

# Why People Decide to Participate in National Health Insurance? Based on Theory of Planned Behaviour and Technology Acceptance Model

Ernawaty Ernawaty, Cindy Novia Dimantri

Faculty of Public Health, Universitas Airlangga, Mulyorejo, Surabaya, Indonesia  
ernawaty@fkm.unair.ac.id

**Keywords:** Decision, Membership, National health insurance, Technology acceptance model, Planned behaviour theory.

**Abstract:** There are many Indonesian have not participated in National Health Insurance (NHI). Preliminary study on 2016 in Faculty of Public Health, Universitas Airlangga showed only 29.5% (102 students) participated in NHI. From 102 students, only 34.3% paid the premium by their parents for their non-wage workers status whereas for the rest, the premium was paid by employer or through wage cut. The purposes of this study are influenced by the combination of planned behavior theory and technology acceptance model. This observational analytic research with cross-sectional design used stratified random sampling to obtain 242 parents of the student. Result shows that most parents had negative perceived ease of use and perceived usefulness about NHI. Attitude, subjective norm and perceived behavioral control of parents about NHI are also negative, whereas regression test shows that perceived ease of use influenced perceived usefulness. Both perceived usefulness and perceived ease of use influenced attitude on NHI, whereas intention to participate in NHI was influenced by perceived usefulness, attitude, subjective norm and perceived behavior control. Conclusion shows, need to improve perceived usefulness, perceived ease of use, attitude, subjective norm and perceived behavioral control through education on NHI program.

## 1 INTRODUCTION

In the past 15 years, many countries have adopted universal health coverage (UHC) as an aspiration for national policy. In 2010 World Health Report, universal health coverage is defined as providing everyone in a country with financial protection from the costs of using health care and ensuring access to the health services they need (World Health Organization, 2010).

The National Health Insurance Program (NHI) is a form of government commitment to the implementation of public health insurance to reach universal health coverage in Indonesia which entered into force on 1 January 2014. NHI membership is mandatory and implemented gradually over the entire people in Indonesia referring to Article 4 at the Social Security Act Constitution in 2004 which is declare that the principle of compulsory membership is a principle that requires the entire population to become social security participants which implemented in stages.

Beside Indonesia, Taiwan also implements national health insurance to reach universal health

coverage since 1995. Based on research, participation in Taiwan almost reach 99% because it is a mandatory health insurance scheme (Wu et al., 2010).

Meanwhile Indonesia implemented national health insurance just recently. In 2014, national health insurance implemented to address growing disparities in health care and make basic health care available to entire population of Indonesia. There is however some evidence of areas where NHI in Indonesia is underperforming.

One of the problems in Indonesia is the low participation of citizen in national health insurance and the participation dominated by the low income family which their participation is paid by the government. Community's decision to participate in a health insurance scheme is determined by socio-cultural and socio-economic factors (Fenebga et al., 2015). There are several factors caused the decision of citizen to actively participate in national health insurance. Research showed that intensify community education and balanced commitment to technical and perceived quality improvement effort related to national health insurance are needed to

enhance and stimulate active participation in national health insurance (Alhassan et al., 2015).

Based on the preliminary survey conducted to 346 students at Faculty of Public Health (FKM), Universitas Airlangga, showed that only 29.5% (10 + 2 students) who participate in the program NHI. Among the 102 students, only 34.3% who pay premiums independently and classified as Not Receiver Wage Workers (PBPU). The purpose of this study was to analyze the factors that influence parents' decisions to participate in NHI program by using a combination of planned behaviour theory and technology acceptance model.

## 2 METHODS

This is quantitative observational with analytic design. The sample size on this research is 242 parents of Faculty of Public Health, Universitas Airlangga's students. The sampling technique used stratified random sampling technique. This study was conducted in December 2016 until May 2017. Data collected with questionnaire and analysed with statistical method to analyse the factors influencing intention to participate in NHI

## 3 RESULTS

This research showed parents' perception about perceived of used, perceived usefulness, attitude subjective norm and perceived behaviour control of the National Health Insurance (NHI) program.

Table 1: Perception of parents about Perceived Ease of Use and Perceived Usefulness of the National Health Insurance program (NHI)

Perceptions	Perceived Ease of Use		Perceived Usefulness	
	n	%	n	%
Bad	93	38.4	87	36
Enough	79	32.6	84	34.7
Good	70	28.9	71	29.3
Total	242	100	242	100

Table 1 shows that the majority of parents have poor perceptions of Perceived Ease of Use and Perceived Usefulness in the National Health Insurance (NHI) program.

Table 2: Perception of parents about the attitude, subjective norm, and perceived behavioural control of the National Health Insurance program

Perceptions	Attitude		Subjective norm		Perceived Behavioural Control	
	n	%	n	%	n	%
Bad	104	43	99	40.9	89	6.8
Enough	53	21.9	77	31.8	75	1
Good	85	35.1	66	27.3	78	2.2
Total	242	100	242	100	242	100

Table 2 shows that most of parents have a bad perception about the attitude, subjective norm, and perceived behavioural control of the National Health Insurance program (NHI).

Table 3: The test results of the influence between perceived ease of use and parents perceived usefulness on the NHI program

No.	Variable	Standardized Coefficients (β)	Significance (p)
1.	Perceived Ease of Use	0.700	0,000 *

Table 3 shows that the parental perception of perceived ease of use significantly influences the perceived usefulness with p value of 0.000. Therefore, there are similarities ratings of perceived ease of use of the perceived usefulness of students and parents.

