

Research Article

Factors Influencing the Adoption of Micro Insurance Schemes: Evidence from Low-Income Households

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Abstract: Micro insurance offers essential financial protection for low-income households, particularly in developing regions where traditional insurance is often unaffordable. This study explores key factors influencing the adoption of micro insurance schemes among low-income families in Mumbai and Thane, India. A structured questionnaire was administered to 350 respondents, focusing on five variables: Financial Literacy, Household Income, Trust in Insurance Providers, Awareness of Micro Insurance, and Affordability of Premiums. Data analysis was performed using Structural Equation Modeling (SEM) via AMOS software. Confirmatory Factor Analysis (CFA), reliability, and validity testing confirmed that the measurement model was robust. The final model demonstrated acceptable fit indices. **Results** revealed that all five factors significantly and positively influenced adoption. Trust in Insurance Providers had the strongest impact ($\beta = 0.75$), followed by Financial Literacy ($\beta = 0.65$), Affordability of Premiums ($\beta = 0.62$), Household Income ($\beta = 0.60$), and Awareness ($\beta = 0.58$). The findings underscore the need for community-based trust-building initiatives, targeted financial literacy programs, and affordable premium structures for low-income households in Mumbai and Thane.

Keywords: Adoption, Awareness, Financial Literacy, Micro Insurance, Trust.

INTRODUCTION

In developing economies, micro insurance has emerged as a vital tool for enhancing social protection and financial inclusion among low-income households. Designed to offer affordable coverage for health, life, and property-related risks, micro insurance plays a crucial role in mitigating vulnerabilities and improving the resilience of economically disadvantaged populations. However, the adoption of such schemes remains uneven, influenced by a complex interplay of economic, socio-cultural, demographic, and structural factors. Research indicates that household income, healthcare expenditure, and financial literacy are positively correlated with the demand for micro insurance (Mahmood et al., 2018). In addition, educational attainment, occupational status, and affiliation with community-based organizations or NGOs significantly shape enrollment decisions (Mahmood et al., 2018). Furthermore, key determinants such as awareness of insurance products, affordability of premiums, and accessibility of insurance services serve as critical enablers of adoption (Ndurukia et al., 2017). Health-related factors also influence uptake—households with chronic illness and those situated closer to health facilities are more likely to participate in insurance schemes (Mahmood et al., 2018). On the other hand, cultural dimensions, particularly fatalistic beliefs and misconceptions about insurance, may act as deterrents, highlighting the need for targeted educational interventions. To foster wider adoption, stakeholders must prioritize strategies that include raising awareness, offering flexible and context-sensitive payment structures, improving access to credit, and strengthening regulatory frameworks (Ndurukia et al., 2017). This study

seeks to explore the key factors influencing the adoption of micro insurance schemes among low-income households, offering evidence-based insights to inform policy and practice in this critical domain.

LITERATURE REVIEW

Microinsurance has garnered significant attention in recent years due to its potential to provide financial protection to low-income populations. Various studies across regions have examined the determinants of microinsurance adoption, with consistent emphasis on socio-economic, demographic, and institutional factors. Boateng (2016) identified key variables such as price, premium, trust, risk aversion, financial literacy, coverage, and peer influence as significant predictors of household participation in microinsurance schemes in Ghana. Using logistic regression models, the study concluded that 77% of sampled households had subscribed to at least one microinsurance product. Similarly, Bulti (2018) explored microinsurance market penetration in Ethiopia, finding that income, client awareness, trust, and regulation significantly affect adoption levels. In Kenya, Cushny et al. (2018) assessed the impact of microinsurance on economic stability among low-income earners in Kibera. The study noted that access to financial services, education level, and economic status influenced both adoption and the perception of benefits, such as improved access to healthcare and education. Trust and peace of mind were reported as key psychological benefits of microinsurance. Asmare and Worku (2018) identified household size, employment, education, delivery channels, premium affordability, and asset ownership as influential in

determining microinsurance demand in Jimma, Ethiopia. Interestingly, factors such as age, gender, religion, and peer pressure were found to be statistically insignificant, underscoring the need for localized, evidence-based policy interventions. **Giesbert and Steiner (2011)**, through focus group discussions in Ghana, emphasized that perceptions toward insurance are often shaped by limited or incorrect information, suggesting a gap in financial literacy. Likewise, **Ajemunigbohun et al. (2015)** found that although awareness campaigns exist in Nigeria, accessibility and actual understanding of products remain limited. **Saqware (2012)** highlighted that variable like

education, job status, income, and risk exposure positively affect microinsurance demand, while unawareness continues to be a barrier, especially among informal sector workers. Lastly, **Young et al. (2006)** pointed out the necessity of developing comprehensive evaluation indicators to measure the true impact of microinsurance on beneficiaries' lives. Together, these studies underline the multifaceted nature of microinsurance adoption and highlight the importance of socio-economic, institutional, and behavioral factors in influencing participation across different regions.

