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Health Insurance Purchase Intention in Kathmandu

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ABSTRACT

As a principal methods of financing health care, health insurance is an important risk management tool for people. This research assesses the influence of different factors on the intention to purchase health insurance. The analysis showed that most of the factors have significant positive impact on the intention to purchase health insurance among the employees. Among the factors, attitude towards purchase of health insurance and subjective norm were found to have significant direct influence on the intention. Perceived usefulness of health insurance and insurance literacy both significantly influenced the attitude towards purchase of health insurance. Also, there was found to be a significant mediation role of attitude on the influence of both perceived usefulness and insurance literacy on the intention to purchase health insurance. Referring to the findings, in order to positively influence the purchase intention of health insurance, the insurance companies and the government should consider conducting awareness programs on health and financial risk management through health insurance, aimed at positively influencing the attitudes of people towards health insurance and perceived usefulness of health insurance, and improving insurance literacy.

1. INTRODUCTION

Health insurance has been recognized globally as one of the principal methods of financing healthcare (Duku, 2018); and is regarded as a "sustainable financial strategy" in order to bring reform in the healthcare system (Acharya et al., 2023). Provision of health insurance especially for the poor and vulnerable can play a vital role in financial risk protection, access to quality essential health-care services and safe, effective and affordable facilities (Ranabhat et al., 2020). Education level, exposure to mass media, current smoking, wealth status, and background are some of the important predictors of health insurance enrollment (Bhusal & Sapkota, 2021). Kathmandu valley hosts majority of the urban population of Nepal who have better access to resources and services. With majority of financial institutions focusing in Kathmandu, the people of Kathmandu have access to much better opportunities, especially in regards to insurance and other financial services. It would be expected that the people of Kathmandu make rational decisions regarding their own financial aspects. The Government of Nepal started implemented the National Health Insurance Program in April 2016 with a vision to improve the health of all Nepalese people (Ghimire et al., 2023). However, studies have suggested that Nepal's National Health Insurance Program is marked by low enrolment, high dropout, poor trust in health services and limited availability of drugs at health facilities (Ghimire et al., 2023). Compared to other South Asian countries, Nepal has seen a slow progress in the health insurance coverage (Ranabhat, Subedi & Karn, 2020).

The Theory of Planned Behavior(TPB), Ajzen (1991), which began in the field of psychology, has been adapted and used in many other related fields to address behavioral intention (Nasir et al., 2017). This study adapts the Theory of Planned Behavior(TPB) in order to assess whether the determinants of intention as suggested by the TPB, namely Attitude towards behavior, subjective or social norms and the perceived behavioral control influence the intention to purchase health insurance and the purchase behavior. Further, this study assesses the impact of different factors as suggested by the TPB, namely Attitude, Subjective Norm and Perceived Behavioral Control, on the intention to purchase health insurance among employees in Kathmandu. Further, this study analyzes the impact of perceived usefulness and insurance literacy on attitude towards health insurance, and the indirect effect of perceived usefulness and insurance literacy on the intention to purchase health insurance among employees in Kathmandu.

2. LITERATURE REVIEW

According to Ajzen (1991), the theory of planned behavior suggests three conceptually independent determinants of intention: attitude toward the behavior, subjective norm and the perceived behavioral control , and that the behavioral intention can be used directly to predict behavioral achievement. The Theory of Planned Behavior (TPB) is a relevant theory to base the understanding of purchase intention of various insurance products and to enhance the understanding of consumer behavior (Nasir et al., 2017).

Attitude toward the behavior (ATB) refers to the degree to which the behavior in question is evaluated favorably or unfavorably (Ajzen, 1991). Numerous studies have found that Attitude

has a significant impact on the intention to purchase insurance. Giri (2018) used the TPB as underlying theoretical model to test the effects of different factors on the behavioral intention regarding purchase of life insurance (used as proxy for purchase behavior in the study) in India, and found attitude to have significant effect on the purchase intention using Structural Equation Modelling. Brahmana et al. (2018); Al Mamun et al. (2021) adopted the framework provided by the TPB in order to assess the impact of factors on the health insurance purchase intention among Indonesians and Malaysian Working Adults respectively. The Partial Least Squares-Strutcural Equation Modelling (PLS-SEM) was used, and both studies found attitude (ATB) to have significant positive impact on the intention to purchase health insurance. In Azizam et al. (2020), the TPB was applied along with Protection Motivation Theory in order to predict the intention to purchase health and medical insurance. A multiple linear regression analysis concluded that attitude had significant positive impact on the purchase intention. Sun et al. (2023) also found Attitude to have a significant impact on the purchase intention of commercial health insurance.

