An Empirical Investigation into the Prospects of Micro-Insurance in Some Selected Rural Areas of Sokoto State, Nigeria

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Abstract

This study investigates the prospects of micro-insurance in the rural areas of Nigeria, while Sokoto State was used as case study. The data used in this study is cross sectional and was collected from a sample of 500 respondents, who were contacted through a structured questionnaire. The data collected was analyzed using logit regression model and the study revealed that income level, educational attainment and property ownership as well as availability of infrastructural facilities in the rural areas have positive influence on the prospects of Micro-Insurance in the rural areas of Nigeria. The study recommended that income level of the rural dwellers should be taken into consideration while setting premium, efforts to provide, at least basic education in the areas, should be intensified. It is also suggested that serious mobilization and sensitization programs should precede the introduction of Micro-Insurance. Micro-insurance in rural areas should place more emphasis on farming, being the major occupation in the rural areas. As such, we recommended for Agricultural Micro-insurance in rural Nigeria, at least at start.

Keywords: Micro-insurance, prospects, challenges, logit, Nigeria.

1. Introduction

Insurance is considered as one of the most effective means of reducing the vulnerability of the poor from the impacts of disease, theft, violence, disability, fire and other hazards. Insurance protects against unexpected losses by pooling the resources of the many to compensate for the losses of the few, the more uncertain the event the more insurance becomes the most economical form of protection (Brown and Churchill 1999). Policyholders only pay the average loss suffered by the group rather than the actual costs of an individual event; insurance replaces the uncertain prospects of large losses with the certainty of making small, regular, affordable premium payments (Brown and McCord 2000, Brown and Churchill 1999).

The primary function of insurance is to act as a risk transfer mechanism, to provide peace of mind and protect against losses. Risk can be handled by; assumption, combination, transfer or loss prevention activities. Insurance schemes utilize the combination method by persuading a large number of individuals to pool their risks into a large group to minimize overall risk (Ali 2000). In the developed world, insurance is part of society, such that some forms of cover are required by law. In developing countries, the need for such a safety net is much greater, particularly at the poorest levels where vulnerability to risks is much greater and there are fewer opportunities available to recover from a large loss (Brown and McCord 2000).

A major determinant of the performance of insurance sector in the developed economies is usually, the level of insurance penetration in the population (Irukwu, 2010). In such economies, 70 to 90 per cent of the citizens usually possess at least, one insurance policy. On the contrary, the insurance penetration in developing countries is very minimal and their service is restricted to few well-off individuals and companies. To reduce the current insurance gap of 94 percent to about 70 percent by the year 2020 necessitated the need to develop the micro-insurance business in Nigeria by National Insurance Commission (NAICOM) in December 2013 named guides for micro-insurance operations in Nigeria which has taken effect since 1st January 2014. The ability of the industry to penetrate a large percentage of the society to a large extent is attributed to the availability of well tailored insurance policies capable of meeting the needs of the average and low income earners in the society.

Against this background, this study therefore, intends to empirically investigate the prospects of micro-insurance in rural areas of Sokoto state. To achieve the objective, the paper is divided into five sections including this introduction. Section two contains the review of related literature, section three presents the methodology used in the study, section four discusses the result and the last section concludes the study.

2. *Literature Review*

Theoretical Literature

Churchill (2006) defined micro-insurance as a financial arrangement to protect low income people against specific perils in exchange for regular premiums payments proportionate to the likelihood and cost of the risk involved. Banerjeen (2008) documented that micro insurance policy offers protection against a set of pre-determined risks relating primarily to business, health, agriculture, and life. But in the micro insurance sphere, the target market is specific; low insurance communities where people live on less than US $ 2 a day according to a group of which pools together its risk and prepaid contributions rather than to the individual, as in the case with conventional insurance. Contributions or Premium are typically small and paid frequently, suiting the paying capacity of these communities. He further added that pooling into a risk fund offers on affordable way for low income people to be protected against vulnerability to further economic hardship caused by exposure to such as livestock, crops, and tools due to natural calamities such as drought, flooding and earthquake illness and debilitating disease, death and widowhood.

