

Determinants of the Voluntary Social Insurance Participation Intention of Employees in Hanoi

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This research was the result of the ministry-level research topic with the code B2023.KHA.04.

This research was funded by the Ministry of Education and Training, Vietnam (ID: B2023-KHA04) (Sponsoring information).

Abstract

This study aims to assess the impact of factors on Vietnamese workers' intention to participate in voluntary social insurance. Through a quantitative research approach, data collected from 532 workers was analyzed to evaluate the influence of factors, including attitude towards insurance participation, subjective norms, perceived behavioral control, voluntary social insurance policies, and policy communication on the intention to participate in voluntary social insurance. Research findings indicate that four out of five factors positively impact the intention to participate in voluntary social insurance. Based on these findings, the study proposes recommendations and solutions to enhance Vietnamese workers' intention to participate in voluntary social insurance.

Keywords: Voluntary social insurance, Theory of planned behavior (TPB), Intention to purchase

DOI: 10.7176/EJBM/16-8-01

Publication date: October 30th 2024

1. Introduction

Social insurance has always been a cornerstone of social security systems in any country worldwide. It carries profound humanitarian values, ensuring the well-being of workers and contributing to the stability and development of their lives and production. In Vietnam, the social insurance policy is organized by the State and is guaranteed by legal documents. The social insurance system in Vietnam has been gradually improved, aiming at the overarching goal of universal social security coverage. To effectively implement the social security policy and achieve broad coverage in both depth and width, in addition to mandatory social insurance, voluntary social insurance has been introduced to ensure the livelihood of farmers and self-employed workers.

Implemented on January 1st, 2008, the voluntary social insurance policy has been regarded as a crucial retirement plan for workers. By participating in voluntary social insurance, individuals are entitled to various benefits such as a monthly pension upon retirement, a health insurance card throughout the pension period, partial financial support from the government, and the flexibility to choose contribution levels and methods that align with their income. The participation rate in social insurance among the population has always been a focal point of attention and guidance from the government and related agencies.

Nevertheless, participation in social insurance programs is still limited. As of the end of 2023, Vietnam Social Security reported that while the total number of social insurance participants surpassed 17.414 million, the voluntary social insurance scheme has attracted only slightly over 1.4 million individuals. These statistics highlight the relatively low participation rate in voluntary social insurance.

Given the aforementioned aspects, there is an urgent need to promote participation in voluntary social insurance. Numerous studies, both domestic and international, have delved into this issue, with many exploring the factors influencing workers' intention to participate in voluntary social insurance. However, research on these

factors from the perspective of behavioral theory is still limited, especially studies conducted in Hanoi - a major political, economic, and social hub of the country. Hanoi's unique characteristics, such as its diverse demographic profile in terms of gender, age, education level, occupation, and income, make it an ideal location to study these factors. Therefore, the research team conducted a study titled "An Investigation into Factors Affecting Workers' Intention to Participate in Voluntary Social Insurance in Hanoi." The findings of this study will contribute to the body of knowledge in the field of social insurance, providing a thorough analysis of the factors influencing the intention to participate in voluntary social insurance. Subsequently, this study will propose solutions to increase participation rates in voluntary social insurance.

2. Literature review

2.1. Voluntary social insurance

For a considerable period, voluntary social insurance has been implemented in many countries worldwide, including Germany, France, the United States, and China. However, there still needs to be a universally agreed-upon definition of voluntary social insurance, as it is interpreted differently depending on the perspective. Nevertheless, voluntary social insurance in many countries shares some standard features: it is organized and managed by the state, participation is entirely voluntary and not legally mandated, individuals can choose contribution levels and methods that suit their financial circumstances, and benefits typically include healthcare, death benefits, disability benefits, and retirement pensions.