Subjective norm (SN) is a social factor referring to the perceived social pressure to perform or not to perform the behavior (Ajzen, 1991). Subjective Norm was found to have significant impact on the intention to purchase health insurance by numerous studies, such as Brahmana et al. (2018); Azizam et al. (2020); Al Mamun et al. (2021). Brahmana et al. (2018) introduced internal influence and external influence as predictors of subjective norm. Behavior of relatives and friends was found to be a significant stimulus towards attitude and therefore indirectly affecting the purchase intention by Sun, Chen and Dou (2023). Subjective Norm was also found to have significant influence on the intention to purchase life insurance by Giri (2018) and travel insurance by Al Mamun et al. (2022).

Perceived behavioral control (PBC) is the perceived level of ease or difficulty of performing the behavior in question (Ajzen, 1991). An individual's past experiences, anticipated difficulties and obstacles may be reflected in this determinant. Brahmana et al. (2018); Al Mamun et al. (2021) found PBC to have significant influence on the intention to purchase health insurance. Similarly, Al Mamun et al. (2022) concluded that PBC had significant impact on the intention to purchase travel insurance. However, some studies such as Giri (2018); Azizam et al. (2020) found the relationship between the perceived behavioral control and the intention to purchase life insurance and health and medical insurance respectively to be statistically insignificant.

Various studies have expanded the original framework provided by the Theory of Planned behavior by considering additional relevant variables. Brahmana, R., Brahmana, R.K. and Memarista (2018) considered the moderation effect of health value, and included perceived usefulness (PU) and perceived future risk (PFR) as the predictors of Attitude towards health insurance. Al Mamun et al. (2021) extended the TPB by adding the variables Perceived Usefulness and Insurance Literacy as predictors of the intention to purchase health insurance. Al Mamun et al. (2022) used Insurance Literacy, Perceived Health Risk and Health Consciousness as the determinants of attitude toward travel insurance; and also considered the moderating effect of income on the relationship between purchase intention and behavior.

Sun et al. (2023) considered the moderating effect of environmental pollution perception on the relationship between the factors and purchase intention of commercial health insurance.

In the context of Nepal, numerous studies such as Ranabhat et al. (2020); Bhusal and Sapkota (2021); Acharya et al. (2023); Ghimire et al. (2023); Khanal et al. (2023) have focused on the National Health Insurance Program emphasizing the factors influencing the enrolment and dropout from the program in different districts.

The empirical evidence from foreign nations cannot be applied in Nepalese context. Furthermore, there has been limited research on the intention to purchase health insurance within Nepal by being based upon a planned behavior approach. Therefore, this study analyzes the influence of different factors on the attitude towards health insurance and the intention to purchase health insurance from a psychological perspective based upon the Theory of Planned behavior.

3. RESEARCH METHODS

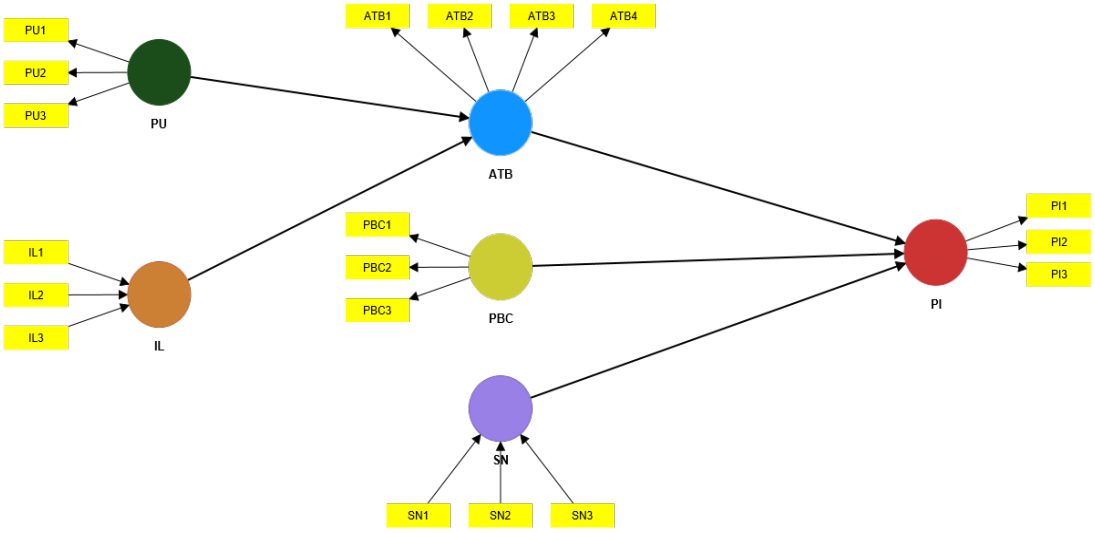
Measurement theory describes how latent variables are measured. A reflective measurement model will be used to model Attitude towards behavior (ATB), Perceived Behavioral Control (PBC), Perceived Usefulness (PU) and Health Insurance Purchase Intention (PI). A formative measurement model will be used to model Insurance Literacy (IL) and Subjective Norm (SN).

