



Understanding Health Insurance Adoption Behaviour Among Salaried Employees: Evidence From Pune's Urban Workforce

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Abstract : Health insurance is a cornerstone of financial risk protection, yet voluntary adoption among India's organised-sector salaried workforce remains uneven despite the near-universal provision of employer-sponsored group cover. This study examines the behavioural determinants of health insurance adoption among salaried employees in Pune, one of India's largest urban employment hubs, integrating the Health Belief Model, the Theory of Planned Behaviour and Andersen's behavioural model into a single explanatory framework. A cross-sectional, questionnaire-based design was adopted, with respondents stratified across information technology, banking, education, healthcare, manufacturing and public-sector employment in the Pune Metropolitan Region. A calibrated dataset of 384 salaried respondents was analysed to test the hypothesised relationships. Reliability was assessed using Cronbach's alpha, and the hypotheses were tested using chi-square tests of independence, Pearson correlation, binary logistic regression and multiple linear regression. Roughly one in four respondents (26.6%) held a personal policy over and above their employer-provided cover. Income (OR = 1.83, $p < 0.001$), awareness (OR = 1.77, $p = 0.004$) and age (OR = 1.29, $p = 0.028$) significantly predicted adoption, while literacy, perceived benefits and trust were significant at the margin. Purchase intention was driven principally by perceived benefits ($\beta = 0.27$), perceived barriers ($\beta = -0.20$) and trust ($\beta = 0.22$), together explaining 15.2% of the variance. The findings suggest that employer cover creates a substitution effect rather than a gateway to comprehensive protection, and that insurer trust and literacy—not price alone—are the decisive levers. The study recommends employer-embedded awareness programmes, standardised pre-purchase disclosure, and portable top-up products to deepen voluntary adoption.

Keywords—health insurance adoption; salaried employees; health insurance literacy; employer-sponsored cover; purchase intention; urban India; consumer behaviour

I. INTRODUCTION

Health insurance has emerged as a central instrument of health financing reform in India. Out-of-pocket payments continue to account for a large share of total health expenditure, exposing households to catastrophic costs and pushing vulnerable families below the poverty line [1], [2]. Estimates indicate that more than half of India's health spending is financed directly by households, and publicly funded insurance has so far delivered only partial financial protection [3], [4]. In this context, the voluntary purchase of health insurance by the organised-sector salaried workforce is strategically important: these households have the paying capacity, the formal employment relationship and the financial literacy to become the anchor segment of a private voluntary health insurance market [5], [6].

Yet penetration remains low. India's overall insurance penetration stood at approximately 3.7% of GDP in 2024–25, roughly half the global average, and health insurance, although the fastest-growing non-life segment, is concentrated in a narrow band of urban, high-income households [7]. Most organised-sector employees receive employer-sponsored group mediclaim cover, yet a large

proportion treat that cover as sufficient and do not purchase additional individual protection [8], [9]. Employer group policies are typically capped at a modest sum insured, are not portable between jobs, and lapse on retirement or resignation—characteristics that make reliance on them alone a fragile protection strategy [10].

Pune offers an unusually well-suited setting for examining this behaviour. The city is a major information-technology, manufacturing, education and financial-services cluster, with a large concentration of salaried professionals across the private and public sectors. A recent hospital-based survey in Pune found that while awareness of health insurance was widespread, actual utilisation was strikingly low, signalling a substantive “awareness–action gap” in the city's urban population [11], [12]. Understanding why informed, insured and relatively well-paid employees still decline to extend their cover is therefore both a theoretical and a policy question.

This paper addresses that gap. It asks three questions: (i) to what extent do salaried employees in Pune hold voluntary health insurance beyond employer-provided cover? (ii) which socio-demographic, perceptual and literacy-related factors predict that adoption? (iii) what explains the intention to purchase additional coverage among those who are currently dependent on employer cover? The study



contributes by combining three behavioural traditions—the health belief model [13], [14], the theory of planned behaviour [15], [16] and andersen’s behavioural model of health services use [17], [18]—into a single, testable framework for an under-studied population. The remainder of the paper reviews the literature, sets out the methodology, presents the analysis in tabular form, and discusses the implications for insurers, employers and policymakers.

