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RESEARCH ARTICLE

Multi-group analysis of education and occupation on health insurance buying decisions

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ABSTRACT

In the year 2020, when the global pandemic of COVID-19 emerged, individuals first exhibited a rather nonchalant attitude towards the acquisition of health insurance. However, as the devastating consequences of the virus became apparent through the substantial loss of lives among their familial, social, and kinship networks, individuals began to experience heightened concerns regarding their own health and potential complications. This study aims to investigate the correlation between the purchasing intention of health insurance and awareness, security, risk coverage and satisfaction. The objective of this study is to evaluate the impact of various factors on individuals' decision-making process while selecting health insurance coverage. The objective of this research is to evaluate the moderating impact of education and occupation on the correlation between various traits and the decision to obtain health insurance. The researcher employed multiple regression analysis to evaluate the association, considering the moderating function of education and occupation as a moderating variable.

Keywords: health insurance; buying decisions; awareness; risk converge; purchase intention

1. Introduction

Nowadays, everyone is really worried about their health. There is a tone of room for improvement in how people view healthcare services in India, which is great news for the country's healthcare sector. The scope and procedures of health insurance for covering the costs of medical care for those who need it have grown. Insurers are increasingly turning to health insurance as a means of expanding their reach within the market. If you or a loved one suffers from a chronic condition or an unexpected injury, health insurance may be able to help you recoup some of the money you spent on medical care[1].

The study of Jayaraman et al[2] explore that people worldwide realise the need for health insurance as uncertainty increases. Technology and advances in public health, diet, and medicine increase life expectancy. In contemporary society characterised by perpetual transformation, individuals throughout various regions are increasingly seeing the necessity of acquiring health insurance as a means of safeguarding their well-

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being. The average human lifetime has experienced an increase due to technological developments and progress in the fields of public health, food, and medicine. According to Gryphon[3], a set premium for health insurance saves individuals from unexpected medical expenses. As people's health needs and healthcare options evolve, the health insurance industry is becoming increasingly vital. While the health insurance industry has grown in prominence in recent years, its penetration in India remains low. According to IRDAI, only 18% of people have health insurance in 2016. Lifestyle-related illnesses are rampant in India[4]

The term "premium" refers to the upfront cost that an individual or group must pay in order to secure health insurance coverage. It's a tool for postponing, decreasing, or avoiding out-of-pocket costs associated with medical treatment received by individuals and families.

The study explores the factors influencing purchase decisions in the health insurance sector in India, focusing on awareness, tax benefits, lifestyles, and risk cover, this research was conducted in Jagtial district of Telangana State[5]

It is critical to provide financial security for low-income households in rural India because this demographic is particularly susceptible to dangers because of their social and economic standing. Having access to health insurance could be a powerful social security mechanism and aid in breaking down economic barriers. Education, income level, and occupation were all found to be positively correlated with the decision to get health insurance. Health insurance information was widely disseminated thanks to the media's efforts, Goswami, K et al.[6]

The health insurance sector is becoming increasingly important due to changes in lifestyle and increased healthcare. Pahwa and Gupta[7] explored the factors like individual preference and policy-related benefits affect buying decisions. The AHP approach was adopted to prioritize factors such as income, education level, occupation, and goodwill, in conclusion, the study highlights the importance of understanding personal factors, marketing strategies, and agent knowledge in shaping consumer perception and purchasing behavior in the health insurance sector.

As per study Ssempala, R[2] conducted in Uganda, health insurance purchase intention covers factors like unpredictability and growing healthcare expenditure, health insurance is valued internationally, according to studies, Health insurance (HI) products in Malaysia are affordable compared to high medical care costs, thus responders are satisfied. Social characteristics including income, education, and age do not affect health insurance buying intentions.

As per study of Kedare and Gopal[8]individuals pay premiums or taxes for group health insurance to defend against excessive or unexpected healthcare costs. It assesses healthcare expense risk and creates a routine finance structure. According to the report, the annual premium is the most important element in health insurance selection. Higher-income households buy plans, and hospital network and disease coverage also matter.

The study of Memarista et al[9] examines Indonesia's low insurance buying using planned behaviour theory. Psychological aspects moderate health insurance intentions, as shown by health value. Research reveals that purchasing attitude, subjective norms, and perceived behavioural control affect health insurance demand. Usefulness and danger affect health insurance opinions.

The findings of existing literature suggest that a planned behaviour strategy using psychological factors such perceived utility, risk, health value, subjective norms, and behavioural control could influence buying behavior of consumers, investigator identified gaps and accommodated in this study by taking elements of perceived behavior like risk coverage, satisfaction, security, awareness with moderation role of education,

age.

2. The study aims to achieve the following objectives

Based on a comprehensive evaluation of existing literature and the identification of a research gap, the present study has set the following objectives:

1) To examine the diverse elements that exert an influence on the decision-making process of individuals for buying health insurance policy.
2) To determine the relationship between factors awareness, satisfaction, risk coverage and security on the buying decision of individuals when purchasing health insurance policy.
3) To evaluate the moderating effect of education and occupation on the relationship between various characteristics and the decision to obtain health insurance.

