Influence of Economic Status and Attitude toward Health Insurance on Participation Demand

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ABSTRACT

In Indonesia from the total expenditure on health, about 75% is paid by out of pocket. On the other hand although health insurance programs have been introduced for more than thirty years, they covered only 14.8% of the population and less than 5% are voluntary.

This study aimed to determine the cause of this low membership by studying and analyzing how economic status and attitude factors influenced demand on health insurance membership. This study involved 100 uninsured respondents and explanatory survey was conducted using the Likert’s scale questionnaire. The ordinal data was transformed to interval data by Successive Interval Method. Technical analysis using univariate, bivariate, and multivariate.

The results showed that 63% of the respondents supported health insurance and 56% showed interest in becoming members. The analysis showed that economic status (the level of wealth, income percapita, the magnitude of the loss and ability to pay for premium) and attitude factors (perception on health insurance, risk aversion, likelihood of illness, maximize utility, moral hazard, their confidence in health insurer credibility and health facility performance) had significant effect (p-value 0.00) on the demand for health insurance membership. Attitude factors had the strongest effect and the most dominant indicators were perception on health insurance, their confidence in health insurer credibility and moral hazard. However, the probability of respondents to become members of health insurance was almost equal to the probability of respondents not to become members.

Those result showed that, the government had to consider those factors to increase the health insurance membership.

Keywords: out of pocket, economic status, attitude factor, demand for health insurance.
I. INTRODUCTION

1.1 Background

The United Nation Development Program (UNDP) reported that Indonesia’s Human Development Index (HDI) continued to decrease from rank 92nd of 145 countries in 1999 to rank 117th of 175 countries in 2002.\(^1\) The health sector cause of this low HDI was a low health status due to the double burden of disease and problems in health financing such as unaffordable tariffs, fee for service payment system, a limited government’s funding on health so that health financing is left to the community, while on the other hand most (75%) of these funds came directly out of community member’s pocket\(^2,3\). Hence, the community has no access to health services when they have no money in hand so that morbidity and mortality risks keep increasing.

In many countries, financing health through an insurance system is a solution to providing an optimal healthcare service. In Indonesia, even though health insurance has been in place for 37 years, up until now only 14.8 per cent of the population is covered by health insurance. Most are covered by health insurance for civil servants (Pegawai Negeri Sipil – PNS) and only less than 5 percent of them are covered by voluntary health insurance\(^2,4\).

This fact demonstrates that voluntary health insurance participation in Indonesia is still very low and has been developing very slowly. On the other hand, the success of health insurance is determined by a large number of participants so that the risks can be spread out and widely in accordance to law of large number principle\(^5\). This participation is determined by the number of new participants and the continuity of membership\(^6\). Participation also describes health insurance demand, i.e. coverage of available health insurance that is affordable at different premiums (Feldstein, 1979)\(^7\).

Various opinions, among others from Feldstein (1979), Jacob (1997), Santerre & Neun (2000) and Nyman (2002) on determinant factors of health insurance demand can be classified into indicators that represent two independent variables:
economic status and attitude toward health insurance\textsuperscript{7,8,9,10}. Indicators that describe economic status are income, wealth, health insurance premium and the probability of losing one’s income and wealth due to sickness\textsuperscript{7,11}. Attitude toward health insurance is represented by risk aversion, subjective judgments on the likelihood of illness, maximized satisfaction and moral hazard\textsuperscript{12}. Taking Indonesia’s situation into account, there seems to be two other attitude indicators that should be included: trust in health insurance provider and perceptions on quality of service provided for health insurance participants.

Whether those factors have the same effect on health insurance participation demand in Indonesia, West Java in particular, what the magnitude of their effects is, which factor has the greatest effect and what the probability of participating in a health insurance is, require further verification and analysis. By finding out these factors it is hoped that appropriate intervention can be formulated in order to increase participation in health insurance so that every member of the community can have access to health services which in turn will increase health status and human development index. In addition, finding out the probability of participating in health insurance, the opportunity to carry out the National Social Insurance System (Sistem Jaminan Sosial Nasional - SSJN) will be open.

1.2 Problem Identification

Based on above description, the following problems are identified:

1. Does one’s economic status influence his/her demand to participate in health insurance.

2. Does one’s level of support on health insurance influence his/her demand to participate in health insurance.

3. What is the probability of the responder in becoming a health insurance member.
1.3 **Purpose of Study**

The study aims to:

1. Study and analyze whether one’s economic status influences his/her demand to participate in health insurance.
2. Study and analyze whether one’s level of support on health insurance influence his/her demand to participate in health insurance.
3. Analyze the probability of the responder in becoming a health insurance member.

