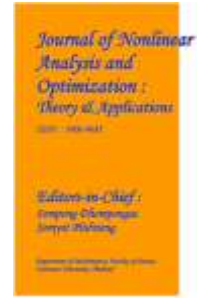


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"Exploring the Drivers of Individual Health Insurance Policy Purchase in Urban India: Evidence from Hyderabad"

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ABSTRACT:

The rapid growth of healthcare costs and rising awareness about financial security have made health insurance an important component of individual financial planning in India. This study aims to explore the key factors influencing the decision to purchase individual health insurance policies in urban India, with a specific focus on Hyderabad. A structured questionnaire was administered to a sample of urban residents to collect primary data regarding their demographic profile, income levels, risk perception, awareness of health insurance products, trust in insurers, and previous health-related experiences. The findings reveal that factors such as perceived risk of illness, awareness about insurance benefits, affordability, trust in the insurance provider, and previous experience with healthcare expenses play a significant role in the decision-making process. Additionally, demographic variables like age, education level, and family size were found to significantly impact policy adoption. The study provides insights for policymakers and insurance companies to design more targeted strategies that address consumer concerns and enhance insurance penetration in urban markets. These results highlight the need for better consumer education and tailored insurance products to bridge the gap in health coverage.

Key Words: Health Insurance, health coverage, Premium, purchase decision.

INTRODUCTION TO HEALTH INSURANCE:

Health insurance is a financial arrangement that helps cover medical expenses in return for regular premium payments. Typically, individuals pay monthly or annual premiums, and in return, the insurance company establishes agreements with hospitals and healthcare providers to offer services to policyholders at discounted rates. These partnered hospitals and providers are listed in the insurer's directory, indicating their agreement to provide medical services—such as consultations, medications, diagnostic tests, and treatments—at predetermined costs, often referred to as "covered services" within the policy terms. The extent of coverage and any applicable limitations vary depending on the specific insurance plan chosen. Health insurance can be purchased directly from insurance companies, through agents or independent brokers, but most commonly, people obtain coverage through employer-sponsored health plans.

Two broad types of health insurance or health coverage

Broadly speaking there are two types of health insurance:

Private health insurance: In private health insurance schemes, the buyers have willing to pay a premium to an insurance company that pools people with similar risks and insures them for health expenses. The key feature is that the premiums are set at a level, which provides a profit to the third party and provider institutions.

Public (government) health insurance: Public or Social insurance is an appropriated fund which provides benefits in return for a payment. It is a compulsory scheme for certain groups in the population and the premiums are determined by income and hence the ability to pay. The benefits packages are standardized.

Health Insurance in India

Health Insurance was launched by common public sector insurance firms in India in 1986 as Mediclaim. Several private insurers have joined the market following the deregulation with interesting packages, and by 31 March 2012, 22 organizations have been offering health insurance, including independent health insurance firms.

Although the insurance industry is being liberalized, only about 21.6 crore persons – less than a fifth of Indians – are insured. Even among those with coverage, the national health profile 2015 published by the central Bureau of Health Intelligence covers 67% of the public insurance firms. Despite the decline in the Centre's share of public health expenses, a separate chapter on health finance has been shown to be a considerably better option than the private sector to offer insurance coverage. Public insurance undertakings have a higher price and coverage for all types of policy, except for

family floating policy, which has 70 percent share of private players. Family float plans allow a family to receive the full insurance payout for one family member and all members of a family are covered by the policy.

In addition to regular health insurance, about 15.5 crore persons are insured through the Central Health Program (CHP), the Employees' State Insurance System and RashtriyaSwasthyaBima Yojana, which is financed by the Civil Government.

The fact that India has significant out-of-pocket health costs is shown to show inadequate government health expenditure and poor health insurance penetration. In rural India, over 80% of the spending is spent on medication, whereas it is roughly 75% in metropolitan regions. The medical charge varies from 11 to 14%, while testing for diagnosis make about 7-8% of out-of-pocket expenses.

