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THE IMPLEMENTATION OF INDONESIAN NATIONAL HEALTH INSURANCE PROGRAMME: HOW SATISFIEDWERETHE INSURED PARTICIPANTS AND THE HEALTHCARE PROVIDERS?

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Abstract

This study examined how satisfied the insured participants and the healthcare providers were with the services provided by the BPJS Health. The study took place in 24 cities/districts in Indonesia. The data was collected through face-to-face interviews with 17,820 insured participants and 1,170 healthcare providers.The survey revealed that the participantswere satisfied with the services they had obtained from the providers. However, the participants at the primary healthcare facilities hada significantly lower satisfaction level than those at the secondary healthcare facilities. Better facilities and medical equipment, better services from medics and paramedics, better drugs availability and quality, along with assurance in obtaining a proper and timeline treatment, all contributed to the higher satisfaction level. Policy makers need to consider making an improvement on the facilities and service qualities at the primary healthcare facilities in order to enhance the participants' trust. Otherwise, the referral system implementation under the NHI system might not be effectively implemented as participants prefer to get a treatment from secondary healthcare facilities. This study suggests that empathy attributes are the key factor in building satisfaction level. Special attentions need to be given on the "human" aspect of the service providers.

Keywords: healthcareproviders, insured participants, national health insurance, satisfaction

Introduction

Indonesia has implemented a social health insurance (SHI) from a long time ago, but it grew very slowly due to the inconsistent implementation of SHI principles (Thabrany, 2012). However, in 2004, the Indonesian government was committed to introduce a National Health Insurance Programme, and by 2019 to cover a projected population of 257.5 million (Simmonds and Hort, 2013). A national system of Health Insurance wouldintegrate the existing schemes, combining contributions from the formal and informal workforce with the government's contributions for the poor into a single pooled fund. Regional government schemes will also be progressively integrated (Road Map towards National Health Insurance (2012).

On January 1, 2014, the National Health Insurance Program (hereafter JKN) started as a realization of the National Social Security mandated by the Law

Number 40 of 2004 on National Social Security System (SJSN). Through this program, every citizen is expected to get a comprehensive health care covering promotive, preventive, curative and rehabilitative services with an affordable cost through an insurance system. During the time of the treatment, an insured participant only needs to follow the established procedures and show a membership card to receive the needed health service. Under the JKN system, all insured participants who need healthcare should first consult a primary healthcare facility, namely a Puskesmas, a family doctor, or a clinic which has a collaboration with the Social Security Management Agency (hereafter BPJS Health). A health service of a higher level facility such as a hospital can be accessed on the basis of a referral from the primary healthcare facility, except for an emergency. If this procedure is not followed, BPJS Health will not cover the cost incurred.

This study use the SERVQUAL model to assess the service quality that the BPJS Health had provided by analyzing the five dimensions of SERVQUAL, namely: tangible, empathy, reliability, responsiveness, and assurance. In fact, there are other conceptual models that can be used to measure service quality. Nevertheless, disagreements about the best method to measure service quality still exist (Yaghi, 2010). According to Lee (2007), service quality is difficult to conceptualize and to measure because it is an elusive and abstract concept, which makes objectivity difficult. This issue occurs because of the four service characteristics: intangibility, heterogeneity, perishability and inseparability (Ladhari, 2009).

According to Brady and Cronin (2001), there are two major conceptualizations of service quality. They are the American school and the Nordic school, with the American school dominating the literature (Prayag, 2007). The American school defines service quality as the customers' assessment of the overall excellence or superiority of the service (Zeithaml, 1988), while Gronroos (1984) from the Nordic school defines perceived quality as a consumption process in which the customer is a part of the service process that leads to an outcome result.

The American school measures a service quality by using a scale called the SERVQUAL, which is the most widely used scale (Stodnick and Rogers, 2008). According to Santouridis *et.al* (2009), the most prominent instrument for service quality measurement among researchers, practitioners and managers is SERVQUAL.

Specific to healthcare services, Hu et al. (2011) stated that a measurement of customer satisfaction has received increasing emphasis recently due to clinicians' and researchers' desire to measure outcomes that reflect the patient's unique perspective. Nowadays, healthcare facilities must focus on customer demands for consistency and meeting needs, for clear policies regarding service quality, and for up-to-date medical treatment (Tang and Cheng, 2010). Furthermore, all of these can help to improve and to increase the loyalty of both customers and healthcare facilities staff members.

