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The Intention of Participation in Voluntary Health Insurance under the View of Planned Behavior Theory: Evidence of Hanoi Vietnam

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ABSTRACT: This study aims to understand why the rate of voluntary health insurance participation in Vietnam is still low based on the analysis of human behavior according to the theory of planned behavior of (Ajzen, 1991), and other extensions of this theory include (Ajzen and Fishbein, 2005), (Ajzen, 2008). Research results show that perceived benefits play an important role in forming attitudes toward the intention to purchase individual health insurance. The conclusion of this article can contribute to providing solutions based on the theory of planned behavior to suggest to policymakers or implementing agencies that they bring solutions in terms of psychology to influence health insurance buyers in the context of implementing universal health insurance in Vietnam today.

KEYWORDS: Intention, voluntary health insurance, participation, TPB, Vietnam

I. INTRODUCTION

Research on insurance demand is derived from Yaari (1964), Yaari (1965), Fischer (1973), Lewis (1989). These studies are based on the expected utility theory (EUT) proposed by Morgenstern and Von Neumann (1953). Accordingly, the demand for insurance is determined based on the maximization of the expected benefits based on many factors concerning risk aversion, such as life expectancy, income, etc. However, the combined impact study has produced inconsistent results due to differences in culture, psychology, and socioeconomic conditions in different regions. Therefore, as empirical studies become more prevalent in economics and studies from behavioral models have been consolidated, the analysis of life insurance purchase decisions in behavior has been adopted to develop (Starmer, 2000).

A few studies have used behavioral theory to examine the intention to buy insurance in general, such as Fishbein (1979), Fletcher and Hastings (1984), Omar (2007) but to explain the need for insurance, life insurance and use the theory of reasonable action (TRA) instead of TPB. Research by Brahmana et al. (2018) has built a model to study the factors affecting the decision to buy individual health insurance for Indonesian people from the perspective of the theory of intended behavior. It has succeeded in explaining the behavior of participants in the Indonesian market.

Health insurance is a content of social insurance. According to current regulations in Vietnam, health insurance is a type of insurance in public health care implemented by the state, not for profit. Accordingly, the purchase of health insurance will be paid part or all of the cost of medical examination, treatment, and rehabilitation, if an accident or illness occurs, which the state encourages to participate to ensure social security. There are two types of health insurance: compulsory and voluntary. Compulsory health insurance is provided to most of the population, with about 91.1 million people participating in health insurance, reaching a coverage rate of 92.04% (Ministry of Health Portal, 2023). However, the remaining nearly 8% not covered by the population of 100 million is a considerable challenge in the current context (Molisa, 2022).

Voluntary health insurance is designed for people in the informal sector with no employment relationship and the right to participate regardless of age. This group has to buy it themselves at the locations of affiliated health insurance agencies and provide services. Accordingly, it is possible to consider the intention to participate in health insurance of these individuals from the perspective of behavior as for regular services. This study uses the approach of the theory of intended behavior to explain people's behavior in planning to buy individual health insurance in Vietnam. Researchers have widely used this theory to study human behavior through many studies, including Brahmana et al. (2018), Mamun et al. (2021). This study examines the limitations of consumers' attitudes and behavioral intentions toward purchasing individual health insurance. Understanding people's

attitudes and intentions can provide a theoretically sound framework for communicating to target populations and identifying ways to encourage people to consider caring about health insurance to ensure social security in the current context.

II. LITERATURE REVIEW

Health Insurance

There have been many studies on health insurance but focusing on exploiting different aspects. However, the studies all agree that health insurance (HI) was created to help people with health risks. Health insurance is a hedge against financial risks, protecting against unforeseen health losses and expenditures ((Folland et al., 2016). Therefore, health insurance helps to ensure social security.

Health insurance is a critical tool to reduce the financial burden on people in general and payers in particular when providing medical care, thus making health services more accessible. Up to now, many international studies have shown that health insurance has a positive role in accessing and using health services by reducing the financial burden for people in medical examination and treatment (Chen et al., 2007, Liu et al., 2015).

Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) (Ajzen, 1991) is a development and improvement of rational action theory. TPB theory (Ajzen, 1991) extended the model of TRA theory (Fishbein, 1979) to overcome the limitations in explaining out-of-control behaviors by adding the perceived behavioral control variable into the model. The theory of planned behavior (TPB) holds that human behavior is guided by three considerations: beliefs about possible consequences or other attributes of the behavior (behavioral beliefs), beliefs about the normative expectations of others (normative beliefs), and beliefs about the presence of factors that may favor or hinder the functioning of the behavior (control beliefs) (Ajzen, 1991). In their respective set, behavioral beliefs create a favorable or unfavorable attitude toward the behavior; standard beliefs result in social pressures or subjective standards; control beliefs increase perceived behavioral control, the feeling of ease or difficulty in performing the behavior (Ajzen, 1991). Combining attitudes toward behavior, subjective norms, and perceived behavioral control leads to a behavioral intention that reflects actual behavior. Accordingly, the main variables of TPB include attitude towards behavior (ATB), subjective norms (SN), perceived behavioral control (PBC), and intention.

Attitude (ATB)

By definition, the ATB in TPB is the degree to which a person performing a given behavior considers positive or negative. This definition has similarly been described in other literature, such as (Noor and Mohamed, 2007, Brahmana et al., 2018). Attitudes towards the behavior or decision to purchase individual health insurance are geared towards what the individual thinks the purchase of insurance will bring (positive or negative), such as: purchasing health insurance is useful or buying personal health insurance is a waste of money (Ejye Omar and Owusu-Frimpong, 2007). Accordingly, this study hypothesized:

Hypothesis 1: Attitude positively affect the intention to take out individual health insurance.

Subjective norms

The subjective norm construct is perceived social pressure to participate or not to engage in a behavior (Ajzen, 2008). The subjective norm is determined by the total number of normative beliefs that can be attained regarding the expectation of a significant allusion. Normative allusions can be elicited by asking which groups of people will approve or disapprove, support, or disapprove of an individual's performance of a particular behavior.

Hypothesis 2: Subjective norms positively affect the intention to take out individual health insurance.

Perceived behavioral control

As explained earlier, TPB was developed by adding perceived behavioral control as a belief control variable and expressing ease or difficulty in performing the behavior. It is a belief about possessing the necessary resources and opportunities to perform a specific behavior. For example, when people are not equipped with enough resources or information to initiate the behavior, their intention to perform it can be lowered even if they have favorable attitudes or subjective norms ((Madden et al., 1992). In other words, individuals are likely to engage in certain behaviors if they believe they have the resources and confidence to perform the behavior. Behavioral control is also thought to directly affect intention and may reflect actual behavior (Madden et al., 1992). A significant relationship between behavioral control and intention has been found in many studies, such as (Armitage (2005), Fen and Sabaruddin (2009), Shah Alam and Mohamed Sayuti (2011). Accordingly, this study hypothesized:

Hypothesis 3: Perceived behavioral control positively affects the intention to enroll in individual health insurance.

Intention

Through studying the buying process, we find that purchase intention is essential in assessing customers' ability to perform buying behavior (Younus, 2015). Besides, purchase intention is also considered a factor reflecting the customer's willingness to buy, or buying intention is the driving force behind individual customers' buying behavior (Ajzen, 1991). In this study, tntention to participate in individual health insurance is understood as the intention and target behavior of that person in the future about participating in individual health insurance during the specific period studied using the time range within the next 6-12 months.

III. METHODOLOGY

Therefore, based on the analysis of the available research results and considering the relevance of the theoretical bases, the author finds that the application of the theory of planned behavior of Ajzen (1991) to research study the intention of people to participate in individual health insurance as suggested by (Brahmana et al., 2018, Mamun et al., 2021).

Research model

Based on the literature review, the conceptual model research framework of this study is depicted in figure 1.