In 2012-13 public health expenditure remained virtually constant as of 2009-10, at 1.08 percent of GDP. This expenditure's center-state proportion was 33:67. India is one of the lowest among Southeast Asian countries, greater than Burma, and one of the lowest in BRICS. India's public health spending per cent of GDP is.

In recent years, the Indian healthcare business has become multi-faceted, yet the availability of physicians per 1 thousand patients, quality medical treatment and number of beds per thousand people remain quite poor. Different authorities evaluate the need to increase the capacity of hospitals, which demands for substantial investments, in order to fulfill basic international standards. Doctors require prompt attention per 1000 population, too. The increased commercialization of health promotion is a key trend in modern cultures (Kickbusch, 2003). Indian government hopes that the private sector would play a significant part in building hospitals and delivering high-quality health care for customers at affordable costs. One of the other main trends is that the ordinary household has increased the costs of medical care by moving to specialised treatments and hospitals. All of these are projected to cost the government more for medical treatment, which means that the typical household finds it difficult to efficiently meet its medical demands.

Building on the changing situation in the healthcare sector, it is shown that the opportunities, problems and future trends of the healthcare industry in India need to be analyzed to get a thorough understanding of healthcare and practices, consumer attitudes and behavior in India. There are three key objectives in every health system. In order to improve the health condition, a health sector or system should function. Health systems must respond to the requirements of customers and the community and customer satisfaction must be generated, which WHO refers to the reaction of health

systems. Another objective of health systems is financial risk protection. You must begin to think about how health systems address financial contingencies and risks. Are individuals shielded from increasing healthcare costs? Every health system should therefore ensure that financial protection against catastrophic diseases is expanded and that the poor who are actually the most impacted at a great cost are not forced to seek care for Agarwal, 2006).

There are regions where wide changes in important parameters are noticed in the performance of healthcare systems at domestic level and. The following graph provides data on two major factors of health: life expectancy and a low death rate for infants. The state of Kerala has an infant mortality rate of 14 per 1000 live births as compared to 64 in the national average and life expectancies of 74, compared with the national 63 year average.

Issues in Health Insurance in India

Indian health coverage programs have a number of issues. One such difficulty is that health insurance in Indian is perceived by a large segment of the public as life insurance, and people must be made aware of the necessity of health insurance and the different benefits they may benefit from (Memon, 2011). The most prevalent unfavorable variables (Gupta 2007) include:

- Grossly inferior service when the plan gave ESIS, CGHS etc owns facilities.
- Rejection and unwarranted delays in reimbursement.
- Service limitations – either low policy limits on reimbursement amounts or restrictions applied to pre-existing and chronic ailments.
- Inadequate information regarding health, ailments, procedures and treatments, corresponding costs and outcomes.
- Provider malpractice.
- Inadequate medical care coverage.

While health insurance programs help customers, it is frequently not clear how to tackle the issue of medical insurance. Different forms of health insurance plans will help with the selection of the suitable provider and scheme, based on the necessity and budget of the consumers. In short, the following may be said:

Defining what one wishes to cover - it's just a major disease or injury caused by an accident, hospitalization or other costs.

Decide which family members must be included in the health insurance policy While a whole family package is helpful in some circumstances, it may be wiser to divide insurance sometimes. You should explore several choices when buying for a family. From a cost standpoint, a separate insurance is sometimes helpful for the eldest member of the family. Usually, all insurance undertakings provide individual and spouse coverage plans and up to 3 children under a single policy. In the same insurance, some plans also cover dependent parents. The coverage may only be renewed till the elderly of the family's floater health insurance reaches 65-70 ans (depending on the company). Other family members are currently required to adopt a new health insurance and this policy is not going to cover existing conditions.

The total amount of coverage needs to be determined by the number of people that one wants the policy to cover, the estimate of the health care costs and the existing coverage that consumer might have from other sources like employee provided group insurance.

It is vital to be aware of policy exclusion. Exclusions describe the situations under which the coverage for health insurance does not apply. A cosmetic surgery is a frequent permanent exclusion. Such a procedure is optional and does not generally risk life and is done at the patient's desire. The first year is a frequent exclusion; the second year is followed by cataract surgery. In many cases existing ailments are not covered for a specified period or for up to four years of political life depending on the conditions of the plans used in various firms.