In the context of JKN implementation, it is important to measure the insured patients' and healthcare providers' perceptions toward the service quality that has been provided by the implementing body (BPJS Health), as it will have a

significant impact on their satisfaction and loyalty towards the BPJS Health. Many studies show the relationship between perception on service quality with satisfaction and then utimately leads to loyalty (Buttle, 1996; McAdam et *al*., 2003; Seth *et al*., 2005, Edvardsson, 2005, Bontis and Brooker, 2007). BPJS Health needs to understand how satisfied and loyal the insured participants who pay the monthly premium although it is mandatory for them. It is also crucial for the agency to assess the satisfaction and loyalty of the healthcare providers as they do not only consist of government healthcare facilities but also private healthcare facilities that have joined the program on voluntary basis.

Customers are considered to be satisfied whenthey can get more benefits than their cost (Liu and Yen, 2010). Customer satisfaction plays the most important role in the total quality management (Hu *et al*., 2011). Understanding the outcomes of customer satisfaction, including customer loyalty and the intention to continue their relationship with a particular healthcare services remain relatively unexplored despite its importance (Bei and Chiao, 2001). According to Hu *et al.* (2011), the Swedish Customer Satisfaction Barometer (SCSB) model established in 1989 was the first National Customer Satisfaction Index Model pertaining to purchased and consumed products and services. Due to the success of the SCSB model, more and more nations and areas have modified this model to construct different types of National Customer Satisfaction Index Models, such as the American Customer Satisfaction Index (ACSI) Model, the UK Customer Satisfaction Index Model, the European Customer Satisfaction Index model, among others (Groonholdt *et al*., 2000).

Of the three models, the ACSI model has proven to be the most popular, and has been implemented in many areas outside America, such as Europe and Asia. ACSI Institute would regularly use the American Customer Satisfaction Index (ACSI) to evaluate patient satisfaction with hospitals in the United States (American Customer Sastisfaction Index, 2013). This study adopted the basic ACSI conceptual model, as shown in Figure 1.

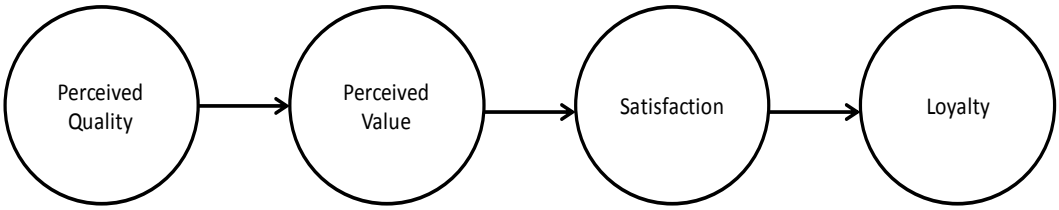

Figure 1. Basic ACSI conceptual model

Figure 2 is a research model of insured participants or healthcare providers that depicts five antecedents derived from SERVQUAL model, including the tangible attributes, the empathy attributes, the reliability attributes, the responsiveness attributes, and the assurance attributes with respect to BPJS Health services. Three consequences derived from ACSI model were also included: perceived value, satisfaction, and loyalty. Participant or providers loyalty was the ultimate dependent variable in the model.

