Consumers' Decision on Perspective of Rationality Economics and Willingness to Demand Health Insurance

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Abstract

Behavioral economics responds that individuals frequently do not act rationally in the economic logic. This research specifies a review of behavioral economics and shows the use in health care to improve individuals' decisions and demand for health insurance. The purpose of this study is to examine the factors of consumer behavior that impact their perception of health insurance and their willingness to purchase health insurance. The data collection is performed through an internet survey with the use of a self-administered questionnaire comprising ranking and Likert scale questions. Data has been reduced using a random mapping supplementary method. The original accuracy final dimensionality is sufficiently large and thus only 100 sample sizes have been used. The data was analyzed through different descriptive statistical tools and structural equation modeling was used to show the causal relationship between the identified variables. Most of the identified factors were expected to significantly impact the consumer's willingness to purchase. Among the factors, the most important factor was found to be the consumer's perception which was found to have a significant mediation role on features of the policy, attributes of the company, and governmental role. Also, there was found to be a significant mediation role of individual background on the relationship between personal perception and willingness to purchase health insurance. In conclusion, insurance companies and the government should take a joint initiative in conducting awareness programs on risk management through health insurance. The existing health insurance products should be redesigned focusing on the perpetual factors that increase the likelihood of willingness to purchase. The government should actively monitor insurance practitioners to control as well as innovate suitable, adequate, and affordable health insurance plans.

Key Words: *Behavioral economics, Consumers, Rational decision, Health-insurance, & Willingness to demand.*

JEL Classification**:** *D10, I13, C34 & R22.*

1. INTRODUCTION

A consumer must give up preferably consumption of anything, and in the case of health insurance, that objectively is the premium payment. Although the nature of the premium payment is both consumers and economists, what is not clear is the nature of the benefits that consumers receive in return. This represents the central objective and the challenge to health insurance theory. An actuarially fair health insurance contract is therefore purchased because the utility gained from the additional income before sickly exceeds the utility lost from paying the premium if the consumer remains healthy (Nyman, 2014).

Different economic issues linked to the economic effects of social health insurance to health care financing and health insurance may support or hamper the achievement of health objectives. As resources are scarce, they mustn't be spent on care that has little effect on the achievement of the main goals of health policy. There are strong positive effects on macroeconomic and health investments that are important for economic growth (Normand, Weber, Carrin, Doetinchem, Mathauer, Adlung, & Schmidt, 2009).

The demand for healthcare comes from the desire of the consumer to gain good health. Most people prefer being healthy to being sick. Another factor that makes health care different from most other goods and services is that it is simultaneously an investment. The money consumer spends on being healthy today will also benefit the consumer in the future. Another key characteristic of health care is that demand is relatively inelastic (Babalola, 2017).

Assuming economic theory describes consumer's demand desire to pay a price for goods or services. Marshallian demand approach defined by Babalola (2017) "…other things held constant, a rise in the price of a good or service will reduce demand and a decrease in the price of a good or service will increase demand". The perspective of economics is that the choice to buy insurance encompasses the desire to insure against the risk of suffering a loss. The utility theory assumes that individuals are rational and display a reasonable degree of risk aversion. They are additionally forward-looking which means that they can reflect on events in the near and far future and decide, therefore (Suter, Duke, Annette, Joshi, Rzepecka, Lechardoy, Hausemer, Wilhelm, Dekeulenaer, & Lucica, 2017).

Nepal has made notable progress in improving the population's o. However, the overall progress in health outcomes masks the significant equity gap that continues to persist. Many citizens still face several financial, socio-cultural, geographical, and institutional barriers to accessing quality health care services (NHRC, 2018). In total health status, only 61.8% of Nepalese have access to health facilities within a 30-minute

radius. Constant decrement in the health budget over the last 5 years shows that Nepal has to find new ways to improve the health sector. (Mishra, Khanal, Karki, Kallestrup, Enemark, 2015). In February 2015, the Government of Nepal formed a Social Security Health Development Committee, a legal framework to start implementing the Social Health Security Scheme, which is a social health insurance scheme that aims to ensure an increase in access, utilization, and quantity of health services and to increase the financial protection by promoting pre-payment and risk pooling in the health sector. It started with three districts in 2015- *Baglung*, *Kaili*, and *Illam*. As of the fiscal year 2015/16, implemented in 15 out of 38 districts which was the set target, with a countable average of 5% population enrolled and it is aimed to reach 100% within 2030. Similarly, Gandaki Province, in June 2020, announced that it is set to provide health insurance coverage to all citizens of the province within the next three years. In line with this, Rs. 20 million has been allocated by the provincial government for the same.