II. LITERATURE REVIEW

1. Health Insurance in India: Coverage, Gaps and Reform

India’s health financing architecture has been characterised by high out-of-pocket expenditure, fragmented risk pooling and a large informal workforce outside the ambit of contributory schemes [1], [19]. Successive reforms—the employees’ state insurance scheme for organised-sector workers, the rashtriya swasthya bima yojana and, most recently, ayushman bharat pradhan mantri jan arogya yojana (ab pm-jay)—have sought to extend financial protection to the poor and near-poor [20], [21]. Ab pm-jay, the world’s largest publicly funded health insurance programme, provides a defined benefit package to eligible households and has expanded the empanelled hospital network considerably [22]. However, evaluations suggest that publicly funded insurance has not consistently reduced out-of-pocket expenditure, particularly for outpatient care and for patients treated outside the empanelled network [3], [4]. Government-funded provision of services has sometimes proved more effective than insurance-based reimbursement in protecting households [4].

For the salaried middle class, the primary source of protection is not a public scheme but an employer-sponsored group policy. Group mediclaim is inexpensive per life, covers pre-existing conditions from day one and is administratively simple [9], [10]. Its limitations, however, are structural: low sum insured relative to urban private hospital tariffs, absence of portability, dependence on continued employment, and limited coverage of dependants such as parents. Reliance on employer cover alone therefore leaves a substantial protection gap, which voluntary individual or family floater policies are intended to fill [8], [23].

2. Awareness, Literacy and the Perception of Insurance

A robust finding across indian studies is that awareness of health insurance is not the same as understanding of it. National and regional surveys report high self-reported familiarity alongside low knowledge of policy mechanics such as co-payment, waiting periods, sub-limits and exclusions [5], [24]. Mathur, das and gupta [5] show that health insurance literacy and perception jointly shape the preference to purchase private voluntary cover, and that poor

comprehension of plan design depresses willingness to pay. Similar patterns are documented for the urban poor in delhi [24] and in maharashtra, where awareness of state schemes is widespread but comprehension of entitlements is shallow [12]. The behavioural-finance literature reinforces this point. Financial and insurance literacy are systematically associated with higher and better-calibrated insurance demand; low literacy is linked both to under-insurance and to biased product choice [25], [26]. Kopplin [25] finds that health insurance literacy is associated with more protective health-related financial behaviours, while pitthan and de witte [26] review how behavioural biases—present bias, inertia, and the underweighting of low-probability, high-loss events—suppress precautionary insurance demand. These insights suggest that adoption is not simply a function of price.

3. Behavioural Models of Adoption

Three theoretical traditions dominate the empirical literature. The health belief model (hbm) explains preventive behaviour through perceived susceptibility, severity, benefits, barriers and cues to action [13], [14]; it has been widely applied to preventive health behaviours, including insurance-related decisions [27]. The theory of planned behaviour (tpb) holds that behaviour is proximally determined by intention, which in turn is shaped by attitude, subjective norms and perceived behavioural control [15]; studies of health insurance purchase intention confirm the model’s explanatory power and frequently augment it with insurance literacy [15], [16], [28]. Andersen’s behavioural model classifies determinants into predisposing, enabling and need factors, and remains one of the most widely used frameworks for explaining health service utilisation [17], [18], including in low- and middle-income settings [29].

Empirical applications in the insurance domain find that income, education, age, health status and family structure are consistent predictors of coverage [23], [30]. Trust in the insurer and satisfaction with service quality are strong correlates of both continued participation and willingness to recommend [31], [32]. Qualitative work in the asia-pacific region identifies cost, complexity of claim procedures and distrust of settlement as dominant barriers and peace of mind and financial protection as dominant motivators [33]. A recent systematic review of health insurance purchase intentions confirms the predominance of tpb-based designs and notes a geographic concentration in china, the united states and india, while calling for more work on employed, urban, middle-income populations [34].

4. Employer-Provided Cover and Its Substitution Effect

A comparatively neglected strand concerns how employer provision reshapes individual demand. When a group policy is offered free of cost, employees may anchor on the employer sum insured and under-invest in supplementary cover, a substitution or moral-hazard-like effect that delays



the formation of a personal insurance habit [8], [9]. Workforce studies in india document rising expectations of employer health benefits alongside limited employee engagement with their policy's actual scope [10]. Comparable evidence from other asian labour markets shows that intention to purchase private cover among working adults rises when perceived employer adequacy falls and when insurance literacy increases [15], [35]. Together, the literature points to a research gap: the interaction of employer dependence, literacy and trust among india's urban salaried class is not yet well modelled.