Structural Theory relates to the constructs and paths that show the relationships between the structural models. The location and sequence of the constructs are based on theory or the researcher's knowledge, with the sequence going from left to right where the variables on the left are independent and dependent variables on the right

The conceptual framework for the research is as follows:

Figure 1

Schematic Diagram of the Conceptual Framework



Adapted from Al Mamun et al. (2021)

Definitions of the Variables

Attitude towards Behavior (ATB): It refers to the attitude of an individual towards health insurance. The items that will be used to measure this reflective latent construct have been adopted from Al Mamun et al. (2021) and Sun et al. (2023).

ATB1: Think that buying health insurance is a good choice.

ATB2: Think that buying health insurance is valuable.

ATB3: Think that buying health insurance is essential for everyone.

ATB4: Think that it is worth spending a certain amount on health insurance.

Perceived Behavioral Control (PBC): It refers to the level of ease or difficulty in performing the behavior perceived by the individual. The items that will be used to measure this reflective latent construct have been adopted and adpated from Al Mamun et al. (2021).

PBC1: Have sufficient knowledge to purchase health insurance.

PBC2: Can handle any money, time, information related difficulties associated with buying decision.

PBC3: Have resourceful source(s) that can help me with health insurance purchasing.

Subjective Norms (SN): It refers to the perceived social pressure regarding the performance of the behavior. The items that will be used to measure this formative latent construct have been adopted from Brahmana et al. (2018) and Al Mamun et al.(2021).

SN1: Family or relatives (inner circle) think that purchasing health insurance is worth it.

SN2: Friends or social circle think that I should buy health insurance.

SN3: Colleagues or employers who influence my behavior will like me to buy health insurance.

Insurance Literacy(IL): It refers to the knowledge and awareness regarding insurance and the insurance products. The items that will be used to measure this formative latent construct have been adopted from Al Mamun et al. (2021). One additional item is added by the researcher.

IL1: The main purpose of insurance is to reduce the financial burden of risk faced by the consumer.

IL2: Non-disclosure or misrepresentation of information regarding the subject matter insured may cause to reject the insurance claim.

IL3: Health insurance contracts cover the risk of individual having to pay for medical and surgical expenses.

Perceived Usefulness (PU): It refers to the perception of the individuals regarding the usefulness of health insurance products. The items that is used to measure this reflective latent construct have been adopted from Brahmana et al. (2018) and Al Mamun et al. (2021).

PU1: Purchasing health insurance enables me to ease my future expense.

PU2: Purchasing health insurance makes my health benefits better.

PU3: Purchasing health insurance will enhance my dependents ability to cope with their financial needs.

Purchase Intention (PI): It refers to the intention of the individuals regarding the purchase of health insurance. The items that will be used to measure this reflective latent construct have been adopted from Brahmana et al. (2018), Al Mamun et al. (2021) and Sun et al. (2023).

PI1: Know the value of insurance, want to purchase as soon as possible.

PI2: Likely to purchase health insurance in the future.

PI3: Would consider purchasing if sufficient funds are available.

Data

This study used primary data collected through field survey using self-administered questionnaires consisting of 5-point Likert scale questions ranging from "Strongly disagree" to "Strongly agree". The questionnaire consisted of nominal, ordinal and interval questions in order to collect information regarding the purchase intention and other attributes of the respondents. The population of the study consisted of the employees in Kathmandu. Employees have been considered in this study as they are individuals with certain amount of earnings, and therefore, are more likely to consider purchasing health insurance as compared to non-earning individuals. The operations of the financial sector, including the insurance sector are largely centered in Kathmandu. The costs of medical and health care services are high, and in the absence of alternative financing method, the people must make Out of Pocket payments to access these services. However, even then the adoption of health insurance is low. Therefore, the study is focused on the health insurance purchase intention and the factors that influence it among the employed people of Kathmandu. Non-probability convenience sampling was used, and responses gathered from 230 employees was used for the analysis.