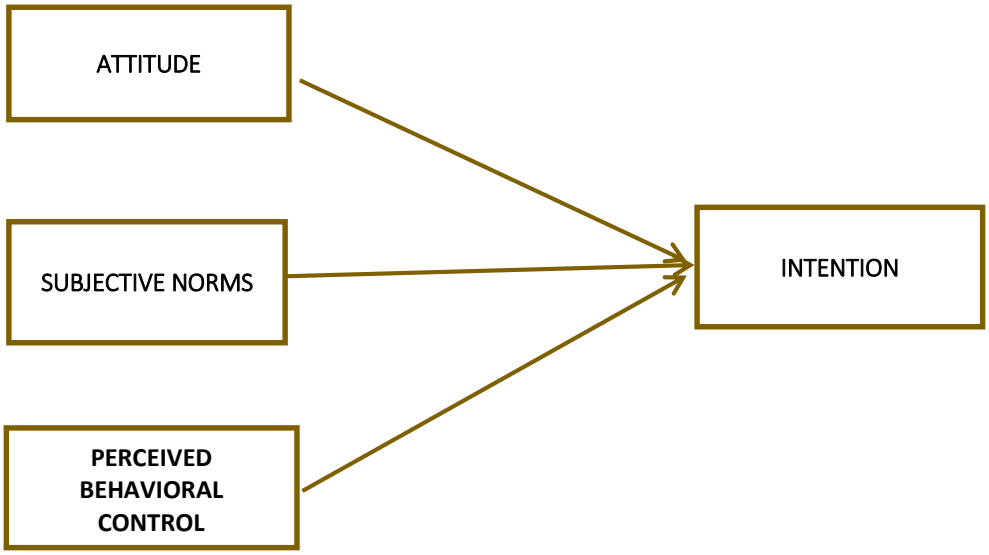

Figure 1: Research Model

The questionnaire was designed based on the theories introduced in the literature review. All the items used include14 observation variables adopted from the validated scales of (Brahmana et al., 2018, Mamun et al., 2021). Survey subjects in this study are people who currently do not have compulsory health insurance in the informal sector. Accordingly, the surveyed subjects are freelancers, business owners, and employees in small business stores in Hanoi. The survey process was carried out with 200 questionnaires collected, but only 158 questionnaires met the requirements.

IV. RESULTS

Descriptive analysis

The detailed descriptive analysis results of this group of workers are shown in detail in the following table 1:

Table 1. Demographic characteristics of Respondents

Variables	Category	Frequency	Percentage (%)
Gender	Male	75	47.47
	Female	83	52.53
Age	20 – 30	81	51.3
	31 – 40	38	24.1
	41 – 50	21	13.2
	above 50	18	11.4
	Secondary school Graduation	10	6.33

Educational level	High School Graduation	68	43.04
	College and University Graduation	67	42.40
	Post graduate	13	8.23
Income	Under 5 million	15	9.49
	5 – 7	81	51.27
	7 – 9	42	26.58
	Above 9	20	12.66

From the descriptive analysis, we can see that:

Genders: The results showed that 78 male and 83 female participants responded to the questionnaire. The number of women is higher.

Age: According to the analysis results, the number of surveyed people aged from 20 to 40 years old accounts for the largest proportion. The age structure of the surveyed subjects is similar to the labor market in infomal sector.

Education level: According to the table of education structure, we see the highest proportion of people belonging to high school and university graduation. This figure also reflects the educational level of infomal sector in Hanoi area.

Income: From the interview data, it can be seen that the highest proportion of income is in the range of 5 - 9 million (67.6%). At the same time, this rate also shows that in reality, people's income is not too low, but the rate of participating voluntary health insurance is still limited. Therefore, determinant analysis is expected to produce significant results.

Construct Reliability and Validity

The reliability of the structures is determined by the indicator reliability and the internal consistency reliability Wong (2013) defined the reliability of the index as the square of the factor loading of each indicator. The study also recommends that if this value is greater than 0.4, the reliability of the index can be ensured. In addition, internal consistency reliability for all latent variables was evaluated using Cronbach's Alpha and composite reliability (CR) (Hair Jr et al., 2016).

In this study, the test applied to latent variables shows that the factor loading coefficients were all greater than 0.5 and the combined reliability coefficients were all greater than 0.7. The average variance extracted AVE of the concepts were all greater than 0.5, so they all ensure the convergence value of the scale (Hair Jr et al., 2017). Besides, the AVE of each latent variable was larger than the square of the correlation of that variable with the remaining latent variables; therefore, the scale ensures discriminant validity (Sarstedt et al., 2014). The variance inflation factors VIF were all less than 3.3, which means there was no multicollinearity phenomenon, and the scale therefore is suitable to apply the structural equation model (Hair Jr et al., 2016). The results of composite reliability analysis as follows

Table 2. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
ATT	0.920	0.925	0.944	0.808
INTENTION	0.700	0.703	0.833	0.624
PBC	0.775	0.798	0.855	0.597
SN	0.932	0.948	0.956	0.879