The people of the Kathmandu valley belong to the well opportune people of Nepal and in the valley itself, the medical bills are skyrocketing. Yet, all the forms of insurance payments with no saving component are taken as a financial burden by the people. Therefore, with the need of making people aware of the advantages that health insurance brings about, it has become essential to study their behavior when it comes to health insurance. The ambition of this research is to survey the consumer's decision-making from the perspective of rationality economics and willingness to demand health insurance policy.

2. LITERATURE REVIEW

Goel, (2014) examines the barriers to health insurance and separates them into variables that provide a strong perception of the major hurdles in buying health insurance. Analysis of the data assumed the magnitude of the different perceptions that people had about health insurance and its simple percentage-based analysis possessed general acceptability. Likewise, in Adhikari and Gahatraj, 2019 there is a significant association between health insurance with socio-demographic, health-related factors, and awareness level was also studied and highly significant. A consumer Demand for Insurance chooses between two insurance options. Define w_i as a consumer's willingness to pay for plan a relative to plan b. Denote a consumer's true value for plan a relative to plan b as v_i. The research findings define true value as the ex-ante willingness to pay for a consumer with no information frictions or behavioral biases (Chandra, Handel, & Schwartzstein, 2018).

Behavioral economics could suggest whether consumers would respond better to a subsidy on the first product or a tax on the second product. By taking advantage of insights into how people really behave and translating that into policy interventions,

behavioral economics has a critical role to play in improving health and health care (Rice, 2013). Health economics and outcomes researchers generally measure value using the tool of Cost-effectiveness analysis. Consumers making decisions about the purchase of private health insurance or out-of-pocket spending may vary in their objectives and preferences. The findings of a research result by Garrison, Pauly, Willke, and Neumann, (2018), they will choose different health plans that have different willingness to pay for there was a return to the use of the cost-per-quality- adjusted life-years and so different cost-effectiveness thresholds.

The most influenced factor for purchasing health insurance was to avail comprehensive coverage provided by insurers for which respondents were given the highest preference (1st) followed by some modifications in policy options provided by insurers of public and private companies (2nd). Gajula (2019), Bansal, Goel, Shewtank, Singh, Abhishek, Singh, Anurag Ambroz, Goel, Anil K., Naik, Chhoker, & Goel, Shelesh (2015) examine the awareness level of the people and find out their perceptions regarding their willingness to join and pay for health insurance. The latest research revealed that financial literacy does not necessarily translate to insurance literacy, and only a more specialized education can improve insurance literacy. The research findings that consumers' insurance literacy is quite low. The study revealed that there is a significant difference in the level of insurance literacy, trustful belief, and attitude toward insurance between the two groups of individuals who are having insurance and not having groups (Weedige, Ouyang, Gao & Liu, 2019).

Health policy makers' decisions are influenced by the subjective manner in which they individually process decision-relevant information rather than on the objective merits of the evidence alone. As such, subsequent health policy decisions do not necessarily achieve the goals of evidence-based policymaking, such as maximizing health outcomes for a society based on valid and reliable research evidence (McCaughey & Bruning (2010).

How do these theoretical assumptions tell us everything about the actual world? In the absence of empirical work, it is challenging to say. The market they focused most of the analysis, that for insurance, is probably not competitive; whether the used model may partially explain this fact is practically unfeasible to say (Rothschild & Stiglitz, 1976). The tentative logical reasoning is deductive-hypothetical to understanding the consumers' perception in Kathmandu city, how far they are interested in buying health insurance, and the factors that affect their perception which in turn affect their willingness as well as their ability to buy. Moreover, those numerous studies were descriptive. Further, along with identifying the factors affecting the consumers'

perception levels and willingness to purchase health insurance, the causal relationships among the factors are also needed to be measured and analyzed.

3. DATA AND METHODOLOGY

3.1. Measurement Theory

Measurement theory specifies the latent variables to be measured. Generally, there are two different ways to measure unobservable variables. One approach is referred to as reflective measurement, and the other is a formative measurement *($\xi = \Upsilon_1 X_1 + \Upsilon_2 X_2 + \Upsilon_3 X_3 + \Upsilon_4 X_4 + \zeta$).* Constructs Individual Background (IB) and Personal Perception (PP) in Exhibit 3.1 are modeled based on a formative measurement model. The directional arrows are pointing from the indicator variables (IB1 to IB3 for IB and PP1 to PP4 for PP) to the construct, indicating a causal relationship in that direction (Coltman, Devinney, Midgley, & Venaik, 2008; Hair, Hult, Ringle, & Sarstedt, 2017; Eboli, Forciniti, & Mazzulla, 2017).