Model Specification for Data Analysis

Partial Least Squares Structural Equation Modelling, PLS-SEM, was used to test the relationship between variables as defined above. The model presented as follows has been adapted from Tachhekar and Khadka (2020):

The reflective measurement model is:

$$ATB1 = \lambda_{ATB1} ATB + \varepsilon_{ATB1}, \qquad ATB2 = \lambda_{ATB2} ATB + \varepsilon_{ATB2},$$

$$ATB3 = \lambda_{ATB3} ATB + \varepsilon_{ATB3}, \qquad ATB4 = \lambda_{ATB4} ATB + \varepsilon_{ATB4}$$

$$PBC1 = \lambda_{PBC1} PBC + \varepsilon_{PBC1}, PBC2 = \lambda_{PBC2} PBC + \varepsilon_{PBC2},$$

$$PBC3 = \lambda_{PBC3} PBC + \varepsilon_{PBC3}$$

$$PI1 = \lambda_{PI1} PI + \varepsilon_{PI1}, \qquad PI2 = \lambda_{PI2} PI + \varepsilon_{PI2},$$

$$PI3 = \lambda_{PI3} PI + \varepsilon_{PI3}$$

$$PU1 = \lambda_{PU1} PU + \varepsilon_{PU1}, \qquad PU2 = \lambda_{PU2} PU + \varepsilon_{PU2},$$

$$PU3 = \lambda_{PU3} PU + \varepsilon_{PU3}$$

For formative measures,

$$IL = \sum_k \lambda_{ILk} ILk + \varepsilon_{IL} \; ; k = 1,2,3$$

$$SN = \sum_k \lambda_{SNk} SNk + \varepsilon_{SN} \; ; k = 1,2,3$$

The structural model is:

For direct effect analysis, $PI = \lambda_{XPI}X + \varepsilon_{XPI}$ $ATB = \lambda_{YATB}Y + \varepsilon_{YATB}$

For indirect effect analysis, $PI = \lambda_{YATB}\lambda_{ATBPI}Y + \varepsilon_{PUPI}$, X= ATB, SN, PBC, Y= PU, IL

λ_k is the path coefficient for respective path k ε are the respective error terms

4. RESULTS AND DISCUSSIONS

Demographic Profile of Respondents

Of the respondents, 48.3% are female and 51.7% are male. The age of 37.0% of the respondents is in the range 20-29 years, 43.0% is in the range 30-39 years, 15.2% is in the range 40-49 years and 4.8% of the respondents are between 50-59 years. 42.2% of the respondents are single, whereas 57.8% are married. 63.5% come from a Nuclear family and 36.5% are from Joint family. 9.1% of the respondents have an educational level of +2 or equivalent; 52.2% have a Bachelor's degree and 38.7% of the respondents have a Master's degree or higher qualification. In terms of monthly income, 10.4% of the respondents earn below Rs. 20,000; 35.7% earn between Rs. 20,000 and Rs. 40,000; 36.5% earn between Rs. 40,000 and Rs. 60,000 and 17.4% earn above Rs. 60,000. 80.9% of the employees who responded are employed in a private firm; remaining work in other firms including 5.7% Government and 13.5% Public companies. 41.7% of the respondents work in the Education sector, 19.6% in the Financial sector including insurance, 13.5% work in health care, 15.7% in IT and Engineering and 9.6% are employed in other fields. Regarding the health care seeking behavior of the respondents, 51.7% seek health care regularly during illness, 25.7% go for regular health check-up and 18.3% only seek health care in emergency or severe condition. 20.9% of the respondents currently have an active health insurance, whereas the remaining 79.1% do not have a health insurance. Of the total respondents, 5.2% intend to buy health insurance within the next 3 months; 2.6% intend to buy health insurance within the next 3-6 months; 15.7% intend to buy health insurance within a year; 16.1% intend to buy health insurance after a year from now; 33% have not decided and 6.5% intend to never buy health insurance.

Common Method Bias (CMB)

Since data for all the variables used in this study have been collected from a single source, the results of the study could be affected by the Common Method Bias(CMB) (Al Mamun et al., 2021). Harman's single factor test can be used to examine whether there is an issue caused by CMB. CMB occurs when the estimates of the relationships between two or more constructs are biased because they are measured with the same method, and may occur due to different mood tendencies such as respondent's mood states or tendency to respond in a rather extreme way, etc.

The total variance explained by the first factor is 39.185%. A value of total variance explained by the first factor of less than 50% suggests that the study has no serious problems of Common Method Bias (Sun et al., 2023). Therefore, we proceed with the data analysis.

Assessment of the Measurement Model

There are total of four reflective latent constructs used in this study. The assessment of measurement model is performed to test the reliability and validity of these constructs.

