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Does JKN Member's Satisfaction on Healthcare Services Correlate with Sustainability of Premium Payment? Evidence from the Behavior of Self-Enrolled Member in Greater Jakarta Area

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Abstract

Since starting on 2014, there is a tendency of JKN's (*Jaminan Kesehatan Nasional*/National Health Insurance) self-enrolled members to pay the insurance premium irregularly. Marketing research results confirm that customer satisfaction is one of the essential indicators for a successful service delivery that lead to repeat buying behavior.

This study aimed to identify the relationship between JKN self-enrolled member's satisfaction on healthcare services and their behavior of paying the premium.

This cross-sectional study surveyed 196 of JKN's self-enrolled member in greater Jakarta area (Jabodetabek) using stratified random sampling. We applied a chi-square test for analyzing whether there was a relationship between the respondent's perception of healthcare satisfaction and behavior of routine and non-routine premium payment.

This study found that there was a different behavior of premium payment between those reported satisfied and non-satisfied to healthcare services. Around 79.7% of self-enrolled members in Jabodetabek who were reported satisfied with the primary healthcare paid the premium regularly, while among non-satisfied members, there were only 58.3% members paid the premium regularly. Another result showed that around 81.1% members who were reported satisfied to the hospital utilization paid the premium regularly. In contrast, non-satisfied members to the hospital services, there were 69.6% members paid the premium regularly. Our Chi-square tests confirmed that there were significant relationships between healthcare satisfaction and premium payment behavior.

A significant correlation between the member satisfaction to healthcare services and the premium payment indicated that BJPS Kesehatan in collaboration with healthcare providers both primary care and the hospital should improve their service delivery in order to encourage JKN's self-enrolled member to pay premium regularly.

Keywords: National Health Insurance, Jabodetabek, self-enrolled members, healthcare satisfaction, premium payment

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1. Introduction

Since starting in 2014, there is a tendency of JKN's (*Jaminan Kesehatan Nasional*/ National Health Insurance) self-enrolled members to pay the insurance premium irregularly. The budget deficit of *Badan Penyelenggara Jaminan Sosial* (BPJS) Kesehatan (Government of Indonesia has appointed BPJS Kesehatan since 2014 to manage JKN's health fund from its members) has reached Rp. 5.8 T on the first semester 2017 [1]. To date, there are around 10 million BPJS Kesehatan members that still have an outstanding premium payment. More than 50% self-enrolled members (PBPU) are having premium liabilities to BPJS Kesehatan with the total around Rp. 9 T [2].

Marketing research results confirm that customer satisfaction is one of the important indicators for a successful service delivery that lead to repeat buying behavior. Repeat purchase is buying of a product by a consumer of the same brand name previously bought on another occasion which indicates loyalty to a brand [3]. The behavioral objective of customer satisfaction programs is to increase customer retention rates [4], stronger loyalty, sales, and profits [5]. In the medical industry, many hospitals, especially those in the corporate sector, have begun to function as a service industry. Patient satisfaction is thus a proxy but a very effective indicator to measure the success of doctors and hospitals [6] — patients role as "consumers" who have rights of quality health care. The satisfaction leads to loyalty which may keep maintaining their consumers as a subscriber of health insurance.

BPJS Kesehatan reported that members satisfaction indexes were important both satisfaction to the primary healthcare and hospital. In total [7], a high amount of satisfaction rate, around 81% respondents stated that they were satisfied with *BPJS Kesehatan* (Branch Office and Call Center), primary healthcare, and hospital. In a subscription market such as insurance policy market, customers subscribed to a provider for long periods and tended to allocate a large percentage to pay a premium [8].

An experience of self-employed who buy private health insurance in Germany [9] is always being served by well healthcare services such as doctors, rooms, and other administrative services. The experiences result in a satisfaction in healthcare services which correlated with regular premium payment of this member. However, the private sectors health insurance premium price in Germany is controlled by the government to keep the price affordable.

This study aimed to identify the relationship between *JKN* self-enrolled member's satisfaction on healthcare services and their behavior of paying the premium in greater Jakarta area (*Jabodetabek*) (Jakarta, Bogor, Depok, Tangerang, and Bekasi area).