Linnerooth–Bayer *et al* (2006) opined that micro-insurance can break the cycle of poverty" by providing low-income households, business and farmers with access to post disaster liquidity, thus protect their livelihoods and providing for reconstruction. Therefore, insured households and firms are more credit worthy; these kinds of insurance can also promote investments in productive assets and higher risk yield crops. They emphasize that micro insurance can encourage investment in disaster prevention, if insurers offer lower premiums to reward risk reducing behaviors. Thus, arguably, micro-insurance can be seen as effective risk - transfer mechanism and integral part of overall disaster risk management strategy. Jutting and Ahuja (2003) observed that micro-insurance is considered to play important role of financing tool to protect poor from adverse financial consequence in the event of sicknesses or ill health. Devaux (2000) noted that micro-insurance enables credit and savings to be used more productively on generating employment opportunities. Churchill (2008) viewed that poverty is just a state of deprivation but has talent vulnerability micro-insurance should therefore, provide greater economic and psychological security to the poor as it reduces exposure to multiple risks and cushions the impact of a disaster. There is an overwhelming demand for social protection among the poor, micro insurance in conjunction with micro saving and micro credit could, therefore go a long way in keeping this segment away from the poverty trap and would truly be an integral component of financial inclusion. Tomchinsky (2008) argued that consumer education, marketing and grievance handling will certainly improve micro-insurance schemes. He cited that the micro insurance sector is unique in the sense that there is an ongoing challenge to explain the concept and benefits to the insured. Creating awareness through use of pictorial posters, local folk arts, and street treaties might be useful to explain the mechanisms of insurance. Local community based organizations could organize premium collection, as they have better access to the local people. To make it more acceptable to the people micro insurance products, apart from covering only risks should also provide an opportunity for providing long term savings (endowment).

In a recent study of quality of life in developing countries with reference to South Africa by Moller (2004), income and social security (own wages, ability to provide for family, insurance against illness/death and income in old age) have been treated as one of the major indicators of quality of life. This standpoint stresses the significance of insurance to human life. Ironically, insurance services seem not to have been so accepted enthusiastically in developing countries. The abysmal level of insurance culture in developing economies has attracted relative interests among researchers and practitioners alike. Risk has been identified as a central fact of life in the rural areas of less-developed countries (Udry, 1994). Some of the problems associated with this are low insurance culture. For instance, Omar (2005) assessed consumers' attitudes towards life insurance patronage in Nigeria and found out that there is lack of trust and confidence in the insurance companies. Other major reason for this attitude is lack of knowledge about life insurance product. An instructive opinion suggested by the researcher is the call for a renewed marketing communication strategy that should be based on creating awareness and informing the consumers of the benefits inherent in life insurance so as to reinforce the purchasing decision.

The drawback to Omar‘s study is in the area of its inability to capture attitude to non-life insurance products and limited sampling, which include automobile, home contents, goods in transit, marine and aviation, fidelity guarantee and so on. However, Omar‘s study raises fundamental marketing questions for insurance practitioners.

The demand for life insurance in a country may be affected by the unique culture of the country to the extent that it affects the population‘s risk aversion (Douglas and Wildavski, 1982). Henderson and Milhouse (1987) argued that an individual‘s religion can provide an insight into the individual's behavior; and understanding religion is an important component of understanding a nation‘s unique culture. Also, Zelizer (1979) noted that religion historically has provided a strong source of cultural opposition to life insurance as many religious people believe that a reliance on life insurance results from a distrust of God‘s protecting care. Until the nineteenth century, European nations condemned and banned life insurance on religious grounds. Zelizer (1979) also stated that religious antagonism to life insurance still remains in several Islamic countries. In similar vein, Wasaw and Hill (1986) tested the effect of Islam on life insurance consumption using an international data set.

The results of their study indicate that, ceteris paribus, consumers in Islamic nations purchase less life insurance than those in non-Islamic nations. This becomes more evident in the fact that there is comparatively very low ratio of Muslims in developed countries with the majority residing in medium to low human development countries. From the thirty-five low human development countries as defined by the Human Development Report (2004), seventeen have a majority Muslim population and a further five have a Muslim population of over 20 percent. Muslims around the world are commonly faced with low-income levels, and lack access to social security systems, healthcare, education, sanitation, and employment opportunities (Patel, 2004). The above assertions have been corroborated in another related study of insurance penetration in Nigeria, a developing nation where the marketing of an interest-free insurance scheme gained the support and patronage of the Muslim population (Yusuf, 2006). This becomes attractive mainly because the scheme is interest free; hence, it is regarded as having religious backing.