Conceptual frameworks are theoretical structures that help explain and analyse phenomena and problems. The conceptual framework is the theoretical structure experts believe best explains the phenomenon's underlying evolution[10]. The researcher links concepts, empirical study, and major theories to advance and organise knowledge[11].

3. Research methodology

Individual respondents provide the study's primary data for data collection and analysis. The survey was carried out using a structured questionnaire. The survey was split into two parts. The first section addressed the respondent demographics, while the second section addressed the constructs pertaining to variables impacting the choice to obtain health insurance. Everyone living in Raipur who has health insurance is going to be the focus of this investigation. A convenience sample strategy was employed to administer the survey in this study. One form of non-probability sampling is the convenience sample, which involves selecting respondents from a pool of individuals who are relatively easy to get in touch with.

Sample Size	No. of construct in the model	No. of items per constructs	Items communalities
A minimum n=100	Less than 5	More than three observed variables	High (6 or higher)

Number of constructs = 5, Number of items per Construct = >3; Sample size should be minimum 100, sample size = 140; Out of these 132 were used to conduct further tests and analysis

A conceptual framework refers to a structured arrangement that the researcher deems most suitable for elucidating the inherent development of the phenomenon under investigation. It is associated with the theoretical frameworks, conceptual developments, and empirical investigations that are utilized to systematise and advance the researcher's proposed knowledge.

4. Result analysis and discussion

The degree to which the measure of construct is dependable or consistent is said to be reliability as shown in **Table 1**, Cronbach's alpha is used to check reliability of factors and showing in **Table 1 C**ronbach's Alpha of all included are reliable for study. As suggested by Nunnaly[12], if the score is 0.7 is said to be a good indicator of construct reliability. As shown in **Table 2**, the value of all the variables are more than 0.7 resulting a high internal consistency. Result showing the factors taken for this study showing high consistency.

Table 1. Reliability analysis.

Factors	Cronbach's Alpha
Awareness	0.755
Purchase decision	0.872
Risk coverage	0.777
Satisfaction	0.789
Security	0.784

Table 2. Measurement model convergent validity.

	Items	Loading	Ave	CR	Rho_A
Awareness	A1	0.562	0.587	0.847	0.822
	A2	0.907			
	A3	0.73			
	A4	0.822			
Risk coverage	RC1	0.784	0.589	0.851	0.801
	RC2	0.772			
	RC3	0.763			
	RC4	0.75			
Security	S1	0.759	0.606	0.86	0.788
	S2	0.793			
	S3	0.754			
	S4	0.807			
Satisfaction	SA1	0.803	0.612	0.863	0.798
	SA2	0.718			
	SA3	0.789			
	SA4	0.815			
Satisfaction	SA1	0.803	0.612	0.863	0.798
	SA2	0.718			
	SA3	0.789			
	SA4	0.815			
Purchase decision	PD1	0.769	0.661	0.907	
	PD2	0.838			
	PD3	0.841			
	PD4	0.79			
	PD5	0.826			

According to Hulland[13], an indicator reliability is shown when all item loadings are more than 0.5. As evidenced by the aforementioned table, it satisfies the established criteria.

According to Hair et al.[14], the average variance extracted percentage should be greater than or equal to 0.50. As evidenced, the values of [variable] are greater than 0.5, thus meeting the established criteria.

The Composite Reliability metric should be greater than 0.7, as this indicates an acceptable level of internal consistency. The table depicted above demonstrates compliance with the established standards.

According to previous research Hair et al.[14]; Awang[15], it is recommended that the correlation among constructs should not exceed a value of 0.85. Additionally, Fornell and Lacker[16] recommended that the square root of the average variance extracted (AVE) should be bigger than the inter-construct correlations.

Table 3 presented above demonstrates that the conditions for discriminant validity, as proposed by Fornell, have been met.

Table 3. Discriminant validity: Fornell and Larcker.

	Awareness	Purchase decision	Risk coverage	Satisfaction	Security
Awareness	0.766				
Purchase decision	0.494	0.813			
Risk coverage	0.353	0.522	0.768		
Satisfaction	0.366	0.54	0.592	0.782	
Security	0.536	0.543	0.552	0.588	0.779

Table 4 presented Kline, R.B[17] suggests that, to meet the criteria when the value of HTMT <1 and hence meets the criteria.

Table 4. Heterotrait-Monotrait Ratio of correlation (HTMT).

	Awareness	**Purchase decision**	**Risk coverage**	**Satisfaction**	**Security**
Awareness					
Purchase decision	0.585				
Risk coverage	0.443	0.592			
Satisfaction	0.457	0.641	0.736		
Security	0.694	0.644	0.679	0.747	

5. Hypothesis testing

H1: There is no significant impact of awareness on the health insurance purchase decision.

