

# PERFORMANCE ANALYSIS OF IBNU SINA ISLAMIC HOSPITAL OF SIMPANG EMPAT PASAMAN BARAT WITH BALANCE SCORECARD MODEL

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**Abstract:** This study aims to analyze the performance of Ibn Sina Islamic Hospital Simpang Empat Pasaman Barat in 2013 to 2017 with the Balance Scorecard model. This research was conducted with a cross-sectional operational research method with qualitative and quantitative data analysis using a single case study at Ibnu Sina Islamic Hospital. The data used in this study are primary data through questionnaires aimed at patients and hospital employees and secondary data through observation and document review as well. Performance measurement using the Balance Scorecard method includes four perspectives, namely finance, customers, internal business processes, growth and learning. The results showed that the performance achievement of Ibnu Sina Islamic Hospital with the Balance Scorecard model approach were: 1) Financial Perspectives were found in two indicators whose average achievement results were not in accordance with the standard hospital standards, namely the Collection Period. above 50-70 days, the Activity Ratio is not effective because the target is below 100%. Customer Perspective that customer satisfaction is good with an average score of 4.23, 3) Internal Business Process Perspective there are two variables whose average results are below the hospital's ideal standard namely the Average Length of Stay and Turn Over Interval (TOI) while the Bed Turnover rate (BTO) is above the standard hospital 40-50 times and Gross Death Rate (GDR) > 45/1000 sufferers out and NetDeathRate (NDR) > 25/1000 ideal; 4) Growth and Learning Perspective of employee productivity increases, every year and good employee satisfaction with an average score of 4.11.

**Keywords:** measurement of the performance of the Islamic Hospital of Ibnu Sina, the balance scorecard indicator.

## 1. INTRODUCTION:

The hospital is the public health service facilities that must serve BPJS participants. Health services that are given to the community start from registration until they process data from the service, will produce information that is needed for the hospital that is used to assess the quality of service and take decisions to improve the quality of hospital services. In accordance with Law No. 36 of 2009 concerning Health mandating that Hospitals should not refuse patients who need emergency services. In accordance with Law No. 36 of 2009 concerning Health mandating Hospitals should not refuse patients who need emergency services, if the Hospital refuses then criminal sanctions are threatened.

Ibnu Sina Islamic Hospital Simpang Empat has the task of giving service to keep in the surrounding community, especially BPJS participants. But besides that, the Ibnu Sina Islamic Hospital also had to improve the existing management of the hospital which included: 1) human resource management; 2) management of security; 3) very systematic information management system; 4) facilities and infrastructure; 5) and service quality.

Ibnu Sina Islamic Hospital as a hospital that functions as an advanced referral center in West Pasaman district in addition to the . Ibnu Sina Islamic Hospital is a type C Hospital that has data on Service and Employment Finance as the table below:

**Table 1.2**  
**Financial Statements 2013-2017**

	2013	2014	2015	2016	2017
<b>Current Ratio</b>	3.26	3.24	2.28	1.76	2.31
<b>Return On Aset</b>	6%	17%	5%	3%	2%
<b>Net Operating Margin</b>	4%	14%	8%	7%	8%
<b>Profit Margin</b>	4%	13%	5%	3%	3%

Source: RSI Ibnu Sina Simpang Empat (2018)

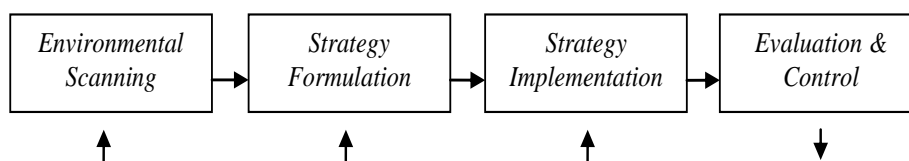
In the table above, it can be seen that the current ratio between total current assets and total liabilities is stable (current ratio), but when compared with Ibnu Sina Islamic Hospital total assets profit is not satisfactory in the last three years (2015 to 2017) in asset utilization owned by the company to generate net income.

