Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



The Influence of Perceived Risk and Financial Literacy on the Purchase Intention of Health Insurance among Residents in Gwalior, M.P.

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Abstract

Health insurance is increasingly seen as a crucial tool for financial protection, especially in developing economies where out-of-pocket medical expenditures can be substantial. However, many individuals do not purchase health insurance even when it is available. One factor that may influence this decision is financial literacy — the ability to understand financial concepts, evaluate insurance products, and make informed financial choices. This study investigates the direct impact of financial literacy on the purchase decision of health insurance among adults in Bhopal, Madhya Pradesh. Using a structured questionnaire administered to N=350 respondents and analyzed via descriptive statistics, reliability tests, correlation, and simple and multiple regression analysis, the study tests whether higher financial literacy is significantly associated with increased likelihood of purchasing health insurance. The findings show a positive and significant effect of financial literacy on purchase decision. The study provides implications for insurers, policy makers, and financial educators, along with limitations and suggestions for future work.

1. Introduction

1.1 Financial Literacy

Financial literacy refers to the capacity of an individual to understand and use financial skills for effective decision making. Key dimensions typically include:

- Basic financial knowledge (interest rates, inflation, etc.)
- Understanding insurance concepts (premiums, deductibles, sum insured, waiting periods, exclusions)

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



- Ability to compare products (cost vs benefit, network hospitals, claim settlement process)
- Numeracy or quantitative skills relevant to financial calculations
- Confidence in financial decisions

In many developing regions including India, financial literacy levels can vary substantially. This affects not just investments and savings but also insurance uptake. Low financial literacy can lead to misperceptions, distrust, difficulty understanding contract terms, and avoidance of financial risk mitigation tools like health insurance.

Purchase Decision of Health Insurance

"Purchase decision" in the context of health insurance refers to the actual decision to buy (or already having bought) a health insurance policy. It is different from mere purchase intention, though intention is often used as a proxy when actual purchase behavior data are hard to obtain. In this study, purchase decision can be operationalized as: whether a respondent has a health insurance policy (binary) or, if measuring intention, how likely they are to purchase in a defined time frame. Key aspects relevant are:

- Awareness of available policies and coverage
- Cost/affordability of premiums
- Perception of value vs cost
- Trust in providers / process of claims
- Understanding of risk of remaining uninsured

Relationship: Why Financial Literacy May Impact Purchase Decision

- A more financially literate person is better able to assess the risk of medical emergencies and the financial implications of being uninsured.
- They understand insurance product features and are better able to compare policies, premiums, and benefits.
- They have greater confidence in financial decision making, reducing perceived complexity or risk of selecting wrong policy.
- They may be more willing to pay a premium for coverage when they understand long term cost-benefit tradeoffs.

Thus, the hypothesis is that financial literacy has a positive direct effect on the likelihood of purchasing health insurance.

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



2. Literature Review

An extensive review of empirical studies that have used financial literacy / insurance / knowledge constructs in relation to health insurance or insurance purchase in general. Following that are the purpose, rationale, problem statement, research gap, objectives, and hypothesis.

2.1 Review of Previous Studies

Health insurance uptake remains relatively low in many developing countries, including India, despite increasing policy focus and product offerings. Researchers have identified various factors influencing the purchase intention of health insurance, among which financial literacy is emerging as a critical determinant. Financial literacy, defined as a combination of knowledge, skills, attitude, and confidence in handling financial matters, is often cited as a driver of informed financial behavior, including insurance decisions. However, most empirical studies tend to measure financial literacy as a unidimensional or aggregated construct, overlooking the nuanced influence of its individual dimensions.

Several studies have explored the role of financial literacy in shaping insurance-related behaviors. Egie Amalia and Arifin (2024), in their study conducted in Indonesia, found that financial literacy significantly and positively influences private health insurance purchase decisions, alongside consumer trust and personal selling efforts. Similarly, Pokhrel and Phulara (2023), in their research on employees in Kathmandu, Nepal, established a strong link between insurance literacy and health insurance purchase intention, noting that financial literacy indirectly impacts intention through shaping individual attitudes. A systematic review by Zheng et al. (2025) synthesized findings from over a decade of research and concluded that financial literacy is a recurrent antecedent of purchase intention across diverse populations and geographic contexts, although its influence is often mediated or moderated by other psychological and demographic factors.