Consumers must explain the Third-Party Administrator' s (TPA) network coverage for the hospitals near a consumer home hired by the health insurance company and for the hospitals where routine or specialty care is requested.

The settlement is done directly on behalf of the health insurance in the event of cashless claims by the Third Party Manager.

Before the patient is admitted to the hospital, prior approval is nonetheless necessary from the TPA. Approval may be sought after admission in the case of emergency hospitalization. Only at network hospitals of TPA is Cashless facilities accessible.

Diagnostic, treatment and cost records are crucial and often disagreements occur in the processing of claims because of the consumer's ignorance or incompetence.

REVIEW OF LITERATURE:A brief report of the literature study is presented here.

Only 17% of families in India covered any form of health insurance according to Mr. Shijith & Dr. T.V. Srihar. Nevertheless, current health insurance statistics indicated the considerable increase of insured individuals and the number of health insurance plans during 2007-08. In 2008-09, the policy figures were 45, 75,725; in 2009-010, the policy figures grew to 68, 84,687 (TPA-served only). In metropolitan regions, higher coverage is recorded for health insurance. The coverage remains relatively low in rural regions.

According to the District Level Household and Facility Survey (DLHS-3), the most subscribed are insured, central or government health insurance schemes (39,2). (17 percent). This clearly shows that the public compulsory plans and schemes based on employers dominate, even after private companies enter the health insurance market. Less than 3 percent of families are insured by any health or medical insurance program and are among the lower three fortune quintiles.

The insurance sector's entry into the Indian market was discussed by M. Akila. Indian health insurance has the greatest potential and penetration compared to western countries is the lowest. She suggests that marketing techniques such as the advancement of Group Insurance, BPL family micro insurance will help to boost the sector's growth. Insurance agents must also be well prepared to inscribe additional policies and to better service clients as required. The other players such as health care providers and TPAs should also collaborate to increase the penetration of the health insurance industry in India.

Carlos Doblikin, David card, David card, It has been shown that the insurance coverage has a major causal influence on intensity of therapy, case disposal and health results. Instead of being transferred to other hospital or units within the same Hospital for further care, uninsured patients are less therapized and are less likely to be sent home. The results were discovered that the risk that patients with no coverage or a reasonably restricted coverage would be more likely to be discharged from the hospital in unhelpful conditions if the hospital is released within one month of their discharge fell to 65 years of age.

An examination of how a distinct set of individuals in India meet their health care expenses indicates that for about 34 of the cases, personal expenses are paid. This is extremely high in compared to the USA or European nations, which have roughly one-fifth of the personal expenditure component. Furthermore, it is found that 40% of families that are facing a serious health issue either have to sell land, home or long term debt. People can be safeguarded against disastrous health expenses,

particularly in impoverished households, by lowering the dependence of the health system on out-of-pocket payment and offering greater financial risks. Increase in the availability of health services is critical to improving health in poor countries, but this approach could raise the proportion of households facing catastrophic expenditure; risk protection policies would be especially important in this situation (Xu, Evans et al., 2003).

Sometimes non-experimental studies in developing nations have found that households with chronically sick members have a higher enrollment rate and evidence of adverse selection (Wagstaff, 2007), and often enroll in richer households has higher enrollment rate, which may be a positive choice, if richer people are also more healthy (Wagstaff, 2007; Wagstaff, Pradhan, 2005; Jütting, 2000). Some study in the rich countries showed that persons with greater expected costs in the medical field (measured in many ways) are more likely than those with less expected medical expenses to purchase insurance or pay for health insurance at higher prices (Cutler and Zeckhaus, 1998). However, there are typically very few (Wolfe and Goddeeris in 1991; Finkelstein and Poterba in 2004) or non-existent cases of unfavorable health and other insurance choices (Finkelstein and McGarry, 2006; Cardon and Hendel, 2001; Cawley and Philipson, 1999). There are recent signs that health insurance has been selected positively (Fang et al., 2008).