According to the Vietnamese Social Insurance Law of 2014, voluntary social insurance is a type of social insurance organized by the state where participants can choose their contribution levels and methods based on their income, and the state provides financial support for contributions to ensure that participants can enjoy retirement and death benefits. The "voluntary" nature is evident in that individuals have the right to decide whether or not to participate and can choose the contribution level and method that best suits their economic capacity.

Voluntary social insurance is a form aimed at covering employees not yet covered by mandatory social insurance as stipulated by law. It also serves as an intermediary step, a transition towards achieving universal social insurance coverage for all social workers, ensuring social security. Voluntary social insurance enables individuals to accumulate contribution periods to receive pensions upon retirement, especially for those who do not have stable employment, lack employment contracts, or whose employers do not regularly contribute to social insurance. Participants in voluntary social insurance are often workers in the informal sector, such as farmers. These individuals typically constitute a large proportion of the labor force, particularly in developing countries like Vietnam. They often have limited education and professional skills, unstable employment, and low incomes. Therefore, to facilitate access to voluntary social insurance for these individuals, the state needs to develop appropriate policies, especially providing partial contributions for participants, particularly in the initial stages of implementation. Additionally, the state should enhance communication efforts to promote voluntary social insurance.

2.2. Intention to participate in voluntary social insurance

The Theory of Reasoned Action (TRA), proposed by Fishbein and Ajzen in 1975, marked a significant breakthrough in addressing questions related to human behavior. This theory has been instrumental in numerous studies to understand why individuals engage in specific behaviors and what interventions are necessary to modify these behaviors. The TRA examines the relationships between 'beliefs,' 'attitudes,' 'intentions,' and behavior. Within this framework, 'intention' is a critical determinant of 'behavior'. Moreover, 'intention' is influenced by 'attitude' and 'subjective norm,' while 'beliefs' shape 'attitude.' Consequently, the TRA enables researchers to identify the factors that influence the performance of a particular behavior and predict what an individual is likely to do or not do. Building upon the TRA, Ajzen (2002a) developed the concept of behavioral intention, suggesting that human actions are guided by three beliefs: beliefs about the behavior, beliefs about the normative expectations, and beliefs about control. The stronger these beliefs, the greater the individual's intention.

2.3. Factors influencing intention to participate in voluntary social insurance

Fletcher and Hastings (1984) conducted a study to analyze further the factors influencing workers' participation in social insurance. Their research revealed that the attitudes and perceptions of the working population, as components of the Theory of Reasoned Action (TRA) model, are among the factors affecting the intention to participate in voluntary social insurance. Subsequent studies by Ejeje Omar and Owusu-Frimpong

(2007), Kasule (2011), and Omar (2007) also examined consumers' attitudes toward insurance products. However, they differentiated them using various scales and indices without analyzing the factors shaping attitudes toward insurance products or services.

As an extension of the Theory of Reasoned Action, the Theory of Planned Behavior (TPB) has served as a significant foundation for numerous studies on insurance purchasing behavior (Aziz et al., 2015; Ninh et al., 2021; Mai & Mai, 2023). Within the TPB model, attitude towards the behavior, subjective norm, and perceived behavioral control are three crucial factors influencing purchase intention. Building upon the Theory of Planned Behavior, Brahmna et al. (2018) further developed and analyzed two factors shaping attitudes toward purchasing household health insurance, demonstrating the significant impact of perceived benefits and risks on forming consumer attitudes.

Additionally, factors such as voluntary social insurance policies and policy communication also influence the intention to participate in voluntary social insurance. Voluntary social insurance policies, including insurance benefits and regulations and the quality of insurance services, are all significant factors that directly affect workers. Furthermore, communication enhances workers' awareness and understanding of policies. When workers perceive the role and importance of policies, they are more likely to participate in insurance.