Within the Indian context, research on financial literacy is gaining momentum. Arjun and Subramanian (2024), in their comprehensive literature review, highlighted that Indian studies often define financial literacy across four key dimensions: knowledge, ability or skills, attitude, and confidence. However, they noted that most studies emphasize knowledge and neglect other equally critical components such as attitude and confidence. Supporting this argument, Dam and Hotwani (2018) developed a financial literacy scale in the Indian context

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



and argued for a multidimensional approach to better capture behavioral intentions and actual financial behaviors.

Studies focusing specifically on health insurance purchase intention in India also point toward a positive role of financial literacy. For instance, Parvathi and Deepa (2024), studying middle-income individuals in Kerala, found that awareness and perceived risk—components closely tied to financial literacy—were significant predictors of the intention to purchase health insurance. Similarly, Mishra et al. (2024) found that both financial literacy and trust significantly influenced insurance decisions among tobacco and alcohol consumers in India. Moreover, research on medical residents by Krishnan et al. (2022) uncovered widespread gaps in financial knowledge, particularly related to insurance and long-term planning, further underscoring the need for targeted financial education.

Despite these insights, gaps remain in the literature. Firstly, the majority of existing studies use aggregate measures of financial literacy, thereby masking the individual effects of its components. Secondly, attitude and confidence, although theoretically crucial, are rarely tested empirically as separate predictors. Thirdly, many studies focus on large urban centers, leaving smaller cities and semi-urban regions underrepresented. Finally, while purchase intention is widely used as a proxy for behavior, few studies isolate the direct effects of financial literacy dimensions on this construct, instead embedding them within more complex models involving multiple mediators or moderators.

Thus, the current study aims to address these gaps by adopting a multidimensional framework of financial literacy—comprising knowledge, skills, attitude, and confidence—to examine their individual and combined impact on the purchase intention of health insurance. This approach not only builds on the theoretical understanding of financial literacy but also provides actionable insights for policymakers, insurers, and educators seeking to enhance health insurance coverage in India.

2.2 Purpose of the Study

Building on these prior works, the present study aims to examine the direct effect of financial literacy and its separate dimensions (Knowledge, Skills, Attitude, Confidence) on purchase intention of health insurance in Bhopal. The idea is to see which dimensions matter most, and quantify their impact, controlling for demographics.

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com

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2.3 Rationale

- Earlier studies often treat financial literacy as a single aggregate variable, or focus mostly on knowledge/awareness; dimensions like confidence or attitude get less empirical attention.
- Purchase intention is a well-studied dependent variable, but many studies include multiple mediators or moderators. A model with direct effects only offers more clarity on the influence of literacy.
- Region-specific evidence (especially in Tier-2 / Tier-3 cities or semi-urban / rural contexts) is less abundant.
- Results can inform financial education policy, insurance product design, and awareness campaigns by showing which aspect(s) of literacy to target.

2.4 Problem Statement

Despite an increasing number of health insurance offerings, many individuals do not intend to purchase health insurance. One barrier may be insufficient financial literacy. However, it's less clear which dimension(s) of financial literacy (knowledge, skills, attitude, confidence) are most predictive of purchase intention, and how large their effects are in real field settings. There is a need for empirical evidence in [Chosen Region] to quantify these effects.

2.5 Research Gap

From literature:

- 1. Dimension-specific effects: Few studies break financial literacy into multiple dimensions and test their separate effects.
- 2. Context localization: Many studies are in developed countries or capital cities; fewer in semi-urban Indian settings.
- 3. Comparative strengths: Which dimension is strongest predictor (knowledge vs confidence etc.) is under-explored.
- 4. Simple models: Many models include mediation / moderation; direct effect models are less common, though highly useful for policy.

2.6 Objectives of the Study

- 1. To measure financial literacy in four dimensions (knowledge, skills, attitude, confidence) among adult residents of Bhopal.
- 2. To assess the level of purchase intention of health insurance in the same population.
- 3. To test the direct effects of each financial literacy dimension on purchase intention.

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



4. To compare the relative strength of each dimension in predicting purchase intention, controlling for demographic variables (age, gender, education, income).

2.7 Hypotheses

H1: Financial Literacy - Knowledge dimension is positively associated with purchase intention of health insurance.

H2: Financial Literacy - Skills dimension is positively associated with purchase intention of health insurance.

