

SUSTAINABLE PERFORMANCED ASSESTEMENT AT SURADADI HOSPITAL WITH BALANCED SCORECARD APPROACH

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Abstract. This study aims to evaluate the performance of Suradadi Hospital during the period of 2016-2018. This research can be used as a consideration in formulating a business strategy to respond to the business challenges faced by Suradadi Hospital. By applying the Balanced Scorecard (BSC) method, it will be able to measure all business units in creating value for current organizational performance while considering the future interests.

This research applies a descriptive-quantitative approach. Primary data were taken using cross sectionalby distributing HRSC questionnaires. Secondary data were taken from financial, employee and medical records during the period of 2016-2018. The method of sampling is simple random sampling using the Krejcie-Morgan formula. The variables assessed are hospital performance using a BSC approach; consisting of: 1. financial perspective 2. customers perspective 3. internal business process perspective 4. learning and growth perspective

The results show that the sustainable performance of Suradadi Hospital during the period of 2016-2018 is good (0.3125). The results of each variable assessed are as follows: the financial perspective is not good (efficiency ratio > 100% and effectiveness ratio < 100%); the internal business process perspective indicates that there is an increase in outpatient visits and hospitalizations each year: BOR (60.4%), ALOS (3.15 days), and TOI (2.63) show good results, but for BTO, NDR, and GDR show not good results (5.29, 11.37, and 28.86) respectively. Of customer perspective, the customer satisfaction score is 70,188 which is considered satisfied, with customer acquisition of 27.97%. The learning and growth perspective variable shows that the employee satisfaction is only neutral (0) even though the retention (1.01%) is good, but the employee productivity sharply decreased in 2017 due to large recruitment without being offset by financial performance. Further research is needed to formulate a business strategy Suradadi General Hospital to answer the future challenges.

Keyword : performanced, hospital, balanced

1.INTRODUCTION

Upgrading the hospital type from class D to class C general hospital in the era of Universal Health Coverage (UHC) is a challenge for Suradadi Hospital. Sustainability Performance Assessment (PSA) should be conducted as a business strategy platform that leads to the realization of the organization's vision and mission. This study aims to evaluate the performance of Suradadi hospital using a Balanced Scorecard (BSC) approach. Although initially there was a low perception of BSC in the health sector, more than a decade ago, interest in the BSC has grown among health care providers around the world in developed and developing countries (Behrouzi, 2014) as shown by research conducted by Nizar Alif Utama at the RSUD Prof. Dr. Soekandar Mojosari, Malang in 2012, research by Wahyu Eko Yuzandra Pramadhany at Bayangkara Hospital, Semarang in 2011, and research by Antoni Sibarani at the Bengkulu POLDA hospital in 2013. Research on the performance assessment of hospitals in rural areas such as Suradadi Hospital is still rare.

Up to now, the assessment of organizational performance only focus on one perspective; that is the financial perspective. According to Robert S. Kaplan and David P. Norton, the

weaknesses of performance measurement that focuses on financial performance are the inability to measure the performance of intangible assets and intellectual property (human resources) of the organization and the inability to expose the whole performance in the past as well as the inability to lead the organization to a better future.

2.LITERATURE REVIEW

2.1. Organizational Performance

Performance is the result of evaluation of the work that has been done compared to the criteria that have been set together (Stephen Robbins in Rai, 2008). The purpose of the performance measurement system (Mardiasmo, 2002: 122) is as follows: improving communication strategy (top down and bottom up), measuring financial and non-financial performance in a balanced manner so that developments in strategy achievement can be traced , uniforming understanding of organizational strategies at the level of middle and lower managers and motivating to achieve goal congruence, and as a tool to achieve satisfaction based on individual approaches and rational collective abilities.

The benefits of a performance measurement system are: 1.Understanding customers' expectation so that it will bring the company closer to its customers and make all people in the organization involved in efforts to give satisfaction to customers, 2. Motivating employees to improve service quality as part of the customer and internal supplier chain, 3. Identifying various wastes while at the same time encouraging reduction of waste, 4. Setting a clear and concrete strategic goal to accelerate the organizational learning process, 5. Building a commitment to make a change by rewarding the expected behavior

2.2. Balanced Scorecard

The Balanced Scorecard is a comprehensive system of measuring corporate performance management that includes financial and non-financial aspects. In the Balanced Scorecard, a financial measure that shows past performance is complemented by non-financial measures that show drivers for future performance (Kaplan and Norton, 1996: 8). The concept of the Balanced Scorecard developed by Kaplan and Norton (2000) is a method of measuring performance by including four aspects / perspectives: 1. financial 2. customers' perspective 3. internal business perspective and 4. learning and growth perspective. Robert Kaplan and David Norton's BSC requires the following five main principles to be held: 1. translating the Balanced Scorecard-based strategy management system into operational terminology so that all employees could understand it well 2. connecting and harmonizing the organization with that strategy. This is to give direction from the executive to frontline staff 3. making a strategy works for everyone through everyone's contribution to strategic implementation 4. creating a strategy for a sustainable process through organizational learning and adaptation 5. implementing the change agenda by the executive to mobilize changes.