In recent theoretical work, how variables like income may ameliorate the problem of adverse selection, both increasing the chance of insurance acquisition and improving health outcomes. Avert risk – that could increase the probability of buy insurance and reduce the amount of risk you take on your own health (Chiappori et al., 2004 and Jullien, et al., 2003), or optimism – if some people underestimate your probability of accidents and thus don't purchase insurance, but are also less willing to take precautions, leaflets or otherwise. (Case et al., 2002; Smith, 2005 and Currie, e coll., 2003) (Koufopoulos, 2005).

Objectives of the study:

- 1) To understand the factors influencing the purchase decision of health insurance policies.
- 2) To understand the present scenario of health insurance industry in India.

Sampling Procedures:

POPULATION: In this study, the researcher has taken the sample from the population from Hyderabad.

SAMPLING DESIGN: once the population is identified, as I did in my case by selecting Hyderabad area, the next step is to compile a list of subjects so that I can get a sample from the population. In my study, I have selected a sample of 200 with convenience sampling technique.

MODE OF DATA COLLECTION: once I have designed the sampling frame and sampling technique, my next step is to collect the sample from the population mentioned above. I, therefore, framed a closed-ended questionnaire based on my hypothesis and collected data through survey method.

BIAS: since I have collected my samples based on convenience sampling technique, therefore the sample may not be a good representative of the population.

Dependent & Independent variables in the study:

Dependent variable: Health Insurance Purchase

Independent Variable: Cost of Health Care in family, Risk Transfer, Cost of health Insurance Policy, Financial Planning, Awareness (knowledge about HI), Coverage of the HI policy

Hypothesis:

To conduct the study, the hypotheses which I have taken are as follows,

H₀: The cost of health insurance policy does not significantly impact the health insurance purchase decision.

H₁: The cost of health insurance policy significantly impacts the health insurance purchase decision.

H₀: Rising Cost of Health Care does not significantly impact the Health insurance purchase decision.

H₁: Rising Cost of Health Care significantly impact the Health insurance purchase decision.

H₀: There is no significant difference between coverage of health insurance policy and health insurance Purchase.

H₁: There is significant difference between coverage of health insurance policy and health insurance Purchase

H0: There is no significant difference between awareness about health insurance policy and purchase decision.

H1: There is asignificant difference between awareness about health insurance policy and purchase decision.

Statistical Inference

For theanalysis,I have used multiple logistic regression analysis. First,I have mentioned the categorical variables along with numerical.

The Multiple Logistic Regressions:

The simple, one predictor logistic Regression model can be easily extended by including multiple predictors, say $X = (X_1, X_2, X_3, \dots, X_p)$. Thus we have

$$\text{Log}(\pi(X)) - \log(1 - \pi(X)) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

Where $\pi(X) = P(Y=1/X=x)$. Alternatively, we can also state $Y_i \sim \text{Ber}(\pi_i)$

Where $E(Y_i) = \pi_i = \text{Exp}(X'_i \beta) / 1 + \text{Exp}(X'_i \beta)$

As for the multiple linear regressions, in order to interpret the regression coefficients or odds ratios for one of the predictors, we need to control for other predictors.

Null Hypothesis is that controlling all other predictors, how one predictor, does not have any significant relationship with the dependent variable.

The results are obtained with the help of statistical software and presented in the appendix.

From the results, we find that there is no such significant (since the p values are not significant) relationship between the variables and the purchase decision of Health Insurance. We find that the Education, Number of family members and spending on health care have a positive relationship but not significant. We also find that the awareness and income level are negatively related to the purchase of health insurance policies. These insignificant results may have occurred due to poor sampling techniques used in the study and the response biases attached to it.

Data Analysis and Hypothesis Testing

The demographic profile of the respondents has been shown in the table-1. It is interpreted from the table as 68.5 percent of respondents are male and rest is female. The majority (60 percent) of the respondent's qualification is PG and above. 37 percent of total respondents are earning from 16,000 to 20,000. 29 percent of total respondents are earning from 5,000 to 10,000. 43 percent of the respondents are having 3 or more family members in their families. 87 percent of the respondents are aware of health Insurance. Only 13 percent of the respondents do not aware of the health insurance. And 85 percent of the respondents aware the cost of health insurance.