According to Ikupolati (2008), one of the greatest challenges for micro insurance is the actual delivery to clients. Methods and models for doing so vary depending on the organization of institution, and provider involved. In general, there are four main methods for offering micro insurance, the partners' agent model, the provider driven model, the full services model, and the community based model. Each of the models has their own advantages and disadvantages. Partner – agent model: A part is formed between the micro insurance schemed between the micro insurance company, micro finance institution, donor, etc) and in some cases third party health care provider. The micro insurance scheme is responsible for the delivery and marketing of the products to the clients, while the agents retains all responsibility for design and developing in this model, micro insurance schemes benefit from limited risks, limited control. Full – services model: The micro insurance scheme is in charge of everything; both design and delivery of products to care providers to provide services. This model has advantage of offering micro insurance schemes full control, yet the disadvantage of higher risks. Provider driven model: the health care provider is the micro insurance scheme, and similar to the full services model, is responsible for all the operations, delivery, design, and services. There is an advantage once more in the amount of control retained, yet disadvantage in the limitations on products and services.

Empirical Literature

Many studies were conducted in relation to micro-insurance globally by various scholars and different opinions were resulted. As such, Aliero and Mukhtar (2012) concluded that the acceptability of micro-insurance in rural areas depends on the level of income, types of assets owned, level of education of the rural dwellers and availability of infrastructural facilities in the area. Along this line, McCord (2007) stated in his report that the micro insurance product development process is continuous and designed to ensure that appropriate products get delivered to the market in an effective manner and are monitored for potential improvements. Syed et al (2010) their study showed that there is a positive impact of micro health insurance in the reduction of poverty among rural households of Bangladesh. Micro health insurance has a significant beneficial effect on food sufficiency of poor's and has a dynamic improvement in the health status of poor rural households.

I n a study by Limna (2014) revealed that micro insurance hold much hope for extension of protection to millions of resource poor households in India. At the same time, there is a need to pay attention to the specifications of the clients at the micro level and customize solutions that meet their needs, are affordability, and are provided by trusted institutions.

Involvement of communities in the process represents much scope for limiting adverse selection, moral hazard, and fraud, and thus making the schemes more sustainable. Similarly, Dennis and Hansel (2010) have demonstrated that micro insurance schemes following the mutual principles of set help, self governance and self-responsibility have a value proposition that mitigates inherent incentive problems in the insurance business moral hazard and adverse selection. The maximization of members' utility is the overriding objective and advocates their suitability to address the needs of a low income population. In the vein Paramasivan and Rajaram (2014) found that Insurance sector is one of the emerging and most important part of the financial system of the country which helps to mobilize the savings from the people in the form of policy premium and prefect he investors from the risk and uncertainty.

3. Methodology

Logit regression is used when the dependent variable is dummy in nature with quantitative independent variables (Anderson, 1997). Logit regression is appropriate in research if the primary objective is identifying the group to which an object belongs. Kshirsagar (1992) posited that logit regression can be used in identifying prospects including the success or failure of new product. Thus, the logit regression model was found to be adequate. The model used in this study is given below.

$$\text{prob(event)} = \frac{\text{Exp}\{\beta 0+\beta 1X1+\ldots+\beta nXn\}}{1+\text{Exp}\{\beta 0+\beta 1X1+\ldots+\beta nXn\}}$$

Where Xi j is the value of variables Xj which are the same for all items in the group. In this way the variable Xi to Xn are allowed to influence the probability of a positive response which is assumed to be the same for all items in the group, irrespective of the positive responses or the negative responses of the other items in that or any other group. Similarly, the probability of a negative response is defined as 1-π, for all items in the group (Anderson, 1997). Therefore, the following model was used in estimating the parameters for the variables in this study:

$Yi=\alpha 0+\alpha 1X1i+ \alpha 2X2i+ \alpha 3X3i+ \alpha 4X4i +\mu i$

Where:

Y=1, if the respondents will patronize micro-insurance and 0 if otherwise.

X1= Income level

X2= Level of education

X3= Assets and property ownership

X4= Infrastructural facilities

μ = Error term.

The main instrument used in sourcing the required data was structured questionnaire. The questionnaire was designed and administered to the purposely selected respondents from rural communities of Sokoto State

4. Results and Discussion

The result is divided into two parts that is descriptive and inferential results. But we begin with descriptive result.