2. Methods

The cross-sectional data collection was conducted on March – April 2017. Subjects for this study consisted of 325 respondents of the self-enrolled member. (This study defined formal sector workers as International Labour Organization (ILO) definition that monthly salary regularly paid from the company, government, or else. Informal sector workers produce goods and services which creates their income. Usually operates

on the low-level organization, small scale activities without significant segregation of duties and equity, simple and personal relations. In Indonesia, most informal sector workers join BPJS Kesehatan as self-enrolled members and pay their premium regularly. In Jabodetabek, using modified household questionnaire was provided by previous *LPEM FEB-UI* similar study on 2015. The sample was selected based on stratified random sampling method (Figure 1.) with a confidence interval of 95% and margin of error (d) 5%. We filtered the respondents who exactly ever used *BPJS Kesehatan* membership and filled the satisfaction section questions in questionnaire results on 196 respondents (Population proportion (p) 0.5 for the maximum sample [10]. This study used some sample 325 which successfully followed-up from a previous similar study on 2015 by LPEM FEB-UI with the number of sample 404. The decreasing number of sample obtained on 2017 due to attrition: dead, move to other areas, change of BPJS Kesehatan membership type, and loss to follow up. However, we filtered the respondents who exactly ever use BPJS Kesehatan membership and filled the satisfaction section questions in questionnaire results on 196 respondents). Research ethics had been obtained from Faculty of the Public Health University of Indonesia with eligibility letter Ref:273/UN2.F10/PPM.00.02/2016. The study area was illustrated in Figure 2 and the number of sample listed on table 1.

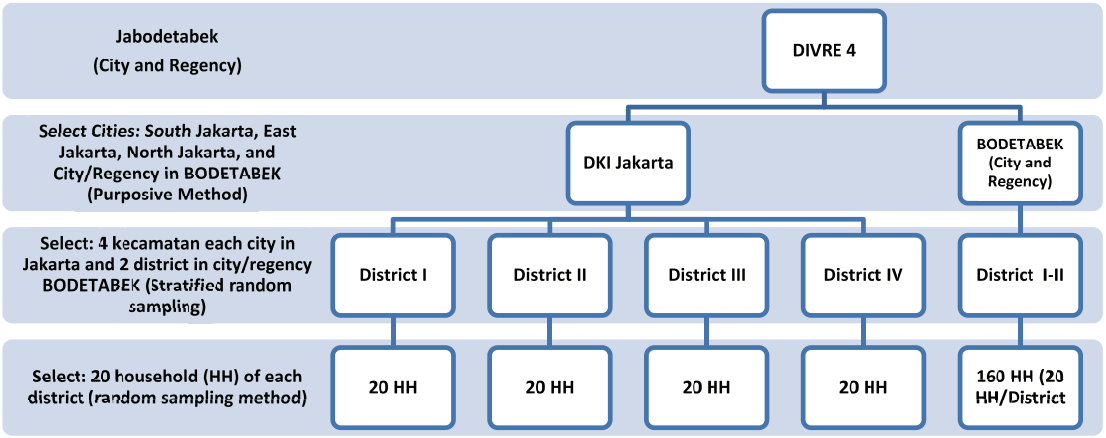

Figure 1: Multistage Random Sampling Techniques.

We developed three measures used in this study. First, the sustainability of self-enrolled premium payment was measured by routine payment which members always paid regularly per month and non-routine payment which members failed to pay *BPJS Kesehatan premium* regularly. Second, we selected relevant attributes of customer satisfaction to primary healthcare services measured by [10] aspects of the care experience which help identify tangible priorities for quality improvement (i) distance to *Puskesmas*/other primary healthcare (ii) completeness of healthcare infrastructures (iii) administrative services and procedures (iv) doctor's services and (v) medicine availability. Third, customer satisfaction to hospital services was measured by (i) distance to the hospital (ii) administrative services and procedures (iii) doctor's services (iv) medicine availability (v) in-patient infrastructures and (vi) referral services from primary healthcare services. We applied a chi-square test to analyze whether there was a relationship

Figure 2: Study Area DIVRE IV.

TABLE 1: Number of Sample.

Area ID	Area	Number of Sample
3171	South Jakarta	46
3172	East Jakarta	40
3175	North Jakarta	40
3201	Bogor Regency	21
3216	Bekasi Regency	8
3275	Bekasi City	11
3276	Depok City	16
3603	Tangerang Regency	6
3674	South Tangerang City	8
	Total	**196**

between respondent's perception of healthcare satisfaction and behavior of routine and non-routine premium payment.

Past studies related to premium payment sustainability in Burkina Faso, community-based health insurance (CBHI) members' poor perception of their healthcare provider, was an important reason for dropping out of the Nouna Community Based Insurance scheme [11]. Another similar study from rural tropical Ecuador [12] found that low health-care utilization could be an obstacle to successful implementation of a CBHI scheme and was closely associated with the local health services and availability of dedicated and friendly staff and essential drugs. In the marketing research theory [13], an attitudinal approach that means related to people's attitudes and the way they look at their life has focusing satisfaction mainly to the next brand recommendation, repurchase intention,

and price premium to pay. Figure 3. illustrate the conceptual framework of this paper [10].