Table-1: Profile of Respondents

Demographical variable		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	63	31.5	31.5	31.5
	Male	137	68.5	68.5	100.0
	Total	200	100.0	100.0	
Education	SSC	14	7.0	7.0	7.0
	UG	54	27.0	27.0	34.0
	PG & Above	126	63.0	63.0	97.0
	Others	6	3.0	3.0	100.0
	Total	200	100.0	100.0	
Income	Below 5000	42	21.0	21.0	21.0
	5000 – 10000	58	29.0	29.0	50.0
	11000 – 15000	26	13.0	13.0	63.0
	16000 - 20000	74	37.0	37.0	100.0
	Total	200	100.0	100.0	
Family members	2	49	24.5	25.0	25.0
	3	67	33.5	34.2	59.2
	4	58	29.0	29.6	88.8
	5 & Above	26	14.0	11.2	100.0
Total		200	100.0		
Awareness of H.I	0	26	13.0	13.0	13.0
	Yes	174	87.0	87.0	100.0

Demographical variable		Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Female	63	31.5	31.5	31.5
	Male	137	68.5	68.5	100.0
	Total	200	100.0	100.0	
HCCI (HI Cost)	No	30	15.0	15.0	15.0
	yes	170	85.0	85.0	100.0
	Total	200	100.0	100.0	

The Multiple Logistic Regressions:

The simple, one predictor logistic Regression model can be easily extended by including multiple predictors, say $X = (X_1, X_2, X_3, \dots, X_P)$. Thus we have

$$\text{Log}(\pi(X)) - \log(1 - \pi(X)) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n$$

Where $\pi(X) = P(Y=1/X=x)$. Alternatively, we can also state $Y_i \sim \text{Ber}(\pi_i)$

Where $E(Y_i) = \pi_i = \text{Exp}(X'_i \beta) / 1 + \text{Exp}(X'_i \beta)$

The output of logistic Regression:

Table-2: logistic regression

Model Fitting Information				
Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	300.574			
Final	141.409	159.165	21	.000

Table-3: Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	102.309	51	.000
Deviance	105.619	51	.000

Table-4: Pseudo R-Square

Cox and Snell	.556
Nagelkerke	.598
McFadden	.307

Table-5: Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	d.f	Sig.
Intercept	1.414E2	.000	0	.
HCCI	147.690	6.281	3	.099
Transfertherisk	158.360	16.951	3	.001
Aware	144.625	3.216	3	.360
Familymembers	217.763	76.354	9	.000
Taxbenefit	170.863	29.454	3	.000
<p>The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.</p> <p>a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.</p>				

Testing of Hypothesis:

H0: There is no significant difference between awareness about health insurance policy and purchase decision.

H1: There is a significant difference between awareness about health insurance policy and purchase decision.

Cross tabulation for testing the hypothesis between awareness and health insurance purchase decision has shown in the table-3. Chi-square value is not significant. So, the null hypothesis is false. Hence there is a significant difference between awareness about health insurance policy and purchase decision.

Table-6: Cross tabulation for Spending HC * aware Cross tabulation

			aware		Total
			No	Yes	
Spending HC	1000	Count	10	45	55

		Expected Count	7.2	47.9	55.0
	2000	Count	4	26	30
		Expected Count	3.9	26.1	30.0
	3000	Count	0	45	45
		Expected Count	5.9	39.2	45.0
	4000	Count	6	8	14
		Expected Count	1.8	12.2	14.0
	5000	Count	2	12	14
		Expected Count	1.8	12.2	14.0
	6000	Count	4	38	42
Expected Count		5.5	36.5	42.0	
Total		Count	26	174	200
		Expected Count	26.0	174.0	200.0

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.537 ^a	5	.002
Likelihood Ratio	21.817	5	.001
Linear-by-Linear Association	.403	1	.525
N of Valid Cases	200		
a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.82.			