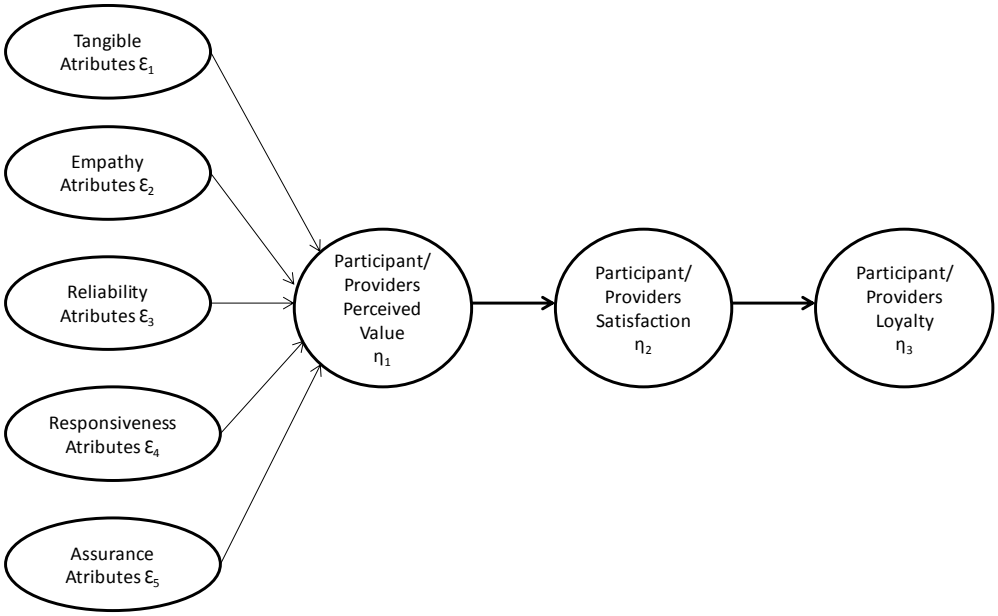

Figure 2. Research model of insured participant and healthcare providers' satisfaction and loyalty

Prior and since the inception of the NHI, many studies have been carried out on the system, model, policy and legal, scheme, methods, financial and economic perspectives of the Indonesian NHI (for examples: Thabrany, 2009; Lagomarsino et.al., 2012; Dalinjong and Laar, 2012; Fuady, 2013, Simmonds and Hort, 2013; Rokx *et al*., 2013; Harimurti *et al*., 2013). However, there have been limited studies on micro perspectives of the JKN implementation, such as how satisfied are the insured participants and healthcare providers withthe service quality of JKN program that has been implemented by BPJS Health? What are the determinants of the satisfaction and loyalty level? What aspects should BPJS Health improve in order toenhance the participants' and providers' level of satisfaction, and which one should be prioritized? This study aims at giving an insight and understanding on how satisfiedthe participants and providers were with the first year of JKN implementation led by the BPJS Health. This information is considerably important for the BPJS Health and the Indonesian Government, and might also be important for other countries that are planning to introduce an NHI/mandatory health insurance.

Methods

The study took place in 24 cities/districts in Indonesia in 2015. The study design consisted of two stages, namely the qualitative and the quantitative stage. The qualitative stage, that is explorative by nature, aimed at obtaining service attributes in all contact points of the BPJS Kesehatan service, both for the participants and the healthcare providers. The participants had a Focus Group Discussion (FGD), while the healthcare providers had in-depth interviews. Ten FGDs and 25 in-depth interviews with the participants and providers,

respectively, were conducted in five cities. The results from the qualitative research stage were then used to design the questionnaires for the quantitative stage.

Systematic random sampling was applied in selecting participants and healthcare providers. BPJS Health shared the roster of participants and healthcare providers from which the random samples were taken. The participants respondents consisted of outpatients and inpatients at primary and secondary healthcare facilities. They were screened-out to see whether they had used BPJS Health's services at healthcare facilitiess in the past six months or not. The interviews were conducted at home or at healthcare facilities, wherever is more convenient for them. Meanwhile, the providers that consisted of the head or director of Public Health Centre (Puskesmas), clinics or hospitals were interviewed at their office.The sample included 17,820 insured patients and 1,170 healthcare providers. The sample included 17,820 insured patients and 1,170 healthcare providers. At the national level, the samples provided 1% margin of error at 99% confidence level. For insured participants, it was divided into two groups of sample, namely government-insured participants (PBI) and self-insured participants (Non-PBI). Both groups consisted of samples who had obtained services from primary healthcare providers and secondary healthcare providers. The later consisted of outpatients and inpatients. Meanwhile, for the healthcare providers, the sample consisted of primary and secondary healthcare providers of both government and private-owned.

Two sets of questionnaire for each insured participant survey and healthcare provider survey were developed. The questionnaires that were composed of five sections were designed to collect data from the participants and providers. The five sections included: the service quality scale, the satisfaction scale, the perceived value, the loyalty scale, and finally the personal basic information section. The service quality scale referred to the findings from qualitative study that had been conducted prior the survey. It consisted of 37 items scale for insured participant and 26 items scale for healthcare providers. The satisfaction scale of this study was composed of 6 items, while the perceived value consisted of 3 items, and then 4 items for loyalty. All rated questions were measured on a five-point scale. Table 1 explains the constructs and measurement indicators in the questionnaires of this study.