3. Theoretical framework

Research on the factors influencing the intention to participate in voluntary social insurance is based on the Theory of Planned Behavior (TPB), developed by Icek Ajzen in 1991. This theory originated from the Theory of Reasoned Action (TRA) proposed by Fishbein and Ajzen (1980). The TRA explains that intention is formed based on attitude and subjective norms. This means that the more positive an individual's attitude towards a particular behavior and the more they perceive that behavior as necessary to their friends, family, or society, the more likely they are to form the intention to perform that behavior. The TPB model is considered to be superior to the TRA model in predicting and explaining consumer behavior within the same research context because the TPB overcomes the limitations of the TRA by adding the construct of Perceived Behavioral Control. The Theory of Planned Behavior acknowledges that not all behaviors are voluntary and that not all individuals have complete control over their behavior.

Although studies on intention generally follow the behavioral theories of Fishbein and Ajzen (1980), the specific factors influencing purchase intention may vary depending on the research field or subject. Even within the insurance domain, product type, and target market differences can easily lead to variations in the observed influence of independent variables on dependent variables. Therefore, no set of factors can be considered standard or perfect; it is merely used as a theoretical basis for developing new research models (Ajzen, 1991). In addition to applying the existing factors in the TPB model, studies on voluntary insurance have also added other factors and demonstrated the research significance of these new additions (Cuong et al., 2014; Thuy & Thu, 2018; Octarina et al., 2019).

Based on a literature review and the Theory of Planned Behavior, the research team proposes a model of five factors influencing the intention to participate in voluntary social insurance among workers in Hanoi. In addition to the factors in the Theory of Planned Behavior (Attitude towards the behavior and risk, Subjective norms, and Perceived behavioral control), the extended model analyzes two additional factors: Voluntary social insurance policy and Policy communication.

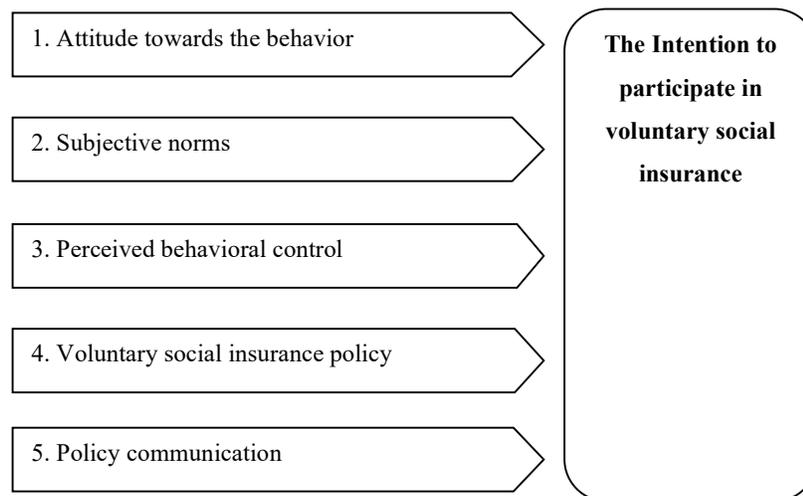


Figure 1. Factor Model Influencing the Intention to Participate in Voluntary Social Insurance

Source: Proposed by the research team

Research hypotheses within the model include:

According to Fishbein and Ajzen (1980), attitude towards the behavior is a crucial factor influencing behavioral intention and is understood as an individual's positive or negative feelings about performing a particular behavior based on that individual's evaluation of the consequences of this behavior. If an individual has a positive attitude towards the predicted outcomes of performing a behavior, they will be more likely to form the intention to perform that behavior.

H1: Attitude towards risk and voluntary social insurance participation has a positive impact on the intention to participate in voluntary social insurance among workers.

Subjective norm is defined as "an individual's perception of the extent to which most people who are important to him or her think he or she should or should not perform a particular behavior" (Ajzen & Fishbein, 1980). As a factor influencing behavior, subjective norm measures social influences on an individual's behavior (e.g., the expectations of members of that individual's family regarding the performance of the behavior) (Lutz, 1991).

According to the Theory of Reasoned Action, there are two factors affecting 'subjective norm': 1) normative beliefs: referring to an individual's belief about what important people/those who have a great influence on the individual think he or she should or should not perform that behavior (normative belief about person) and 2) motivation to comply with the person who has influence.