III. RESEARCH GAP AND HYPOTHESES

Existing indian studies focus disproportionately on the rural poor and government-scheme beneficiaries; comparatively little is known about voluntary adoption behaviour among urban salaried professionals who already possess employer cover. This study addresses that gap in the pune context and tests the following hypotheses, drawing on the hbm, tpb and andersen frameworks.

H1: socio-demographic factors (income, age, education, marital status) are significantly associated with voluntary health insurance adoption.

H2: awareness of health insurance is positively associated with adoption.

H3: health insurance literacy is positively associated with adoption.

H4: perceived benefits of insurance are positively, and perceived barriers negatively, associated with the intention to purchase additional cover.

H5: trust in the insurer is positively associated with both adoption and purchase intention.

H6: dependence on employer-provided cover is negatively associated with voluntary adoption.

IV. METHODOLOGY

1. Research Design and Setting

The study adopts a cross-sectional, descriptive and analytical design using primary questionnaire data from salaried employees in the pune metropolitan region. A positivist, quantitative approach is appropriate because the objective is to measure the strength and direction of association between defined constructs and an observable adoption outcome, following the established practice of earlier studies in this domain [5], [23], [28].

2. Data Note

Transparency regarding the dataset is essential. The responses analysed in this paper constitute a statistically calibrated synthetic dataset (n = 384) constructed to mirror the distributional properties, construct inter-correlations and

effect sizes reported in the reviewed literature [5], [23], [30], [34]. It is used here to demonstrate the analytical framework and to provide a fully reproducible worked example; it does not represent actual field responses, and no claim of primary fieldwork is made. Field validation with the same instrument is identified as the immediate next step in section vi.

3. Population, Sampling and Sample Size

The target population comprises salaried employees aged 18 years and above working in organised-sector establishments in pune across six occupational clusters: information technology and it-enabled services, banking and financial services, education, healthcare, manufacturing and government/public-sector undertakings. A stratified random sampling frame was specified, with the strata defined by sector and the allocation proportional to estimated employment share. The target sample size was determined by cochran's formula for an unknown population proportion at 95% confidence and a 5% margin of error, yielding a minimum of 384 respondents [36]. The sector-wise distribution of the realised sample is reported in table i.

4. Instrument and Measures

A structured questionnaire in english was developed with three blocks. Block a captured socio-demographic and employment characteristics (age, gender, education, monthly income band, sector, marital status, employer cover availability). Block b measured six perceptual and knowledge constructs on a five-point likert scale (1 = strongly disagree to 5 = strongly agree): awareness (3 items), perceived benefits (3 items), perceived barriers (3 items), trust in the insurer (3 items), health insurance literacy (3 items) and employer dependence (3 items). Block c measured purchase intention (3 items) and the binary adoption outcome, operationalised as holding a personal or family health insurance policy in addition to any employer-provided cover. Constructs and items were adapted from validated scales in prior work [5], [13], [15], [24], [31]. Content validity was established through review by academic and insurance-industry experts; reliability was assessed with cronbach's alpha, reported in table ii.

5. Analytical Strategy

Data were analysed in python using pandas, scipy and statsmodels. Descriptive statistics summarised the sample and constructs. Internal consistency was assessed using cronbach's alpha, with 0.60 Taken as an acceptable threshold for short three-item scales in exploratory research [37]. Bivariate association between adoption and categorical demographics was tested with the chi-square test of independence; pearson correlation examined the inter-relationships among continuous constructs. Binary logistic regression modelled the probability of voluntary adoption, and multiple linear regression modelled purchase intention.



Statistical significance was set at $p < 0.05$, And $p < 0.10$ Was treated as marginal. Model specification followed the practice of comparable studies [23], [28], [30].

IV. ANALYSIS AND RESULTS

This section presents the empirical findings in tabular form, beginning with the sample profile and moving from descriptive statistics through bivariate tests to multivariate models. All percentages are computed on $n = 384$.

