

# Factors Influencing Farmers' Perception Towards Microinsurance in Sri Lanka: A Study Based on North Western Province

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## 1. Introduction

Microinsurance, a subset of microfinance, seeks to support low-income households by offering insurance protection tailored to their needs (Al-Imran et al; 2022). They shield low-income earners from various risks, including harvest failure, property damage, third-party liabilities, health risks, and life-cycle risks. Microinsurance programs are implemented in many countries globally, particularly developing countries. Previous researchers highlighted the importance of developing microinsurance in Sri Lanka, especially among farmers since they have no positive perception towards microinsurance (Heenkenda, 2013; Nilwala & Jayarathne, 2018). Even though identifying factors influencing farmers' perception towards microinsurance is timely important, there are only a few recent researches that have been conducted in Sri Lanka. Therefore, to bridge the existing gap, the researcher aims to identify and analyze the factors influencing farmers' perception of microinsurance. With the support of reviewed literature accessibility (Maireva, 2023), awareness (Matul et al, 2013; De Silva, 2008), ability to pay (Matul et al; 2013), and behavior of agents (Matul et al; 2013) were identified as influencing factors for farmers' perception toward microinsurance. These factors were selected based on the unique challenges faced by Sri Lankan farmers and their potential impact on perception and uptake.

## 2. Materials and Methods

To accomplish the objectives of the present study, the conceptual framework developed as depicted in Figure 1, and all relationships complied with the theoretical and empirical literature review.

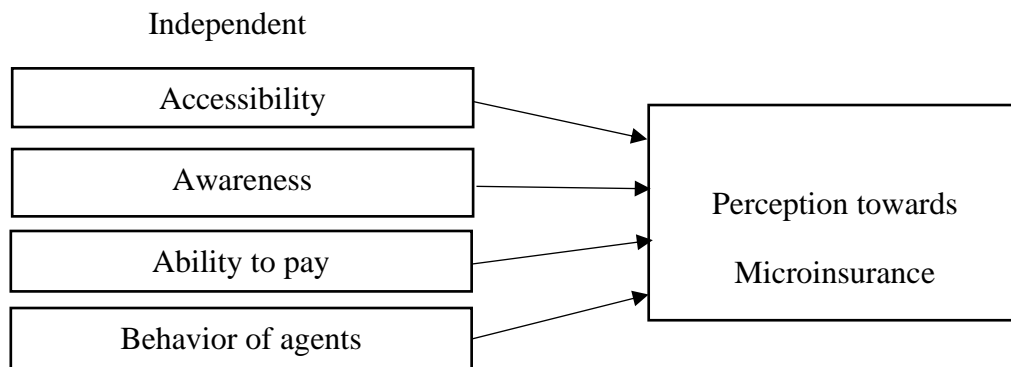


Figure 1: Conceptual Framework

Farmers' perception towards microinsurance was taken as the dependent variable and accessibility, awareness, ability to pay, and behavior of agents were taken as independent variables. Based on the reviewed literature hypotheses have been developed as below.

H<sub>1</sub>: There is a significant impact of accessibility on perception towards microinsurance

H<sub>2</sub>: There is a significant impact of awareness on perception towards microinsurance

H<sub>3</sub>: There is a significant impact of ability to pay on perception towards microinsurance

H<sub>4</sub>: There is a significant impact of behavior of agents on perception towards microinsurance

The deductive approach is used for this study. This is quantitative research and as per the reviewed literature, most researchers had used questionnaires as the method to gather primary

data for this kind of study. Therefore, the researcher collected primary data from an independent survey through a questionnaire which is constructed based on the empirical literature. The questionnaire contained 5-point Likert scale questions starting from ‘strongly agree’ to ‘strongly disagree’ to get the views of farmers regarding dependent and independent variables. According to the information provided by the Department of Census and Statistics in 2023, North Western province represents a significant percentage of farmers. Therefore, the population was the farmers of North Western province in Sri Lanka. Based on Green’s theory (1991), 200 farmers were selected as the sample by the use of the non-probability sampling method's convenience sampling technique. The collected data was analyzed by using the SPSS 23<sup>rd</sup> version because it is more appropriate to analyze quantitative data. Normality test for the dependent variable, reliability test, validity test, and multicollinearity test were conducted by the researcher before testing the hypotheses. Descriptive statistics, correlation analysis, multiple regression analysis, and ANOVA were used to test the developed hypotheses.