In contrast, Government Regulation (GR), Features of Policy (FP), Attributes of Company (AC), and Willingness to Purchase (WP) in the Exhibit are modeled based on a reflective measurement model. With reflective indicators, the direction of the arrows is from the construct to the indicator variables, indicating the assumption that the construct causes the measurement of the indicator variables *($X_1 = \lambda_1 \zeta + \delta_1$, $X_2 = \lambda_2 \zeta + \delta_2$, $X_3 = \lambda_3 \zeta + \delta_3$, $X_n = \lambda_4 \zeta + \delta_n$).* The approach to modeling constructs (i.e., formative vs. reflective and multi-items vs. single items) is an important consideration in developing path models (Coltman, Devinney, Midgley, & Venaik, 2008; Hair, Hult, Ringle, & Sarstedt, 2017; Eboli, Forciniti, & Mazzulla, 2017).

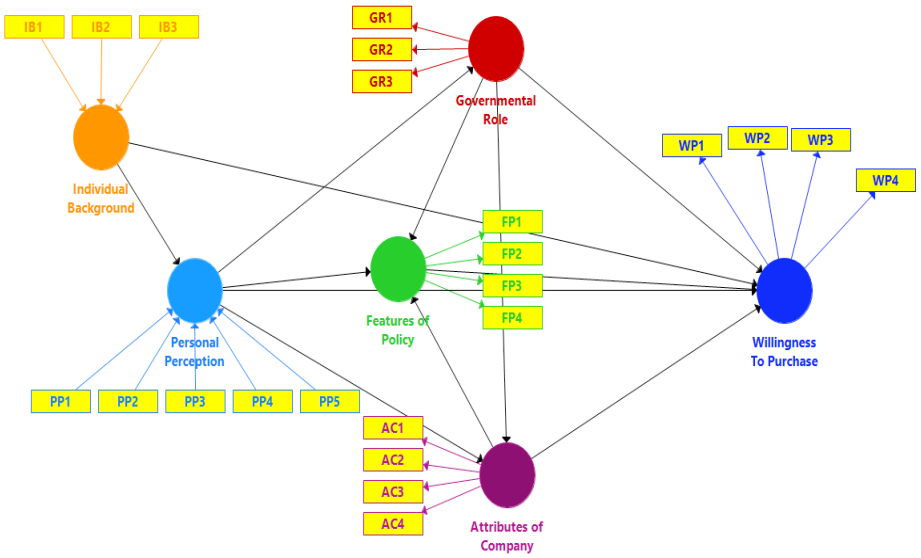
3.2. Structural Theory

Relating to the structural theory that constructs and the path shows the relationships between the structural models. The location and sequence of the constructs are based on theory or the researcher's experience and accumulated knowledge. When path models are developed, the sequence is from left to right. The variables on the left side of the path model are independent, and any variable on the right side is the dependent variable. Moreover, variables on the left are shown as sequentially preceding and predicting the variables on the right. However, variables may also serve as both the independent and dependent variables (Coltman, Devinney, Midgley, & Venaik, 2008; Hair, Hult, Ringle, & Sarstedt, 2017; Eboli, Forciniti, & Mazzulla, 2017).

3.3. Conceptual Framework

Formative and reflective path models are diagrams used to visually display the hypotheses and variable relationships that are examined when structural equation modeling (SEM) is applied. Structural inner model of formative and measurement model reflective (including latent variable) measurement of exogenous and indigenous variables (Eboli, Forciniti, & Mazzulla, 2017) is Exhibited in 3.1.

Exhibit 3.1: Structural Model: Rational Decision and Willingness to Purchase



3.4. Operational Characterization of Variables

IB: This is the latent variable which refers to the attributes of the individual that play a determining role on h/is perception pose a barrier are also one of the determining factors on the perception and willingness of an individual. Since it is formative, it has the following indicators: IB1: purchase health insurance policy according to their income level and availability of funds, IB2: consumers subscribe to health insurance according to recommendations from their family and friends, and IB3: the formal education they have on the purpose of health insurance makes them buy health insurance.

PP: The individual's proclivities concerning health insurance are an important consideration in their willingness to subscribe to a health insurance policy. It is an indicator of how people are willing to acquire health insurance. In this research, it is

tested whether personal perception is predicted by different factors namely: Individual Background, Features of policy, Attributes of Insurance companies, and Governmental Contribution. It is a formative latent variable and its indicators are PP1: positive attitude toward health insurance plays a significant role, PP2: awareness about the purpose and benefit of health insurance, PP3: insurance companies are honest and trustworthy, PP4: With health insurance, obtain a sense of security and PP5: not prone to any health risks to buy health insurance.

