Analysis of the Effectiveness of PPK BLUD RSUD Kota Bogor

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Abstract— *This research is part of the analysis of the performance of the Bogor City BLUD Hospital which includes aspects of independence, effectiveness and efficiency. Here will be presented the results of research on the effectiveness performance of Bogor City Hospital after the status of the Regional Public Service Agency (BLUD). The independent variable used is from the service performance group consist of variables: Bed Occupancy Rate (BOR), Average Length of Stay (ALOS), Turn Over Interval (TOI), while from the financial performance group are the variables: Current Ratio (CR), Quick Ratio (QR), Debt Ratio (DR), Return On Asset (ROA). The research period from 2016 to 2018 uses monthly data. The result is that the service performance variables of BOR and TOI partially have a positive effect on effectiveness. While the AVLOS variable has a negative effect on effectiveness. Financial performance variables, CR, QR, DR and ROA, partially have no effect on effectiveness. Service performance variables simultaneously affect the effectiveness of 31.8% and financial performance variables simultaneously affect the effectiveness of 26.6%. Service performance variables and financial performance variables simultaneously affect the effectiveness of 63.7%. Bogor City Hospital needs to increase non-operating income sources, to reduce dependence on funding from BPJS claims.*

Keywords— *Service performance, financial performance, effectiveness.*

I. INTRODUCTION

Law No. 44 of 2009, mandates that a government hospital must be in the form of a public service agency (BLU) or a regional public service agency (BLUD), and its management prioritizes productivity, efficiency and effectiveness.

Financial management pattern of the Regional Public Service Agency (PPK-BLUD) provides flexibility to implement sound business practices and can directly use the proceeds to finance operational and investment activities without having to be deposited in the State treasury. The aim is to improve the service and independence of BLUD.

Bogor City Hospital is a hospital that belongs to the Bogor City Government. Established in 2014 based on Bogor City Regulation No. 5 of 2013, which management follows the PPK BLUD rules.

The management of BLUD RSUD Kota Bogor must maintain and improve the achievement of the ratio of independence, effectiveness and efficiency. For that they need to know what indicators influence this achievement.

Permenkes number 1171 of 2011 concerning Hospital Information System Technical Guidelines, said the service indicators used to assess the performance of hospital services are; Bed Occupancy Rate (BOR), Average Length of Stay (AVLOS), Bed Turn Over (BTO), Turn Over Interval (TOI). Net Death Rate (NDR), Gross Death Rate (GDR).

Meanwhile Permendagri no 79/2018 states that performance can be measured based on the BLUD's level of ability in:
a. Getting business results from the services provided (profitability)
b. Fulfill short-term obligations (Liquidity)
c. Fulfill all obligations (Solvency)
d. The ability to receive from services to finance expenses.

Madjid et al. (2009: 10) said that current ratio, qick ratio and debt ratio and the rate of return on investment can answer important questions about BLU operations. Sirait (2017), says that the variables of service performance of BOR, TOI, and AVLOS) and variables of financial performance, current ratio (CR), solvency ratio, profitability ratio have a significant effect on independence at BLU vertical Hospital.

Handayani and Sriyanto (2015) state that there is a negative correlation between TOI and the Cost Recovery Rate (CRR). AVLOS has a positive correlation with the level of independence. Financial performance and profitability ratios and dependence on the APBD have a strong correlation with hospital effectiveness and efficiency.

Candrasari et al. (2018), found that the solvency ratio was shown to have a strong correlation with CRR and level of independence. BOR has a strong correlation with the level of independence. Tama (2014) states that there is no correlation between service performance and hospital financial effectiveness and efficiency, but financial performance has a strong correlation with hospital effectiveness and efficiency.

Problem Formulation

Based on the description above, the problem can be formulated whether variables of; BOR, TOI, AVLOS, CR, QR, DR, ROA, partially and the variables of BOR, TOI, AVLOS, CR, QR, DR, ROA simultaneously affect the effectiveness of Bogor City Hospital?