The performance of the Ibnu Sina Islamic Hospital and the service during which it is administered to the community has never been measured and evaluated. Performance measurement needs to be done to determine the quality and quality of services provided by Ibnu Sina Islamic Hospital. Performance measurement needs to be done to determine the quality and quality of services provided by Ibn Sina Simpang Empat Islamic Hospital.

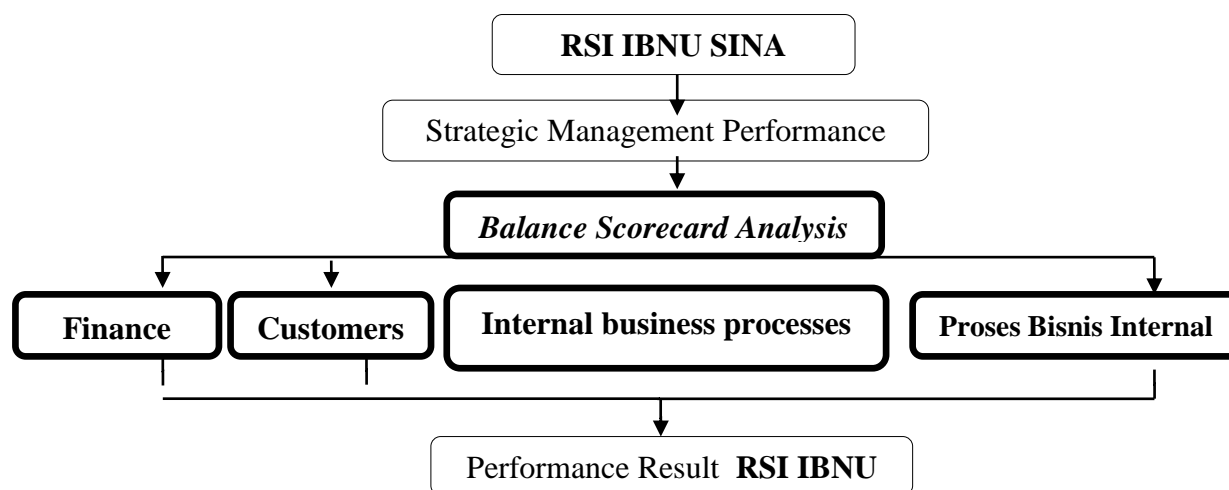
The results of the performance evaluation can be used as a reference for improving and developing the Ibn Sina Simpang Empat Islamic Hospital.

In a business competition, strategic management is needed to win the competition. According to David (2015), strategic management is defined as art and science in formulating, implementing, and evaluating cross-functional decisions that make an organization able to obtain its objectives. Whereas Pearce & Robison (2013) argues, strategic management as a series of decisions and actions that produce formulations and implementation plans to achieve company goals.

In developing the strategy management, there are four stages of the process which should be done namely environmental scanning, strategy formulation, strategy implementation, and evaluation (Wheelen & Hunger, 2012)



**Figure 1.1 Four Basic Elements of Strategic Management**  
 Source: Whelen & Hunger (2012)



**Figure1.2 Framework**

Source: Kaplan & Norton (2012)

### 3. RESEARCH METHODS:

Research design is a plan for collecting, measuring, and analyzing data, based on questions from the study. This research includes case study research that focuses on gathering information related to certain objects, such as business organization units in financial aspects, customer satisfaction, internal business processes and innovation and aspects of organizational growth. The purpose of the study in this study is descriptive study of quantitative approaches, According to Sekaran & Bougie (2017), descriptive studies are often designed to collect data that explains the characteristics of people, events, or situations, this involves collecting quantitative data such as satisfaction levels, production quantities, number of sales, or demographic data.