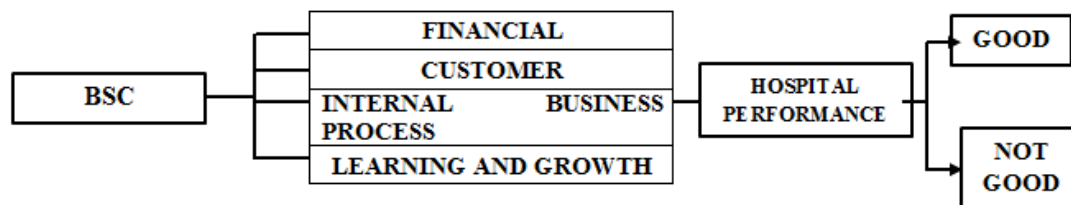
The application of the Balanced Scorecard of government organizations requires some adjustments (Gasperz 2006: 210) because of the following: 1. the main focus of the public sector is the public and certain interest groups, while the main focus of the private sector is customers and shareholders. 2. the main purpose of public sector organizations is not the maximization of financial results, but the balance of financial accountability (budget) through service to interested parties (stakeholders) in accordance with the vision and mission of government organizations. 3. The need of high commitment and careful views as well as clear and strategic definition in defining the size and targets in the customers' or stakeholders' perspectives , as a consequence of the role of the management of government organizations.

3. RESEARCH METHODS

This research applies a descriptive-quantitative approach conducted at Suradadi Regional General Hospital, District of Tegal. Primary data were taken from the results of customer and employee satisfaction questionnaires distribution using cross sectional method.. The questionnaires were modified Human Resources Scorecard (HRSC) questionnaires. Secondary data were taken from financial, employee, service and medical record data at Suradadi Hospital during the period of 2016-2018. The method of sampling is simple random sampling, using the Krejcie-Morgan formula. The variables assessed are hospital performance carried out with the BSC approach covering: 1. financial perspective 2. Customers' perspective 3. internal business process perspective 4. learning and growth perspective

3.1 Analysis framework

Pic. 1. Analysis framework



3.2 Conceptual definition and operational variables

3.2.1. Financial Perspective Performance

To measure this financial perspective is done by using a value for money or 3E measuring instrument developed by Mardiasmo (2002: 133-134). The instrument consists of 3E, namely:

a Economic ratio

The economic ratio is a ratio that describes the savings in the use of a budget that includes careful or frugal management and no waste

$$\text{Economic ratio} = \frac{\text{Institutional expenditure}}{\text{budget}} \times 100\%$$

b Efficiency ratio

The efficiency ratio is a ratio that describes the comparison between the amount of costs used to obtain income and the realization of income received.

$$\text{Efficiency ratio} = \frac{\text{expenditure}}{\text{earning}} \times 100\%$$

c Effectiveness ratio

The effectiveness ratio is a ratio that describes the success or failure of an institution in achieving its objectives. In this case it is by comparing the realization of income with the set income target.

$$\text{Effectiveness ratio} = \frac{\text{earning}}{\text{Revenue target}} \times 100\%$$

3.2.2. Customer Perspective Performance

a. Customer satisfaction

This customer satisfaction measurement was carried out with a survey through a questionnaire, in this study using a customer satisfaction questionnaire from a modified Human Resourch Scorecard (HRSC). Customer satisfaction measures the average customer satisfaction by giving the answers to the questionnaire according to the level of satisfaction felt. The values given are: to determine this scale, the minimum satisfaction index and maximum satisfaction index are determined first, the interval that can be searched from the reduction between the maximum

satisfaction index and the minimum satisfaction is divided into five as formulated by Sugiyono (2002: 80) as follows:

$$\begin{aligned} \text{Maximum IK} &= R \times PP \times EX \text{ max} & \text{IKP} &= \text{Patient Satisfaction Index} \\ \text{IK min} &= R \times PP \times EX \text{ min} & R &= \text{Number of Respondents} \\ \text{Interval} &= (\text{max IK} - \text{IK min}) / 5 & EX \text{ min} &= \text{minimum score that can be given} \\ & & EX \text{ max} &= \text{Maximum score that can be given} \end{aligned}$$