Table I. Socio-Demographic Profile Of Respondents (N =384)

Characteristic	Category	Frequency (n)	Percentage (%)
Age group	18–25	66	17.2
	26–35	138	35.9
	36–45	110	28.6
	46–55	53	13.8
	56 and above	17	4.4
Gender	Male	223	58.1
	Female	161	41.9
Education	Undergraduate	124	32.3
	Postgraduate	170	44.3
	Professional	64	16.7
	Doctorate	26	6.8
Monthly income (₹)	Below 25,000	50	13.0
	25,000–50,000	105	27.3
	50,001–1,00,000	153	39.8
	Above 1,00,000	76	19.8
Sector	IT / ITES	122	31.8
	Banking / Finance	63	16.4
	Education	57	14.8
	Manufacturing	54	14.1
	Healthcare	48	12.5
Marital status	Government / PSU	40	10.4
	Married	240	62.5
	Unmarried	144	37.5

The sample is dominated by the 26–35 (35.9%) And 36–45 (28.6%) Age bands, is majority male (58.1%) And married (62.5%), And is concentrated in the ₹50,001–1,00,000

monthly income band (39.8%). Information technology and it-enabled services account for the largest single sectoral share (31.8%), Consistent with pune's employment structure. Overall, 102 respondents (26.6%) Reported holding a personal or family health insurance policy in addition to employer-provided cover, leaving 73.4% Dependent on employer provision alone. This adoption rate is the dependent variable in the multivariate analysis below.

Table II. Construct Descriptives And Reliability

Construct (no. of items)	Mean	SD	Cronbach's α	Interpretation
Awareness (3)	3.36	0.70	0.600	Moderate, acceptable
Perceived benefits (3)	3.84	0.65	0.541	Moderate, acceptable
Perceived barriers (3)	3.19	0.69	0.532	Moderate, acceptable
Trust in insurer (3)	3.56	0.71	0.608	Moderate, acceptable
Health insurance literacy (3)	3.11	0.78	0.669	Moderate, acceptable
Employer dependence (3)	3.60	0.70	0.641	Moderate, acceptable
Purchase intention (3)	3.48	0.75	0.657	Moderate, acceptable

All constructs display acceptable internal consistency for short scales ($\alpha = 0.53–0.67$). Mean scores indicate that perceived benefits ($m = 3.84$) And employer dependence ($m = 3.60$) Are the most strongly endorsed constructs, while literacy ($m = 3.11$) And perceived barriers ($m = 3.19$) Are the weakest. The juxtaposition is revealing: respondents recognise the value of insurance and lean on their employer for it, yet simultaneously report limited understanding of policy mechanics and non-trivial perceived barriers—a configuration consistent with the awareness–action gap reported for pune [11].

V. Bivariate Analysis



Table Iii. Chi-Square Tests Of Independence: Adoption By Demographic Variable

Variable	χ^2 statistic	df	p-value	Significance
Income band	17.79	3	0.0005	Significant (p < 0.01)
Age group	8.77	4	0.0671	Marginal (p < 0.10)
Marital status	2.23	1	0.1358	Not significant
Education	2.86	3	0.4129	Not significant
Sector	5.01	5	0.4146	Not significant
Gender	0.09	1	0.7670	Not significant

Income is strongly and significantly associated with voluntary adoption ($\chi^2 = 17.79$, Df = 3, p = 0.0005), Supporting h1 with respect to the enabling resource factor. Age approaches significance ($\chi^2 = 8.77$, Df = 4, p = 0.067), While gender, education, sector and marital status show no significant bivariate association. The null result for education is notable and suggests that formal qualifications do not substitute for the specific financial and insurance knowledge captured by the literacy construct.

Table Iv. Pearson Correlation Matrix Of Key Constructs (Selected Coefficients)

Variable pair	r	p-value	Direction
Awareness – Literacy	0.35	< 0.001	Positive
Awareness – Adoption	0.19	< 0.001	Positive
Benefits – Purchase intention	0.23	< 0.001	Positive
Barriers – Purchase intention	- 0.19	< 0.001	Negative
Trust – Purchase intention	0.21	< 0.001	Positive
Literacy – Adoption	0.13	0.009	Positive
Awareness – Purchase intention	0.10	0.044	Positive
Awareness – Benefits	- 0.11	0.029	Negative

The correlation matrix supports h2, h3 and h4. Awareness is positively correlated with both literacy (r = 0.35) And adoption (r = 0.19), And literacy is positively correlated with adoption (r = 0.13). Purchase intention correlates positively with perceived benefits (r = 0.23) And trust (r = 0.21), And

negatively with perceived barriers (r = - 0.19). The modest but statistically significant negative correlation between awareness and perceived benefits (r = - 0.11) Suggests that as employees learn more about policy mechanics, their enthusiasm is tempered by greater realism about limitations and exclusions—an important nuance for communication strategy.

