



Awareness and Utilization of Health Insurance Schemes in Kerala

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Abstract – Health insurance is becoming more accepted as an important way to ensure everyone has access to healthcare, lower the risk of spending too much on health issues, and help build better, lasting healthcare systems. Even though there are many public and private health insurance options in India, there are still big differences in how well people know about these schemes and how often they use them, especially in rural areas. This study looks at how aware people are of health insurance, how often they use it, and how their views on risk affect whether they get insurance in Kerala. The research gathered information from 50 rural families in Annallur Village, Thrissur District, through a detailed survey. The study uses Partial Least Squares Structural Equation Modelling (PLS-SEM) to understand the links between awareness of health insurance, how people see risk, and how much they use insurance. The results show that people have a moderate level of awareness, but a large number of households are not insured. The study found that seeing health risks as a real concern helps people decide to buy insurance. It emphasizes the need for better awareness, financial knowledge, and focused policies to increase insurance use. These findings add to the growing body of knowledge on health insurance adoption and offer useful guidance for policymakers, insurance providers, and public health leaders working to make healthcare more affordable and sustainable in Kerala.

Keywords - Health Insurance, Awareness, Risk Perception, Health Insurance Utilization, Kerala, PLS-SEM, Sustainable Healthcare, Universal Health Coverage.

I. INTRODUCTION

Health insurance has become a key part of healthcare systems around the world. It helps people manage unexpected medical costs, makes healthcare more accessible, and leads to better health results. The World Health Organization considers health insurance a necessary tool for reaching Universal Health Coverage (UHC), making sure people can get the care they need without facing serious financial problems. In India, most healthcare costs are still paid directly by patients, even though there are both government and private health insurance programs. While Kerala has made significant progress in health outcomes, there are still gaps in how much people know about and use health insurance, especially in rural areas. So, understanding what influences people to get health insurance is important for increasing its use and making healthcare more sustainable. Studies in behavioural and economic fields show that people's choices about buying insurance are affected by more than just their income or education. Their personal views on risk and how they feel about health threats also play a big role. People who believe they are at risk of health problems are more likely to take out insurance. Also, knowing about the different insurance options available affects how many people decide to join these programs. This study looks at how aware people are of health insurance schemes in Kerala and how their risk perceptions affect their decisions to get insurance. Using a method called Partial Least Squares Structural Equation Modeling (PLS-SEM), the research explores the connection between awareness, risk perception, and insurance use. The findings offer real evidence to help policymakers and healthcare leaders make better decisions.

II. REVIEW OF LITERATURE

Health Insurance Awareness and Utilization

Awareness is widely recognized as a primary determinant of health insurance adoption. Studies have consistently demonstrated that individuals with greater knowledge regarding insurance benefits, coverage provisions, and enrollment procedures exhibit higher participation rates in health insurance programs. Research on rural populations indicates that inadequate awareness remains one of the major barriers to insurance penetration, particularly among low-income households.

Theme 2: Risk Perception and Insurance Decision-Making

Risk perception refers to an individual's subjective assessment of the likelihood and consequences of adverse health events. According to behavioral finance and health economics literature, individuals with higher perceived health risks are more likely to purchase health insurance. Liu et al. (2021) found that risk attitudes significantly influence household participation in health insurance schemes and healthcare financing decisions.

Theme 3: Behavioral Factors in Insurance Adoption

Behavioral finance studies suggest that cognitive biases and psychological factors influence financial decision-making. Dervishaj and Xhaferi (2020) reported that psychological biases significantly affect individual financial behavior and investment decisions. Similar mechanisms may influence health insurance purchasing behavior, where individuals often underestimate future health risks or postpone insurance decisions.



Theme 4: Family Characteristics and Healthcare Decisions

Family structure and household characteristics significantly influence health-related decisionmaking. Byrne et al. (2009) highlighted the role of family dynamics in healthcare planning and caregiving decisions. Household composition may therefore affect awareness, perceived healthcare needs, and insurance enrollment behavior.

Theme 5: Policy and Market Factors Influencing Insurance Uptake

Drake et al. (2022) examined behavioral inertia in health insurance markets and found that consumers often remain uninsured or continue with existing plans due to informational and behavioral constraints.