After knowing the IKP of all respondents was then classified on the scale as formulated by Sugiyono (2002; 79) as follows: a. very dissatisfied, b. not satisfied, c. enough, d. satisfied, and e. very satisfied.

b. Customer acquisition

The number of new customers (Patients) that the hospital managed to obtain

$$\text{Customer acquisition} = \frac{\text{New customer}}{\text{Total customer}} \times 100\%$$

3.2.3. Internal Business Perspective Performance

a. **Innovation** is a development carried out by the organization in order to survive in competition with competitors.

$$\text{Innovation} = \frac{\text{New services}}{\text{Total services}} \times 100\%$$

b. **In the operating process stage** is the stage where the institution seeks to provide solutions to customers in meeting the needs and desires of customers. In this case the benchmark for Suradadi General Hospital for its operational performance is:

1) number of outpatient visits

Namely: the number of patients both new and old who visit the outpatient installation at Suradadi Hospital in a certain period of time.

2) number of hospitalization visits

Namely the number of patients both new and old who were treated at Suradadi Hospital in a certain period of time

3) ALOS (Average Length of Stay)

ALOS according to the departement of Health of the Republic of Indonesia is the average length of stay in hospital, the measurement:

$$\text{ALOS} = \frac{\text{Length of stay}}{\text{Total outpatient}} \times 100\%$$

4) BOR (Bed Occupancy ratio)

BOR according to the departement of Health of the Republic of Indonesia is the average percentage of bed usage at a certain time unit, its measurement:

$$\text{BOR} = \frac{\text{Amount of stay}}{\text{Amount of bed} \times 365} \times 100\%$$

5) TOI (Internal Turn Over)

TOI according to the departement of Health of the Republic of Indonesia is the average day where beds are not occupied from being filled to the next filled. This indicator provides an overview of the efficiency of the use of beds.

$$\text{TOI} = \frac{(\text{total of bed} \times 365) - \text{length of stay}}{\text{Total outpatient}} \times 100\%$$

6) BTO (Bed Turn Over Rate)

According to the departement of Health of the Republic of Indonesia, BTO is the frequency of bed usage in one period, the number of times the bed is used in a certain time unit.

$$\text{BTO} = \frac{\text{Total outpatients}}{\text{Amount of bed}} \times 100\%$$

7) GDR (Gross Death Rate)

The GDR according to the departement of Health of the Republic of Indonesia is the general mortality rate for every patient out.

$$\text{GDR} = \frac{\text{Amount of patients died}}{\text{Amount of outpatients}} \times 100\%$$

8) NDR (Net Death Rate)

NDR according to the departement of Health of the Republic of Indonesia is the mortality rate of < 48 hours after being treated for each 1000 sufferers out.

$$\text{NDR} = \frac{\text{Amount of patients died} < 48\text{h}}{\text{Amount of outpatients}} \times 100\%$$

3.2.4. Performance of Learning and Growth Perspectives

a. Employee satisfaction

This employee satisfaction measurement was carried out by conducting a survey. Employee satisfaction measures the average employee satisfaction by giving a score to the answer choices of the questionnaire according to the level of satisfaction felt. To determine this scale, the minimum and maximum satisfaction indexes are determined first, the interval resulted from the reduction of the minimum satisfaction from the maximum satisfaction index is divided into five as formulated by Sugiyono (2002: 80) as follows:

$$\begin{aligned} \text{Maximum IK} &= R \times \text{PP} \times \text{EX max} & \text{PP} &= \text{Number of Questions} \\ \text{IK min} &= R \times \text{PP} \times \text{EX min} & R &= \text{Number of Respondents} \\ \text{Interval} &= (\text{max IK} - \text{IK min}) / 5 & \text{EX min} &= \text{minimum score that can be given} \\ & & \text{EX max} &= \text{Maximum score that can be given} \end{aligned}$$

After knowing the IKK of all respondents then classified on a scale:

a. very dissatisfied, b. not satisfied, c. enough, d. satisfied, and e. very satisfied.

b. Employee retention

The ratio of employees coming out compared to the overall employee

c. Employee productivity

In order to measure employee productivity in this study using the ratio of the amount of income to the number of employees.