Table 1. Constructs and measurements in the questionnaires

Questionnaire	Constructs	Measurement Indicators
Insured Participants	Tangible	Facilities and room cleanliness; facilities and room comfort; devices availability; drugs availability; personnel availability
	Empathy	Sincerity, attentiveness, friendliness, politeness, patience, willingness to handle complaints from doctors, paramedics, administrative staffs
	Responsiveness	Speed in services: admission officers, other staffs; speed in handling patients; speed in handling complaints
	Reliability	Clarity in insured or non-insured treatment; easiness in getting treatment; doctors' capabilities/competencies; drugs quality; accuracy in handling complaints

Questionnaire	Constructs	Measurement Indicators
	Assurance	Certainty in receiving treatment; equality in treatment; security in receiving treatment; value for money; assurance in problem solving
	Perceived value	Benefits obtained as insured participants
	Satisfaction	Satisfaction with each dimension; overall satisfaction from all experiences; importance of services attributes
	Loyalty	Willingness to continue as insured participants; willingness to pay premium on regular basis; willingness to recommend BPJS Health to others; willingness to tell other positive things about JKN and BPJS Health
Healthcare Providers	Tangible	Adequacy of BPJS staffs' visit to providers; adequacy of information sharing to Providers and Public; adequacy of BPJS Health's offices; accessability of BPJS Health's offices
	Empathy	Seriousness of BPJS Health in dealing and coordinating with providers; BPJS Health's attentiveness and seriousness in handling providers' complaints; friendliness; politeness; patience in complaint handling
	Responsiveness	Speed in giving requested information; speed in delivering services; easiness in contacting BPJS Health's people; willingness of BPJS Health in answering questions; speed in handling complaints; speed in claim verification
	Reliability	Clarity in insured vs uninsured treatment; clarity on rights and obligations as providers; payment accuracy; clarity of referral system; clarity of information on chronic diseases program; primary and secondary coordination quality; quality of problem solving
	Assurance	Knowledge of BPJS Health staffs; BPJS Health's payment assurance; BPJS' Health assurance on problem solving
	Perceived value	Benefits obtained as providers
	Satisfaction	Satisfaction towards each dimension; overall satisfaction from all experiences; importance of services attributes
	Loyalty	Willingness to continue as providers; willingness to enhance partnership; willingness to recommend BPJS Health to other non-providers; willingness to tell other positive things about BPJS Health

A pilot test had been carried out first before the questionnaires were used in the national survey. Questionnaires that had been examined for their validity and reliability, as well as revised based on the pilot test result, were then used in the national survey.The data collection took place simultaneously in 24 cities/districts across Indonesia, and it represented cities/districts that had been managed by all 12 Regional Offices of BPJS Health. The participants and healthcare providers had structured face-to-face interviews.

The study first ranSPSS version 20.0 to process a descriptive statistics analysis, to perform a reliability analysis on the effectiveness of the questionnaires, and to understand the profile of the respondents, the internal consistency, and the relation between various variables. In addition, this study also tested and verified the relationship between five groups of quality attributes

(tangible, empathy, reliability, responsiveness, and assurances attributes), perceived value, satisfaction, and loyalty through structural equation modelling (SEM), and utilized LISREL 8.5.1 software as the SEM analysis tool.

Findings

Reliability Test

Factor analysis and reliability analysis followed the standard procedure for the pre analysis. In terms of reliability, it used Cronbach's α coefficient to test the unity of the subscales in the service quality scale. For the insured participant questionnaire, the Cronbach's α coeficient for the tangible, empathy, reliability, responsiveness, and assurance attributes were0.935, 0.963, 0.877, 0.945 and 0.925, respectively. The Cronbach's α coefficient for the whole scale was 0.983, which suggested that the overall reliability was excellent. The Cronbach's α coefficient of participant's perceived value was 0.763, of participant's satisfaction was 0.913, and of participant's loyalty was 0.824. It also showed that the reliability was good to excellent.

For the healthcare providers, the Cronbach's α coeficient for the tangible, empathy, reliability, responsiveness, and assurance attributes were 0.866, 0.925, 0.936, 0.903, and 0.821,respectively. The Cronbach's α coefficient for the whole scale was 0.964, which suggested that the overall reliability was excellent. Meanwhile, the Cronbach's α coefficient of provider's perceived value was 0.718, of provider's satisfaction was 0.879, and provider's loyalty was 0.860, which also showed that the reliability was good to excellent (Santos, 1999).