H2: Subjective norms have a positive impact on the intention to participate in voluntary social insurance among workers.

Perceived behavioral control (PBC) is defined as an individual's belief about how easy or difficult it is to perform the behavior (Ajzen, 1991). This concept was introduced in the TPB theory to overcome the limitations of the TRA theory in explaining behaviors that are beyond control. Behavioral control plays an important role as a self-assessment of each individual's ability related to performing their actions. The more resources and opportunities, the fewer obstacles they think there will be and the greater the control over the behavior. This control factor can originate from within each individual (determination, ability to perform...) or externally to the individual (time, opportunity, economic conditions...).

H3: Perceived behavioral control has a positive impact on the intention to participate in voluntary social insurance among workers.

The more supportive policies, the simpler and faster procedures, and the more timely and prompt processing of procedures, the better the workers' attitude towards social insurance, thereby positively impacting the participation in voluntary social insurance.

H4: Voluntary social insurance policy has a positive impact on the intention to participate in voluntary social insurance among workers.

Extensive and regular communication campaigns provide workers with full information about the meaning and benefits of participating in voluntary social insurance, thereby positively influencing workers' intention to participate in voluntary social insurance.

H5: Policy communication has a positive impact on the intention to participate in voluntary social insurance among workers.

4. Methodology

This study employs a quantitative research method using econometric modeling to evaluate the relationship between various factors and the intention to participate in health insurance. Data was collected through a survey on the demand for and intention to participate in commercial health insurance among residents of Hanoi.

Based on a literature review, we propose a framework of factors influencing the intention to participate in voluntary social insurance. Before conducting the main survey, a pilot study with 20 participants was conducted to refine the scale and questionnaire. The finalized questionnaire was directly distributed to 550 workers from April 15th to May 15th, 2024. After screening, the number of observations eligible for further analysis was 532. Descriptive statistics of the study sample are presented in Table 1.

Table 1. Demographics of respondents

Item	Demographics	Frequency	Percentage (%)
Gender	Male	259	48.7
	Female	273	51.3
Age	Under 25 years old	65	12.2
	25-35 years old	137	25.8
	35-45 years old	184	34.6
	45-55 years old	102	19.2
	From 55 years old upwards	44	8.3
Education	High school	125	23.5
	College/university	347	65.2
	Graduate school	60	11.3
Monthly income	Under \$400	19	3.6
	\$400-\$800	148	27.8
	\$800-\$1200	207	38.9
	\$1200-\$1600	89	16.7
	\$1600-\$2000	51	9.6
	\$2000 and over	18	3.4

Source: compiled from analysis result of authors

Following descriptive analysis, the reliability of the scale was evaluated using Cronbach's alpha, and exploratory factor analysis was conducted to assess the scale's validity. Subsequently, a multivariate linear regression model was utilized to examine the influence of various factors on the intention to participate in voluntary social insurance.

5. Research results

5.1. Reliability of measurement scales with Cronbach's alpha

According to Hair et al. (2019), Cronbach's alpha of measurements should be greater than 0.6 and the corrected item-total correlation of all observed variables should be higher than 0.3. Finally, there are 24 observed variables of six measurements as displayed in Table 2.

Table 2. Cronbach's alpha test results

Scale	Items	Cronbach's alpha
Attitudes toward participation	ATP1, ATP2, ATP3, ATP4, ATP5	0.714
Subjective norms	SN1, SN2, SN3, SN4, SN5	0.773
Perceived behavioural control	PBC1, PBC2, PBC3, PBC4, PBC5	0.783
Voluntary social insurance policy	VP1, VP2, VP3, VP4, VP5	0.780
Policy communication	CV1, CV2, CV3, CV4	0.753
Behavioral intention to participation	BI1, BI2, BI3, BI4, BI5	0.801

