Full Length Research Paper

Factor Analysis of Micro Insurance Development Challenges in Rural Areas

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Micro insurance is a financial arrangement to protect low-income people against specific perils in exchange for regular premium payments proportionate to the likelihood and cost of the risk involved. Organizations might face a number of barriers to develop micro insurance especially in rural areas; therefore it is necessary to identify such challenges. This study investigates agricultural experts' perception about the challenges of micro insurance development. The factor analysis showed that the challenges can be classified into 3 latent factors namely: educational challenges, cultural-social challenges and legal-institutional challenges. 39.1% of total common variances are explained by these 3 factors.

Keywords: Micro Insurance, challenges, rural areas.

INTRODUCTION

Although the type of risks faced by the poor such as death, illness, injury and accident, are no different from those faced by others, they are more vulnerable to such risks because of their economic circumstance. In the context of health contingency, for example, a World Bank study (Peters et al. 2002), reports that about one-fourth of hospitalized Indians fall below the poverty line as a result of their stay in hospitals. The same study reports that more than 40 percent of hospitalized patients take loans or sell assets to pay for hospitalization.

Indeed, enhancing the ability of the poor to deal with various risks is increasingly being considered integral to any poverty reduction strategy (Holzmann and Jorgensen, 2000).

Micro insurance aims to cover lives and protect the assets of low-income individuals and families from natural disasters, illness, death, accidents and crop failure amongst others. By doing so, it enables low-income individuals to manage their risks better by providing them with a safety net that can stop them from falling back into poverty. It often refers to the subset of insurance products that are characterized by low premiums and low coverage limits, on the assumption that these suit the needs of low-income people.

Torkestani and Ahadi (2008) study Iranian MFIs and conclude that these MFIs are capable and ready to offer micro insurance. Torkestani and Ahadi discuss micro insurance in the microfinance context. They focus on the similarities of all micro insurance product types identifying five key characteristics of micro insurance products.

These characteristics are: micro insurance offers social protection through the pooling of risk and diversification; client contributions fund the system typically in a flat payment and not a risk-adjusted premium; membership is voluntary and generally based on social networks; micro insurance operations are not-for-profits, using any surplus income to build reserves or expand services; and it is often beneficial to have member participation in the running of the program.

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, institution, and provider involved. In general, there are four main methods for offering micro insurance:

Partner agent model: A partnership is formed between the micro insurance (partner as MFI) scheme and an agent (insurance companies), and in some cases a third-party healthcare provider. The micro insurance scheme is responsible for the delivery and marketing of products to the clients, while the agent retains all responsibility for design and development. In this model, micro insurance schemes benefit from limited risk, but are also disadvan-

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taged in their limited control.

Full service model: The micro insurance scheme is in charge of everything; both the design and delivery of products to the clients, working with external healthcare providers to provide the services. This model has the advantage of offering micro insurance schemes full control, yet the disadvantage of higher risks.

Provider-driven model: The healthcare provider is the micro insurance scheme, and similar to the full-service model, is responsible for all operations, delivery, design, and service. There is an advantage once more in the amount of control retained, yet disadvantage in the limitations on products and services.

Community-based/mutual model: The policyholders or clients are in charge, managing and owning the operations, and working with external healthcare providers to offer services. This model is advantageous for its ability to design and market products more easily and effectively, yet is disadvantaged by its small size and scope of operations (Churchill, 2006).

Agricultural micro insurance is about providing insurance to small-scale farmers in developing countries. This in itself presents a number of particular challenges to insurers:

Uncontrollable: Ideally the occurrence of an insured event should not be under the direct control of the insured person. However, this is not always the case with many kinds agriculture insurance.

Fraud: Farms are often physically remote, which creates opportunities for fraud.

Moral hazard: Physical remoteness makes it hard for an insurer to check whether insured farmers are diligently taking care of their crops or livestock.

Adverse selection: can have a destabilizing effect on an insurance system, because the principle of risk-pooling will not work if only those negatively affected by the insurance.

Covariant risk: In agriculture, covariant risk is frequently an issue because droughts, pests and animal or crop epidemics are likely to affect many farmers at the same time.