Participants'satisfaction with BPJS Health providers

The overall satisfaction scores of the insured participants with thehealthcare facilities (BPJS Health's Providers) were 4.01 (out of 5) for primary heathcare facilities, and 4.04 for secondary facilities as shown in Table 2. Better facilities, better quality of personnels, and better quality of drugs at the secondary healthcare facilities contributed to the higher score of satisfaction. In addition, participants perceived that the secondary healthcare providers had provided them with value for money benefits: the services received was more than the premium they paid.

Table 2. Participants'satisfaction mean score

Dimension	Item	Satisfaction Mean Score		t-Value
		Primary Healthcare	Secondary Healthcare	
Tangible	Restroom cleanliness	3.95	4.01	4.28**
	Waiting room comfort	3.97	4.03	4.16**
	Waiting room cleanliness	3.99	4.03	2.83**
	Seat availability at waiting room	3.95	4.03	5.40**
	Availability of medical personnel	3.97	4.03	4.19**
	Examination room cleanlines	4.01	4.06	4.17**
	Drugs availability	3.93	3.99	4.18**
	Medical devices completeness	3.92	4.03	7.97** *

Dimension	Item	Satisfaction Mean Score		t-Value
		Primary Healthcare	Secondary Healthcare	
Empathy	Doctor's sincerity in handling patients	4.06	4.06	0.21
	Paramedic's sincerity in handling patients	4.05	4.04	0.30
	Administrative personnel's sincerity in handling patients	4.03	4.04	1.05
	Medic's and paramedic's attentiveness in handling patients	4.03	4.03	0.31
	Medic's and paramedic's attentiveness in handling complaint	4.03	4.05	1.29
	Doctor's friendliness	4.08	4.10	1.12
	Nurse's and midwife's friendliness	4.05	4.07	1.75
	Doctor's politeness	4.08	4.09	0.51
	Nurse's and midwife's politeness	4.05	4.07	1.30
	Doctor's patience in handling patients	4.07	4.08	0.90
	Nurse's and midwife's patience in handling patients	4.02	4.05	2.49**
	Medic's and paramedic's willingness to handle patients' complaint	4.01	4.06	3.41**
Responsiveness	Admission personnel's speed	3.95	3.99	2.99**
	Medic's and paramedic's speed in handling patients	4.01	4.02	0.74
	Medic's and paramedic's speed in handling complaints	3.97	4.03	4.77**
Reliability	Clarity in insured or non-insured treatment	3.89	3.96	5.57**
	Easiness in getting healthcare services	4.03	4.03	0.50
	Appropriateness of types of doctor vs disease	4.01	4.05	2.92**
	Capabilities of doctors in handling patients	4.04	4.05	0.45
	Diagnose accuracy	4.04	4.08	3.73**
	Doctor's ability in explaining the disease to patients	4.04	4.08	3.02**
	Doctor's ability in explaining the prescribed drugs	4.04	4.05	1.13
	Drugs quality received by patients	3.97	4.01	2.52**
	Accuracy in handling complaints	4.01	4.03	1.51
Assurance	Certainty in receiving treatment	4.04	4.04	0.60
	Equality in treatment between BPJS insured participants vs private insured participant	3.99	4.01	1.69
	Feeling secure during treatment	4.02	4.04	1.19
	Value for money: premium paid vs services received	3.99	4.04	3.57**
	Competencies in solving problems	3.99	4.05	4.71**
Overall Satisfaction		4.01	4.04	2.53**

Note: ** P-value < 0.01; *** P-value < 0.001

Providers'satisfaction with BPJS Health services

Meanwhile, the providers' overall satisfaction scores with the BPJS Health's services were 3.72 (out of 5) for primary healthcare providers and 3.80 for secondary healthcare providers. There was not a significance difference between the two. Looking at the measures, as shown in Table 3, the secondary healthcare providers were significantly more satisfied than the primary healthcare providers in terms of their partnerships quality with BPJS Health. For primary healthcare providers who have indirect payment mechanism through local

government, their satisfaction of this payment method wassignificantly lower than that of the secondary providers that received the payment directly from BPJS Health.