### 3. Results and Discussion

The researcher used the skewness and kurtosis coefficient to examine the normality assumption and accordingly normally was there. Cronbach’s alpha is frequently used for assessing the reliability of a construct and for the present study. All values were greater than 0.8, which is considered as good (George and Mallery, 2003). Kaiser-Meyer-Olkin (KMO) and Bartlett’s Test were used to test the validity of the variables in the questionnaire. Accordingly, all KMO values are greater than 0.5, Bartlett’s test of sphericity values (significant values) are less than 0.05 and the values of Average Variance Explained (AVE) are greater than 0.5. Therefore, all these values suggest no validity issues, in this questionnaire. Accordingly above results indicated that the selected sample was adequate for measuring the variables. Tolerance and Variable Inflation Factor (VIF) statistics were used to test the multicollinearity of independent variables. The independent variables have not been faced with multicollinearity because all VIF values were smaller than 2 which refers accessibility 1.93, awareness 1.85, ability to pay 1.92 and behavior of agents 1.97.

The extent and nature of the relationship between the dependent and independent variables were assessed using Pearson's correlation coefficient. The results were summarized and depicted in Table 1.

Table 1. Correlation Analysis

	<b>Correlation Coefficient</b>	<b>Sig. value</b>
<b>Accessibility</b>	0.665*	0.002
<b>Awareness</b>	0.752*	0.000
<b>Ability to pay</b>	0.530*	0.000
<b>Behavior of agents</b>	0.342*	0.001

\* $P < 0.05$

Source: Author constructed

Correlation shows the linear relationship between one independent variable and dependent variable, ignoring the influence of other considered variables. The relationships between accessibility, awareness, ability to pay, behavior of agents, and perception towards micro insurance are positive and significant since all sig. values are less than 0.05. The Pearson correlation coefficient between accessibility and perception towards micro insurance is 0.665 representing a moderate positive relationship. The coefficient value between awareness and perception towards micro insurance is 0.752 representing a strong positive relationship. The coefficient value between the ability to pay and perception towards micro insurance is 0.530 indicating a moderate positive relationship. The Pearson correlation coefficient between behavior of agents and perception towards micro insurance is 0.342 indicating a weak positive relationship.

To study the combined impact of numerous independent variables on one dependent variable multiple regression analysis is the best method. The results were summarized and showed in Table 2.

*Table 2: Multiple Regression Analysis*

	Unstandardized Coefficients		Sig.
	B	Std. Error	
<b>Constant</b>	.067	.104	.000
<b>Accessibility</b>	.306	.040	.000
<b>Awareness</b>	.318	.054	.000
<b>Ability to pay</b>	.206	.032	.000
<b>Behaviour of agents</b>	.105	.036	.000
Model Summary			
<b>R Squared</b>	.587		
<b>Adjusted R Squared</b>	.563		
ANOVA Table			
<b>F Statistics</b>	17.231		
<b>Sig.</b>	.000		

Source: Author constructed

Beta coefficient values for the accessibility, awareness, ability to pay, and behaviour of agents are .306, .318, .206, and .105 and this shows the positive impact on perception towards microinsurance which is statistically significant (sig< 0.05). The R squared value is 0.587 and the adjusted R squared value is 0.563. Therefore about 58.7% of the variation in the perception of microinsurance is described by the model. The remaining 41.3% of the variation occurred due to other unexplained variables. F statistic is 17.231 and the significance refers to 0.000 (<0.05). Consequently, the independent variables may predict changes in the dependent variable, and the regression model has been confirmed.

The regression model;

$$\text{Perception towards microinsurance} = 0.067 + .306 (\text{Accessibility}) + .318 (\text{Awareness}) + .206 (\text{Ability to pay}) + .105 (\text{Behaviour of agents})$$

Based on the above analysis all hypotheses can be accepted.

#### 4. Conclusion

The present study fruitfully achieved the stated objectives; the impact of accessibility, awareness, ability to pay, and behavior of agents on farmers' perceptions towards microinsurance in Sri Lanka. All hypotheses were confirmed, indicating that all variables exert a positive and significant impact on perceptions of microinsurance among farmers which is consistent with the literature (Maireva, 2023; Matul et al, 2013; De Silva, 2008). The model explained that these factors play a vital role in shaping farmers' attitudes toward adopting microinsurance. Therefore, the need for educating farmers regarding microinsurance, ensuring the easy availability of microinsurance even in rural areas, providing affordable and tailoring products to small-scale farmers, train agents to deal with farmers by building trust can be identified as key findings. Accordingly, to increase the adoption of microinsurance among farmers promoting awareness campaigns with the support of government and non-government organizations, enhancing accessibility to cater to rural and unserved areas via partnering with banks, offering customized insurance products, aligning premiums with seasonal income trends, boosting agent-farmer long term relationships through continuous trainings and get the

government support can be recommended. Future researchers can consider additional variables such as risk perception, climate change, etc. Further mediating variables, moderating variables, or controlling variables can be considered with the support of literature. The study limited to 200 famers in North Western province and future researchers can consider these limitations. In conclusion, enhancing farmers' perceptions and adoption of microinsurance needs a comprehensive strategy, encompassing awareness enhancement, accessibility improvement, product customization to address financial requirements, and the establishment of robust, trustworthy connections via agents.

## 5. Keywords

Awareness, Behavior of agents, Farmers' perception, Microinsurance

## 6. References

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