National Health Insurance, Profitability and Service Quality: Case Study at the Private Hospital in West Java

Andriyani Rahmah Fahriati

Abstract. *National health insurance is one of the government programs to facilitate health services for the people. The purpose of this research to determine whether there are effects of National Health Insurance program (JKN) on profitability and service quality at Juanda Kuningan Hospital, of West Java. The method using the paired-t-test to analyze the difference between before and after the National Health Insurance program. The result showed that there is a difference in profitability and service quality between pre and post the implementation of national health insurance program. Gross profit margin measured the profitability, net profit margin, return on total assets, and return on equity. This result means that the value of the company's profitability is better when the program JKN yet takes place in the Juanda hospital. While on the service quality variable it is found that the mean value is higher when the JKN program has conducted at the hospital.*

Keywords: *national health insurance program, profitability, service quality*

Abstrak. *Jaminan kesehatan nasional merupakan salah satu program pemerintah untuk memfasilitasi pelayanan kesehatan bagi masyarakat. Tujuan penelitian ini untuk mengetahui apakah ada dampak Program Jaminan Kesehatan Nasional (JKN) terhadap kualitas profitabilitas dan pelayanan di Rumah Sakit Juanda Kuningan, Jawa Barat. Metode menggunakan paired-t test untuk menganalisis perbedaan antara sebelum dan sesudah program Asuransi Kesehatan Nasional. Hasil penelitian menunjukkan bahwa terdapat perbedaan profitabilitas dan kualitas pelayanan antara pra dan pasca penerapan program asuransi kesehatan nasional. Profitabilitas diukur dengan marjin laba kotor, marjin laba bersih, return on total assets, dan return on equity. Hasil ini berarti bahwa nilai profitabilitas perusahaan lebih baik bila program JKN masih berlangsung di rumah sakit Juanda. Sedangkan pada variabel kualitas pelayanan diketahui bahwa nilai rata-rata lebih tinggi bila program JKN telah dilaksanakan di rumah sakit.*

Kata Kunci: *jaminan kesehatan nasional, profitabilitas, kualitas layanan*

Introduction

Health insurance is one of the components of health funding sub-system. The health funding sub-system is a part of the National Health System (SKN). SKN in principle consists of two major parts namely the funding system and health care system. The health funding subsystem describes and regulates the financial resources required to meet the health needs of the population. In terms of health services, it regulates individual health services that can be provided by public health facilities and by private health facilities. Health services in the JKN program are provided at health facilities that have entered into cooperation agreements with BPJS Health. Besides that, in certain circumstances (medical emergencies) can be performed by health facilities that do not cooperate with BPJS Health. The service is tiered, effective and efficient by applying the principles of quality control and cost control. Supriyanto dan Mutiarin (2017) shows that there is a significant effect of national health insurance to support the health facility for the people.

Health financing is an integral part of the implementation of the National Health Insurance (JKN). In the application of JKN. Payment arrangements for advanced health facilities with Indonesia Case Base Groups (INA-CBGs) are by Presidential Regulation No. 12 the Year 2013 on Health Insurance. This regulation has amended by Presidential Regulation No. 111 the Year 2013. INA-CBGs cost used in the National Health Insurance Program (JKN) as of January 1, 2014, is enacted under the Minister of Health Regulation. There is no difference in INA-CBGs costs between private and special hospitals, tailored to the class assignments held for all hospital services. The INA-CBGs cost is a package rate covering all components of hospital resources used in both medical and non-medical services. Simanjuntak and Darmawan (2016) stated that the increase of fee of the insurance should make a better improvement for the service quality.

Private hospitals play an important role in the successful implementation of the JKN program, especially in providing services to participants. INA-CBGs cost should be distinguished between private hospitals and government hospitals for the same class, as the investment and operational expenses of private hospitals are borne alone, whereas government hospitals usually receive government funding. Hospital inefficiency can increase costs that will ultimately become an obstacle to quality services. Therefore, to achieve the goal of patient safety, there must be business safety. With proper business management then the purpose of providing safety to patients will achieve. Based on social function, hospitals should serve patients based on their medical needs, and not on the patient's ability to pay. While based on the economic role, the hospital must think about the benefits it will gain based on its management, including financial management and financing, for the sustainability of the hospital's operations. Hospitals established by the private sector should be in the form of a legal entity whose business activities are only engaged in the field of hospital and may aim at the profit formed by a limited liability company or shareholder.

