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Factors That Motivate the Rural Households To Buy Microinsurance Products

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ABSTRACT

Microinsurance is a form of finance designed to suit the needs of rural people who do not have access to conventional forms of insurance. It consists of small premium policies on life, weather, accident, household, fire, cattle and motor insurance. The insurance needs of rural India are different from their urban counterpart and cannot be met by formal insurance products. Objective of the study is to analyses the factors that motivate the rural households to buy microinsurance products and factors analysis is applied to identify the factors and multiple regressions are used to test.

KEYWORDS

Introduction

Microinsurance is a form of finance designed to suit the needs of rural people who do not have access to conventional forms of insurance. It consists of small premium policies on life, weather, accident, household, fire, cattle and motor insurance. The insurance needs of rural India are different from their urban counterpart and cannot be met by formal insurance products. The rural poor not only want insurance to be affordable, but also to protect against high-frequency risks such as serious ill health, accidents, harvest failure and fire.

Objectives

To analyse the factors that motivate to invest in the microinsurance.

Methodology

Coimbatore District has selected for the study. As the sampling is carried out in different stages, the sampling considered for the study is multistage sampling. Coimbatore district has 23 blocks; out of this five blocks were selected. In five blocks, 588 respondents selected randomly. Tools for data collection, the primary data was collected from 558 respondents through a detail interview schedule Tools for data analysis, Percentage analysis Factor analysis, and multiple regressions were used.

Factors that motivate the rural households to buy microinsurance products

The factors motivate the rural households to buy microinsurance products include the number of respondents invested in microinsurance and the reasons for them to buy the products.

Investment in Microinsurance Products

Figure 1

Investment in Microinsurance Products

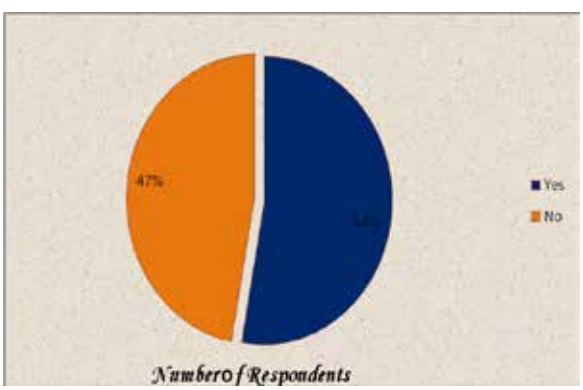


Figure 1 reveals that majority of 52.9 per cent of the respondents selected for the study having the insurance policy and 47.1 per cent of the respondents are not having the insurance policy.

Reasons for Investment in Microinsurance Products

Reason to take microinsurance by the rural households can be studied through the factors and describes in the table 1.

Table 1

Motivational Factors

Motivational factors	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Regular pension after retired	235 (79.7)	50 (16.9)	8 (2.7)	2 (0.7)	0
Save money for marriage expenses	213 (72.2)	65 (22.0)	0	15 (5.1)	2 (0.7)
Medical expenses	219 (74.3)	47 (15.9)	0	24 (8.1)	5 (1.7)
Natural disaster	167 (56.6)	75 (25.4)	28 (9.5)	25 (8.5)	0
Death / accident of family member	180 (61.0)	35 (11.9)	37 (12.5)	43 (14.6)	0
Education expenses	193 (65.4)	38 (12.9)	38 (12.9)	26 (14.6)	0
Business loss	184 (62.4)	62 (21.0)	14 (4.7)	35 (11.9)	0

Save without temptation	205 (69.5)	37 (12.5)	28 (9.5)	12 (4.1)	13 (4.4)

Note: The values in bracket are in percentage

It is inferred from the table 1 that, the majority of the respondents are taking the insurance policy due to various reasons. 79.7 per cent of the respondents are investing in insurance products for the benefit after their retirement period, 74.3 per cent of them are investing for medical treatment when they have sick, 72.2 per cent of them are investing to save money for their daughter or son 69.5 per cent of them are investing for save without temptation, 65.4 per cent of them are investing for education of their children, 62.4 per cent of them are taking insurance for business losses, 61.0 per cent of them are investing for death of the family members and 56.6 per cent of them are investing in case of natural disaster.