1.4 **Benefit of Study**

1. By knowing the factors and their influence on health insurance participation demand, efforts to develop health insurance and to increase participation can be formulated, giving a priority to the factor with greatest influence.
2. The result may be able to support the government as the supporter, developer and driver of community healthcare insurance (Jaminan Pemeliharaan Kesehatan Masyarakat) in exploring the potentials, supported by the culture of gotong royong to accelerate health insurance adoption by the community and financing health through insurance in Indonesia.
3. The result may support government’s policy in carrying out National Social Insurance System bill.

II. **CONCEPTUAL FRAMEWORK AND HYPOTHESES**

From the review of the literatures, a relation between independent variables economic status and attitude toward health insurance with participation demand and interest on health insurance participation was formulated. Economic status was represented by income, wealth, loss of income and wealth due to illness and ability to pay insurance premium. Attitude toward health insurance was composed of subject’s opinion on health insurance, aversion from illness related risk, subjective judgment on the probability of getting ill, maximized satisfaction, moral hazard, subject’s trust
on health insurance provider’s credibility and perception about health services obtained through health insurance. Health insurance participation demand as a latent dependent variable is constructed by willingness/interest in becoming a health insurance member.

From previous conceptual framework, the following hypotheses are proposed:

1. The better the economic status, the higher the health insurance participation demand.
2. The more support one expresses toward health insurance, the higher his/her health insurance participation demand.

III. METHODOLOGY

An explanatory survey design was employed with a total of 100 study participants. The study participants were non-insured and were picked from a control group in a previously conducted study on health insurance participation model. Data were collected using a questionnaire requesting participants to provide their responses in a Likert ordinal scale form. Ordinal data were converted into interval data by using the method of successive interval. Univariate, bivariate and multivariate analyses were conducted with Lisrel 8.00813,14,15.

IV. RESULTS AND DISCUSSION

1. The majority of participants (more than 70%) expected to be served at every health service facilities, hospitals in particular, and only a small proportion (less than 5%) chose the community health center (puskesmas) to obtain the service. This finding was in accordance to a study by Thabrany (1995) that showed that the risk of economic loss was higher among inpatients compared to outpatients because of higher cost of hospital compared to puskesmas.

2. The majority (56%) of participants only knew about health insurance for civil servants (PNS)/retiree, 39% knew about Jamsostek and the rest knew about Community Healthcare Insurance (JPKM). Meanwhile, most of the
participants (66%) did not know about SJSN Bill. This showed that health insurance was not well known so that an accurate intervention effort is required to optimized health insurance promotion.

3. Out of four economic indicators as stated by Feldstein, Jacobs and Santerre & Neun, income and wealth loss due to illness failed to represent economic status. Based on the other three indicators, participants were distributed into three groups: 66% belonged to middle economic status and 17% belonged to each of low and high economic status groups. Participants’ income was the most influential factors out of the three indicators; changes in income determined health insurance purchase because someone will purchase health insurance when his/her income is above the insurance premium. In this study, participants’ income was calculated based on their spending. Income calculation is difficult to do in Indonesia because more than 70% of Indonesia’s population works in informal sectors with a variable income. The relation between income and the amount of spending can be used to estimate income based on the amount of spending.

4. Study result showed that most (61%) of the participants thought that expensive medication cost will influence wealth. This fact seemed to relate with community’s low to middle economic status. However, loss of wealth or income due to illness did not depict subject’s economic status because the loss was not substantial enough for their financial condition. Similar result was found by Thabrany et al (2002) that showed even for the poorest group in the community the loss of wealth due to illness did not destroy one’s household because of the culture of gotong royong and health services given free of charge for patients from low economic status. Someone would be willing to purchase a health insurance when the loss of wealth and income had a significant impact on his/her financial condition. Therefore, degree of wealth must be considered in delivering health insurance especially for determining the premium because someone will purchase a health insurance when his/her
income is far greater than the premium. This was shown by the willingness of the majority of the subject (55%) to pay low premium, less than Rp 25,000.00/family/month. There was a positive but not statistically significant (0.07) correlation between economic status with health insurance participation demand. Thus, the study hypothesis that the higher one’s economic level, the higher his/her health insurance participation demand can be accepted.