The hospital that is the object of this research is private C type hospitals located in West Java and have been working with BPJS since January 1, 2014. When viewed from the net income data compared with the hospitalized patient data there is a difference. Net profit dropped after JKN ran for one year, but from patient data in hospitalization the number increased, but when compared with data of the patient in outpatient then both the net

income and the number of patients in outpatient both decreased from 2014 to 2015. This research is to examine the effect of JKN program on profitability and quality of service in a Private Hospital in West Java.

Although, there is a lot of research that had discussed the national health insurance. But, the previous study only examines a separate indicators, such as to service quality (Dumupa et al., 2014; Widyatmoko, 2014; Larasati, 2016; Ulfa and Zulkarnain, 2016); or to the profitability of the hospital (Hakim et al, 2016). The contribution of this research is to examine the impact of national health insurance program on profitability and service quality of the hospital. This research will give a significant contribution to the improvement of service quality in the hospital.

Method

The method in this research is descriptive and verification methods with quantitative approach. Descriptive verification method is a method that aims to describe whether or not the facts are true and explain the relationship between the variables studied by collecting, processing, analyzing and interpreting data in testing the hypothesis. The method used in the determination of respondents was simple random sampling method which is a method used to select samples from the population in such a way that every member of the population has an equal opportunity to be taken as a sample.

This research using paired sample t-test to examine whether there is a difference in profitability and service quality between pre and post the implementation of national health insurance. The paired sample t-test is a statistical tool used to examine whether the mean difference between two sets of observations is zero. Standard applications of the paired sample t-test include case-control studies (Sugiyono, 2008).

Result and Discussion

To analyze the level of profitability at the hospital, the researcher used the financial reports for five periods namely from 2011 to 2015. From Table 1 it can be seen that the summary of Hospital's financial statement.

Table 1. Summary of Financial Reports (in Thousand of IDR)

	2011	2012	2013	2014	2015
Total revenue	14,649,705	17,764,905	21,714,879	27,744,620	30,366,380
Gross Profit	10,899,747	11,518,862	15,855,923	21,915,972	22,225,995
Net Profit	90,465	115,392	90,554	124,406	99,859
Total Assets	6,647,598	6,650,916	7,219,065	10,211,292	17,270,963
Capital	3,403,935	3,888,810	4,456,825	5,321,896	6,511,527

Table 2 shows the value of gross profit margin (GPM), net profit margin (NPM), return on asset (ROA), and return on equity (ROE). The value of GPM is between 0 and 1, the higher the value, the more efficient the costs incurred for sale. It shows that the cost of goods

sold is lower than the sales, and the higher the profit return. Table 2 also shows that since the enactment of JKN in 2014, there was a rise in GPM, this is due to the increase in income and followed by an increase in gross profit. However, one year after JKN ran (2015) there was a decline in GPM, this was due to the decrease in revenue so that the gross profit became low.

Table 2. Value of GPM, NPM, ROA, and ROE

Year	GPM	NPM	ROA	ROE
2011	0.744025	0.006175	0.013609	0.026577
2012	0.648406	0.006496	0.017250	0.029673
2013	0.730187	0.004170	0.012544	0.020318
2014	0.789918	0.004484	0.012183	0.023376
2015	0.731928	0.003288	0.005782	0.015336

The result of paired sample t-test of the JKN program and gross profit margin shows in Table 3. The result indicates that there is a difference in gross profit margin between before and after the national health insurance program.

Table 3. The Result of Paired Sample t-test of GPM

		Paired Differences					t	df	Sig.
		Mean	Std. Dev.	SE Mean	95% Conf. Interval of the Difference				
					Lower	Upper			
Pair 1	GPM_SBL JKN - GPM_SSD JKN	-0.0162	0.005	0.0018	-0.0204	-0.012	-9.096	7	0.000

It can explain that the hospital's GPM shows a better result when JKN program has applied. Hence, it can conclude that there is a difference of GPM between before and after the JKN program. The measurement of GPM value is obtained based on the company's gross profit compared to total sales or revenue, from the calculation result, it is known that the hospital's GPM has decreased after the JKN enactment. What the decrease after JKN ran for one year is due to the difference of the acquisition of sales or income and the related elements with the cost of goods sold such as inventory, purchase and ending stocks so that cost of products sold is relatively increasing. In this connection, the hospital should control the underlying prices, because hospital's revenue is believed to be improving, especially with the increasing number of visits from patients using JKN. With essential price control then the GPM can increase even more and become stable.