Table 1

Construct Reliability and Validity of Reflective Constructs

Constructs	Cronbach's Alpha	rho_A	Composite Reliability (rho_c)	Average variance extracted (AVE)
ATB	0.852	0.854	0.852	0.590
PBC	0.804	0.806	0.804	0.579
PI	0.806	0.814	0.808	0.586
PU	0.808	0.824	0.810	0.591

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

From Table 4.1, we see that for all constructs, Composite Reliability(rho_c) is greater than 0.7, Cronbach's Alpha is greater than 0.7, and rho_A is greater than 0.7. This confirms the internal consistency for the reflective constructs. Further, the Average Variance Extracted (AVE) is greater than 0.5. So, we can conclude that the convergent validity of these reflective constructs is confirmed.

To assess the discriminant validitiy of the reflective constructs, Fornell and Larcker method, and HTMT ratio and loading and cross-loading criterion is used.

From table 4.2, we see that the square root of AVE (values along the diagonal) for each variable exceeded its correlation with any other latent variable. In table 4.3, we see that all the HTMT scores are all below 0.85. Both Fornell-Larcker criterion and HTMT Ratio support the divergent validity of the construct.

Table 2

Discriminant Validity – Fornell-Larker Criterion

Constructs	ATB	PBC	PI	PU
ATB	**0.768**			
PBC	0.505	**0.761**		
PI	0.681	0.514	**0.765**	
PU	0.582	0.555	0.735	**0.769**

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

Table 3

Discriminant Validity – Heterotrait-Monotrait (HTMT) Ratio

Constructs	ATB	PBC	PI	PU
ATB				
PBC	0.505			
PI	0.681	0.515		
PU	0.582	0.563	0.748	

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

To further increase the robustness of the discriminant validity, loading and cross-loading criteria is checked. Under this criterion, an indicator's loading with its construct must be higher than its cross-loadings with other constructs. This is supported by values in table 4.

Table 4

Discriminant Validity – Loading and Cross-loading Criterion

Constructs	Indicator	ATB	PBC	PI	PU
Attitude towards Behavior ATB	ATB1	**0.750**	0.364	0.511	0.447
	ATB2	**0.817**	0.411	0.544	0.456
	ATB3	**0.783**	0.438	0.517	0.506
	ATB4	**0.719**	0.334	0.521	0.377
Perceived Behavioral Control PBC	PBC1	0.424	**0.717**	0.369	0.426
	PBC2	0.410	**0.802**	0.412	0.455
	PBC3	0.320	**0.760**	0.391	0.386
Purchase Intention PI	PI1	0.571	0.450	**0.825**	0.580
	PI2	0.538	0.346	**0.779**	0.565
	PI3	0.446	0.383	**0.684**	0.544
Perceived Usefulness PU	PU1	0.514	0.422	0.569	**0.883**
	PU2	0.410	0.424	0.560	**0.703**
	PU3	0.411	0.444	0.575	**0.706**

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

For the formative constructs, the assessment of measurement model involves checking the Variance Inflation Factor, VIF and analysis of statistical significance of the loadings.

Table 5

Statistical significance of Indicator weights and Collinearity of Indicators

Construct	Indicator	Weight	T statistics	p-value	VIF
Insurance Literacy IL	IL1	0.457	3.757	0.000	1.289
	IL2	0.315	2.261	0.000	1.462
	IL3	0.477	2.261	0.000	1.543
Subjective Norm SN	SN1	0.527	3.289	0.001	1.476
	SN2	0.332	2.027	0.043	1.938
	SN3	0.327	1.762	0.078	1.967

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

The VIF values for each of the indicator is less than 3. All the indicator weights for Insurance Literacy IL are significant. For subjective norm, other indicator weights are significant except for SN3. However, as suggested by Hair et al. (2021), insignificant indicator weight does not necessarily provide evidence of poor measurement model quality. The absolute contribution, determined by the formative indicator loading should be considered for further assessment.

Table 6

Statistical significance of Indicator loadings

Construct	Indicator	Loading	T statistics	p-value
Insurance Literacy IL	IL1	0.788	9.291	0.000
	IL2	0.747	8.261	0.000
	IL3	0.847	13.391	0.000
Subjective Norm SN	SN1	0.869	11.221	0.000
	SN2	0.821	10.471	0.000
	SN3	0.825	9.468	0.000

PLSc Algorithm, Smart PLS, *Source:* Field Survey 2023

Indicator loadings of 0.5 or higher suggest sufficient absolute contribution, and therefore although the indicator with weight that is not statistically significant lacks relative contribution towards its construct as determined by the indicator weight, the indicator is kept in the model (Hair et al., 2021). The statistical loading for the indicator SN3 is 0.825 (>0.50) and statistically significant.

Therefore, the indicator SN3 is included and further analysis is performed.

