affect saving of farm households (Komicha (2007)).

Recent research on saving behaviour of the households in developing countries indicates that income and saving are positively associated (Gardiol, 2006). Some studies have even considered human wealth in their analysis. For Gardiol (2006) and Kulikov, Paabut and Staehr (2007) education as a human wealth ensures employability and stability of income and, hence, it can have negative impact on saving. However, education improves awareness and financial literacy of people by enabling them to apprehend the complex procedures and formalities and associated risk and return involved in various financial instruments and institutions.

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Common to all the studies reviewed here was that they only have qualitative analysis and hence, they were confined to descriptive analysis. In contrast, the present study thus had the advantage of being based on both qualitative and quantitative analysis. A second limitation of previous studies was the meagre use made of the survey data to create explanatory variables. The lack of explanatory variables, in turn, makes discrimination between members' income

levels, and say promotion or formal status of the group impossible. Therefore, there may be a tendency in previous studies to overestimate the association between members' income levels and adoption of table banking.

CONCEPTUAL FRAMEWORK

Based on the literature above there is some evidence that level of income is seen as a popular mechanism that determines members' choice to adopt saving institution such as table banking (Stiglitz 2006; Wilson, 2010). However, the previous studies have given little attentions on how income levels affect adoption of table banking particularly in developing countries such as Kenya. The study therefore developed the following model demonstrating the linkage between income level of members and table banking adoptions.

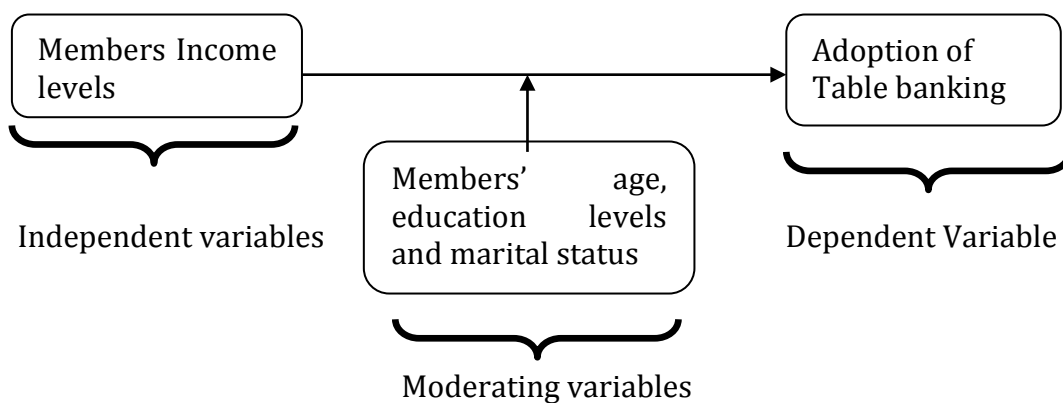


Figure 1: Conceptual Framework of the relationship between members' income levels and adoption of table banking.

From the model above, the study independent variable is Members Income levels which is assumed to either positively or negatively affect adoption of table banking.

RESEARCH METHODOLOGY

Research Design

The study used a combination of descriptive survey and explanatory research design. The researcher used theories or hypothesis to account for the forces that caused a certain phenomenon to occur (Cooper and Schindler, 2008).

Sampling Technique

The study used the list of table banking groups to get a target population of 1084 members drawn from 41 table banking groups in Machakos County in Kenya. The study used Nassiuma, (2000) sample size formula to get a sample size of 188 members which was then distributed across the sub counties (clusters) using the Neyman allocation formula. The study used multistage sampling where lottery method was used to pick sampled members from each cluster.

Research Instruments & data collection procedure

The research utilized both primary and secondary data. A questionnaire is a data collection tool. The questionnaires were formulated according to study objectives in a systematic procedure. In this study, validity was taken to mean the extent to which the instruments covered the research questions. The research supervisors, colleagues, helped the researcher obtain an expert opinion to determine the validity of the research instruments. The questionnaire was piloted in two table banking groups in the neighboring Makueni County, a

locality similar to the study area but not involved in the study. Nine members who were not involved in the study were asked to complete the questionnaire. Data collected from the pilot study was not reported but was used to rephrase and reorganize the format of the questionnaire. Reliability assessment of internal consistency of the items was determined using Cronbach alpha coefficient. The SPSS computer software aided in working out this coefficient achieved. From the study findings, table banking adoption alpha value of 0.727 and members income of 0.843 found to be reliable and within the range prescribed by Kline (1999) who points out that an alpha value of 0.7 to 0.8 is an acceptable value for Cronbach's alpha while lower values indicate an unreliable scale.