The value of Net profit margin is between 0 and 1, the bigger the value, the higher the return rate of net profit. Also, Table 2 shows that NPM since the enactment of JKN in 2014 has increased, this was due to an increase in net profit of IDR 33,851,723 and followed by the rise in income of IDR 6,029,740,835. While in 2015 after JKN ran for one year NPM decreased, this was due to a decrease in net income and followed by a decline in total revenue.

Table 4. Results of paired Sample test T-test of NPM

		Paired Differences					t	df	Sig.
		Mean	Std. Dev.	SE Mean	95% Conf. Interval of the Difference				
					Lower	Upper			
Pair 1	NPM SBL_JKN - NPM SSD_JKN	0.0006	0.0002	0.0001	0.0005	0.0008	8.634	7	0.000

The second finding explained that NPM RS better results when JKN program has not applied there (See Table 4). It can be seen that the value of hospital's NPM has decreased. So, the hospital's NPM can be influenced by JKN. Because after the enactment of JKN the hospital's revenue is not too big when compared to the number of patients who visit the hospital to be increasing after the JKN program. This result means that the increase in patient volume is not followed by a high-income increase. Because patients who use JKN, their costs are paid already in package system (INA-CBGs). Also, the cost that has been packaged in INA-CBGs is smaller than the hospital's real cost. The hospital should run a strategy in the form of valuation or cost analysis issued for each cost in INA-CBGs. So, the cost can be controlled to be less than the cost of INA-CBGs. Because of the cost that can be controlled it will generate profit from the difference of INA-CBGs. Other than that the hospital needs to conduct better discussion and communication between the medical committee and the hospital management.

Table 2 shows that ROA since the enactment of JKN in 2014 has decreased. Likewise in 2015 after JKN ran for one year ROA experienced a decrease, this is due to the decrease in net income and followed by an increase in assets used. A steady decline in ROA means that hospital is less effective in managing their finances, this is seen in the low profits generated by the use of high total assets. The results of a paired t-test of ROA can be seen in Table 5.

Table 5. The results of Paired sample t-test ROA

		Paired Differences					t	df	Sig.
		Mean	Std. Dev.	SE Mean	95% Conf. Interval of the Difference				
					Lower	Upper			
Pair 1	ROA SBL_JKN - ROA SSD_JKN	0.0016	0.0014	0.0005	0.00048	0.00276	3.375	7	0.012

From Table 5, it can be explained that the hospital's ROA shows a better result when the JKN program has not been implemented. It can be concluded that there are differences in ROA between before and after the implementation of the program JKN. From the results of the calculation it can be seen that the hospital's ROA has decreased, so the hospital's ROA can be influenced by JKN program. The decline was due to the increase in the price of fixed assets in 2015 which resulted in high asset value in that year, but in contrast to the net profit received in 2015, its value decreased compared to 2014. Also, because of the BPJS' receivables that increase the hospital's assets but it was not accompanied by an increase in net income received by the hospital, so that the hospital's ROA dropped, this was due to late payment

of claims for JKN participants from the BPJS Health. The hospital should pursue ways to increase net income and minimize BPJS' receivables, by filing an on-time claim and paying attention to claims handling and further improving communication with BPJS Health in the hospital so that payment of claims on JKN patients can be on time.