4. RESULTS AND DISCUSSION

4.1. Economic perspective

Tabel 1 Financial perspective performance

Year	Ratio (%)	Ekonomic Ratio (%)	Effisienciency Ratio (%)	Effectiveness Ratio (%)
2016	94.8		132.0	108.3
2017	92.9		121.1	95.7
2018	89.9		171.8	95.6

a. Economic Ratio

The economic ratio is said to be good if it is below 100%. The smaller the economic ratio shows the better financial performance. Realization of RSUD (Regional General Hospital) expenditures is always smaller than budgeted each year. This shows that Suradadi General Hospital is able to save its budget.

b. Efficiency Ratio.

Institutions are said to be efficient if the efficiency ratio is <100%. From the table above, from 2016-2018 the RSUD (Regional General Hospital) efficiency ratio is still above 100%,

meaning that Suradadi General Hospital is not able to carry out financial efficiency even so the efficiency ratio is getting lower.

c. Effectiveness ratio

The effectiveness ratio in the RSUD (Regional General Hospital) was reasonably good in 2016 which was 108.3 but the following year continued to decline and was below 100%. This shows that Suradadi General Hospital is unable to carry out financial effectiveness

4.2 Customer Perspective Performance

a. Customer satisfaction

In this study, 500 questionnaires were distributed to patients in outpatient care unit, inpatient care unit and emergency room unit.. From the amount distributed, it returns and is filled well, amounting to 364 (R). There were totally 47 (PP) questions in the HRSC customer satisfaction questionnaires. The level of customer satisfaction was measured using a formula of the Likert scale (Sugiyono, 2002). From the measurement results, the indexes are as follows

$$\begin{aligned}
 \text{Ex min} &= 1 & \text{Ex Max} &= 5 & \text{STP} &: 17.108 - 30.794 \\
 \text{IK Max} &= \text{RR} \times \text{P} \times 5 = 364 \times 47 \times 5 = 85540 & \text{TP} &: 30.794 - 44.480 \\
 \text{IK Min} &= \text{RR} \times \text{P} \times 1 = 364 \times 47 \times 1 = 17108 & \text{N} &: 44.480 - 58.166 \\
 \text{Interval} &= (\text{IK Max} - \text{IK Min}) : 5 = 13686 & \text{P} &: 58.166 - 71.852 \\
 & & \text{SP} &: 71.852 - 85.540
 \end{aligned}$$

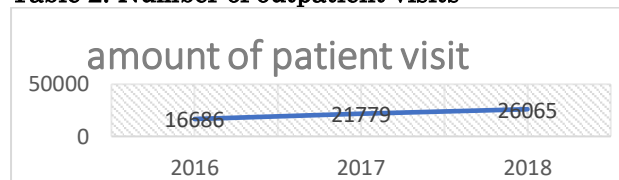
From the data it was found that the customer satisfaction index was 70,188 which means Satisfied. Thus the result is good

4.3 Performance of the Internal Business perspective

a. Number of outpatient visits

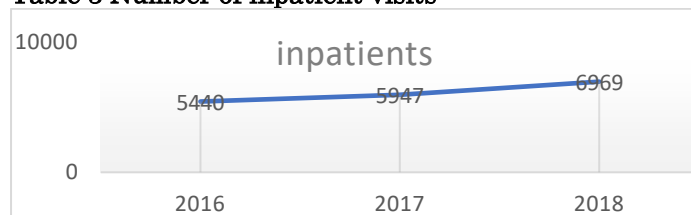
The number of patient visits at the RSUD continues to increase every year; from 16,686 people to 26,065

Table 2. Number of outpatient visits



b. Number of inpatient visits

Table 3 Number of inpatient visits



Based on the data above shows that every year there is an increase in the number of inpatients.

Table 4 The measurement standard according to medic serve General Director (2005) is as follows

No	Ideal	Value	Analysis	Information
1.	BOR	60.46%	60 – 85	Good
2.	ALOS	3.15 days	6-9 days	Good
5	TOI	2.63	1-3	Good
6	BTO	5.29	40-50	poor
7	NDR	11.37	<2.5	Poor
8	GDR	28.86	<4.5	poor