Structural Model

The assessment of Structural Model involves the assessment of coefficient of determination, R-squared and the predictive relevance, Q-squared.

Table 7

Model Fit

Endogenous Latent Construct	Adjusted R-squared	Q-squared
Purchase Intention(PI)	0.547	0.359
Attitude Towards Behavior(ATB)	0.366	0.266

PLSc Algorithm and PLSpredict, Smart PLS, *Source:* Field Survey 2023

The adjusted R-squared of the Purchase Intention(PI) is 0.547 which indicates that all the predictors explained 54.7% of the variance in Purchase Intention(PI). This value indicates moderate impact of the predictors on the PI. Similarly, the adjusted R-squared for Attitude Towards Behavior(ATB) is 0.366 which indicates that the predictors explain 36.6% of the variance in Attitude towards Behavior. The value of 0.366 indicates weak impact of the predictor on Attitude towards Behavior. This means that Perceived Usefulness and Insurance Literacy only weakly explains the variation in Attitude towards Behavior.

In order to test the predictive accuracy of the model, Q-squared value is used. For both Purchase intention and attitude towards behavior, Q-squared values are above 0. This indicates that the models' predictive relevance for the endogenous latent constructs is supported.

Hypothesis testing

The statistical significance and relevance of the path coefficients are calculated by carrying out the bootstrapping procedure using 5000 resamples. Following are the hypotheses developed in this study.

Hypothesis 1 (H1): Attitude towards Behavior has an impact on the Purchase Intention.

Hypothesis 2 (H2): Perceived Behavioral Control has an impact on the Purchase Intention.

Hypothesis 3 (H3): Subjective Norm has an impact on the Purchase Intention.

Hypothesis 4 (H4): Insurance Literacy has an impact on the Attitude towards Behavior.

Hypothesis 5 (H5): Perceived Usefulness has an impact on the Attitude towards Behavior.

Hypothesis 6 (H6): Attitude towards Behavior mediates the relationship between Perceived Usefulness and the Purchase Intention.

Hypothesis 7 (H7): Attitude towards Behavior mediates the relationship between Insurance Literacy and the Purchase Intention.

The results of the bootstrapping procedure are displayed in table 8.

Table 8

Hypothesis Testing

Hypothesis	Relationship	Std. Beta	Std. Error	t-Value	*P* Value
H1	ATB→PI	0.515	0.093	5.513	**0.000**
H2	PBC→PI	0.103	0.094	1.105	0.269
H3	SN→PI	0.273	0.076	3.589	**0.000**
H4	IL→ATB	0.243	0.107	2.268	**0.023**
H5	PU→ATB	0.420	0.108	3.896	**0.000**
H6	PU→ATB→PI	0.216	0.078	2.771	**0.006**
H7	IL→ATB→PI	0.125	0.057	2.192	**0.028**

Note: ATB = Attitude Towards Behavior, PBC = Perceived Behavioral Control, SN = Subjective Norm, IL=Insurance Literacy, PU = Perceived Usefulness and PI = Purchase Intention, Bootstrapping, Smart PLS, *Source:* Field Survey 2023

From the table 4.11, we can see that impact of Attitude towards Behavior and Subjective Norm on the Purchase Intention is significant and positive.

Attitude towards Behavior has a significant positive impact on the purchase intention ($\beta = 0.515, p < 0.01$) at 1% significance level. Subjective Norm has a significant positive impact on the purchase intention ($\beta = 0.273, p < 0.01$) at 1% significance level. The effect of Perceived Behavioral Control(PBC) on Purchase Intention appears positive as suggested by the β of 0.103. However, this relationship is insignificant as indicated by the large p-value (>0.10).

The impact of Insurance Literacy on Attitude towards behavior is significant and positive as indicated by the beta and p-value $\beta = 0.243, p < 0.01$. The impact of Perceived Usefulness on Attitude towards behavior is significant and positive as indicated by the beta and p-value $\beta = 0.420, p < 0.01$. Further, in terms of mediation Attitude towards Behavior significantly and positively mediates the relationship between Insurance Literacy and the Purchase Intention($\beta = 0.125, p < 0.01$) , and similarly mediates the relationship between Perceived Usefulness and the Purchase Intention value ($\beta = 0.216, p < 0.01$).

Therefore, it can be concluded that hypotheses H1, H3, H4, H5, H6 and H7 are supported, whereas hypothesis H2 is not supported.

This outcome is in line with the study by Giri (2018) of consumer behavior in life insurance in India, in which perceived behavioral control had an insignificant impact on the buying decision. Similarly, Azizam et al. (2020) also found that the impact of perceived behavioral control on the intention to purchase health and medical insurance was statistically insignificant.