The above results show that all variables make sure the composite reliability and are eligible to carry out the next analysis. Next, the relevance of the research model is evaluated through research data. The results of the model fit test are shown in the following table:

Table 3. Model fit

	Saturated Model	Estimated Model
SRMR	0.067	0.067
d_ULS	0.469	0.469
d_G	0.227	0.227
Chi-Square	212.307	212.307

NFI	0.856	0.856

The results show that the research model is consistent with the research data. Therefore, the research model is suitable for analyzing and applying the attitude and intent toward buying health insurance. After completing the basic assumptions of PLS-SEM, bootstrapping is executed. This technique has been implemented to test the hypotheses. The results of bootstrapping PLS show that all hypotheses are accepted because the t-value> 1.96 and the P-value <0.05. Details are as below:

Hypothesis test results

Hypothesis testing was performed using Bootstrapping (Hair Jr et al., 2017). In the Coefficients result shown, all of the p-value (sig. Value) are less than 0.05, meaning the independent variables are the significant predictors for the dependent variable. Further, the VIF values on both predictors are lower than 2, meaning there is no multicollinearity.

The output supports to the correlation test as all of the variables have positive relationship on buying intention. Thus, the hypotheses are accepted with the R square adjustment coefficient at 60.1 %. In comparison, attitude is the factor that has the most positive impact on the intention, with a beta coefficient of 0.522 units. Besides, PBC is also a factor that affects Intention is 0.297 units, and the impact of SN is 0.176 units. The results of impact analysis can be shown in the following table:

Table 4: Hypothesis test results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Result
ATT -> INTENTION	0.522	0.522	0.048	10.858	0.000	Supported
PBC -> INTENTION	0.297	0.298	0.055	5.389	0.000	Supported
SN -> INTENTION	0.176	0.179	0.050	3.504	0.000	Supported

V. DISCUSSION

Previous studies have shown a relationship between the factors in the TPB model and intention. This study also shows that attitude is the variable that has the most substantial influence on intention to participate in individual health insurance, with a beta coefficient of 0.522 units instead of perceived behavioral control. This can be explained by the fact that the current enrollment in health insurance is quite simple and, therefore, only causes a few obstacles and difficulties for people. Meanwhile, attitude is a psychological factor that is governed by people's perceptions. When people see the benefits of participation, attitudes also become positive, promoting the intention to participate in health insurance.

However, the intention to purchase individual health insurance in this study showed a significant association with subjective norm but not strong (0.176 units). The reason could be explained by the limitation of the sample size so that the influence of the people involved was not seen. In addition, there is a fact that the use of health insurance cards for medical examination and treatment of these subjects still needs to be improved, so the extent of the spread of influence is not much. This result differs from the study of (Brahmana et al., 2018) in Indonesia. This result can be explained by the difference in age of the surveyed people, most of them are young workers, so the awareness of risks is low. In addition, the awareness about the health care of young workers in Vietnam is low because most of this age group is trying to increase their income and employment status instead of taking care of themselves.

Research results also show a close relationship between attitude - intention to participate in health insurance. Therefore, health insurance services must be upgraded and accessible so participants can easily carry out medical examinations and treatment activities when buying a card. The difference in service quality between medical examination and treatment by insurance card and voluntary medical examination and treatment still exists. Therefore, participants have yet to see health insurance cards' practical benefits. Therefore, improving service quality and improving medical examination and treatment with health insurance cards are the primary motivations for implementing the universal health insurance strategy in the current context.

In addition, the factors of perceived behavioral control also need to be improved by providing activities to sell health insurance online through application platforms or websites that people, especially young people, can easily access instead of going to post offices or commune health stations like now.

VI. CONCLUSION

This study has successfully explained the relationship between factors in the theoretical model of intended behavior applied in studying the intention to participate in individual health insurance of people in Vietnam in the informal sector awake. The research

results are also consistent with the current situation of participating in individual health insurance in Vietnam. However, due to the sample size limitation, some relationships may need to be fully explained. At the same time, this study only applies to the simple TPB model instead of the extended TPB model as suggested by (Ajzen, 2008). In addition, this study only focused on intention instead of behavior. Future studies can overcome and develop in this direction.

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