FP: Features of the policy refer to the characteristics that the health insurance policy possesses which is also a reflective latent variable and its indicators are: FP1: the health insurance policy that is chosen has comprehensive coverage, FP2: acquire a health insurance policy due to its reliability and flexibility, FP3: the saving component in their health insurance policy makes them acquire the particular policy and FP4: willing to purchase health insurance as the services from the linked hospitals are satisfactory.

AC: It is also a reflective latent variable that denotes the attributes along with the services provided by the insurance companies that offer health insurance policies which have the following indicators: AC1: the accessibility of insurance companies makes them acquire health insurance, AC2: willingness to purchase health insurance policy as long as it has easy and hassle-free claim settlement process, AC3: approachable agents and staffs encourage the consumer to buy health insurance and AC4: subscribe to the company where someone knows works.

GR: It is the final reflective latent variable that denotes the contribution of the government which is also an important consideration in an individual's perception of health insurance. Its indicators are GR1: government subsidies in purchasing health insurance motivate people to buy health insurance, GR2: subscribe to health insurance as there is governmental regulation in health insurance, GR3: willing to purchase health insurance as there is governmental support to health insurance companies.

WP: Willingness to purchase refers to the intention of the individuals to purchase health insurance or not. It is a reflective latent construct and has the following indicators: WP1: likely to purchase health personal insurance plans, WP2: the value of health insurance and want to purchase as soon as possible, WP3: knowledge of how a health insurance plan is better than a savings account or other safety property and WP4: predict, given the chance, and will purchase a health insurance plan in future.

Data

This research is made using qualitative data on a five-point measurement of scale. The one end is assigned to one extreme of the attitude continuum and the five to the other; this should be done consistently for each of the statements which are included in the scale (Likert, 1932). A self-administered questionnaire comprising various selections to order to collect information about the consumer perception of health insurance. The appropriate examination is a combination of methods, with conducting the qualitative method of study.

The data is representation non-data adaptive. Nearby 5000 data have been collected from Kathmandu valley. Collected data is showing the inner similarity between the mapped vectors follows closely the inner outcome of the original vectors. In the text the mining context, data is demonstrated the document classification accuracy obtained after the dimensionality has been reduced using a random mapping supplementary method. It is better than the original accuracy if the final dimensionality is sufficiently large and thus only 100 sample sizes have been used (100 out of 5000).

Model Specification

In this study, we used the PLS-SEM model to analyze the support. PLS-SEM model undertaking to perform the several latent constructs are measured by several indicators as confirmatory analysis (Weedige, Ouyang, Gao, & Liu, 2019).

The reflective measurement model

$$WP1 = \lambda_{WP1} WP + \varepsilon_{WP1} \qquad AC1 = \lambda_{AC1} PF + \varepsilon_{AC1}$$
$$WP2 = \lambda_{WP2} WP + \varepsilon_{WP2} \qquad AC2 = \lambda_{AC2} PF + \varepsilon_{AC2}$$
$$WP3 = \lambda_{WP3} WP + \varepsilon_{WP3} \qquad AC3 = \lambda_{AC3} PF + \varepsilon_{AC3}$$
$$WP4 = \lambda_{WP4} WP + \varepsilon_{WP4} \qquad AC4 = \lambda_{AC4} PF + \varepsilon_{AC4}$$
$$PF1 = \lambda_{WP1} PF + \varepsilon_{WP1} \qquad GR1 = \lambda_{GR1} PF + \varepsilon_{GR1}$$
$$PF2 = \lambda_{WP2} PF + \varepsilon_{WP2} \qquad GR2 = \lambda_{GR2} PF + \varepsilon_{GR2}$$
$$PF3 = \lambda_{WP3} PF + \varepsilon_{WP3} \qquad GR3 = \lambda_{GR3} PF + \varepsilon_{GR3}$$
$$PF4 = \lambda_{WP4} PF + \varepsilon_{WP4}$$

The formative measurement model,

$$IB \sum_{i=1}^{3} \lambda_{IBi} IBi + \varepsilon_{IB}$$
$$PP \sum_{j=1}^{5} \lambda_{PPi} PPi + \varepsilon_{PP}$$

The structural model:

Direct effect analysis,

$$WP = \lambda_{XWP} X + \varepsilon_{XWP}$$
$$PP = \lambda_{IBPP} IB + \varepsilon_1$$
$$FP = \lambda_{GRFP} GR + \varepsilon_2$$

Mediation effect analysis,

$$WP = \lambda_{PPWP} PP + \lambda_{ZWP} Z + \varepsilon_3$$
$$FP = \lambda_{GRFP} GR + \lambda_{AICFP} AIC + \varepsilon_4$$
$$WP = \lambda_{PPWP} PP + \lambda_{IBWP} IB + \varepsilon_5$$

Were,

X = PP, AIC, IB, GR, FP

Z = FP, GR, AIC

ε = the respective error terms

λ = the path coefficient for respective path.