Further, Multi-Group Analysis(MGA) was performed to test whether there is variance in the significance of hypothesized relationships for different groups. The table 4.9 (a) presents the results of multi-group comparisons on the basis of respondent having or not having purchased health insurance. The table 4.9(b) and 4.9(c) present the results of multi-group comparisons on the basis of income level of the respondents. The table 4.9 (d) presents the results of multi-group comparisons on the basis of frequency of seeking health care. This multi-group comparison is based on the difference between those who go for regular check-up and those who seek health care only in emergency or severe conditions. Similarly, comparison between those who go for regular check-up and those who seek health care regularly during illness has been made.

Table 9 (a)

Multi-Group Analysis based on Purchase of Health Insurance

Hypothesis	**Relationship**	**Path coefficients Yes-No**	***p* Value**	**Decision**
H1	ATB→PI	-0.258	0.184	Not different
H2	PBC→PI	0.131	0.318	Not different
H3	SN→PI	0.026	0.825	Not different
H4	IL→ATB	-0.253	0.128	Not different
H5	PU→ATB	-0.136	0.349	Not different
H6	PU→ATB→PI	-0.211	0.057	Not different
H7	IL→ATB→PI	-0.156	0.150	Not different

MGA, SmartPLS, *Source*: Field Survey 2023

The results of MGA shown in Tables 4.9(a) suggests the following:

There is no significant variance in the relationships between those who have general knowledge on health insurance and those who have purchased health insurance (all p-values greater than 0.1).

Table 9 (b)

Multi-Group Analysis based on Income

Hypothesis	**Relationship**	**Income Level (1)-(2) (p-val)**	**Decision**	**Income Level (1)-(3) (p-val)**	**Decision**
H1	ATB→PI	0.764 **(0.024)**	**Different**	0.120 (0.478)	Not different
H2	PBC→PI	-0.875 **(0.014)**	**Different**	-0.197 (0.135)	Not different
H3	SN→PI	0.439 (0.209)	Not different	0.178 (0.262)	Not different

H4	IL→ATB	0.121 (0.874)	Not different	-0.311 (0.145)	Not different
H5	PU→ATB	0.267 (0.288)	Not different	0.548 **(0.003)**	**Different**
H6	PU→ATB→PI	0.371 **(0.025)**	**Different**	0.287 **(0.009)**	**Different**
H7	IL→ATB→PI	0.140 (0.376)	Not different	-0.098 (0.405)	Not different

Note: (1)=Above 60000, (2)=Below 20000, and (3)=20000-40000, MGA, SmartPLS, *Source*: Field Survey 2023

Table 4.9(c)

Multi-Group Analysis based on Income

Hypothesis	**Relationship**	**Income Level (4) -(2) (p-val)**	**Decision**	**Income Level (4) -(3) (p-val)**	**Decision**
H1	ATB→PI	0.676 **(0.041)**	**Different**	0.032 (0.823)	Not different
H2	PBC→PI	-0.519 (0.067)	Not Different	0.159 (0.252)	Not different
H3	SN→PI	0.132 (0.800)	Not different	-0.128 (0.349)	Not different
H4	IL→ATB	0.187 (0.773)	Not different	-0.245 (0.202)	Not different
H5	PU→ATB	0.129 (0.604)	Not different	0.410 **(0.017)**	**Different**
H6	PU→ATB→PI	0.261 (0.068)	Not different	0.178 (0.052)	Not different
H7	IL→ATB→PI	0.149 (0.312)	Not different	-0.089 (0.384)	Not different

Note: (2)=Below 20000, (3)=20000-40000 and (4)=40000- 60000, MGA, SmartPLS, *Source*: Field Survey 2023

The p-values of less than 0.05 for the differences in path coefficients suggest significant variance in the relationships based on the income levels. Therefore, the results of MGA shown in 4.15(b) can be summarized as follows:

There is significant variance in the relationships between Attitude towards Behavior(ATB) and Purchase Intention(PI) when comparing the results of those with income Above 60000 and those with income level below 20000 and comparing the results of income level between 40000-60000 and income level below 20000. There is significant variance in the relationship

between Perceived Behavioral Control(PBC) and Purchase Intention(PI) when comparing the results of those with income Above 60000 and those with income level below 20000. Further, there is significant variance in the relationships between Perceived Usefulness(PU) and Attitude towards Behavior(ATB) when comparing the results of those with income Above 60000 and those with income level between 20000-40000 and comparing the results of income level between 40000-60000 and income level between 20000-40000. Similarly, there is significant variance in the indirect relationship between Perceived Usefulness(PU) and Purchase Intention(PI) when comparing the results of those with income Above 60000 and those with income level below 20000 and income level 20000-40000. Hence, we can say that Income Level has a significant moderating effect in these relationships.