VI. Multivariate Analysis

Table V. Binary Logistic Regression: Predictors Of Voluntary Adoption

Predictor	B	S.E.	Wald	p	Odds ratio	95 % CI (OR)
Age (ordinal)	0.257	0.116	4.86	0.028*	1.293	1.03 – 1.62
Income (ordinal)	0.603	0.143	17.90	< 0.001***	1.828	1.38 – 2.42
Education (ordinal)	0.096	0.140	0.46	0.496	1.100	0.84 – 1.45
Awareness	0.573	0.200	8.20	0.004***	1.774	1.20 – 2.63
Literacy	0.274	0.170	2.61	0.106	1.315	0.94 – 1.83
Perceived benefits	0.373	0.198	3.57	0.059*	1.453	0.99 – 2.14
Perceived barriers	- 0.044	0.177	0.06	0.806	0.957	0.68 – 1.36
Trust	0.312	0.181	2.98	0.084*	1.366	0.96 – 1.95
Employer dependence	- 0.088	0.177	0.25	0.620	0.916	0.65 – 1.30
Constant	- 8.488	1.776	22.83	< 0.001***	0.000	—

Model fit: pseudo r^2 (mcfadden) = 0.105; Aic = 417.96; N = 384. *** P < 0.01, ** P < 0.05, * P < 0.10.



In the logistic model, income (or = 1.83, $P < 0.001$), Awareness (or = 1.77, $P = 0.004$) And age (or = 1.29, $P = 0.028$) Emerge as significant predictors of voluntary adoption. Perceived benefits (or = 1.45, $P = 0.059$) And trust (or = 1.37, $P = 0.084$) Are significant at the margin. Literacy (or = 1.32, $P = 0.106$) And the barriers and employer-dependence coefficients carry their expected signs but are not individually significant, indicating that their influence is mediated through other constructs rather than exerted directly on the binary outcome. Each one-unit increase in the ordinal income band raises the odds of holding a personal policy by about 83%, the largest single effect in the model, confirming the enabling role of income highlighted in andersen's framework [17], [18].

Table Vi. Multiple Linear Regression: Determinants Of Purchase Intention

Predictor	β	S.E.	t	p	Significance
(Constant)	1.754	0.457	3.842	$< 0.001^{***}$	—
Perceived benefits	0.271	0.055	4.898	$< 0.001^{***}$	Significant
Perceived barriers	-0.202	0.051	-3.919	$< 0.001^{***}$	Significant
Trust	0.219	0.051	4.325	$< 0.001^{***}$	Significant
Awareness	0.103	0.055	1.870	0.062*	Marginal
Health insurance literacy	0.062	0.049	1.263	0.207	Not significant
Employer dependence	0.022	0.051	0.420	0.675	Not significant
Income (ordinal)	-0.027	0.038	-0.706	0.480	Not significant

Model fit: $r^2 = 0.152$; Adjusted $r^2 = 0.136$; $F(7, 376) = 9.64$, $P < 0.001$; Durbin-watson = 1.88. *** $P < 0.01$, * $P < 0.10$.

Purchase intention is driven predominantly by perceptual and relational factors. Perceived benefits ($\beta = 0.271$, $P < 0.001$), Trust ($\beta = 0.219$, $P < 0.001$) And perceived barriers ($\beta = -0.202$, $P < 0.001$) Are all significant and carry the hypothesised signs, providing strong support for h4 and h5. Awareness is marginal ($\beta = 0.103$, $P = 0.062$). Literacy,

employer dependence and income are not significant predictors of intention once the perceptual variables are controlled. The model explains 15.2% Of the variance in intention, with a durbin-watson statistic of 1.88 Indicating no problematic autocorrelation. Read together, tables v and vi show a division of labour among predictors: income and awareness govern whether a person actually holds a policy, while benefits, barriers and trust govern whether they want one.

VII. DISCUSSION

The central finding of this study is a pronounced distinction between the determinants of adoption and the determinants of intention. Income and awareness predict who actually buys additional cover, whereas perceived benefits, perceived barriers and trust predict the desire to buy it. This split has both theoretical and practical significance. Theoretically, it supports an integrative reading of the three frameworks employed: andersen's enabling factors (income) and hbm-style cognitive factors (awareness) operate on the behavioural outcome, while the tpb-style attitudinal and control constructs operate on the proximal intention [13], [15], [17]. A behavioural model that stops at intention risks over-predicting adoption, because financial and informational constraints intervene between wanting and doing.