Source: compiled from analysis result of authors

5.2. Exploratory factor analysis

The 24 observed variables are entered for EFA as outlined in Table 3. Factor loading of 24 variables are all greater than 0.5. The Kaiser-Meyer Olkin (KMO) coefficient is 0.767, considerably higher than 0.5. Therefore, EFA is necessary for the data analysis. Bartlett's test has a p-value of 0.000, lower than the significance level of 0.05. Thus, the observed variables are correlated with each other in the population (Denis, 2018). Finally, there are five significant determinants, explaining about 67% of the variance of data. Random components and variables outside the model account for the remaining 33%.

Table 3. Rotated component matrix

Observed variables	Determinants				
	1	2	3	4	5
SN5	.868				
SN4	.856				
SN3	.729				
SN2	.692				
SN1	.610				
PBC4		.828			
PBC5		.828			
PBC1		.762			
PBC3		.724			
PBC2		.716			
VP3			.817		
VP1			.810		
VP4			.777		
VP5			.765		
VP2			.743		
ATP5				.751	
ATP1				.734	
ATP2				.694	
ATP3				.652	
ATP4				.536	
CV3					.858
CV4					.856
CV2					.663
CV1					.620

Source: compiled from analysis result of authors

5.3. The linear regression results

The linear regression analysis between the factors and the intention to purchase commercial health insurance in Hanoi in the context of the epidemic was performed twice. Results are obtained including: the adjusted Rsquared coefficient is 0.428; Durbin-Watson coefficient of 1.1822 (in the range of 1-3, which is acceptable), indicating that the 5 independent variables in the model explained 42.8% for the variability of the dependent variable, as well as there is no autocorrelation in the model. Moreover, the ANOVA results explained that F is 80,551 with the significance level is 0.000, which proves that The regression model is a good fit. Additionally, the detailed results of the linear regression model are shown in Table 4 as follows:

Table 4: Summary of the linear regression results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.265	.208		1.275	.203		
ATP	.248	.042	.240	5.899	.000*	.649	.248
SN	.058	.050	.049	1.148	.251	.602	.058
PBC	.427	.045	.373	9.425	.000*	.687	1.455
VP	.133	.045	.123	2.929	.004*	.607	1.648
CV	.067	.038	.067	1.777	.076**	.746	1.340

Adjusted R2 = 0.428; F = 80.551; Sig. = 0.000

Note: *, ** are significant at the 1%, 10%, respectively.

Source: compiled from analysis result of authors

It can be seen that the tolerance is low and the VIF value is less than 2, which proves that there is no multi collinearity phenomenon and there is no extreme correlation among the independent variables (Hair et al., 2006). In addition, the significance level of the variables ATP, PBC, CV is less than 1% and the VP variable has a significance level of less than 10%, showing that these factors are suitable and can be retained in the model. The variable SN is not statistically significant at the 5% significance level. Based on the standardized coefficients, the positive effect on the dependent variable from high to low is: Perceived behavioral control ($\beta = 0.373$), Attitudes toward participation ($\beta = 0.240$), Voluntary social insurance policy ($\beta = 0.123$), Communication on voluntary social insurance ($\beta = 0.067$) and Subjective norms ($\beta = 0.049$). As a result, the hypotheses H1, H3, H4 and H5 are accepted.

6. Recommendations and conclusions

Of the five hypotheses tested in this study, four were supported by the empirical data.

Firstly, hypothesis H1 was supported ($\beta = 0.240$, p-value = 0.000), indicating that attitude towards risk and the behavior of participating in social insurance had a positive impact on the intention to participate in voluntary social insurance. This result is consistent with the findings of Cuong et al. (2013) and Thuy & Thu (2020). According to the research results, attitude towards risk and the behavior of participating in social insurance is the second most influential factor on the intention to participate in voluntary social insurance. Therefore, to attract workers to participate in voluntary social insurance, Vietnam's social insurance agency needs to take measures to change workers' attitudes towards social insurance. Some workers have lost faith in the social insurance system due to delays, social insurance debts, or information about the imbalance of the social insurance fund in the future. Vietnam's social insurance agency needs to find solutions to overcome these limitations in order to strengthen trust and improve the attitude of workers towards social insurance in general and voluntary social insurance in particular.