4.4 Performance of Learning and Growth Perspectives

a. Employee satisfaction

In this study, 200 questionnaires were distributed to Suradadi General Hospital employees. Of the number distributed, there were 190 (R)questionnaires returned and correctly filled out. There were 21 (PP) number of questions in the HRSC customer satisfaction questionnaires. Likert scale formula was used to measure the level of customer satisfaction (Sugiyono, 2002)

$$\begin{aligned} \text{Ex min} &= 1 & \text{Ex Max} &= 5 & \text{STP} &= 3990-7182 \\ \text{IK Max} &= \text{RR} \times \text{P} \times 5 = 190 \times 21 \times 5 = 19950 & \text{TP} &= 7182 - 10364 \\ \text{IK Min} &= \text{RR} \times \text{P} \times 1 = 190 \times 21 \times 1 = 3990 & \text{N} &= 10.364 - 13.556 \\ \text{Interval} &= (\text{IK Max} - \text{IK Min}) : 5 = 3192 & \text{P} &= 13.556 - 16748 \\ & & \text{SP} &= 16.748-19.950 \end{aligned}$$

Furthermore, after the data were processed, it can be concluded that the employee satisfaction index is 12,970 or at a neutral point. Most employees gave high score for expectation and reality in question dealing with work and work environment, but they gave low score to the satisfaction towards superiors and the ease of getting information

b. Employee Retention

Output shows that employee retention at Suradadi hospital is 1.01%. The smaller the employee retention percentage indicates that the employee is in a comfortable condition to work in the RSUD Suradadi

c. Employee Productivity

Table 5 Employee Productivity

Year	Number of employee	The amount of income	Productivity
2016	150	11,908,108,296	IDR 79,387,388.64
2017	247	15,308,941,295	IDR 61,979,519
2018	267	17,784,797,114	IDR 66,609,727

From the above, it is found that the productivity rate decreases sharply when there was a large recruitment, even though later in the following year the productivity rate increased

Table 6 : BSC results of Suradadi Regional Hospital performance 2016-2018

Criteria Indicator	Score	information
Financial Perspective Performance		
EconomicRatio	1	good
Efficiency Ratio	-1	less
Effectiveness Ratio	-1	less
Customer Perspective Performance		
Customer Satisfaction	1	good
Business Internal Perspective Performance		
Business Innovation	1	
Number of outpatient visits	1	good
Number of inpatient visits	1	good
ALOS	1	good
BOR	1	good
TOI	1	good
BTO	-1	less
GDR	-1	less
NDR	-1	Less
Learning and Growth Perspectives		
Employee Satisfaction	0	netral
Retention of Employees	1	good
Employee Productivity	1	good
Total	5	
Average	0.3125	
Status	Good	

From the data above, it can be seen that the financial performance of Suradadi Hospital is not good. Although it is able to save money, it has not been able to do efficiency and budget

effectiveness. This shows that budget learning is not right on target or does not prioritize a scale that can generate income.

Other less favorable perspectives of internal business processes are BTO, NDR and GDR. In the case of low BTO, the frequency of use of the bed is not efficient, in other words many beds are still empty. Maybe it can be improved by strengthening marketing performance. NDR shows that serious patients who enter the emergency unit come in severe condition or that the performance of human resources in the emergency unit is not good enough to be unable to provide emergency assistance. The GDR shows emergency response capabilities that occur in the inpatient unit. If it is still not good, it can be estimated that skills and knowledge and supervision in the inpatient unit are not good. In this case HR improvement is needed both quantitatively and qualitatively.

What's interesting here is the neutral status of employee satisfaction figures. Judging from the last question it turns out that 71% of respondents did not know the organization's vision and mission. It is seen that employees tend to be apathetic towards management performance. Employee productivity and innovation are quite good. It is necessary to do a deeper study to find out things that cause employees to be dissatisfied.

The Suradadi Hospital performance during the period of 2016 - 2018 is 0.3125 which means the performance of the hospital has grown by 31.25% during the three-year period.

5. CONCLUSIONS AND RECOMMENDATIONS

- 1 In general, the performance of Suradadi General Hospital from 2016-2018 is good, based on an assessment using a BSC. The performance of the hospital has grown by 31.25% since three years (2016-2018)
- 2 Poor perspectives. Financial and internal business process perspectives need to be studied more deeply to find the right solution
- 3 A deeper study needs to be carried out in the form of a SWOT analysis to establish appropriate business strategies to face challenges in the UHC era.

6. ACKNOWLEDGE

Thank you to Dr. Dwita darmawati, SE, M.Sc. and Dr.Arih Diyaning Intiasari, SKM, PH.D as the supervisor for his time and guidance. Thank to Prof. Dr..Wiwiek Rabiatal Adwiyah as an advisor in motivating and providing convenience in writing this research. Thanks to all the Suradadi Hospital staff who helped facilitate the research

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