Table 1: Reliability Analysis

Reliability Statistics				
	Cronbach's Alpha	Cronbach's Standardized Items	Alpha Based on N of Items	
Table banking adoption	0.727	0.730		4
Member income level	0.843	0.849		5

Data Processing and Analysis

Income level was measured as the actual income level of members per month. This data was collected through questionnaire. Table banking adoption was measured using total amount of deposit the members had in the group. The study further used Pearson correlation to test the relationship between income level and adoption of table banking. This was appropriate because it showed strength and magnitude of the relationship between the two variables. With income level being the independent variable x, and table banking adoption the dependent variable y, the researcher multiplied the income level with table banking adoption to get (xy). Take the square of the income level (x²) and table banking adoption (y²). Add up all of the numbers in the columns and put the result at the bottom to get then using the following formula the researcher calculated Pearson r coefficient which varied between -1 and +1, with +1 indicating a perfect positive relationship (a high score on variable X = a high score on variable Y), -1 a perfect negative relationship (a high score on X = a low score on Y), and 0 no relationship (Hauke and Kossowski, 2011)

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

The significance level was 0.05. Further to show influence of actual income regression equations (2) was used

Table 1: Data Analysis Summary

	Research objectives	Independent variable	Dependent variable	Data analysis procedure
1	determine how the income level influence table banking adoption	Income levels	Adoption of table banking	Descriptive statistics and pearson correlation.

ANALYSIS OF THE FINDINGS

Background Information of the Table Banking Members

The study findings revealed that 82.5% of the group members were above 30 years old and that the propensity of being a group member and hence starting a saving behavior increased with the age of the individual. Table banking's eligibility age is between 18-35 years of age and one should hold a valid Kenyan National Identity Card. This shows that most of the members were eligible to join table banking. Majority of the group members, 92 (48.9%) had finished high school. In addition, out of the 188 group members sampled for inclusion in the study, over 80% that is, 152 had attained either primary or high school level of education while the number of group members with higher education qualification than high school accounted for over 19% of the respondents only. The above finding implies that most of table banking members are literate enough to know benefits and cost of joining table banking. However, with high number of members having high school education only, it implies that most of table banking members are those who might find hard to find a white collar job or a well-paying job.

The findings revealed that 41% of the respondents had been in the group for between 1 to 4 years while 31.4% of them had been in the group for less than a year. This means that overall; over 72% of the respondents had been members of the group for less than 4 years. Findings also showed a decrease in the number respondents with the increase in the number of years they have been members in the group and shows that there is an element of attrition in the number of members in the group with increase in the number of years. Results indicated that 80.3% of the groups were involved in the repaying of loans, and 75.5% were engaged in giving loans while 60.1% of the groups were engaged in social activities which give an indication of the ability of the groups to access loans to run their projects and thus makes them ideal candidates for the implementation of table banking to make their transactions in terms of making loan repayments, accessing loans and saving their money easier.

Sources of Income

The study was aimed at establishing the major sources of income that the group members were engaged in. This would point out the relationship between these sources of income and the level of adoption of table banking. The findings were summarized and presented in figure 1. From the findings, it was shown that the major source of income for 53.7% of the group members was farming.

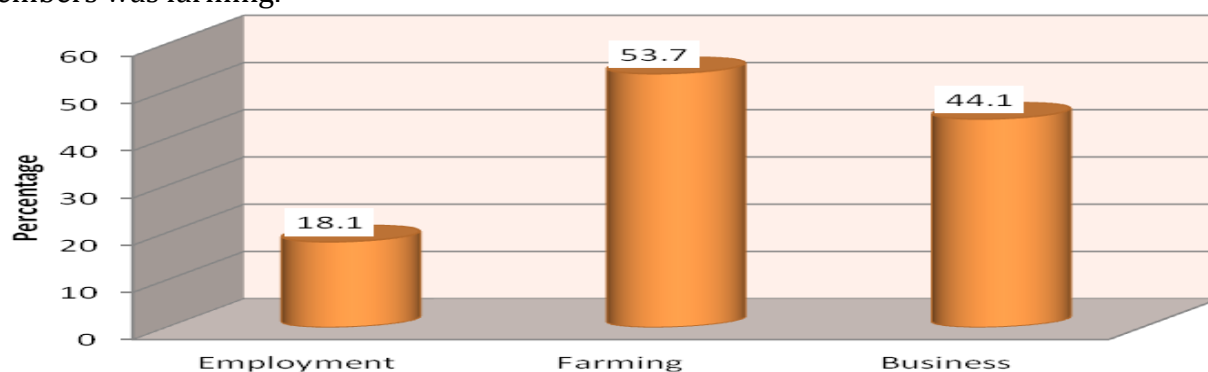


Figure 5: Member Income

Results from the study indicate that the group members are engaged in only one income generating activity although a few of them engaged in business while some were employed. This shows that there are very low levels of diversification in term of income generating activities and encouraging the farmers to diversify and adopt other income generating

activities would enable them to supplement the income they get from farming. This would increase the savings and would probably result in increased adoption of table banking.