Secondly, hypothesis H2 was not statistically significant ($\beta = 0.049$, p-value = 0.251). While other studies have concluded that subjective norms have a positive impact on the intention to participate in voluntary social insurance (Thuy & Thu, 2020; Cuong et al., 2013; Tien, Oanh & Anh, 2021; Ninh et al., 2021; Cong et al., 2024). Subjective norms are still considered one of the important factors influencing the intention to participate in voluntary social insurance. Reference groups such as family, friends, colleagues, and society can provide information about voluntary social insurance and influence the decision to participate. If reference groups

perceive that participating in voluntary social insurance is beneficial, it can increase workers' intention to participate.

Thirdly, perceived behavioral control has a positive impact on the intention to participate in voluntary social insurance among workers ($\beta = 0.373$, p -value = 0.000). This result is supported by the studies of Aziz et al. (2015), Ninh et al. (2021), and Mai & Mai (2023). This is the most influential factor on the intention to participate in voluntary social insurance. This factor is related to the individual worker's perception of the conditions for performing the action. When equipped with sufficient resources or necessary information, the intention to participate in voluntary social insurance is strengthened. In other words, individuals are more likely to engage in certain behaviors if they believe they have sufficient resources and confidence to perform that behavior. Therefore, to promote the intention to participate in voluntary social insurance among workers, Vietnam's Social Insurance should calculate insurance premiums reasonably, and the State should also have policies to support some low-income workers to participate in voluntary social insurance. In addition, information about voluntary social insurance needs to be widely disseminated to workers, especially simple and easy-to-understand forms of communication so that workers can understand the benefits and role of voluntary social insurance for workers.

Fourthly, voluntary social insurance policies have a positive impact on the intention to participate in voluntary social insurance among workers ($\beta = 0.123$, p -value = 0.004). Voluntary social insurance policies are related to regulations, insurance benefits, and the quality of services provided. These factors clearly have a significant impact on the intention to participate in voluntary social insurance. Over the past implementation period, voluntary social insurance policies have made important contributions to ensuring the lives of workers. However, there are also some limitations to this policy, such as a narrow scope of voluntary social insurance, high contribution rates; the government has policies to support low-income people to participate, but the level of support is still low; conditions for receiving a one-time social insurance payment are simple; the insurance contribution period to receive a pension is still long. The social insurance agency needs to take measures to overcome these limitations, create a certain flexibility for voluntary social insurance so that more and more workers can participate.

Finally, communication about voluntary social insurance policies has a positive impact on the intention to participate in voluntary social insurance among workers ($\beta = 0.067$, p -value = 0.076). Cuong et al. (2013) also supports this research result, suggesting that communication is one of the important factors that positively influence the intention to participate in voluntary social insurance. Hassan & Abbas (2020) also shows that awareness has a positive impact on insurance participation. Therefore, to enhance the intention to participate in insurance, communication about policies must be emphasized. When communicating, it is also necessary to pay attention to the message of the meaning of voluntary social insurance in ensuring the lives of workers. In addition, the content about benefits, support policies, and regulations also needs to be noted. Because most workers participating in voluntary social insurance work in the informal sector, the form of communication should be concise, brief, and use popular media such as social networks or direct communication to workers at agencies and enterprises.

In conclusion, the study has shown the positive impact of factors such as attitude towards risk and the behavior of participating in insurance, perceived behavioral control, voluntary social insurance policies, and communication about voluntary social insurance policies on the intention to participate in voluntary social insurance among workers in Vietnam. Through the research results, a number of recommendations and solutions have been proposed to attract more workers to participate in voluntary social insurance.

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