The path differences for all other instances are not significant as suggested by the p-values of greater than 0.05.

Table 4.9 (d)

Multi-Group Analysis based on Frequency of seeking Health care

Hypothesis	Relationship	Path coefficient (RC-OE)	p-value	Decision	Path coefficient (RC-RI)	p-value	Decision
H1	ATB→PI	0.117	0.617	Not different	0.053	0.720	Not different
H2	PBC→PI	0.113	0.529	Not different	0.143	0.321	Not different
H3	SN→PI	-0.167	0.422	Not different	-0.157	0.360	Not different
H4	IL→ATB	-0.150	0.530	Not different	0.109	0.613	Not different
H5	PU→ATB	0.255	0.285	Not different	0.154	0.434	Not different
H6	PU→ATB→PI	0.145	0.242	Not different	0.089	0.482	Not different
H7	IL→ATB→PI	-0.018	0.867	Not different	0.062	0.551	Not different

Note: RC=Regular Check-up, RI= Regular during illness, OE= Only in emergency or severe condition, MGA, SmartPLS, *Source*: Field Survey 2023

The results of MGA shown in 4.15(c) suggests the following:

There is no significant variance in the relationships between those who go for regular check-ups and those who only seek health care during emergency or severe conditions (all p-values greater than 0.1). Similarly, there is no significant variance in the relationships between those who seek health care regularly during illness and those who only seek health care during emergency or severe conditions (all p-values greater than 0.1).

Hence, it can be concluded that there is a significant direct as well as indirect relationship between the factors and the purchase intention of health insurance. There is a significant direct impact of perceived usefulness and insurance literacy on the attitude towards behavior.

Further, the following hypothesis is rejected:

Perceived Behavioral Control has an impact on the purchase intention of health insurance.

5. CONCLUSION AND IMPLICATION

This study has adapted the Theory of Planned Behavior to assess the impact of the factors namely attitude towards behavior, perceived behavioral control and subjective norm on the purchase intention of health insurance. Further, other two factors: perceived usefulness of health insurance and individual's insurance literacy have been included in order to better understand the decision to purchase health insurance.

The results of SEM show that the attitude towards health insurance purchase and subjective norms regarding the purchase of health insurance have a significant positive impact on the purchase intention. Further, the results show that the perceived behavioral control which relates to the perceived level of ease or difficulty in the buying process had no significant impact on the intention to purchase health insurance. Perceived usefulness of health insurance products has a significant and positive impact on the attitude towards the purchase of health insurance. And attitude towards behavior significantly mediates the relationship between the perceived usefulness and purchase intention. There is a significant indirect relationship between the perceived usefulness and the purchase intention. Similarly, Insurance Literacy has a significant and positive impact on the attitude towards the purchase of health insurance. And attitude towards behavior significantly mediates the relationship between the insurance literacy and purchase intention. There is a significant indirect relationship between the perceived usefulness and the purchase intention. Therefore, it can be concluded that there is a significant direct and indirect impact of the various factors on the purchase intention; and that there is a significant impact of perceived usefulness and insurance literacy on attitude towards purchase of health insurance.

The findings of this study have implications as they provide insights into the purchase intention regarding health insurance from a psychological point of view. First, the results show that attitude of the people towards health insurance and subjective norms regarding health insurance positively impacts the intention to purchase health insurance. In terms of attitude towards health insurance, the government, as well as the insurance companies should focus on awareness or education programs regarding health insurance that positively builds the people's attitudes. The opinion of others such as social groups and family members creates a subjective pressure or norm regarding the behavior or activity. Since the findings show that subjective norm has significant positive impact on purchase intention, it means that the opinion of others also influence an individual's intention to purchase health insurance. The health insurance companies as well as the government, Insurance Authority

and the Health Insurance Board should incorporate this into their planning and product development. Further, perceived usefulness and insurance literacy significantly affects the attitude towards behavior and indirectly has a significant impact on the purchase intention of health insurance. So, the government and insurance companies should organize programs centered around the usefulness of health insurance in terms of financial risk management, as well as the importance of health insurance as a method of financing health care. Further, insurance literacy is significant factor that affects both the attitude towards health insurance, and the purchase intention. Therefore, the Insurance Authority, government and insurance companies should work towards improving insurance literacy among the people. Improving insurance literacy will help in attaining wider reach of insurance services among the public.

Collectively, these activities will be able to influence the people's intention to purchase health insurance, which in turn will lead to the increase in health insurance penetration and improve the overall accessibility of health facilities among the people.

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