5. Result on the determinants of attitude toward health insurance showed that aversion of risk due to illness had a positive and significant contribution on subjects’ attitude toward health insurance as previously stated by Feldstein and Jacobs. Maximized satisfaction from this study showed a positive and significant contribution on subjects’ attitude so that subjects chose an action that may provide a higher satisfaction or chose an action that provided the same or a higher marginal benefit compared to the marginal cost spent in accordance with Feldstein’s utility theory. Likewise, moral hazard had a positive and significant contribution on subjects’ attitude toward health insurance in accordance with a study from Nyman that resulted in a theory that moral hazard is efficient and is an important reason for someone to purchase a health insurance.

The study result seemed to depict Indonesia’s current condition that trust on health insurance provider’s credibility gave a positive and highly significant contribution on subjects’ attitude on health insurance. The higher a subject’s trust on a health insurance provider’s credibility, the higher his/her support and probability of participation demand. On the other hand, perception on health service provider’s image gave a small but significant contribution but it did not determine subjects’ attitude toward health insurance. From all indicators of determinants of attitude toward health insurance, only subjects’ subjective judgment on the probability of getting ill did not give a significant contribution.
6. Results on subjects’ attitude toward health insurance showed that most (63\%) of the community member supported health insurance despite the lack of knowledge on health insurance. Perception on health insurance and trust on health insurance provider were more dominant compared to all other factors (p-value 0.00). Therefore, study hypothesis that the higher one’s support for health insurance, the higher his/her demand to participate can be accepted.

This potential should serve as a consideration for policy makers to immediately carry out efforts to shift health financing system toward health insurance. Therefore, efforts of intervention on attitude and interventions on increasing trust on health insurance provider should be prioritized to increase health insurance participation demand. The basis of this idea is in accordance with an opinion that states that someone’s positive or negative trust on the object of attitude is highly influenced by his/her personal experiences, culture, influential people, mass media, education, religion and emotion. Influence of the environment (including culture) may shape a behavioral pattern and affects one’s attitude toward a stimulus. Even though attitude change takes a long time, an intense, correct and directed intervention and prioritized on dominant factors may accelerate community’s acceptance for health insurance.

7. Community’s demand for health insurance participation seemed to have been present that 56\% of the subject asserted their interest to become health insurance participants in spite of their low to middle economic status. This condition is not sufficient to materialized health insurance participation in accordance to an opinion that says that willingness is not sufficient when not supported by ability to pay.

8. In this study, a probability analysis was conducted with a logit model that showed 1.06-1.37 higher probability of subject with interest on health insurance to become a health insurance participant compared to those that had no interest, as analyzed by their economic status and attitude toward health
insurance participation. This result did not show a major difference between the two groups, however, this should be an opportunity to increase health insurance participation by taking approaches on dominant factors into consideration.

9. Hypotheses tests results:

From above analyses, the following results were obtained:

Hypothesis 1:
The higher one’s economic status, the higher his/her demand for health insurance participation. This was supported by three economic indicators with a positive influence on participation demand, therefore the hypothesis was accepted.

Hypothesis 2:
The higher one’s support for health insurance, the higher his/her demand for health insurance participation. This was supported by six out of seven indicators of attitude with a positive and consistent influence on every outcome with a moderate to high correlation. Hypothesis was accepted.

V. CONCLUSION AND SUGGESTION

5.1 Conclusion

Based on above results and discussion, the following conclusions were drawn:

1. The better one’s economic status, the higher his/her demand for health insurance participation, but the impact was not major.

2. The higher one’s support for health insurance, the higher his/her demand for health insurance participation. Attitude, in this case was perception on health insurance and trust on health insurance provider, was a dominant factor.

3. Even though the community’s knowledge on health insurance was lacking, the community showed support and interest on health insurance. The probability of becoming a health insurance participant was similar (1.06-1.37
times) between those who showed interest with those who did not show interest in becoming a participant.

5.2 Suggestion

1. By knowing the factors and the influence of those factors on participation demand, intervention efforts can be formulated, giving priority on the most dominant factor. An ample support for the already apparent potential in the community should be done planned and intensively, starting from an organized community. *Gotong royong* principle in health insurance is in accordance with the community’s culture so that government’s intervention accuracy and political will should accelerate health financing through insurance.

2. The lack of difference of the probability of becoming a health insurance participant between those who shown interest with those who did not, is an opportunity for a mandatory health insurance.
References