Structural Equation Modelling

Structural Equation Modeling (SEM), analysis is preferred to perform parameter evaluation (measurement model) and hypothesis testing (structural relationship) of a casual model. This study tests the measurement model and the structural model and additionally, to test the significance of the path coefficients and loadings, a bootstrapping (resampling = 500) method is used.

The structured model is assessed s a measurement model, which involves the assessment of the coefficient of determination, R^2, the blindfolding-based cross-validated redundancy measure Q^2 as the statistical significance and relevance of

the path coefficients. Performing the PLS-SEM algorithm to assess the hypothesized relationships between constructs.

4. RESULT AND DISCUSSION

4.1. Socio-economic Statistics

Involving the total respondents, fifty-one percent were male and fifty-nine percent were female. Resulting age group classification seventy-four percent were 20-29 age, 7% were 30-39, 3% were 40-49 and 16% were 50% aged. Seventy-two percent of respondents were married and 28 % were single. In the structure family, 67% were nuclear and 33% were in a joint family. Twenty-three % of respondents have a school education and 77% of respondents have a college degree education. Employee respondents were 40% Business and self-employed were 45% and 15% were retired from the job. Eighteen % of respondents' monthly income was 20 to 40 thousand, 31% of respondents' monthly income was 41 to 60 thousand and 49 % of respondents' monthly income was above 60 thousand.

Presenting consumer's decision-making from the perspective of rationality economics, 21% were not rational, 64% were rational and decide to demand policy and only 15% were rational but not decided to demand the policy. Likewise, 23% respond ready to demand, 21 % do not respond to a willingness to demand a health insurance policy. 66% responded were waiting to change policy and fulfilled privacy policy conditions.

4.2. Descriptive Statistics

The statistical value of bipolar scale measurement (part-a) factors that impact consumer behavior towards health insurance is presented in the following statistical result 11 factors are loading for latent variable factors that impact consumer behavior towards health insurance. The average mean value of measured variables is about 73% and the maximum % of mean statistics is 80.2 %. The percent of mean indicates to positive and 27% data considered to be the error. The average mode value is about 5 and indicates the totally agreed. The average value of Std. The deviation is 0.98 means that there is fewer deviation measured variables.

There are five factors that are loading for latent variable factors that impact consumer behavior towards health insurance. The average mean value of measured variables is about 73% and the maximum % of mean statistics is 80.2 %. The percent of mean indicates positive and 27% of data is considered to be an error on an average. The average mode value is about 5 and indicates the totally agreed. The average value of Std. The deviation is 0.98 means that there is fewer deviation measured variables.

The next latent variable is a willingness to purchase the policy. Eleven measured variables were included. The average mean value of measured variables is about 79.3% and the maximum % of mean statistics is 86.6 %. The percent of mean indicates very good positive results and 11.7% of data is considered to be an error. The average mode value is about five and indicates the total agreed to the statement. The average value of Std. The deviation is 1.1 indicating there is less deviation between measured variables.

4.3. Assessment of the Measurement Model

In this study, there are four reflective latent constructs, the Governmental Role, Willingness to Purchase, Attributes of the Company, and Features of Policy. In Table 4.1 reliability and validity test is exhibited.

Table 4.1: Cronbach Alpha, rho-A, Composite Reliability, and Average Variance Extracted (AVE)

Construct	Indicator	Loadings	AVE	Composite Reliability	Cronbach's Alpha	rho-A
Willingness to Purchase	WP1	0.998	0.753	0.924	0.891	0.924
	WP2	0.757				
	WP3	0.62				
	WP4	0.867				
Features of Policy	FP1	0.809	0.638	0.875	0.81	0.831
	FP2	0.79				
	FP3	0.788				
	FP4	0.749				
Attributes of Company	AC1	0.764	0.833	0.586	0.739	0.854
	AC2	0.873				
	AC3	0.791				
	AC4	0.711				
Governmental Role	GR1	0.723	0.8	0.923	0.875	0.891
	GR2	0.914				
	GR3	0.876				

The composite reliability varied from 0.80, Cronbach's alpha 0.83, Average Variance Extracted (AVE) from 0.63, and rho-A 0.83 which were above the preferred value of 0.5. All numeric values proved that the model was internally consistent.