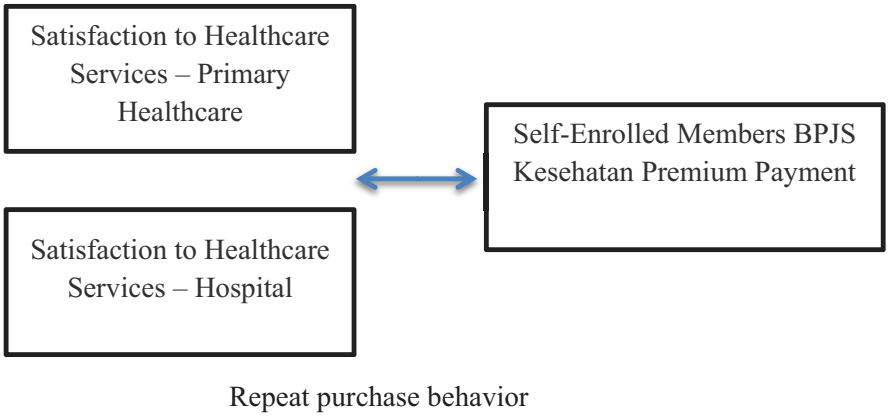

Figure 3: Conceptual Framework.

3. Results & Discussion

3.1. Descriptive data analysis

We observed from table 2 that household head ages are ranging between 25 and 80 years. Most of the respondents had a total income in a household under 5 million rupiah with 31.1% household head's education still at junior high school or below. Around half of the respondents were registered in Class III BPJS Kesehatan membership and 23% of total respondents were the non-routine premium payer. Some reasons of non-routine payment were unstable income (14.3%), high premium price (8.7%), forgot to pay (5.6%), and never utilized *BPJS Kesehatan* membership (5.1%).

By being BPJS Kesehatan members, respondents mostly felt useful (74%) and were easy to obtain the healthcare services (68.4%). However, it was only a few respondents that utilized the membership often (at least once per month). Some difficulties at healthcare utilization were a long time at queuing (54.1%), unfriendly services (21.9%), unavailable medicine (18.4%), failed to obtain referral letter (15.3%), document administrative problems (12.2%), unavailable inpatient room (12.2%), out of and pocket payments occurred (11.7%). Some 67.3% of respondents utilized the healthcare services using BPJS Kesehatan not exactly in a month. At descriptive statistics, it showed that only a few respondents that had the plan to stop the membership of *BPJS Kesehatan* (6.6%).

3.2. Chi-square tests for primary healthcare utilization

Around 79.7% of self-enrolled members in Jabodetabek who were reported satisfied to the primary healthcare paid the premium regularly, while among non-satisfied members, there were only 58.3% members paying the premium regularly (table 3). There was a different behavior of premium payment between those reported satisfied and

Table 2: Descriptive Statistics.

Item	Description	Mean	St. Dev	N
Premium Payment	Routine 1: 77% Non-routine 0: 23%	0.77	0.422	196
Household Age (Years)	25-80	49.23	12.164	196
Household Head Education	Above Junior High School 1: 68.9% Others 0: 31.1%	0.69	0.464	196
Registered Class	1:26.5% 2:26.5% 3: 46.9%	-	-	196
Stop BPJS Kesehatan	Yes:6.6% No:86.7% I Don't Know:6.6%	-	-	196
BPJS Kesehatan Utilization	1: Very Often (> once per month) 9.7% 2: Often (once per month) 21.9% 3: Rare (not exactly in a month) 67.3% 4: Never 1%	2.60	0.676	196
Easy to obtain healthcare services	1: I Don't Know 0.5% 2: Not Easy 5.6% 3: Usual 25.5% 4: Easy 68.4%	3.62	0.617	196
Benefit BPJS Kesehatan	1: Very Useful 18.9% 2: Useful 74% 3: Not Really Useful 6.6% 4: Not Useful 0.5%	1.89	0.514	196
Average Income per Household	1: < Rp. 1 Million 1% 2: Rp. 1-<2 Million 6.6% 3: Rp. 2-<3 Million 12.2% 4: Rp. 3-<4 Million 29.6% 5: Rp. 4-<5 Million 21.9% 6: Rp. 5-<7.5 Million 19.4% 7: Rp. 7.5-<10 Million 6.6% 8: Rp. >=10 Million 2.6%	4.62	1.450	196

non-satisfied to healthcare services. Although this study could not identify reasons for different behavior, another research in a community based health insurance result mentioned that in Ethiopia, process and management were significantly associated with satisfaction determined by office opening times, the membership card collection process, waiting time (length of time between registration and use of the service), and amount of payment, which were all positively associated with satisfaction [14]. Another study in India's national health insurance scheme implied that there was slightly less satisfactory services provided by doctors and nurses affect satisfaction to the healthcare services [15].