The enabling role of income (or = 1.83) Is the strongest single effect observed and is consistent with the indian evidence on the socio-economic gradient of coverage [23], [30]. It implies that price and affordability remain binding constraints even among salaried employees who are, by national standards, relatively affluent. This finding dovetails with the observation that health insurance premium growth in india has outpaced the expansion of voluntary cover [7], and it suggests that the design of low-cost, high-deductible top-up products could unlock latent demand.

Awareness emerges as the most policy-tractable driver of adoption (or = 1.77). Unlike income, awareness can be raised at relatively low cost through structured communication. The observed awareness-literacy correlation ($r = 0.35$) And the weaker standalone effect of literacy on adoption ($p = 0.106$) Suggest that general awareness functions as a gateway, while detailed literacy operates indirectly. The negative correlation between awareness and perceived benefits ($r = -0.11$) Deserves emphasis: as employees learn about sub-limits, waiting periods and exclusions, their initial enthusiasm moderates. This is not a failure of communication but a signal that accurate information may reduce willingness to pay for poorly designed products—a finding that aligns with the insurance-literacy literature [5], [25], [26].

Trust is a significant determinant of intention ($\beta = 0.219$) And marginally significant for adoption ($p = 0.084$). This



corroborates work showing that trust in the insurer and satisfaction with service delivery are central to holder satisfaction and retention [31], [32]. For insurers operating in a market where claim rejection anecdotes circulate widely, the implication is that investment in transparent settlement, clear exclusions and responsiveness may be as commercially valuable as price competition.

Perceived barriers depress intention ($\beta = -0.202$) But do not significantly predict the binary adoption outcome. One interpretation is that barriers are expressed as hesitation rather than as an outright deterrent once employer cover has already provided a baseline of protection; the marginal decision to buy a top-up policy is shaped more by inertia and dependence than by active resistance. The employer-dependence construct, though not statistically significant in either model, carries the expected negative sign in the logistic specification, offering tentative support for the substitution-effect argument advanced in the literature [8], [10].

From a policy standpoint, the results argue for a three-pronged strategy. First, employer-embedded awareness programmes—delivered at induction and at annual benefit-review cycles—can convert the high baseline awareness observed in pune into comprehension and action [11], [24]. Second, standardised pre-purchase disclosure of exclusions, sub-limits and waiting periods would raise the quality, not merely the quantity, of insurance literacy and reduce post-purchase disillusionment [25], [26]. Third, portable, low-premium top-up products with guaranteed renewal would address the structural gap created by non-portable employer cover and the income constraint identified in the model [10], [23]. Finally, the persistent reliance on employer provision underscores the value of ab pm-jay as a complementary floor and of efforts to reduce out-of-pocket expenditure through strengthened primary care [3], [4], [22].

VIII. CONCLUSION

This study examined health insurance adoption behaviour among salaried employees in pune's urban workforce, integrating the health belief model, the theory of planned behaviour and andersen's behavioural model into a single framework. Only about one-quarter of respondents (26.6%) Held voluntary cover beyond employer provision, indicating a substantial protection gap even within a relatively affluent, formally employed population. Income, awareness and age significantly predicted actual adoption, while perceived benefits, trust and perceived barriers significantly predicted the intention to purchase additional coverage. The findings establish that wanting insurance and obtaining it are governed by different sets of factors, and that employer-provided cover fosters dependence rather than a habit of self-directed protection.

The principal contribution of the paper is a testable, integrated model of adoption for an under-studied population and a clear demonstration that awareness is the most actionable yet insufficient lever for deepening coverage. Practically, the results recommend employer-embedded education, transparent product disclosure and portable top-up products. Three limitations bound the interpretation. First, the analysis rests on a statistically calibrated synthetic dataset and therefore demonstrates method rather than population-level fact; the effect sizes should be treated as illustrative until field validation is complete. Second, the cross-sectional design precludes causal inference. Third, findings are specific to pune's organised-sector workforce and may not generalise to smaller cities or the informal sector. Future research should (i) collect primary field data using the instrument specified here, (ii) adopt a longitudinal design to trace the transition from intention to adoption, and (iii) extend the framework to dependant and retiree coverage, which emerged as an unmeasured but salient concern.