Table 3.Providers' satisfaction mean score

Dimension	Item	Satisfaction Mean Score		t- Value
		Primary Healthcare Providers	Secondary Healthcare Providers	
Tangible	BPJS Health's visit frequency to providers	3.49	3.69	3.74**
	Adequacy of BPJS Health's sharing information sessions to providers	3.51	3.58	1.36
	Adequacy of BPJS Health's offices at regional level	3.53	3.61	1.37
	Accessability of BPJS Health's offices	3.68	3.76	1.38
Empathy	BPJS Health's personnel sincerity in dealing/coordinating with providers	3.75	3.84	1.80
	Attentiveness of BPJS Health towards provider's complaint	3.69	3.83	2.84**
	BPJS Health's sincerity in handling complaints	3.76	3.85	1.98**
	BPJS Health staff's friendliness	3.94	3.96	0.45
	BPJS Health staff's politeness	3.98	3.96	0.42
	Patience of BPJS Health staff	3.94	3.95	0.15
Responsiveness	Speed of BPJS Health in responding to information request	3.73	3.83	2.17**
	Speed of BPJS Health in providing services	3.78	3.84	1.23
	Easiness in contacting BPJS Health staff	3.76	3.89	2.82**
	Willingness of BPJS Health staff in responding to questions	3.81	3.89	1.87
	Speed of BPJS Health staff in responding to complaints	3.75	3.83	1.69
	Speed in claim verifications process	3.64	3.84	4.13**
Reliability	Clarity on insured vs uninsured treatment	3.70	3.68	0.41
	Clarity on the rights and responsibilities of providers	3.76	3.78	0.46
	Ontime payment	3.63	3.85	4.5**
	Clarity on the chronic diseases program	3.71	3.68	0.61
	Easiness of referral system implementation	3.63	3.69	1.15
	Coordination quality of primary and secondary providers	3.61	3.64	0.58
	Quality of problem solving	3.69	3.73	0.87
Assurance	BPJS Health staff's knowledge on JKN system	3.80	3.85	0.97
	Certainty in receiving claim payment	3.64	3.88	4.93**
	Certainty given on solving problems	3.72	3.81	1.99**
Overall Satisfaction		3.72	3.80	1.67

Note: ** P-value < 0.01; *** P-value < 0.001.

Participants' satisfaction and loyalty model

The final structural equation model of participants satisfaction and loyalty are provided in Table 4 with the GFI and RMSEA of the model were 0.853 and 0.069, respectively. This showed the overall goodness-of-fit of the model.

Table 4. The estimation of the regression (path) coefficient and correlation coefficient of the participant model

Path	Estimates of Covariance	Standard Error	t-value	Correlation Coefficient
Tangible ↔ Responsiveness	0.101	0.002	45.128	0.893***
Empathy ↔ Responsiveness	0.219	0.004	59.364	0.806***
Reliability ↔ Assurance	0.282	0.005	57.510	0.951***
Tangible → Perceived Value	-	0.008	2.135	0.022*
Empathy→ Perceived Value	-	0.008	30.336	0.319***
Assurance →Perceived Value	-	0.008	22.886	0.237***
Perceived Value → Satisfaction	-	0.005	5.012	0.030***
Reliability → Satisfaction	-	0.007	74.537	0.750***
Responsiveness →Satisfaction	-	0.006	80.100	0.612***
Satisfaction →Loyalty	-	0.014	21.036	0.215***
Perceived Value →Loyalty	-	0.014	38.877	0.469***

Note: *P-value<0.05; **P-value<0.01; ***P-value<0.001

From Table 4, the t-values of the covariance for each pair among the tangible attributes, the responsiveness attributes, the empathy attributes, the reliability attributes, and the assurance attributes were 45.128, 59.364, and 57.510, respectively, while the corresponding correlation coefficients were 0.893, 0.806, and 0.951, respectively. This suggests that the five attributes had a mutually positive correlation. The managerial implication of this finding is the improvement on one atribute will have positive impact to the others.

Furthermore, based on the SEM analysis result, the t-value of the relationship between the tangible and the perceived value was 2.135, which indicated that the relationship was significant ($p<0.05$). Therefore, an improvement on the tangible attributes at primary and secondary healthcare facilities will have a positive impact on participants' perception on the value of the BPJS Health' services. Similarly, the empathy and assurance attributes had significant relationship ($p<0.001$) with participants' perceived value, with the t-values of 30.336 and 22.886, respectively. The empathy expressed by medic and paramedic personnel at primary and secondary healthcare facilities, along with the assurance that the participants can get the proper and appropriate treatment, led to a better perception on the value of the BPJS Health's overall services.

The perceived value of participants, along withthe reliability and responsiveness of the services provided by BPJS Health has significant relationship with satisfaction, with t-values of 5.012, 74.537, and 80.1, respectively ($p<0.001$). Therefore, to improve participants' satisfaction level, BPJS Health not only needs to improve tangible, empathy, and assurance attributes, but also needs to enhance the reliability and responsiveness of the personnels at healthcare facilities, BPJS Centre, and BPJS Health's branch offices.