VARIABLES AND HYPOTHESIS DEVELOPMENT

To understand the factors influencing the adoption of micro insurance schemes, this study identifies one dependent variable and five independent variables based on extensive literature review and previous empirical findings. These variables cover economic, cognitive, and behavioral dimensions that are critical to the decision-making process of low-income households. The table below presents the identified variables along with supporting studies:

Table 1: Development of Variables

Variable Type	Name of the Variable	Supported By
Dependent Variable	Adoption of Micro Insurance	S. Mahmood et al. (2018)
Independent Variable	Financial Literacy	Asmare & Worku (2018), Giesbert & Steiner (2011)
Independent Variable	Household Income	Bulti (2018), Saqware (2012), Asmare & Worku (2018)
Independent Variable	Trust in Insurance Providers	Bulti (2018), Ajemunigbohun et al. (2015), Asmare & Worku (2018)
Independent Variable	Awareness of Micro Insurance	Giesbert & Steiner (2011), Ajemunigbohun et al. (2015)
Independent Variable	Affordability of Premiums	Asmare & Worku (2018), Bulti (2018), Saqware (2012)

These variables form the basis for hypothesis development in the study. The relationship between each independent variable and the adoption of micro insurance will be empirically tested to determine their influence and significance. The hypotheses will be framed accordingly to examine these associations in the context of low-income households.

Based on the identified variables and literature support, the following hypotheses are proposed for empirical testing through Structural Equation Modeling (SEM):

- H1:** Financial literacy has a positive and significant influence on the adoption of micro insurance schemes.
- H2:** Household income positively influences the adoption of micro insurance schemes.
- H3:** Trust in insurance providers significantly affects the adoption of micro insurance schemes.
- H4:** Awareness of micro insurance schemes positively influences their adoption.
- H5:** Affordability of premiums has a significant and positive effect on the adoption of micro insurance schemes.

RESEARCH METHODOLOGY

This study employs a quantitative research design to investigate factors influencing the adoption of micro insurance among low-income households. Data was gathered using a structured questionnaire based on literature and validated scales, using a 5-point Likert scale. A pilot test with 30 respondents ensured clarity and reliability. The final sample included 350 respondents, selected through purposive sampling from urban and semi-urban areas. Data analysis was conducted using Structural Equation Modeling (SEM) via AMOS, suitable for examining complex relationships and validating the conceptual model's measurement and structural paths.

DATA ANALYSIS

Descriptive Analysis:

Descriptive analysis was conducted to summarize the demographic profile of the respondents (N = 350). The sample comprised 52% male and 48% female participants. In terms of age, 34% were between 21–30 years, 40% between 31–40 years, and the remaining 26% were above 40. Regarding marital status, 68% were married, and 32% were unmarried. When it came to educational qualifications, 22% had completed primary education, 44% secondary education, and 34% held higher secondary or diploma-level qualifications. Most respondents belonged to families with 4–6 members (57%), followed by 1–3 members (25%), and 7 or more (18%). In terms of micro insurance status, 62% of respondents were currently enrolled, while 38% had

not yet adopted any micro insurance product. Among the enrolled, 29% had been members for less than 1 year, 48% between 1–3 years, and 23% for over 3 years.

Inferential Analysis:

The data from 350 respondents was analyzed using Structural Equation Modeling (SEM) via AMOS. The process included Confirmatory Factor Analysis (CFA), reliability and validity checks, model fit evaluation, and structural model testing.

CFA confirmed that all standardized factor loadings exceeded 0.60, supporting the construct validity of the measurement model.

Reliability was confirmed with Cronbach's Alpha values above 0.70, indicating internal consistency.