Data analysis in this study is based on the Balanced Scorecard (BSC) method. In this study there is a perspective on the Balanced Scorecard (BSC), namely financial variables, slow variables, internal business proases variables, a number of growth and learning variables. The four perspective variables, in detail, are analyzed according to their respective indicators as follows:

**Table 3.1**  
**Calculation Methods at Each Indicator**

Perspective	Indicator	Goal	Calculation Method	Information
<b>Finance</b>	Economic Ratio	Decreasing operational costs (decreasing economic value)	$\frac{\text{Spending}}{\text{Budget set}} \times 100\%$	Comparison between the budget realized and the realization of the budget determined by management
	Efficiency Ratio	Decreased level of efficiency ratio (<100%)	$\frac{\text{Spending}}{\text{Realization of Revenue}} \times 100\%$	Comparison between costs incurred to obtain income with those obtained
	Effectiveness Ratio	Value increase Effectiveness ratio (> 100%)	$\frac{\text{Realization of Revenue}}{\text{Revenue Targets}} \times 100\%$	Comparison between realization of income and revenue targets set by management
<b>Customer</b>	Customer Acquisition	Showing the level of ability of the hospital to reach new customers	$\frac{\text{Number of new customers}}{\text{The total number of Pelamngan}} \times 100\%$	Comparison of the number of new patients with total patients
	Patient Retention	Increased patient retention rate	$\frac{\text{Number of Old Customers}}{\text{Total number of customers}} \times 100\%$	The hospital's ability to maintain relationships with old customers still uses services at the hospital
<b>Internal Business Process</b>	Innovation	Increased Innovation Value	$\frac{\text{Number of new programs}}{\text{Existing Total Program Amount}} \times 100\%$	Stages of marketing units in making changes or developments in their work programs to be able to compete with other hospitals
	Operations	<i>Bed Occupancy Rate</i>	$\frac{\text{Number of Hospital Care Days}}{\text{number of beds X number of days in one period}} \times 100\%$	Analysis of hospital room occupancy rates
		<i>Average Length of Stay</i>	$\frac{\text{Number of days treated}}{\text{number of patients out (life + dies)}} \times 100\%$	Analysis of the average length of time patients were treated

		<i>Turn Over Interval</i>	$\frac{\text{number of beds X Period) - Day of care}}{\text{number of patients out (life + dies)}}$	Turnover grace analysis
		<i>Bed Turn Over</i>	$\frac{\text{number of patients out (life + dies)}}{\text{Number of room}}$	Bed rotation figures
		<i>Net Death Rate</i>	$\frac{\text{the number of patients died > 48 hours}}{\text{number of patients out (life + dies)}} \times 1000$	The death rate after 48 hours is treated every 1000 patients out
		<i>Gross Death Rate</i>	$\frac{\text{the number of patients has died entirely}}{\text{number of patients out (life + dies)}} \times 1000$	The general mortality rate for every 1000 patients is swamped
<b>Learning and Growth</b>	Employee Retention	Employee retention is the ability of the hospital to retain its employees	$\frac{\text{Number of Employees who leave}}{\text{Number of employees}} \times 100\%$	Comparison of the number of employees out with total employees
	Employee Productivity	Increased level of employee productivity	$\frac{\text{The amount of income}}{\text{Number of employees}} \times 100\%$	Comparison of the number of employees out with total employees

Source: Data processed

#### 4. RESULTS AND DISCUSSION:

In the Balance Scorecard perspective there are four things measured as follows:

##### 4.1 Financial Perspective

The financial perspective provides guidance on whether the strategic planning, implementation, and implementation of business units contribute or not to increase hospital profits. Measurement of performance with a balanced scorecard approach in a financial perspective using economic ratio indicators, efficiency ratio effectiveness ratios in the 2014 budget year to 2017.