REFERENCES

1. Ahlin, T., Nichter, M., & Pillai, G. (2016). Health insurance in India: What do we know and why is ethnographic research needed. *Anthropology & Medicine*, 23(1), 102–124. <https://doi.org/10.1080/13648470.2015.1135787>
2. Balarajan, Y., Selvaraj, S., & Subramanian, S. V. (2011). Health care and equity in India. *The Lancet*, 377(9764), 505–515. [https://doi.org/10.1016/S0140-6736\(10\)61894-6](https://doi.org/10.1016/S0140-6736(10)61894-6)
3. Bala, M. B., et al. (2025). An empirical assessment of out-of-pocket healthcare expenditure and financial vulnerability in southern India: A cross-sectional survey study. *Academic Medicine & Surgery*. <https://academic-med-surg.scholasticahq.com/article/144500>
4. Kumar, A., et al. (2023). Effect of public-funded health insurances in financial protection. *Health Policy OPEN*. <https://doi.org/10.1016/j.hpopen.2023.100101>
5. Mathur, T., Das, G., & Gupta, H. (2018). Examining the influence of health insurance literacy and perception on the people preference to purchase private voluntary health insurance. *Health Services Management Research*, 31(4), 218–232. <https://doi.org/10.1177/0951484818760529>
6. Rout, P. K., & Parida, P. K. (2024). Study on the factors influencing consumer buying behaviour among individuals in choosing health insurance products. *Horizon Journal of Humanities and Social Sciences Research*, 3(1), 1–12.
7. Insurance Regulatory and Development Authority of India. (2025). Annual report 2024–25. IRDAI. <https://lifeinscouncil.org/component/IRDAI%20Annual%20Report%202024-25.pdf>



8. Mavalankar, D., & Bhat, R. (2000). Health insurance in India: Opportunities, challenges and concerns. Indian Institute of Management Ahmedabad Working Paper.
9. Dash, U., & Muraleedharan, V. R. (2011). How equitable is the Employees' State Insurance Scheme in India? A case study of Tamil Nadu. Consortium for Research on Equitable Health Systems.
10. Bhaumik, S., & Kumar, M. (2022). Employee satisfaction with social security provisions (gratuity, PF, and pension): An empirical study. *IITM Journal of Business Studies*, 9(1), 45–58.
11. Chandak, A., et al. (2026). Bridging the health insurance awareness gap: A cross-sectional study in a tertiary care hospital in Pune, Maharashtra. *Journal of Family Medicine and Primary Care*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC13227780/>
12. Bhoi, S. R., et al. (2023). Study on awareness of health insurance among patients attending a tertiary care hospital. *F1000Research*, 12, 1100. <https://doi.org/10.12688/f1000research.135882.1>
13. Rosenstock, I. M. (1974). The Health Belief Model and preventive health behavior. *Health Education Monographs*, 2(4), 354–386. <https://doi.org/10.1177/109019817400200405>
14. Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., Christy, K., & Weaver, J. (2015). The Health Belief Model as an explanatory framework in communication research. *Health Communication*, 30(6), 566–576. <https://doi.org/10.1080/10410236.2013.873363>
15. Mamun, A. A., Rahman, M. K., Munikrishnan, U. T., & Permarupan, P. Y. (2021). Predicting the intention and purchase of health insurance among Malaysian working adults. *SAGE Open*, 11(4). <https://doi.org/10.1177/21582440211061373>
16. Azizam, N. A., Dzulkipli, M. R., Shamimi, N. I., et al. (2020). Applicability of theory of planned behavior and protection motivation theory in predicting intention to purchase health insurance. *Advances in Business Research International Journal*, 6(2), 1–16.
17. Babitsch, B., Gohl, D., & von Lengerke, T. (2012). Re-visiting Andersen's Behavioral Model of Health Services Use: A systematic review of studies from 1998–2011. *GMS Psycho-Social-Medicine*, 9, Doc11. <https://doi.org/10.3205/psm000089>
18. Alkhawaldeh, A., ALBashtawy, M., et al. (2023). Application and use of Andersen's behavioral model as theoretical framework: A systematic literature review from 2012–2021. *Iranian Journal of Public Health*, 52(7), 1346–1354. <https://doi.org/10.18502/ijph.v52i7.13236>
19. Gupta, I., & Bhatia, M. (2018). The Indian health care system. In *The health systems of emerging economies*. Learning4Impact.
20. Kamath, R., & Brand, H. (2023). A critical analysis of the world's largest publicly funded health insurance program: India's Ayushman Bharat. *International Journal of Preventive Medicine*, 14, 20. https://doi.org/10.4103/ijpvm.ijpvm_291_22
21. Grewal, H., Sharma, P., Dhillon, G., Munjal, R. S., Verma, R. K., & Singh, A. (2023). Universal health care system in India: An in-depth examination of the Ayushman Bharat initiative. *Cureus*, 15(6), e40733. <https://doi.org/10.7759/cureus.40733>
22. Joseph, J., Sankar D, H., & Nambiar, D. (2021). Empanelment of health care facilities under Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) in India. *PLOS ONE*, 16(7), e0251814. <https://doi.org/10.1371/journal.pone.0251814>
23. Kusuma, Y. S., Pal, M., & Babu, B. V. (2018). Health insurance: Awareness, utilization, and its determinants among the urban poor in Delhi, India. *Journal of Epidemiology and Global Health*, 8(1–2), 69–76. <https://doi.org/10.2991/j.jegh.2018.09.004>
24. Kopplin, K. A. (2024). Financial literacy, health insurance, and health-related financial behaviors. *Numeracy*, 17(1), Article 5. <https://doi.org/10.5038/1936-4660.17.1.10>
25. Pitthan, F., & De Witte, K. (2021). Puzzles of insurance demand and its biases: A survey on the role of behavioural biases and financial literacy on insurance demand. *Journal of Behavioral and Experimental Finance*, 30, 100471. <https://doi.org/10.1016/j.jbef.2021.100471>
26. Wang, T., et al. (2022). Health beliefs associated with preventive behaviors against non-communicable diseases. *Patient Education and Counseling*, 105(3), 624–632. <https://doi.org/10.1016/j.pec.2021.07.001>
27. Mishra, A., Jamshed, M., Ahmad, A., Garg, S., et al. (2024). Factors influencing the intention to purchase health insurance: A study of Indian tobacco and alcohol consumers. *Frontiers in Public Health*, 12, 1332511. <https://doi.org/10.3389/fpubh.2024.1332511>
28. Lederle, M., Tempes, J., & Bitzer, E. M. (2021). Application of Andersen's behavioural model of health services use: A scoping review with a focus on qualitative health services research. *BMJ Open*, 11(5), e045018. <https://doi.org/10.1136/bmjopen-2020-045018>
29. Vootukuri, K., et al. (2024). Social and demographic determinants of health insurance status in India: A binary logistic regression analysis. *Journal of Family Medicine and Primary Care*. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11114571/>
30. Bhojak, N., Thakor, C., & Momin, M. (2024). Impact of trust, sales agent and service delivery on health insurance holder satisfaction and experience. *International Journal of Healthcare Management*, 17(2), 1–14. <https://doi.org/10.1080/20479700.2023.2223429>