It is concluded that majority of the respondents (79.7 per cent) are investing in microinsurance products for regular pension after their retirement, 74.3 per cent of them investing for medical expenses and 72.2 per cent of them investing for marriage expenses.

Motivational Factors to Invest in Microinsurance Products

Factor analysis is performed to understand the factors which motivated to buy microinsurance products. This process helped to identify the underlying factors leading to motivation. The analysis shows that when the principal component (PC) factors and varimax rotation are conduced, three factors are identified.

The reliability of scale items are tested by applying cronbach's alpha. The value came out to be 0.739, which states that scale is reliable and appropriate. Further to test the sampling, Kaiser-Meyer-Olin measure of sampling adequacy is computed which is found to be 0.719. It indicates that sample is good enough for sampling. Moreover the overall significance of correlation matrices has been tested with Bartlett Test (approx. Chi-square = 593.132 and significant at 0.000) at 28 degree of freedom which provided as well as support for the validity of data for factor analysis. So, the eight factors are highly significant @ 1% level of significance.

Table 2
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.719
Bartlett's Test of Sphericity	Approx. Chi-Square	593.132
	Df	28
	Sig.	0.000

Source: Computed data

Table 3
Total Variance Explained

Component	Initial Eigen values		
	Total	% of variance	Cumulative %
1	2.911	36.388	36.388
2	1.428	17.845	54.232
3	1.197	14.957	69.190
4	0.625	7.811	77.001
5	0.576	7.197	84.198
6	0.479	5.985	90.183
7	0.444	5.555	95.738
8	0.341	4.262	100.000

Source: Computed data

It is observed from the table 3 that, only three factors are having Eigen value of more than 1 and the variance explained by these three factors are 36.388 per cent, 17.845 per cent and 14.957 per cent respectively and cumulative variance explained by all these three factors are 69.190 per cent.

Rotated component matrix of motivational factor is identified based on the different from each other as possible, and helps to interpret the factors by putting each variable primarily on one of the factors. The rotated solution gives you the factor loadings for each individual variable in dataset, which are use to interpret the meaning of the different factors.

Table 4
Rotated Component Matrix

Motivational Factors	Component		
	1	2	3
Regular pension after retired	0.831	0.274	-0.111
Save money for marriage expenses	0.745	-0.098	0.268
Medical expenses	0.728	0.190	0.314
Natural disaster	0.108	0.784	0.236
Death / accident of family member	-0.033	0.762	0.199
Education expenses	0.319	0.716	-0.231
Business loss	0.029	0.322	0.826
Save without temptation	0.343	-0.046	0.760

Source: Computed data

The table 4 shows that each statement corresponding to the highlighted factor loading is correlated with the factor corresponding to that factor loading. Higher the factor loading, stronger is the correlation between the factors and statement.

On the basis of rotated component matrix the motivational factor extraction table 5 has been prepared which is as:

Table 5
Factors Extracted Percentage of Variance and Loading on the Variables

Factor	% of variance	Factor interpretation	Variable included in the factors	Loading
F1	25.097	RISK AVERSION	Regular pension after retired	0.831
			Save money for marriage expenses	0.745
			Medical expenses	0.728
F2	24.178	FUTURE CONTINGENCY	Natural disaster	0.784
			Death / accident of family member	0.762
			Education expenses	0.716
F3	19.915	INVESTMENT	Business loss	0.826
			Save without temptation	0.760

Source: Computed data

The table 5 stated factors are in the order of degree of importance. The factor 1 has 25.097 % of variance which is the highest variance as compared with factor 2 and 3 where % of variance is 24.178 and 19.915 respectively. From table 36 conclude that risk aversion, future contingency and investment are main factors to motivate to invest in microinsurance products buy the rural households.