Based on the economic ratio calculation formula, the percentage obtained in the following table:

**Table 4.1**  
**Economic Ratio for Budget Year the 2014-2017**

Year Expenditures 2014	24,453,603,007
Budget set	26,551,446.876
<b>Economic Ratio</b>	<b>92.1%</b>
Year Expenditures 2015	29,863,624,410
Budget set	28,336,602,269
<b>Economic Ratio</b>	<b>105.4%</b>

Year Expenditures 2016	31,213,650,048
Budget set	46,291,961,929
<b>Economic Ratio</b>	<b>67.4%</b>
Year Expenditures 2017	37,741,024,171
Budget set	34,272,099,709
<b>Economic Ratio</b>	<b>110.1%</b>

Source: Secondary Data processed (2018)

Analysis of economic ratios for the 2014-2017 fiscal year shows that expenditures incurred are relatively close to or exceed the stipulated budget. In 2014 & 2016 it was obtained with a ratio of 92.1% & 67.4% smaller than 100% ( $x > 100\%$ ) which means economical. Unlike the odd years of 2015 & 2017, the ratio of 105.4% & 110.1% is greater than 100% ( $x < 100\%$ ) means it is not economical in managing expenses.

Calculation of efficiency ratio, the percentage obtained in the following table:

**Table 4.2**  
**Efficiency Ratio for Budget Year 2014-2017**

Year Expenditures 2014	24,453,603,007
Realization of Revenue	28,214,856,809
<b>Efficiency Ratio</b>	<b>86.7%</b>
Year Expenditures 2015	29,863,624,410
Realization of Revenue	32,505,421,576
<b>Efficiency Ratio</b>	<b>91.9%</b>
Year Expenditures 2016	31,213,650,048
Realization of Revenue	32,688,087,503
<b>Efficiency Ratio</b>	<b>95.5%</b>
Year Expenditures 2017	37,741,024,171
Realization of Revenue	42,018,071,889
<b>Efficiency Ratio</b>	<b>89.8%</b>

Source: Secondary Data processed (2018)

Based on the formula for calculating the effectiveness ratio, the percentage obtained in the following table is obtained:

**Table 4.3**  
**Effectiveness Ratio for Budget Year 2014-2017**

Realization of Revenue 2014	28,214,856,809
Revenue Targets	28,349,127,545
<b>Effectiveness Ratio</b>	<b>99.5%</b>
Realization of Revenue 2015	32,505,421,576
Revenue Targets	32,361,664,694
<b>Effectiveness Ratio</b>	<b>100%</b>
Realization of Revenue 2016	32,688,087,503
Revenue Targets	48,354,905,700
<b>Effectiveness Ratio</b>	<b>67.6%</b>
Realization of Revenue 2017	42,018,071,889
Revenue Targets	36,589,842,265
<b>Effectiveness Ratio</b>	<b>114.8%</b>

Source: Secondary Data processed (2018)

The effectiveness ratio shows the realization of income with the income target obtained. In 2014 the value ratio of 99.5% value less than 100% means ineffective, in 2015 the ratio value of 100% ( $x = 100\%$ ) means effective balance. In 2016 the value ratio of 67.6% is less than 100% which means it is not effective. In 2017 the ratio of 114.8% is more than 100% effective.

#### 4.2 Customer Perspective

Viewed from the customer's perspective, hospitals must be able to identify customers from market segments. The hospital must also know its position in the customer's mind and have the ability to provide satisfaction value to its customers. In this perspective, it can be seen that the customer's assessment of the hospital. Based on the acquisition and customer retention calculation formula, then

**Table 4.4**  
**Customer Perspective Performance at Ibnu Sina Hospital in Outpatient Services**

Year	2014	2015	2016	2017
<b>Outpatient Acquisition</b>				
Number of New Customers	11.299	19.050	12.503	10.447
Total Customer Amount	39.572	59.491	59.423	67.346
<b>Ratio</b>	28,6%	32%	21%	15,5%
<b>Outpatient Retention</b>				
Number of Old Customers	28.273	40.441	46.920	56.899
Total Customer Amount	39.572	59.491	59.423	67.345
<b>Ratio</b>	71.4%	68%	79%	84,5%

Source: Secondary Data processed (2018)

If the hospital is able to reach a high number of patients it will increase hospital income. From the data above, it shows that Ibn Sina's Simpang Empat RSI gets new customers ranging from 15.5% to 32% in the last four years in outpatient service segmentation ( $x > 50\%$ ). As with the ability of Ibn Sina RSI Simpang Empat to maintain old customers / patients by 68% - 84.5% ( $x < 50\%$ ). It can be concluded that in the past 4 years the Ibnu Simpang Empat RSI was unable to acquire new customers optimally but more optimally retained old patients (retention) in outpatient segmentation.