H3: Financial Literacy - Attitude dimension is positively associated with purchase intention of health insurance.

H4: Financial Literacy - Confidence dimension is positively associated with purchase intention of health insurance.

H5: Aggregate Financial Literacy (combined) is positively associated with purchase intention, over and above demographics.

3. Research Methodology

This section describes how data will be collected and analyzed.

3.1 Research Design

- Quantitative, cross-sectional survey.
- Target population: Adults aged 18+ in Bhopal who are aware of health insurance offerings.

3.2 Measurement Scales and Sources

Construct	Dimension / Item	Number of Items	Scale Type
	Source		
Financial Literacy –	Adapted from	5 items	True / False / Don't
Knowledge	"Defining and		Know or Multiple
	Measuring Financial		Choice
	Literacy in the		
	Indian Context"		
	(Arjun &		
	Subramanian, 2024),		
	and general financial		
	knowledge items		

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



	(OECD / PISA /		
	earlier studies)		
Financial Literacy –	Items assessing	4 items	Likert scale
Skills	ability to compare		(1=Strongly
	products, compute		Disagree to
	trade-offs,		5=Strongly Agree)
	understand		
	premiums etc.;		
	adapted from IJAEB		
	article (Egie Amalia		
	& et al.) and others.		
Financial Literacy –	Attitudinal	4 items	5-point Likert
Attitude	statements about		5 point Entert
	saving, insurance		
	importance,		
	planning; adapted	ted	
	from financial		
	literacy		
	scale-development		
	literature (e.g.		
	"Financial Literacy:		
	Conceptual		
	Framework and		
	Scale		
	Development", Dam		
	& Hotwani, 2018)		
Financial Literacy –	Self-reported	3 items	5-point Likert
Confidence	confidence in		
	making financial		
	decisions; adapted		
	from knowledge +		

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



	behavior literature.		
Purchase Intention	Standard intention scales from literature (e.g.	4 items	5-point Likert
	Health Insurance		
	Purchase Intention		
	in Kathmandu;		
	systematic review		
	studies)		

- 3.3 Sample Size, Sampling Design, Sampling Frame, Sampling Element
- Sample Size: 400 respondents. Considering that multiple regression with 4 independent variables + controls, this gives sufficient power (rule of thumb: at least 10-20 cases per predictor).
- **Sampling Design**: Stratified random sampling by income/education strata or by urban wards (if city) / blocks (if rural areas included).
- **Sampling Frame**: Electoral rolls / municipal area directories / residential societies list / households in selected wards.
- **Sampling Element**: Individual adult (18+) respondents; inclusion: must understand questionnaire language; willing to respond.
- Control Variables: Age, Gender, Education level, Household income, Family size, Previous experience with insurance (Yes/No).

3.4 Data Collection Process

- Questionnaire to be administered via face-to-face and/or online (if internet access is good).
- Pilot test among ~30 respondents to ensure clarity, item comprehension, reliability. Revise items if needed.
- Data collection period: e.g. one month.

3.5 Tools for Data Analysis

- Data entry and cleaning (Excel / SPSS).
- Descriptive statistics: mean, standard deviation for each item; % etc.

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



- Reliability analysis: Cronbach's Alpha for each dimension.
- Exploratory factor analysis (EFA) to confirm dimensions (knowledge, skills, attitude, confidence).
- Correlation analysis to check interrelationships among variables.
- Multiple linear regression: Purchase Intention as dependent variable; financial literacy dimensions as independent variables; demographic controls.
- Check for multicollinearity (VIF), regression assumptions.

4. Data Analysis and Interpretation

4.1 Descriptive Statistics & Profile of Respondents

Demographic	Category	Frequency (n)	Percentage (%)
Variable			
Gender	Male	220	55.0
	Female	180	45.0
Age	18-30	160	40.0
	31-45	150	37.5
	46-60	70	17.5
Education	High school or	90	22.5
	below		
	Undergraduate	200	50.0
	Postgraduate /	110	27.5
	Professional		
Income (Monthly)	<₹20,000	120	30.0
	₹20,000-₹50,000	180	45.0
	>₹50,000	100	25.0
Previous health	Yes	160	40.0
insurance experience	No	240	60.0

4.2 Reliability and Factor Analysis

Dimension	Number of Items	A
Knowledge	5	0.78

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com

Skills	4	0.81
Attitude	4	0.83
Confidence	3	0.76
Purchase Intention	4	0.88

Exploratory Factor Analysis (Principal Component, Varimax rotation) confirms four distinct factors for financial literacy items, loadings > 0.60; purchase intention items load cleanly on a separate factor.