Table 6. The results of Paired sample t-test ROE

		Paired Differences					t	df	Sig.
		Mean	Std. Dev.	SE Mean	95% Conf. Interval of the Difference				
					Lower	Upper			
Pair 1	ROE SBL_JKN - ROE SSD_JKN	0.0023	0.0016	0.0006	0.0010	0.0036	4.168	7	0.004

Return on equity or return on net worth measures the ability of a firm to make a profit available to its shareholders. Table 2 shows that the Return On Equity since the enactment of JKN in 2014 has increased. From Table 6, it can be explained that the hospital's ROE showed a better result when program JKN had not been implemented. Hence, it can be concluded that there is a difference of ROE between before and after JKN program. From the calculation results, it shows that the hospital's ROE tends to decrease, so the hospital's ROE can be influenced by JKN. The decrease in hospital's ROE occurred due to the increase of capital used, but it was not accompanied by the increase in net profit of the company. It is recommended that the hospital does inventory control so that the capital issued is not too large. Hakim et al. (2016) conclude that for short-term BPJS patient-generated higher profit rather than the regular patient. But, in the long-term BPJS patient give lower profit compared with the regular patient.

Based on Table 7, it can be seen that the tangibles, assurance and empathy dimensions have a significant value. It can be concluded that there are differences in the dimensions of tangibles, assurance, and empathy of inpatient between before and after using the JKN program. While the aspects of reliability and responsiveness have a significant value, which means that there is no difference in reliability and responsiveness in inpatient between before and after using the JKN program. Based on Table 7, it can be seen that the five dimensions of service quality namely tangibles, reliability, responsiveness, assurance, and empathy have significant values. It can be concluded that there are differences in service quality on outpatient between before and after using JKN program.

Table 7. The results of paired sample t-test of service quality of inpatient and outpatient.

Dimension	Inpatient			Outpatient		
	Mean		Sig (2-tailed)	Mean		Sig (2-tailed)
	Before JKN	After JKN		Before JKN	After JKN	
Tangibles	4,0967	4,2857	0,000	4,0318	4,3659	0,000
Reliability	4,2176	4,2220	0,921	4,1500	4,2614	0,018
Responsiveness	4,2176	4,2681	0,246	4,2136	4,3114	0,037
Assurance	4,1407	4,2571	0,009	4,2205	4,3432	0,004
Empathy	4,1253	4,2725	0,001	4,1977	4,3682	0,000

There are differences in service quality between before and after the enactment of JKN in the hospital, from the overall dimensions of service quality. This result indicates that the mean value after the enactment of JKN has a higher value, this means that after the enactment of JKN the service quality in inpatient and outpatient became better, especially on the dimension of tangibles. From the mean results, it is found that the dimension of tangibles has the largest mean difference between before and after the enactment of JKN. This is because of the layout and building of the hospital that is getting better so that patients feel more comfortable with the physical appearance of the hospital. The hospital and employees have implemented their vision and mission well, providing quality service, proven that the employees keep doing their job well and do not distinguish the service quality provided to the patient before using JKN or after using JKN. For the future, the hospital needs to increase the attention especially in the dimensions of reliability and responsiveness of inpatient to maintain the service quality provided so that not only JKN patients who will feel satisfied but also the general patient.

Dumupa et al. (2014) stated that there is a relationship between the service quality and patient satisfaction for the patient of national health insurance. Widyatmoko (2014) find that the hospital should make a priority improvement to enhance the service quality. The improvement in service quality will enhance the customer satisfaction. Larasati (2016) said that there are several factors that affect the service quality of national health insurance in the hospital. The factors are the capability of employees, the service quality system, and the regulation. Saputra et al. (2015) state that the national health insurance program still needs improvement, especially for the human resources aspect. There must be a significant improvement in service quality for the patient. Hadiyati et al. (2017) said that there should be equal treatment between JKN and not-JKN patient.

Conclusion

Based on the results of research and discussion that have been obtained by the researcher, it can be concluded that: First, there is a difference in gross profit margin between before and after the JKN programs. It can be explained that hospital's GPM shows a better result when JKN program has been applied. Second, there is the difference in net profit margin (NPM) between before and after the JKN program. NPM before the JKN program was greater than after the JKN program. Third, there is a difference in return on asset between pre and post-JKN program. ROA before the JKN program was greater than after the JKN program was implemented. Fourth, there is a difference in return on equity (ROE) between before and after the implementation of JKN program. ROE before the JKN program was greater than after the JKN program was implemented. Fifth, there is a difference in service quality between pre and post of JKN program. Assurance and Empathy dimensions have the strongest correlation value. It can be explained that the quality of hospital service shows the better result when the JKN program has been applied.

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