Table 1: Demographic distributions of the respondents

Sex	Frequency	Percent
Male	350	70%
Female	150	30%
Marital Status		
Single	150	30%
Married	205	41%
Divorced	100	20%
Widowed	45	9%
Educational Qualification		
Informal Education	300	60%
Formal Education	150	30%
Not Educated	50	10%
Occupation		
Civil Servant	130	26%
Farming	300	60%
Trading	50	10%
Artisan	15	3%
Income Range in Naira		
Below #18,000	110	22%
#19,000-#20,000	250	50%
#20,001-#30,000	130	26%
#30,000 above	55	11%

Source: Survey, 2016

In the Table 1 above, it shows that 350 respondents were male while 150 respondents were female representing 70% and 30% respectively. The Table also shows information with regard to the marital status of the respondents and it could be seen that majority of the respondents were married, precisely 205 (41%) are married while 150 (30%) respondents were single. On the other hand, 100 respondents were divorced and only 45 were widowed representing 20% and 9% approximately. Classifying respondents by educational level, the Table shows that 300(60%) of the respondents do not have any formal education, while 150 (30%) posses formal education, however, 50 (10%) of the respondents revealed that they are not educated in either ways. The table further indicates the frequency of the occupational distribution of the respondent`s. It was noted that 5 of the respondents (1%) did not respond to the question, 300 (60%) were farmers, 50 (10%) were traders, 15 (3%) were artisans and 130 (26%) were civil servants. In order to avoid multiplicity of responses, respondents who were having more than one occupation were asked to indicate their major one. Also the table depicts the monthly income of the respondents. 5 respondents did not respond to this question. In other words, they did not indicate their income, but 110 (22%) respondents indicate earning less than N18000, 250 of the respondents representing 50% earn between N19000 to N20,000.00 while 130 (26%) of the respondents earn between N21,000 to N30,000, and 55 respondents representing (11%) indicates earning above N30,000.00

Table 2: Summary of Logit Results for the Prospect of Micro-Insurance

Variables		Co-efficient
Coefficient Probability		
Monthly Income (0.96)	**0.40**	**0.44**
Infrastructure (1.67)	**0.65**	**0.09**
Educational level (0.44)	**0.36**	**0.67**
Property ownership (0.20)	**0.42**	**0.87**

Pseudo R^2	0.080
LR $Chi^2(4)$	45.03***
No of observations	500

Significant at 10 (*); 5% (**); 1% (***)
Z –ratios in parenthesis
Source: Survey 2016,

From the results, it is quite clear that the four variables analyzed using logit regression which includes average monthly income, infrastructure, educational level and property ownership showed that each variable has positive influence on the prospects of micro insurance in rural areas of Sokoto state. However, only one variable, that is infrastructure that has significant positive influence on the prospects of micro-insurance but the remaining three (average monthly income, educational level and property ownership) their influence is statistically insignificant on the prospects of micro-insurance even though were positive. The finding is consistence with the findings of Yusuf *et al*., (2009) and Aliero and Ibrahim (2011) which indicates a significant positive influence of income on insurance services in Nigeria. Similarly, this study found that possession of insurable assets by rural dwellers will increases the prospects of micro-insurance in rural areas of Nigeria. This finding coincides with a priori expectation because without insurable assets ownership by the rural dwellers there will be nothing for them to be insured. Moreover, the coefficient of educational level of the respondents has positive influence which means that the higher the level of literacy in rural areas the greater the prospect of micro-insurance in the areas. This finding supports the work of Yusuf *et al.,* (2009), Aliero and Ibrahim (2011), Aliero and Mukhtar (2012), and that of Mukhtar (2013) which revealed a positive influence of the level of education on the performance of insurance services in rural areas.

5. Conclusions

The findings of this study showed that the prospects of micro-insurance depend on respondents' level of income, availability of infrastructural facilities in rural areas, level of education and property ownership of the rural dwellers. It could therefore be concluded that the acceptability of micro insurance in rural areas will depend on the level of income, types of assets owned, level of education of the rural dwellers and the availability of infrastructural facilities in the area. It could therefore be recommended that the policy makers in Nigeria should take those factors into consideration before the introduction of Micro insurance scheme. The governments at both federal and state levels should intensify efforts in the provision of basic infrastructures in the rural areas, such as roads, schools, hospitals, etc. On the other hand, Micro insurance providers should begin with such schemes which focus on the major occupation of the rural inhabitants, which is farming.

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