In the reflective constructs, the discriminant validity of the measurement model is assessed using Fornell and Larcker method and loading and cross-loading criteria. Fornell and Larcker criteria require the square root of the AVE to be higher than the correlations of any other latent variables for reflective latent constructs. The empirical results presented in the Table show that there is a discriminant validity between all constructs. Additionally, loading and cross-loading criteria require an indicator's loading with its construct to be higher in all cases higher than all of its cross-loading with other constructs and the empirical results are exhibited in Table 4.2 and Table 4.3 verification this.

Table 4.2: Discriminant Validity: Fornell-Larcker Criterion

Latent Construct	Willingness to Purchase	Features of Policy	Attributes of Company	Governmental Role
Willingness to Purchase	**0.868**			
Features of Policy	0.255	**0.799**		
Attributes of Company	0.214	0.649	**0.766**	
Governmental Role	0.590	0.590	0.526	**0.894**
Individual Background	0.583	0.512	0.657	0.538

Table 4.3: Discriminant Validity-Loading and Cross-Loading Criterion

Latent Construct	Indicators	Willingness to Purchase	Features of Policy	Attributes of Company	Governmental Role
Willingness to Purchase	WP1	0.879	0.334	0.334	0.326
	WP2	0.852	0.195	0.143	0.260
	WP3	0.837	0.130	0.077	0.163
	WP4	0.903	0.214	0.172	0.280
Features of Policy	FP1	0.238	0.804	0.636	0.534
	FP2	0.254	0.862	0.499	0.538
	FP3	0.206	0.671	0.350	0.264
	FP4	0.122	0.844	0.544	0.493
Attributes of Company	AC1	0.191	0.560	0.825	0.367
	AC2	0.175	0.639	0.914	0.529
	AC3	0.196	0.512	0.870	0.476
	AC4	0.055	0.004	0.268	0.107
Governmental Role	GR1	0.272	0.450	0.399	0.842
	GR2	0.277	0.565	0.529	0.931
	GR3	0.260	0.558	0.427	0.908

Individual Background and Personal Perception are two formative latent constructs and their convergent validity is confirmed when the Variance Inflation Factor (VIF)

i. e. collinearity of indicators is higher than 0.2 and lower than 5. For, the formative constructs, the measurement model is assessed by testing Indicator collinearity through, VIF and through the statistical significance and relevance of indicator weights which are exhibited in Table 4.4.

Table 4.4: Statistical Significance and Collinearity Statistics of Indicator Weights

Latent Construct	Indicator	Weight	T Statistics	P-Value	VIF
Personal Perception	**PP1**	0.683	3.719	0.000	1.859
	PP2	0.497	3.482	0.001	1.281
	PP3	0.467	3.453	0.001	1.372
	PP4	0.424	2.218	0.027	1.660
	PP5	0.219	2.121	0.038	1.043
Individual Background	**IB1**	0.782	8.447	0.000	1.084
	IB2	0.318	2.010	0.042	1.039
	IB3	0.390	2.990	0.003	1.101

All of the dictators are statistically significant at a 5% level and all of the VIF values are lesser than 3. Therefore, using the statistics the measures in the study have sufficient convergent and discriminant validity.

4.4 Model Fit

The structural model computed the measurement model, which involves the assessment of the coefficient of determination, R^2, the blindfolding-based cross-validated redundancy measure Q^2 as the statistical significance and relevance of the path coefficients exhibited in Table 4.5. Performing the PLS-SEM algorithm to assess the hypothesized relationships between constructs. The significance of the path coefficient is examined by performing bootstrapping 500 resamples.

Table 4.5: Model Fit for Endogenous Latent Construct

Endogenous Latent Construct	Adjusted R^2	Q^2
Attributes of Company	0.463	0.384
Features of Policy	0.671	0.402
Governmental Role	0.456	0.391
Personal Perception	0.697	
Willingness to Purchase	0.456	0.574

To assess the sample model fit, the adjusted R^2 values of the endogenous latent variable of the path model are examined using the PLS algorithm option. The R^2 of Attributes of Company is 0.463 which indicates that all the predictors explained 46.3%

of the variance in Attributes of Company. Similarly, the R^2 of Features of Policy is 0.671 which indicates that all the predictors explained 67.1% of the variance in Features of Policy. Likewise, the R^2 of Governmental Role is 0.456 which indicates that all the predictors explained 45.6% of the variance in Governmental Role. Additionally, the R^2 of Personal Perception is 0.697 which indicates that all the predictors explain 69.7% of the variance in Personal Perception. Lastly, the R^2 of Willingness to Purchase is 0.456 which indicates that all the predictors explained 45.6% of the variance in Willingness to Purchase. All of these indicators are considered moderate.