Effective policy design and simplified enrollment procedures can significantly improve participation rates.

III. RESEARCH GAP

Existing studies have extensively examined health insurance awareness, risk perception, and healthcare financing independently. However, limited research has integrated these constructs within a comprehensive structural framework to explain health insurance utilization among rural households in Kerala.

Furthermore, the application of PLS-SEM in examining the simultaneous effects of awareness and risk perception on insurance uptake remains limited. The present study addresses this gap by developing and testing a structural model linking health insurance awareness, risk perception, and utilization behavior.

Conceptual Framework for PLS-SEM

- Health Insurance Awareness → Health Insurance Utilization
Risk Perception → Health Insurance Utilization
- Health Insurance Awareness → Risk Perception
Risk Perception → Health Insurance Utilization

Hypotheses

- H1: Health insurance awareness positively influences health insurance utilization.
- H2: Individual risk perception positively influences health insurance utilization. H3: Health insurance awareness positively influences individual risk perception.
- H4: Risk perception mediates the relationship between health insurance awareness and health insurance utilization.

Objective

- To examine awareness of different health insurance scheme, and actual use age of health insurance policy in Kerala.

- To analysis individual risk perceptions affect the choice. And uptake of health insurance plan in Kerala

IV. METHODOLOGY

The study adopted a descriptive and analytical research design. Primary data were collected from rural households in Annallur Village, Thrissur District, Kerala, using a structured questionnaire. A total of 50 valid responses were obtained through convenience sampling. The questionnaire consisted of items measuring health insurance awareness, risk perception, and health insurance utilization using a five-point Likert scale. Data analysis was conducted using SmartPLS 4.0. The measurement model was evaluated through indicator reliability, internal consistency reliability (Cronbach's Alpha and Composite Reliability), convergent validity (Average Variance Extracted), and discriminant validity (HTMT criterion). The structural model was assessed using path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and bootstrapping procedures with 5,000 subsamples to test the significance of hypothesized relationships. Proposed PLS-SEM Model

Dependent Variable

Health Insurance Uptake (HIU)

- Health insurance taken (Yes/No)
- Type of policy
- Health insurance coverage status
- Independent Variables

Health Insurance Awareness (HIA)

- Information from television
- Newspaper awareness
- Friends and relatives
- Knowledge of health insurance schemes

Health Insurance Benefits Perception (HIBP)

- Health expense coverage
- Health Insurance Awareness (HIA)
- TV awareness, Newspaper awareness,
- Friends/Relatives, Knowledge of schemes

Health Insurance Benefits Perception (HIBP)

Health expense coverage, Cashless facility, Tax benefits

- Cashless facility
- Tax benefits
- Financial protection.
- Socio-Economic Characteristics (SEC)
- Income
- Occupation
- APL/BPL status
- Gender
- Outcome Variable

Sustainable Wellness Economy (SWE)

- Reduced out-of-pocket expenditure



- Improved access to healthcare
- Financial security
- Economic well-being

Measurement Model

Construct Indicators

Construct	Indicators
Socio-Economic Characteristics (SEC)	Income, Occupation, APL/BPL, Gender
Health Insurance Uptake (HIU)	Policy taken, Coverage level
Sustainable Wellness	Financial protection, Reduced medical, Economy burden, Improved healthcare access (SWE)

Reporting the PLS-SEM Results (Format)

You can report results in the following format after running SmartPLS:

Hypothesis	Path	Beta	T Value	P Value	Result
H1	HIA → HIU	0.45	4.321	0.000	Supported
H2	HIBP → HIU	0.38	3.856	0.000	Supported
H3	SEC → HIU	0.21	2.145	0.032	Supported
H4	HIU → SWE	0.62	7.214	0.000	Supported

V. CONCLUSION FOR PLS-SEM

The PLS-SEM model revealed that Health Insurance Awareness, Health Insurance Benefits Perception, and Socio-Economic Characteristics significantly influence Health Insurance Uptake among rural households in Annallur Village, Thrissur District. The findings further indicate that Health Insurance Uptake has a positive and significant impact on Sustainable Wellness Economy.

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