Meanwhile, the satisfaction of participants has a significant positive relationship with the loyalty, with t-value of 21.036 ($p<0.001$). Therefore, BPJS Health needs to maintain or even enhance the participants' satisfaction level,

especially among the out-of-pocket premium payers (Non-PBI participants), in order to ensure their loyalty.

Providers' satisfaction and loyalty model

The final structural equation model of providers satisfaction and loyalty are shown in Table 5. The GFI and RMSEA were 0.781 and 0.088, respectively. This showed the overall goodness-of-fit of the model.

Table 5. The estimation of the regression (path) coefficient and correlation coefficient of the provider model

Path	Estimates of Covariance	Standard Error	t-value	Correlation Coefficient
Reliability ↔ Tangible	0.290	0.019	14.966	0.724***
Reliability ↔ Assurance	0.256	0.016	15.837	0.872***
Tangible ↔ Assurance	0.235	0.017	14.016	0.655***
Empathy ↔ Responsiveness	0.358	0.019	18.404	0.834***
Empathy→ Perceived Value	-	0.029	9.126	0.333***
Reliability → Perceived Value	-	0.031	5.856	0.209***
Perceived Value → Satisfaction	-	0.017	4.592	0.809***
Tangible →Satisfaction	-	0.017	9.113	0.242***
Assurance →Satisfaction	-	0.029	18.035	0.623***
Responsiveness → Satisfaction	-	0.016	23.726	0.575***
Satisfaction →Loyalty	-	0.047	2.585	0.092*
Perceived Value →Loyalty	-	0.048	10.440	0.435***

Note: *P-value<0.05; **P-value<0.01; ***P-value<0.001

The provider's model shows a relatively different storywith participant's. As shown in Table 5, the t-values of the covariance for each pair among the reliability attributes, the tangible attributes, the assurance attributes, the empathy atributes, and the responsiveness attributes were 14.966, 15.837, 14.016, 18.404, respectively, while the corresponding correlation coefficients were 0.724, 0.872, 0.655, and 0.834, respectively. This also suggests that the five service quality attributes had a mutually positive correlation. An improvement on the BPJS Health's reliability, for example, will have a positive impact on the BPJS Health's assurance in the providers' perspectives.

The providers' perceived value towards the BPJS Health's services was significantly related to the agency personnels' empathy and reliability that have been shown to providers (t-values of 9.126 and 5.856, respectively). Looking at both models, it can be seen that empathy was the central attribute that plays a significant role in developing a positive perceived value towards the BPJS Heatlh.

The satisfaction of the providers was significantly related to the perceived value of the providers towardthe BPJS Health, along with the tangible, assurance, and responsiveness attributes, with t-values of 4.592, 9.113, 18.035, and 23.726, respectively. This suggests that the attributes that have a direct correlation with satisfaction was relativey different. While tangible and assurance attributes indirectly correlate with satisfaction of the participants, in the providers' model these two attributes directly correlate with providers' satisfaction level. The implication of these findings are two folds. Firstly, the BPJS Health needs to have a closer relationship with providers through information sharing and more

visits in order to obtain better providers' satisfaction level. Secondly, assurance on the payment as well as in problem solving were required by the providers.

Finally, the providers' model suggests that the loyalty of the providers was significantly related to their satisfaction. BPJS Health needs to maintain or even enhance the satisfaction level of its providers in order to obtain better loyalty. In this regards, special attention needs to be put on private healthcare providers who voluntary joined the JKN system.

Discussion

This study suggests that five attributes of services quality, namely tangible, responsiveness, empathy, reliability and assurance had a mutual positive correlation, for both participants and providers. Therefore, the managerial implication of this finding is the improvement on one attribute will positively impact to the others.

Inline with previous studies, this study also found that perception on service quality correlates with satisfaction level, and then ultimately leads to loyalty. (Buttle, 1996; McAdam et *al*., 2003; Seth *et al*., 2005, Edvardsson, 2005, Bontis and Brooker, 2007).

This study also suggests that results of SEM analysis on five dimensions of service quality, perceived value, satisfaction and loyalty for participants and providers are slightly different. The differences arise in variables that have direct correlations with perceived value and satisfaction.