Research Purposes

The purpose of this study was to determine whether variables of service performance (BOR, TOI, AVLOS) and variables of financial performance (CR, QR, DR, ROA) either partially or simultaneously affect the effectiveness of Bogor City Hospital.

II. LITERATURE REVIEW

Service Performance of Hospital

Permenkes number 1171 of 2011about indicators of service performance, include:

a) BOR, namely the percentage of use of a bed in a certain time unit, with the equation;

The ideal BOR is 60-85%.

b) AVLOS, namely the average length of stay of a patient, with the equation;

The ideal AVLOS is 6-9 days.

c) TOI, is the average number of days when the bed is not occupied from being filled to the next time it is filled, with the equation;

TOI is ideal for 1-3 days.

Financial Performance of Hospital

The financial ratios used to evaluate financial performance are;

a. CR, which was formulated;

b. QR, which is formulated

c. DR, which is formulated:

d. ROA, which is formulated:

e. The effectiveness of the BLUD, which is formulated;

TABLE 1. Effectiveness Criteria

Kriteria Efektifitas	Persentase Efektifitas
Sangat Efektif	> 100
Efektif	>90 -100
Cukup Efektif	>80-90
Kurang Efektif	>60-80
Tidak Efektif	≤60

Sumber: Kepmendagri nomor 690.900.327 tahun 1996)

III. DATA AND ANALYSIS METHOD

The data used are secondary data from monthly reports of service performance and financial reports of Bogor City Hospital for the period of v2016 s / d 2018, and analysis using SPSS software. First, descriptive statistical analysis was carried out, and the second was inferential statistical analysis.

IV. RESULTS AND DISCUSSION

Result

A. Descriptive statistics

TABLE 2. Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
BOR	36	75.83	93.02	84.5797	4.3235
TOI	36	0.57	3.52	1.3328	0.67601
AVLOS	36	3.62	6.31	4.7653	0.42084
CR	36	1.34	9.01	4.255	2.36427
QR	36	0.96	7.79	3.5644	2.06967
DR	36	0.07	0.9	0.135	0.13538
ROA	36	-0.19	0.51	0.0789	0.1676
EFEKTIVITAS	36	0.15	2.48	1.2686	0.42022
Valid N (listwise)	36				

Table 2 above shows that the average effectiveness of the Bogor City Hospital is 127%. This means that Bogor City

Hospital is very effective in managing income and a good level of financial capacity.

Service performance, the average BOR of 84.58% and TOI of 1.33 days are considered ideal categories. Meanwhile, AVLOS of 4.76 days is included in the less ideal group because the standard is 6 - 9 days.

Financial performance, CR of 4.26 and QR of 3.56, meaning that Bogor City Hospital has very high liquidity. The DR is 13.5%, meaning that only 13.5% of financing uses debt. When compared with the debt component among industries which reaches 30% -50%, this is still considered conservative. ROA, 7.8% means that the assets owned by an average gain of 7.8%.

B Inferential statistics

TABLE 3. Regression analysis
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.371	1.440		.258	.799
	BOR	.032	.015	.333	2.095	.045
	TOI	.338	.126	.544	2.689	.012
	AVLOS	-.579	.119	-.580	-4.877	.000
	CR	-.161	.184	-.903	-.872	.390
	QR	.321	.213	1.579	1.503	.144
	DR	.010	.387	.003	.026	.980
	ROA	.152	.526	.061	.290	.774

a. Dependent Variable: EFEKTIVITAS

The equation is as follows;

$$Y = 0,371 + 0,032 \text{ BOR} + 0,338 \text{ TOI} - 0,579 \text{ AVLOS} - 0,161 \text{ CR} + 0,321 \text{ QR} + 0,010 \text{ DR} + 0,152 \text{ ROA}$$

Discussion

1. BOR and TOI, have a positive relationship, where the coefficient of BOR = 0.032 and TOI = 0.338. This means that the increase and decrease in BOR will increase and decrease the effectiveness of the Bogor City Hospital.