Table 4: The Test Results of the influence of Perceived Usefulness and Perceived Ease of Use against Student Parent Attitude

	Variable	Standardized Coefficients (β)	Significance (p)
1.	Perceived Usefulness	0.236	0,000 *
2.	Perceived Ease of Use	0.275	0,000 *

\* a significant effect, P < 0.05

Table 4 shows that perceived usefulness and perceived ease of use has a significant influence on the attitude of parents of students on the National Health Insurance program (NHI).

Table 5: Influence Test of Perceived Usefulness, Attitude, Subjective Norm and Perceived Behavioural Control to the Student Parent's Intention to the National Health Insurance Program (NHI).

No.	Variables	Standardized Coefficients ( $\beta$ )	Significance (p)
1.	Perceived Usefulness	0.599	0,000 *
2.	Attitude	0.146	0,023 *
3.	Subjective Norm	0.529	0,000 *
4.	Perceived Behavioural Control	0.467	0,000 *

\* a significant effect,  $P < 0.05$

According to the table 5, it can be seen that the perceived usefulness, attitude, Subjective norms and perceived behavioural control have a significant effect on the parents' intentions to the National Health Insurance (NHI) program. Based on the influence ( $\beta$ ), it is known that perceived usefulness have the greatest influence on parents intention, then subjective norm and perceived behavioural control.

#### 4 DISCUSSIONS

In this research, there were several variables analysed to identify its influence towards intention to participate in national health insurance. The variables such as perceived of usefulness, attitude, perceived ease of use and subjective norm. These variables compiled based on Theory of Planned Behaviour and Technology Acceptance Model.

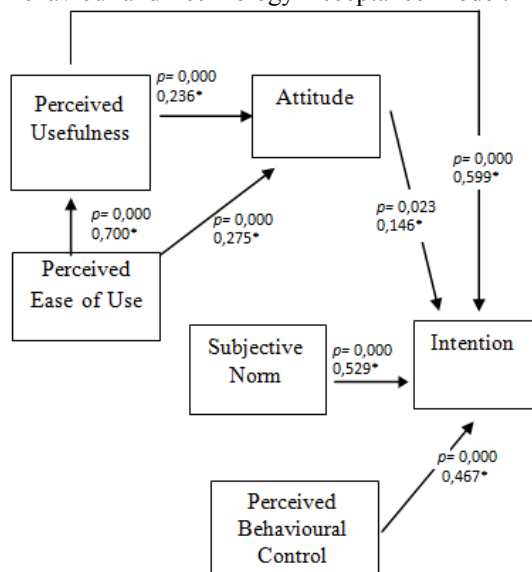


Figure 1: Factors affecting intention to participate in NHI

Based on figure 1, there are several factors affecting, directly and indirectly, towards intention to participate in NHI program. Perceived usefulness, attitude, subjective norm, and perceived behavioural control showed significant and direct influence towards intention to participate in NHI. Meanwhile, perceived of use and perceived usefulness also showed significant and indirect influence towards intention to participate in NHI.

#### 4.1 Perceived Usefulness

Perceived usefulness is defined as the extent to which a person believes that NHI program will provide benefits for student's parent. Based on the results of the study shows that most of parents (36.00%) have poor assessment of perceived usefulness. It can be interpreted that most of parents feel that the NHI program does not provide benefits in life. Results of linear regression analysis showed that perceived usefulness effect on the attitude of the parents of students. In tune with the research Widhiastuti, et al (2015) stated that the perception of the benefits (perceived usefulness) had a significant influence with NHI membership.

#### 4.2 Perceived Ease of Use

Perceived ease of use is to measure a person trust over NHI program will provide students and parents have health services easily in NHI era. Based on the survey results, revealed that most of parents (38.40%) have a perception Perceived ease of use is bad. This may imply that most of parents feel that the program is give less benefit to obtain health services.

#### 4.3 Attitude

Attitudes are a negative and positive response on the part of a person if they have to perform the behaviour to be determined, in relation to the student's parental attitudes toward the acceptability of the NHI program. Based on the results of this study is that the most of parents (43.00%) being negative to the NHI program. Linear regression test showed that attitudes affect the intentions of the parents of students participated in NHI. This is in line with study conducted by Purwaningsih (2016) which states that there is a significant relationship between the family head attitude and NHI program membership.

#### 4.4 Subjective Norm

Subjective norm is the perception of social pressure are used to behave or not behave that can be influenced by others. Most of parents (40.90%) rate subjective norm negatively. Linear regression test showed that the effect on the subjective norm influenced parents intention to participate in NHI program. This is in line with previous study by Takhti, Rahma and Abedini (2013) which describes the influence of subjective norm to intention.

#### 4.5 Perceived Behavioural Control

Perceived behavioural control is confidence that individual will ever on never do, which is then estimated by his ability to do. In this case, the student's parents will estimate their ability to receive the NHI program. Linear regression test showed that perceived behavioural control affect the parents' intention to participate in NHI program. This is contrasts with other study conducted by Melinda, et al (2016) which states that there is no relationship between behavioural control (perceived behavioural control) with the participation interest in BPJS.

#### 4.6 Intention

Intention is an indication of the readiness of individuals to perform certain behaviours that are assumed to be direct influence of individual behaviour. Based on the value of the influence of variables that affect the intention, subjective norm is the most powerful influencing variable.

### 5 CONCLUSIONS

Most of student's parents have perceived ease of use perceptions, perceived usefulness, attitude, subjective norm, and perceived behavioural control is bad against the National Health Insurance program (NHI). Results of regression analysis showed that perceived usefulness and perceived ease of use influence the attitudes of parents toward NHI program. Parents Intention becomes participants in NHI influenced by perceived usefulness, attitude, subjective norm and perceived behaviour control. The conclusion showed that to improve parents to participate in the NHI program, we need to increase the perceived usefulness, perceived ease of use, attitude, subjective norm and perceived behavioural control through education about NHI program.

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