Table 3: Crosstab Primary Healthcare Services Satisfaction and Premium Payment.

			Premium Payment 2017 Routine=1		Total
			0	1	
Dummy Satisfaction FKTP 2017-Satisfied=0	0	Count	35	137	172
		% within Dummy Satisfaction FKTP 2017-Satisfied=0	20.3%	79.7%	100.0%
	1	Count	10	14	24
		% within Dummy Satisfaction FKTP 2017-Satisfied=0	41.7%	58.3%	100.0%
Total		Count	45	151	196
		% within Dummy Satisfaction FKTP 2017-Satisfied=0	23.0%	77.0%	100.0%

Our chi-square test [16] confirmed that there was a significant relationship between primary healthcare satisfaction and premium payment behavior with p value 0.039, alpha 5% (table 4). Non-satisfied self-enrolled member to the primary care had an odds ratio or probability around 0.358 times with confidence interval 95% (CI=0.147 – 0.873) to pay premium regularly.

Table 4: Chi-Square Tests Primary Healthcare Satisfaction.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.411[a]	1	.020		
Continuity Correction[b]	4.273	1	.039		
Likelihood Ratio	4.813	1	.028		
Fisher's Exact Test				.035	.023
Linear-by-Linear Association	5.384	1	.020		
N of Valid Cases[b]	196				

0 cells (.0%) have expected count less than 5. The minimum expected count is 5.51. Computed only for a 2x2 table

3.3. Chi-square tests hospital utilization

Another result table 5 shows that around 81.1% members who were reported satisfied to the hospital utilization paid the premium regularly. In contrast, non-satisfied members to the hospital services, there were 69.6% members paying the premium regularly. The chi-square test confirmed that there were significant relationships between hospital services satisfaction and premium payment behavior with p value 0.098, alpha 10% (table 6.). Non-satisfied self-enrolled member to the hospital services had an odds ratio or probability around 0.533 times with confidence interval 95% (CI 0.270-1.050) to pay premium regularly. Besides healthcare satisfaction, there was another factor that may result in discontinued of premium payment such as in Kilifi district in Kenya showing that within community-based health insurance scheme. Households reported that they were not interested in renewing their membership due to corruption affecting management and leading to dissatisfaction [17].

4. Conclusion

This study explored the relationship between member satisfaction to healthcare services and the premium payment. Our study revealed that there was a significant correlation between satisfaction and the sustainability of premium payment. This result indicated that *BJPS Kesehatan,* in collaboration with healthcare providers both primary care and hospital, should improve their service delivery to encourage JKN's self-enrolled member to pay premium regularly. Improving customer satisfaction would not only benefit *BPJS Kesehatan* for their premium collection but also for service providers to keep customer loyalty. In the long run, improving customer satisfaction would also become a

Table 5: Crosstab Hospital Services Satisfaction and Premium Payment.

			Premium Payment 2017 Routine=1		Total
Dummy Satisfaction FKRTL 2017-Satisfied=0			0	1	
	0	Count	24	103	127
		% within Dummy Satisfaction FKRTL 2017-Satisfied=0	18.9%	81.1%	100.0%
	1	Count	21	48	69
		% within Dummy Satisfaction FKRTL 2017-Satisfied=0	30.4%	69.6%	100.0%
Total		Count	45	151	196
		% within Dummy Satisfaction FKRTL 2017-Satisfied=0	23.0%	77.0%	100.0%

Table 6: Chi-Square Tests Hospital Services Satisfaction.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.364[a]	1	.067		
Continuity Correction[b]	2.744	1	.098		
Likelihood Ratio	3.279	1	.070		
Fisher's Exact Test				.077	.050
Linear-by-Linear Association	3.347	1	.067		
N of Valid Cases[b]	196				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.84.					
b. Computed only for a 2x2 table					

key success of implementation *JKN* program. This in-parametric study, however, should be completed with a more rigorous and comprehensive analysis to capture a member's behavior of premium payment.

Acknowledgment

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Competing Interest

Authors declare that there is no competing interest.

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