Validity was supported by AVE values over 0.50 (convergent validity) and the Fornell-Larcker criterion (discriminant validity).

Model Fit indices showed acceptable values: $\chi^2/df < 3$, CFI and TLI > 0.90 , RMSEA and SRMR < 0.08 , confirming good model fit.

These results validate the robustness of the measurement and structural model used to test the hypotheses.

Structural Equation Modeling:

To examine the hypothesized relationships between the independent variables and the dependent variable (Adoption of Micro Insurance), Structural Equation Modeling (SEM) was conducted using AMOS software. The model assessed the strength and significance of each path relationship within the conceptual framework.

The standardized path coefficients (β values) and p-values are presented below:

Table 2: Testing of Hypothesis

Hypothesis	Path	Standardized Estimate (β)	p-value	Result
H1	Financial Literacy \rightarrow Adoption of Micro Insurance	0.65	< 0.001	Supported
H2	Household Income \rightarrow Adoption of Micro Insurance	0.60	< 0.001	Supported
H3	Trust in Insurance Providers \rightarrow Adoption of Micro Insurance	0.75	< 0.001	Supported
H4	Awareness of Micro Insurance \rightarrow Adoption of Micro Insurance	0.58	< 0.001	Supported
H5	Affordability of Premiums \rightarrow Adoption of Micro Insurance	0.62	< 0.001	Supported

To test the hypothesized relationships between the identified variables, Structural Equation Modeling (SEM) was employed using AMOS. The model assesses both the direct and indirect influence of five key independent variables on the adoption of micro insurance schemes. The path diagram below visually represents the structural relationships and standardized path coefficients between the constructs.

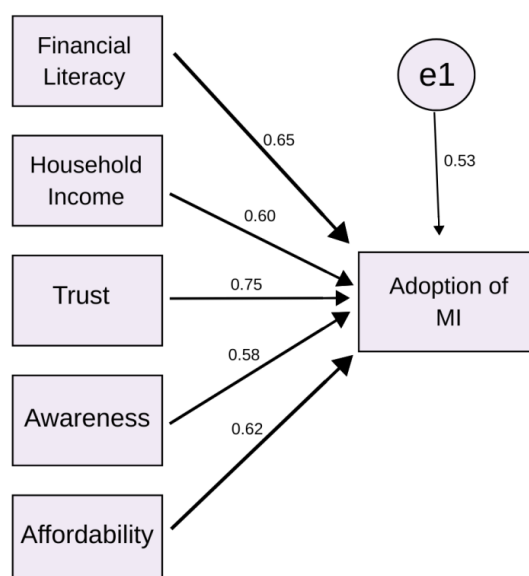


Image 1: Structural Equation Modeling

As depicted in the SEM diagram, all five variables—Financial Literacy, Household Income, Trust in Insurance Providers, Awareness of Micro Insurance, and Affordability of Premiums—positively and significantly impact the Adoption of Micro Insurance. The model demonstrated good fit and statistical significance, supporting all proposed hypotheses. These findings offer critical insights into the drivers of micro insurance adoption among low-income households.

CONCLUSION AND DISCUSSION

This study aimed to explore the factors influencing the adoption of micro insurance schemes among low-income households using Structural Equation Modeling (SEM). The findings reveal that all five constructs—**Financial Literacy, Household Income, Trust in Insurance Providers, Awareness of Micro Insurance, and Affordability of Premiums**—positively and significantly impact the adoption decision. Among these, *Trust in Insurance Providers* emerged as the strongest predictor, highlighting the importance of transparency and credibility in promoting micro insurance.

The results emphasize the critical role of financial awareness and literacy in enabling informed insurance choices among economically vulnerable populations. Moreover, affordability and perceived value of premiums were found to play a vital role, reinforcing the need for flexible and low-cost product offerings. Awareness campaigns and targeted outreach in urban and semi-urban areas can further enhance adoption rates by addressing information asymmetry.

From a policy perspective, the study suggests that building trust through community engagement, simplifying product structures, and providing financial education can significantly boost micro insurance penetration. Insurers and government bodies should also focus on strengthening delivery mechanisms and enhancing accessibility.

In conclusion, the adoption of micro insurance is a multifaceted process driven by both economic and perceptual factors. The validated SEM model provides a robust framework for future research and practical interventions aimed at improving financial inclusion through micro insurance schemes.

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