Table 5 indicates that the p-value is <0.05 (*p*-value—0.019, *t*-value—2.348) resulting in the rejection of the null hypothesis. This implies that awareness has a positive impact towards purchasing health insurance policies.

H2: There is no significant impact of Risk Coverage on the health insurance purchase decision.

Table 5 indicates that the p-value is <0.05 (*p*-value—0.003, *t*-value—2.944) resulting in the rejection of the null hypothesis. Which implements that risk coverage provided by the policy has a positive impact towards the purchase decision of health insurance.

H3: There is no significant impact of Satisfaction on the health insurance purchase decision.

Table 5 indicates that the p-value is <0.05 (*p*-value—0.008, *t*-value—2.677) resulting in the rejection of the null hypothesis. Which implements that the satisfaction of policyholders has a positive impact towards the purchase decision of health insurance policies.

H4: There is no significant impact of Security on the purchase decision of health insurance.

Table 5 indicates that the p-value is >0.05 (*p*-value—0.118, *t*-value—1.568) resulting in acceptance of the null hypothesis. This implements that security has a negative impact towards the purchasing of health insurance policies.

H5: There is no significant moderating role of occupation on the relationship between variables.

Table 5. Hypothesis testing.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T-Statistics (|O/STD EV|)	R-square Adjusted	*P*-Values
Awareness_ -> Purchase Decision_	0.251	0.249	0.107	2.348	0.425	0.019
Risk Coverage -> Purchase Decision_	0.21	0.216	0.071	2.944		0.003
Satisfaction -> Purchase Decision_	0.232	0.236	0.087	2.677		0.008
Security -> Purchase Decision_	0.156	0.167	0.1	1.568		0.118

As shown in the above **Table 6**, *p*-value is >0.5, hence leading to the rejection of the null hypothesis. i.e, there is no moderating effect of occupation on any of the factors, which means occupation has no moderating effect on any of the variables—awareness, satisfaction, risk coverage, and security.

H6: There is no significant moderating role of education on the relationship between variables.

Table 6. Moderating role of occupation.

	Path Coefficients-diff	*p*-Value original 1- tailed	*p*-Value new
Awareness_ -> Purchase Decision_	0.063	0.37	0.739
Risk Coverage -> Purchase Decision_	0.147	0.213	0.426
Satisfaction -> Purchase Decision_	−0.2	0.846	0.307
Security -> Purchase Decision_	0.039	0.438	0.876

Since, As shown in the above **Table 7** the *p*-value>0.5 in all factors leaving one that is risk coverage.

It can be said that there is a moderating role of education between Risk Coverage and the Purchase Decision of Health Insurance. People of different educational background perceive different opinions on risk coverage and it moderate the intention to purchase of health insurance policy.

Table 7. Moderating role of education.

	Path Coefficients-diff	*p*-value original 1-tailed	*p*-value new
Awareness_ -> Purchase Decision_	0.351	0.027	0.054
Risk Coverage -> Purchase Decision_	−0.369	0.992	0.016
Satisfaction -> Purchase Decision_	0.237	0.079	0.157
Security -> Purchase Decision_	−0.381	0.968	0.063

6. Conclusion

The purpose of this research was to examine the factors influencing the buying intention of health insurance policies for residents of Raipur. The mediating effect of education and occupation on the relationships between variables influencing health insurance purchase behavior was investigated.

Most people have heard of health insurance. It was discovered that knowledge plays a crucial role in influencing the choice to purchase a health insurance policy. Satisfaction, security, awareness, and risk coverage have significantly influenced the buying intention toward health insurance policies. Results state

neither educational attainment nor professional status seems to influence people's opinions. All of Raipur's policyholders feel the same way about how education plays a role in deciding whether buy or not to buy health insurance.

Another crucial consideration while shopping for health insurance is the types of dangers that will be covered. The study's findings show the same thing. The relevance of risk coverage in health insurance, however, was found to vary greatly between people of various educational backgrounds. Policyholders from all walks of life and all industries think alike when it comes to the importance of risk coverage when deciding which health insurance plan to purchase.

Considerable weight is given to past satisfaction when deciding whether or not to renew health insurance. The above study found the same thing to be true. No two people with the same socioeconomic background (level of schooling and line of work) have significantly different views on the subject.

Health insurance provides individuals with a sense of security in terms of risk coverage in case of medical emergencies. The survey indicates that individuals in Raipur City perceive a sense of security and education level moderate the relationship between risk coverage and purchase intention.

Author contributions

Conceptualization, SB and AA; methodology, SB; software, S; validation, SB, AA and S; formal analysis, SB and AA; investigation, K and S; resources, K and S; data curation, JPT; writing—original draft preparation, AA; writing—review and editing, JPT; visualization, K; supervision, SB; project administration, SB and K; funding acquisition, JPT. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest

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