2. AVLOS, has a negative relationship, with a coefficient = 0.579. This means that the increase and decrease in AVLOS will decrease and increase the effectiveness of the Bogor City Hospital.

3. The ideal AVLOS is 6–9 days. Suhartinah et al. (2018) stated that if the AVLOS value is smaller or less than 3, it indicates that the quality of performance of health workers is good because patients can be treated more quickly or patients recover quickly. This should be maintained by the hospital because it can show patients or the public that the quality of performance of health workers is very good which can increase patient confidence in the hospital.

4. Variables; CR, QR. DR and ROA have no effect on effectiveness.

5. Service performance of BOR, TOI, and AVLOS simultaneously has a positive effect on the effectiveness of Bogor City Hospital, where the contribution of these variables to the effectiveness of the contribution, R2 = 31.8%. So that the increase and decrease in service performance during the study period has a positive influence on the effectiveness of the Bogor City Hospital,

the greater achievement of hospital service performance, the more effective the hospital is. Dewi (2018) increasing information capabilities will make employees work more effectively and efficiently. To realize quality services, hospitals can train and improve employee skills.

6. Financial performance, variables CR, QR, DR, and ROA simultaneously have a positive effect on the effectiveness of the Bogor City Hospital, with a contribution, $R2 = 26.6\%$. Chiang et al. (2014) said that an increase in size and facilities when associated with a decrease in average costs will lead to an increase in financial effectiveness. If there is an increase in the average cost, it will decrease the financial effectiveness of the hospital. The way to increase profit margins is to install high-tech equipment in moderation. Chiang also found that although hi-tech equipment had the potential to reduce costs and increase worker productivity, hi-tech equipment could not replace labor, and therefore tended to increase costs and reduce profitability.

7. Service performance and financial performance simultaneously have a positive effect on the effectiveness of Bogor City Hospital, with a contribution, $R2 = 63.7\%$. That means 63.7%. Mona et al. (2018) said that there are two organizational characteristics, namely; which can be modified and that cannot be modified that predicts. Characteristics that can be modified are the level of nurse competence, the presence of hospital staff, and the level of integration of doctors. While the characteristics that cannot be modified are the size of the hospital and technology because it requires a large investment to change.

Teaching Hospitals have a greater chance of improving hospital performance, as they contribute to innovation generation who have the ability to learn.

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

Based on the research results above, it can be concluded as follows;

1. Bogor City Hospital BLUD can be categorized as a very effective hospital with an effectiveness percentage> 100%. This means that hospital activities generate a fairly large output contribution. The decrease in the percentage of effectiveness is strongly influenced by the late payment of claims from BPJS, this is because almost 90% of RSUD patients are BPJS patients.
2. The variables that partially have a positive effect on effectiveness are: BOR and TOI, while the AVLOS variable has a negative effect on effectiveness.
3. Financial performance variables: CR, QR, DR, and ROA, partially have no effect on effectiveness
4. Service performance variables simultaneously have an effect of 31.8% on effectiveness.
5. Financial performance variables simultaneously have an effect of 26.6% on effectiveness.
6. Service performance and financial variables simultaneously have an effect of 63.7% on effectiveness.

7. In general, the government program changed the form of PNBP satker to PPK BLUD, which was successful
8. As long as the payment claims run smoothly, the BLUD RS can operate properly, so that the government can consider changing the form of the PNBP Satker in the health sector to PPK BLUD RS.

B. Suggestions

1. To reduce dependency on income from BPJS, the Bogor City Hospital BLUD needs to increase non-operating income sources
2. Seeing the absence of financial performance variables that partially affect effectiveness, it is necessary to look again
3. Recording system on financial statements. Besides, it is also necessary to consider using other financial ratio variables.
4. Further research needs to add other variables to see the service performance considering that the effect is only 31.8%.
5. Likewise with the financial performance group variable, for further researchers it is necessary to add other variables considering that R2 is only 26.6%.
6. Management is too careful in running the hospital, seen from the high value of CR and QR, which is unproductive cash.

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