In participants' model, perceived value has positive and direct correlations with tangible, empathy and assurance, while in providers', it has positive and direct correlation empathy and reliability. Although both of them are slightly different, it can be seen clearly that empathy was the central attribute that plays a significant role in developing a positive perceived value towards the BPJS Heatlh. This finding is inline with study by Buyukozkan et al. (2011), that also conclude that empathy is the most important healthcare service quality factor in Turkey.

Other difference comes from variables that have direct correlations with satisfaction of participants and providers. Participants' satisfactions will have a direct and positive correlation with perceived value, responsiveness and reliability, while providers' satisfactions will be influenced by perceived value, responsiveness, tangible and assurance. It means, to improve participants satisfaction, BPJS Health has to improve their perceived value, responsiveness and reliability. Meanwhile, to improve providers' satisfaction, BPJS Health has to improve not only providers' perceived value and responsiveness of BPJS agent like in participants, but also improve two others services quality attributes, namely tangible and assurance. Although direct correlate variables are slightly different, it also can be concluded that perceived value and responsiveness play important role to improve satisfaction level of participants and providers.

Conclusion and Recommendation

Conclusion

The BPJS Health in the first year of the JKN implementation has successfully obtained a good satisfaction level from both participants and providers. Despites the satisfaction level, some points of services were still lacking, namelythe facilities of healthcare, personnel's service quality,and the drugs quality at primary healthcare facilities.

This study also revealed that payment system of the primary healthcare providers was still problematic. Current payment method from Local Government (PEMDA) made the primary healthcare providers have lower satisfaction level than the secondary healthcare providers.

Further analysis using structural equation modelling revealed that the satisfaction level of participants directly correlates with their perceived value towards the services. This perceptions significantly correlate with tangible, empathy and assurance attributes. For the providers, their satisfaction level was significantly correlated to tangible and assurance attributes.

Recommendation

This study has shown that the satisfaction level of JKN participants with theprimary healthcare facilities was significantly lower than secondary facilities. In this regard, the Ministry of Health should be able to improve the quality of the primary healthcare facilities, especially in terms of facilities and medical equipment, service quality of medics and paramedics, and availability and quality of drugs provided. The facilities and service gaps between the two facilities should be reduced so that participants' trust on the primary healthcare facilities can be enhanced.This will lead to changes in JKN participants' attitudes towards the primary healthcare facilities so that they have more willingness to visit the primary healthcare facilities (Puskesmas) instead of the secondary (Hospital).

The participants' perception towardthe BPJS Health's service quality was significantly related to tangible, empathy, and assurance attributes, and these lead to their satisfaction level. In this regard, the Ministry of Health and BPJS Health need to increase the services capacity of the JKN through more recruitment of providers so that the huge number of BPJS Health participants can be treated properly and timely, while at the same time it will reduce the heavy workloads of the primary and secondary healthcare facilities and personnels.

In terms of providers' satisfaction level, the primary healthcare providers had significantly lower satisfaction mainly due to the claim payment. The indirect payment from the local government authority (PEMDA) contributed to the lower satisfaction level as compared to secondary healthcare facilities that received direct payment from the BPJS Health. In this regard, the payment system for the primary healthcare providers should be improved.

The providers' satisfaction level was significantly related to tangible and assurance attributes. This suggests that the BPJS Health needs to enhance the frequency of socialization or information sharing with providers, especially on the new regulations or standard operating procedures. Consequently, BPJS Health's

branch offices (Regional Offices) need to be equipped with current and relevant information.

The BPJS Health's regulations and standard operating procedures should also be communicated to the BPJS's participants across all provinces, through a simple education package. Public should be educated by BPJS Health so that they are clear about their obligations vs. their rights as the participants of the National Health Insurance.

Finally, this study suggests that empathy attributes are the key factor in building both participants' and providers' satisfaction level. Consequently, special attention needs to be given on the "human" aspect of the service providers, in this case, the personnels of the providers and BPJS Health. Their workloads need to be considered, their skills need to be improved, and their income needs to be enhanced, so that they will deliver better and proper services to the patients.

Limitations of the Study and Further Research

Some limitations of the study should be noted. Firstly, the 37 items used in participants model, and 26 items used in providers model could be seen as somewhat arbitrary and limited. Further research might consider more items to better measure the responsiveness and assurance variable. Secondly, the providers model's goodness of fit might be improved in further research through better measurement indicators. Finally, the study was also limited to 24 districts and cities of Indonesia. Future research might investigate more areas to further ascertain whether the resutls are generalizable across all over Indonesia.

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