Multiple Regressions for Motivational Factor

The general linear model is commonly estimated using ordinary least square has become one of the most widely used analytic techniques in social science.

Hence by using ordinary least square technique, the regression model in present case can be expressed as

$$\text{Investment in Microinsurance (Y)} = a+bX_1 \text{ (Risk Aversion)} + X_2 \text{ (Future Contingency)} + X_3 \text{ (Investment)}$$

Multiple regression analysis between different variables related to investment in microinsurance are analysed with framing of hypothesis.

H_0: Motivational factor does not influence on the investment in microinsurance

H_1: Motivational factor influence on the investment in micro-

insurance

Table 6
Model Summary

Model	R	R Square	Adjusted R Square	Std error of the estimate
1	0.251	0.063	0.053	1.72135

Source: Computed Data

Information in the model summary Table 6 shows that the value of R square for the model is 0.063. It means that only 6.3 percent of the variation in the investment in microinsurance (dependent variables) can be explained from the three independent variables. R square always increase as independent variables and added to a multiple regression model. To keep away from over estimating the impact of adding an independent variable to the model, to use the adjusted R square value (it recalculates the R square value based on the number of predicted variables in the model). This makes it simple to compare the explanatory power of regression model with different number of independent variables. The adjusted R square for the model is 0.053 which shows only a small over estimate with the model.

Table 7
Analysis of Variance Results

Model	Sum of Square	Degree of Freedom	Mean Square	F	Significance
1 Regression Residual Total	57.937 862.246 920.183	3 291 294	19.312 2.963	6.518	0.000

Source: Computed Data

Regression analysis between the investment in microinsurance and various other variables

Predictions: (Constant), (i) Risk aversion, (ii) Future Contingency, (iii) Investment

Dependent Variable: Investment in Microinsurance

The overall regression results are revealed in the table 8. The regression model is statistically significant. (F = 6.518; Significant @ 100%) this means that the chances are almost zero and result of regression model is owing to random events as a substitute of a true relationship.

Table 8
Coefficients Results

Model	Unstandardized coefficient		Standardized coefficient	t	Significant
	B	Std. Error	Beta		
1 Constant Risk Aversion Future Contingency Investment	2.827 -0.273 0.282 0.207	0.100 0.100 0.100 0.100	 -0.155 0.159 0.117	28.209 -0.2724 2.807 2.063	0.000 0.007 0.005 0.040

Source: Computed Data

By looking at the regression coefficient of the independent variables it is understood that risk aversion score have negatively effect on investment in microinsurance and future contingency and investment have positive effect on investment in microinsurance by the respondents.

Hence, the null hypothesis is rejected and alternative hypothesis is accepted that the motivational factor influence on the investment in microinsurance.

Conclusion

The rural households motivated by different factors while investing microinsurance products. Reasons for investing in microinsurance have been analysed and categorised into different motivational factors by using factor analysis and the regression analysis is used to study the influence of motivational factors on investment in microinsurance.

REFERENCES

1) Srijanani. D (2013). Micro Insurance in India: A Safety Net for the Poor. International Journal of Management & Business Studies. Vol. 3, Issue 1, Jan - March 2013. ISSN: 2230-9519 (Online) | ISSN: 2231-2463 (Print). Pp 52- 56 2) Allianz AG, GTZ and UNDP Public Private Partnership (2006). Microinsurance demand and market prospects in India. Report, Federal Ministry for Economic Cooperation and Development. August 2006. pp 1 – 93. 3) Monique Cohen and Jennefer Sebstad (2003). Reducing Vulnerability: The Demand for Microinsurance. MicroSave-Africa – Promoting high-quality financial services for poor people. Microfinance Opportunities "Putting Clients First". March 2003. pp 1- 73