Members Earnings

The study sought to establish group members' specific details concerning the earnings from the income generating activities that they were engaged in. The findings were summarized and presented in table 4.8.

Findings in table 3 showed that the mean salary earnings per month were KShs. 49589.23 and translated to KShs. 164849.9 salary earnings per year. In terms of sales, the mean poultry sales earnings per month were KShs. 8569.565 and KShs. 54743.48 per year while the mean farm sales per month were KShs. 7998.529 and KShs. 94236.52 per year. The mean total earnings per month were KShs. 24611.59 and KShs. 175688.90 per year. These findings confirm that majority of the members' source of income was farming and business.

Table 3: Member Earnings

	Mean	Std. Deviation
Salary	218358.8	160222.6
Dairy earning	91038.24	72098.09
Poultry sales earning	65191.5	82155.96
Farm sales	104702.2	45502.63
Total earnings	203188.8	274329.5

From the findings, the salaries paid on a daily basis take a huge portion of the earning from the income generating activities. This implies that when other expenses are added, the total earnings would be very little to even support savings and hence the need to have the group members be taken through essential financial management training apart from trainings on how to increase their output from their income generating activities which would result in high income levels that would enable the group members to save.

Relationship between Income Levels and Table Banking Adoption

To test the effect of income levels on table banking the study used partial Pearson correlation. The findings were summarized and presented in table 4. From the findings, there was a significant and negative correlation between members income and the adoption of table banking ($r = -0.163$, $p = 0.032$).

Table 4: Effect of Income levels on Table Banking Adoption

		Table banking adoption	Members income
Table banking adoption	Pearson Correlation	1	
	Sig. (2-tailed)		
Members income	Pearson Correlation	-0.163*	1
	Sig. (2-tailed)	0.032	

* Correlation is significant at the 0.05 level (2-tailed).

These findings indicate that the levels of income of the group members is low and because of this, there is a higher likelihood of the group members exhibiting low levels of table banking adoption. This also implies that the income generating activities of the group members whether at individual level or as a group do not yield favorable returns and thus the need to

enhance the income of the members through improved ways of running their farming and business activities which would eventually result in the members being more receptive to the adoption of table banking.

DISCUSSION OF FINDINGS

The findings revealed that 41.4% of the group members have been utilizing table banking for 1 month with 90% of them utilizing table banking in their saving activities and shows that over 58% of the group members have not adopted table banking and this presents a gap since a significant number of the group members have not adopted table banking and this might have an influence on the levels of savings among this particular group members given that the major source of income, 53.7% was farming and that the amount of savings was far less as compared to the total earnings per month and presented only 3.36% of the total earnings per month and gives a clear picture that the saving culture is not that strong among the members and although 99% of the members were willing to save more in the group. The findings also revealed that members' savings had a positive and significant relationship with table banking adoption. The findings agree with past research that shows that because many low-income households in developing countries have a small informal family business or a farm, they invest part of their savings in the production unit, in order to increase future income (Campero, 2013) clearly indicating that characteristics such as source of income and levels of income as well as the willingness to save in the future defines the saving culture of the group members. In addition to this, Chamon and Prasad (2008) in their analysis found positive relationship between income and savings which increases over time while Gardiol (2006) showed that income and saving are positively associated.

SUMMARY CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The study findings indicated that Members income was positively related with adoption of table banking. This implies that those with higher income are less likely to joining table banking. The findings agree with past research that shows that because many low-income households in developing countries have a small informal family business or a farm, they invest part of their savings in the production unit, in order to increase future income (Campero, 2013) clearly indicating that characteristics such as source of income and levels of income as well as the willingness to save in the future defines the saving culture of the group members. In addition to this, Chamon and Prasad (2008) in their analysis found positive relationship between income and savings which increases over time while Gardiol (2006) showed that income and saving are positively associated.

RECOMMENDATIONS

Based on these findings, the following recommendations were made that could influence the way financial institutions, groups as well as other stakeholders especially in their approach to community based saving as well as adoption of table banking. Investing in activities that would enable the members to invest in profitable income generating activities would ensure that there is an increase in the members' savings hence the probable uptake of table banking. Since majority of the group members are engaged in farming, financial institutions and organizations are encouraged to invest in farming activities that are profitable as well as ensuring that the farmers gain access to the market to sell their produce so that their farming activities become important income generating activities for the group members.

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