The R^2 values as a criterion of predictive accuracy, to test the predictive power of the model, the predictive relevance Q^2 is used to measure out-of-sample predictive power. All the Q^2 values are considered above 0, which indicates that the model's predictive relevance for the endogenous constructs was supported. As a relative measure of predictive relevance, the R^2 values of our model indicate that all exogenous constructs had considerable predictive relevance i.e. $R^2 > 0.35$. Since R^2 is a measure of predictive relevance for constructs having a reflective measurement, the R^2 for Personal Perception is empty.

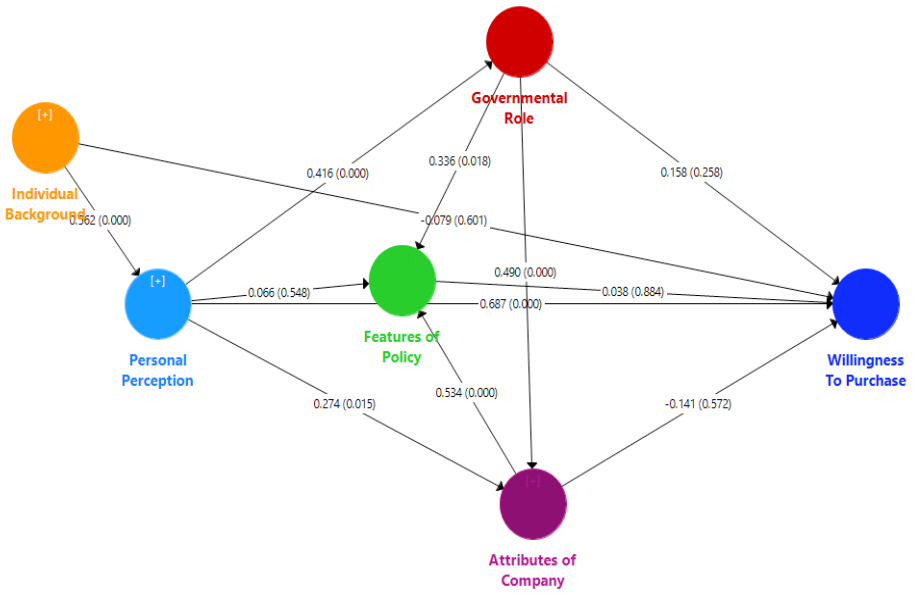
Table 4.6: Testing of Hypothesis

Hypothesis	Relationship	Std. Beta	Std. Error	t-Value	P-Value
H1	PP→WP	0.703	0.151	4.644	0.0000
H2	IB→WP	0.315	0.156	2.020	0.0440
H3	IB→PP	0.562	0.090	6.270	0.0000
H4	IB→PP→WP	0.386	0.120	3.216	0.0010
H5	GR→WP	0.112	0.129	0.862	0.389
H6	AC→WP	-0.121	0.169	0.714	0.476
H7	FP→WP	0.156	0.064	2.440	0.0150
H8	PP→GR→WP	0.193	0.067	2.859	0.0040
H9	PP→AC→WP	0.234	0.083	2.807	0.0050
H10	PP→FP→WP	0.131	0.061	2.152	0.0320
H11	GR→FP	0.598	0.099	6.029	0.0000
H12	GR→AC→FP	0.262	0.083	2.820	0.0050

Note: IB = Individual Background, PP = Personal Perception, WP = Willingness to Purchase, GR= Governmental Role, FP = Features of Policy, and AC = Attributes of Company, Source: Bootstrapping, Smart PLS, Online Survey, 2021.

Path Model with Latent Variables exhibition of path models are diagrams used to visually display the hypotheses and variable relationships that are examined the structural model with path coefficients and p-values are Exhibited 4.1.

Exhibit 4.1: Structural Model with Path Coefficients and P-Values



In the first instant, looking at the predictors of Willingness to Purchase health insurance, the empirical results show that the Individual Background of consumers (β=0.315, p < 0.05), Personal Perception of consumers (β=0.703, p < 0.01), and Features of Health Insurance Policy (β=0.156, p < 0.05) positively and significantly impacts Willingness to Purchase Health Insurance. However, Governmental Role (β=0.112, p >0.05) and Attributes of Company (β=-0.121, p >0.05) do not significantly affect the Willingness to Purchase consumers on health insurance.