All these factors, together with the costs of loss adjustment, can make agricultural indemnity insurance a very costly business, difficult to make profitable or indeed to break even. In fact hardly any agricultural insurance programs cover their costs (indemnity payments & administrative costs) from premiums. Almost all are subsidized, as agriculture is a much politicized sector.

Micro insurance schemes may cover various risks (health, life, etc.); the most frequent agricultural micro insurance products are:

Animal insurance: Livestock insurance can cover losses resulting from death, disease and accidental injury to livestock. It can cover an individual animal or a herd.

Crop insurance: Crop insurance covers the loss of crops due to one or more perils, and can be covered in a number of different way: yield loss (a lower-than-anticipated yield), quality loss (crops of a lower quality than anticipated), revenue loss (due to price fluctuations), or a combination of these. The two most common types of crop insurance are Named-peril crop insurance (policies pay out according to the actual damage that results) and, Multi-peril crop insurance (Roth and McCord, 2008)

The barriers of micro insurance development identified in this study, would be brought to the knowledge of the insurance planners, practitioners, policyholders and insurance extension agents in order to achieve a realistic micro insurance development program.

Materials and methods

Based on previous studies, a questionnaire was developed to study the challenges of micro insurance development. The questionnaire was revised with the help of experts with significant experience in insurance to examine the validity of the research model. A 5-point Likert scale, ranging from 1 as strongly disagrees to 5 as strongly agree was used for the measurement. The first section of the questionnaire consisted of some items used to gather data about demographic characteristics. The second section included 11 items used to assess challenges.

A pre-test for the reliability of the instrument was conducted with 15 experts randomly chosen from the target population. The challenges were summarized into one single variables C. Then, the Cronbach's alpha from those variables was computed. In this research, acceptable reliability (0.76) is demonstrated.

The research population included all the experts in Agricultural insurance fund (N=55). Small population caused a census study. The initial and follow up mailing generated 53 usable responses.

Results and Discussion

Age of experts varies from 25 to 55 years old. Moreover, the majority of them are male and average of work experience is 14 years old.

Implementation of factor analysis summarizes all barriers into 3 factors given by Table 1.

Factor one is composed of the following barriers. Lack of financial education among the population about the purpose and benefits of insurance, perceiving insurance as an "extra" or even "wasteful" expense, or as a luxury product, Lack of client knowledge of insurance policy. So it was named Educational challenges. Factor two is composed of the following barriers. Lack of trust in institutions (in government sector), lack of trust in institutions (in private sector), Lack of insurance tradition.

Table 1. Factor Analysis of Micro Insurance Development Challenges

Factor name	Explained common variance by factor
Educational	17.1
Cultural – Social	12.5
Legal - institutional	9.5

So it was named Cultural – Social challenges.

Factor tree is composed of the following barriers. underdeveloped institutional and governmental capacity, Institutional weakness particularly in the areas of management, administration and technical expertise and data systems, limited coverage due to the restrictive mechanism of reaching the poor via agents like MFI, Restrictive insurance policy that limits the demand for insurance, Lack of an enabling policy environment. So it was named legal and institutional challenges.

As one may observe in Table 1, 39.1% of total common variances are explained by these 3 factors.

Unawareness of farmers about legal affairs of insurance pointed out as the most important factor in this research. Formal education is also associated with status and with a demand for security and protection of life, health and properties of the individual through insurance. The more educated potential consumers are more likely to purchase insurance as a tool allowing them better access to healthcare and high security for their properties (homes, cars, etc.). This idea is argued also by Sapelli & Vial (2003), as they consider that there is a positive relationship between the probability of purchasing private insurance and education, more educated persons facing lower costs of information when deciding between the complex plans offered by private insurance. In their study, they find that a higher income, younger age, smaller number of dependents, residence in an urban area, higher educational level, and employment with a larger company increase the probability of choosing private insurance. There are major differences in the demand for insurance among those with various educational backgrounds and with different socio-demographic characteristics and those differences are correlated with risk perception. The risk perception has large effects on insurance and risk-taking behavior, in consequence those more educated and more informed are more likely to try to protect themselves by insurance. Those with higher education are more likely to understand the benefits of insurance and to have a preventive behavior and, in consequence, to use insurance as a protecting tool for them, their families and their properties. One may suggest that the insurance industrial organization should extension and promote this kind of insurance service for rural areas.

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