Table-7: Descriptive Statistics

	Mean	Std. Deviation	N
HCCI	.85	.358	200
Income	2.66	1.180	200
Gender	.69	.466	200
family members	3.27	.963	196
Tax benefit	.78	.415	200
transfer the risk	.74	.442	200
Spending HC	3.14	1.868	200

Educational	2.62	.662	200
Aware	.87	.337	200

Table-8: Inter correlations

		HCC I	incom e	Gende r	family member s	Tax benefi t	transfe r the risk	Spendin g HC	Educational	Awar e
HCCI	Pearson Correlation	1	.331**	.077	.145*	.453**	.319**	.212**	.395**	.337*
	Sig. (2-tailed)		.000	.279	.042	.000	.000	.003	.000	.000
	N	200	200	200	196	200	200	200	200	200
income	Pearson Correlation	.331*	1	.161*	.493**	.359**	.183**	.446**	.465**	.116
	Sig. (2-tailed)	.000		.023	.000	.000	.010	.000	.000	.103
	N	200	200	200	196	200	200	200	200	200
Gender	Pearson Correlation	.077	.161*	1	.316**	-.048	.105	.259**	.164*	.058
	Sig. (2-tailed)	.279	.023		.000	.497	.139	.000	.020	.415
	N	200	200	200	196	200	200	200	200	200
family member s	Pearson Correlation	.145*	.493**	.316**	1	-.008	.131	.412**	.132	-.078
	Sig. (2-tailed)	.042	.000	.000		.908	.068	.000	.064	.278
	N	196	196	196	196	196	196	196	196	196
Tax benefit	Pearson Correlation	.453*	.359**	-.048	-.008	1	.283**	.027	.462**	.513*
	Sig. (2-tailed)	.000	.000	.497	.908		.000	.705	.000	.000
	N	200	200	200	196	200	200	200	200	200
transfer the risk	Pearson Correlation	.319*	.183**	.105	.131	.283**	1	.106	.307**	.240*
	Sig. (2-tailed)	.000	.010	.139	.068	.000		.135	.000	.001
	N	200	200	200	196	200	200	200	200	200
Spendin g HC	Pearson Correlation	.212*	.446**	.259**	.412**	.027	.106	1	.141*	.045
	Sig. (2-tailed)	.003	.000	.000	.000	.705	.135		.047	.527

	N	200	200	200	196	200	200	200	200	200
Educational	Pearson Correlation	.395 [*]	.465 ^{**}	.164 [*]	.132	.462 ^{**}	.307 ^{**}	.141 [*]	1	.498 [*]
	Sig. (2-tailed)	.000	.000	.020	.064	.000	.000	.047		.000
	N	200	200	200	196	200	200	200	200	200
aware	Pearson Correlation	.337 [*]	.116	.058	-.078	.513 ^{**}	.240 ^{**}	.045	.498 ^{**}	1
	Sig. (2-tailed)	.000	.103	.415	.278	.000	.001	.527	.000	
	N	200	200	200	196	200	200	200	200	200
**. Correlation is significant at the 0.01 level (2-tailed).										
*. Correlation is significant at the 0.05 level (2-tailed).										

Discussion

In this study, The researcher examined the various factors that influence the purchase of health insurance in urban India. To achieve this, I developed a research proposal and formulated a basic hypothesis. Based on existing literature, I expected that variables such as income, education, number of family members, and the rising cost of healthcare in India would act as positive drivers for the purchase of health insurance. At the same time, I hypothesized that the cost of health insurance policies would negatively affect the decision to purchase.

The analysis revealed that healthcare spending has a negative but statistically insignificant relationship with health insurance purchase. Similarly, education, family size, and healthcare spending showed positive but non-significant relationships with the decision to buy health insurance.

From the correlation analysis, it is observed that there is a significant relationship between healthcare investments for tax benefits and income, indicating that higher income plays a significant role in risk transfer and health insurance uptake. Gender was significant at the 5% level concerning tax benefits, and education level showed a significant relationship with tax benefits as well. Additionally, education was significantly associated with awareness about health insurance.

In the future, this research could be expanded by using a larger sample size and applying an appropriate sampling design to obtain more robust and generalizable results. Such findings would help policymakers better understand which factors or predictors should be prioritized to promote higher health insurance penetration in India.

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