Moreover, Individual Background positively and significantly impacts Personal Perception (β=0.562, p < 0.01). Likewise, the Features of Insurance Policy are also positively and significantly impacted by Governmental Role (β=0.598, p < 0.01).

Now, looking at the mediating effect of personal perception on the impact of Individual Background on Willingness to Purchase, it is seen that Individual Background → Personal Perception → of Willingness to Purchase is significantly mediated by Personal Perception towards Health Insurance (β=0.386, p < 0.01).

Moreover, considering the mediating effect of Attributes of Company on the impact of Governmental Role on Features of Policy, it is concluded that Governmental Role → Attributes of Company → Features of Policy are significantly mediated by Attributes of Insurance Company (β=0.262, $p < 0.01$).

In the final analysis, the mediating effect of the different factors namely, Governmental Role, Features of Policy and Attributes of Company are assessed on the impact of Personal Perception on Health Insurance. Personal Perception → Governmental Role → Willingness to Purchase is significantly mediated by Governmental Role (β=0.193, p<0.01). Likewise, Personal Perception → Attributes of Company → Willingness to Purchase is significantly mediated by Attributes of Company (β=0.1234, p<0.01). Lastly, Personal Perception → Features of Policy → Willingness to Purchase is significantly mediated by Features of Policy (β=0.131, p<0.05).

Therefore, the supposition about the hypothesis that (H1, H2, H3, H4, H7, H8, H9, H10, H11, H12) are supported by the results while H5 and H6 are not supported. Personal perception has a significant effect on willingness to purchase health insurance. Attributes of the insurance company have a significant impact on personal perception of health insurance. Features of policy have a significant impact on personal perception of health insurance and the government role mediates the relationship between personal perception and willingness to purchase health insurance.

Table 4.15: A Multi-Group Analysis

Path	Path Coefficients (No – Yes)	P- Value	Decision
PP→WP	-0.141	0.006	Different
IB→WP	0.240	0.135	Not Different
IB→PP	0.240	0.135	Not Different
IB→PP→WP	-0.104	0.703	Not Different
FP→WP	0.296	0.358	Not Different
AC→WP	-0.207	0.430	Not Different
GR→WP	-0.177	0.545	Not Different
PP→FP→WP	0.054	0.605	Not Different
PP→AC→WP	-0.054	0.596	Not Different
PP→GR→WP	-0.037	0.884	Not Different

As the result, Multi-Group Analysis (MGA) was performed to test whether there is a significant difference between those who have Health Insurance and those who don't. The above results of MGA tabulated in Table 4.4.6 show that the personal perception is significantly different between those consumers who already have a Health Insurance

Policy and those who don't have a Health Insurance Policy (β = -0.141, $p > 0.05$). While the difference between possessing and not possessing a Health Insurance policy didn't have a significant impact on the remaining relationships.

Therefore, based on the results from the above analysis, we can conclude that there is a significant relationship between consumers' decision-making from the perspective of rationality economics and willingness to demand health insurance policy.

5. CONCLUSION

Among the demographic profile of the respondents who represent the consumers and prospective consumers of health insurance, they rank personal perception as the most important factor that impacts their willingness to purchase health insurance. The results show that there is a significant relationship between personal perception and willingness to purchase health insurance. The relationship is significantly mediated by the governmental role, features of the policy, and attributes of the insurance company. The important factor that impacts willingness to purchase health insurance as ranked by the consumers is the features of the policy. Nevertheless, ranked as the third and fourth important factor impacting willingness to purchase health insurance, there is no significant relationship between the governmental role and attributes of the insurance company with the willingness to purchase health insurance. This relationship is also significantly mediated by the attributes possessed by the insurance company. The multi-group analysis shows that there is a significant difference between the impact of personal perception on health insurance on willingness to purchase health insurance. It is deduced that all of the identified factors have a significant mediating effect on the relationship between personal perception and willingness to purchase health insurance.

These findings provide several social, managerial, and governmental implications to improve the purchase of health insurance in Kathmandu Valley. The insurance industry practitioners carefully consider the factors that impact their willingness to purchase health insurance such as features of the policy, attributes of the company, and governmental role. The companies should work on building and improving their characteristics such as customer service, claim settlement, accessibility keeping in mind the perception the consumers build making those attributes their basis for determining whether or not to purchase health insurance. Further, the features of the policy should be designed and crafted effectively using the help of relevant and qualified professionals. The government had better regularly monitor the linked hospital and work towards their improvement.

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