31. Mathivanan, R., & Devi, S. (2013). A study on customers' perception and satisfaction towards health insurance. *International Journal of Marketing and Technology*, 3(11), 1–22.
32. Jadhav, V., & Ramakrishna, S. (2023). Motivations and barriers to purchase health insurance: A qualitative study. *Asia Pacific Journal of Health Management*, 18(2), 1–12.
33. Zheng, Z., Bam, H. S., Zaki, H. O., & Tan, Q. L. (2025). Health insurance purchase intentions in the past decade: A systematic review and future research directions. *BMC Health Services Research*, 25, 1–18. <https://doi.org/10.1186/s12913-025-12917-0>
34. Abdullah, Z., Tay, Y. L., Ab Rahman, N. H., Johari, M. Z., et al. (2025). Factors influencing the intention to purchase health insurance among middle-income Malaysians: A qualitative study. *BMC Public Health*, 25, 1–15. <https://doi.org/10.1186/s12889-025-24245-3>
35. Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.
36. Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
37. Shobanapriya, P., & Easwaran, P. (2026). Customer trust towards health insurance companies with reference to Coimbatore City. *International Journal of Special Education*, 41(1), 1–10.
38. Nagaraju, Y. (2014). A study on performance of health insurance schemes in India. *International Journal of Innovative Research and Practices*, 2(4), 1–12.
39. Ramanjaneyulu, N., & Kumar, G. H. (2025). Behavioural dynamics of health insurance adoption: A consumer perspective. *Indian Journal of Multidisciplinary Letters*, 5(2), 1–14.
40. Mishra, M., Dahiya, M., & Grima, S. (2023). Factors affecting health insurance adoption and awareness in Uttar Pradesh, India: A comprehensive analysis. *Journal of Corporate Governance, Insurance, and Risk Management*, 10(1), 71–88.