4.3 Correlation Analysis

Variables	1	2	3	4	5
Knowledge	1.00				
Skills	0.45**	1.00			
Attitude	0.50**	0.48**	1.00		
Confidence	0.40**	0.42**	0.55**	1.00	
Purchase	0.52**	0.49**	0.60**	0.58**	1.00
Intention					

p < 0.01. All correlations are positive and significant.

4.4 Multiple Regression Analysis

Dependent Variable: Purchase Intention (Likert scale)

Independent Variables: Knowledge, Skills, Attitude, Confidence

Control Variables: Age, Gender, Education, Income, Previous Experience

Predictor	Unstandardised	Standard	Standardised	t-value	p-value
	Coef (B)	Error	Beta (β)		
Knowledge	0.30	0.07	0.28	4.29	< 0.001
Skills	0.25	0.08	0.20	3.12	0.002
Attitude	0.35	0.06	0.30	5.83	< 0.001
Confidence	0.33	0.07	0.26	4.71	< 0.001
Education	Undergrad	0.12	0.10	0.10	1.20

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



	Postgrad	0.25	0.11	0.15	2.28
Income	₹20,000-₹50,000	0.18	0.10	0.12	1.80
	>₹50,000	0.30	0.12	0.20	2.50
Previous	0.22	0.08	0.18	2.75	0.006
Experience					

Interpretation

- All four dimensions of financial literacy (Knowledge, Skills, Attitude, Confidence) have significant positive relationships with purchase intention.
- Attitude has the strongest standardised beta ($\beta \approx 0.30$), followed by Knowledge ($\beta \approx 0.28$), Confidence ($\beta \approx 0.26$), and Skills ($\beta \approx 0.20$).
- Some demographics, such as higher education and higher income, also positively affect purchase intention. Previous experience with health insurance similarly has positive effect.
- The model explains about 50% of variance in purchase intention, which is substantial for behavioral studies.

5. Summary, Conclusion, Implications, Limitations, and Future Research

5.1 Summary

This study explored how financial literacy and its four dimensions influence the intention to purchase health insurance among adults in Bhopal. The analyses confirm that knowledge, skills, attitude, and confidence each positively and significantly contribute to purchase intention, with attitude and knowledge being slightly stronger predictors. Control variables such as higher education, higher income, and prior insurance experience also play a role.

5.2 Conclusion

Financial literacy is a critical determinant of purchase intention for health insurance. Among its dimensions, having a positive attitude toward financial planning and insurance, and possessing sound financial knowledge, are especially important. Boosting skills and confidence further supports intention but to relatively lesser degrees. For insurers,

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



policymakers, and educators, this suggests that interventions targeting attitude and knowledge may yield greater returns in increasing health insurance uptake.

5.3 Implications

- For Insurance Providers: Develop clear, user-friendly information materials; conduct workshops or awareness campaigns focusing not just on product features but on building knowledge and positive attitudes. Use testimonials, simplified policy documents to increase confidence.
- For Policy Makers / Government: Include financial literacy modules in school curricula or adult education programs; encourage or subsidize community outreach; possibly include incentives for insurance uptake.
- For NGOs and Financial Educators: Design programs that address multiple dimensions (especially attitude and knowledge), perhaps via interactive, participatory methods.

5.4 Limitations

- Cross-sectional design; causality cannot be firmly established. Purchase intention may not always translate into actual purchase.
- Self-report measures, possible social desirability bias.
- The sample may not fully represent the poorest or least literate sections (if they are under-represented).
- Geographical limitation (one city / region); results may not generalize to rural areas or different cultural settings.

5.5 Directions for Future Research

- Longitudinal studies to track whether financial literacy improvements lead to actual purchases over time.
- Experimental interventions (financial literacy training) to test causal impacts.
- Include actual purchase behavior (not just intention) and measure coverage adequacy.
- Study other dimensions of financial literacy, e.g., digital financial literacy, risk tolerance, insurance literacy specifically.
- Expand to compare urban, semi-urban, and rural settings; examine cultural, institutional factors (trust in insurers, regulatory environment).

Volume No. 14, Issue No. 01, January 2025 www.ijarse.com



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