**Table 4.5**  
**Customer Perspective Performance at Ibnu Sina Hospital in Inpatient Services**

Year	2014	2015	2016	2017
<b>Outpatient Acquisition</b>				
Number of New Customers	5315	6.918	4.412	3.507
Total Customer Amount	8.690	10.590	8.331	7.067
<b>Ratio</b>	61,2%	65,3%	53%	49,6%
<b>Outpatient Retention</b>				
Number of Old Customers	3.375	3.672	3.919	3.560
Total Customer Amount	8.690	10.590	8.331	7.067
<b>Ratio</b>	38,8%	34,7%	47%	50,4%

Source: Secondary Data processed (2018)

The data above shows that Ibn Sina Simpang Empat RSI gets new customers ranging from 50% to 65% in the last four years in outpatient service segmentation ( $x < 50\%$ ). As with the ability of Ibn Sina RSI Simpang Empat to maintain old customers / patients by 34% - 50% ( $x > 50\%$ ).

It can be concluded that in the past 4 years the Ibnu Simpang Empat Hospital was able to acquire new customers optimally but was unable to retain old patients (retention) in the segmentation of hospitalizations.

### 4.3 Internal Business Perspective

Measurements in this perspective focus on various internal processes of the management of the Ibnu Simpang Empat RSI which have an impact on customer satisfaction on the quality of the hospital services provided which are the strategic objectives of the hospital. Performance measurement in the perspective of internal business processes can be used to find out the advantages that a hospital has. At this stage measured from the parameters of the number of Innovations and the ratio of operational processes according to the standard that has been set.

**Tabel 4.6**  
**Internal Business Perspective of the Operational Parameters of Ibnu Sina**

Operational ratio	2014	2015	2016	2017
<i>Bed Occupancy Rate</i>	69.41%	81.44%	78.47%	81.41%
<i>Average Length of Stay</i>	2 day	3 day	3 day	3 day
<i>Turn Over Interval</i>	2 day	3 day	1 day	1 day
<i>Bed Turn Over</i>	122 kali	147	122	122
<i>Gross Death Rate</i>	27	44	58	39
<i>Net Death Rate</i>	13	16	22	11

Source: Secondary Data processed (2018)



In accordance with Government Regulation of the Republic of Indonesia Number 65 of 2005 concerning Guidelines for Preparation and Application of Minimum Service Standards. Then followed up with the Minister of Health Regulation Number 228 / Menkes / SK / II / 202 concerning Guidelines for Preparing Minimum Hospital Service Standards which must be implemented in the area. So the Ibnu Sina Foundation sets the Operational Standards as follows:

**Table 4.7**

**Ideal standard ratios related to Hospital Services Based on the Ibn Sina Foundation Operational Standards**

Ratio	Standart Ideal
<i>Bed Occupancy Rate</i>	60-86%
<i>Average Length of Stay</i>	4-9days
<i>Turn Over Interval</i>	1-3 days
<i>Bed Turn Over</i>	<40
<i>Gross Death Rate</i>	No more than 45 people
<i>Net Death Rate</i>	No more than 25 people

Source: Secondary Data processed (2018)

**4.4 Learning and Growth Perspectives**

In the learning and growth perspective, the performance indicators used are employee retention and employee productivity.

**Table 4.8**

**Performance of Learning and Growth Perspectives of Ibnu Sina**

year	2014	2015	2016	2017
<b>Employee Retention</b>				
Number of Employees resign	0	5	4	5
Number of employees	177	182	186	203
<b>Rasio</b>	<b>0%</b>	<b>2,7%</b>	<b>2,2%</b>	<b>2,5%</b>
<b>Employee Productivity</b>				
Number of revenue	28,289,542,950	32,252,836,957	32,337,191,789	40,181,067,195
Number of employees	177	182	186	203
<b>Rasio</b>	<b>159,827,926</b>	<b>177,213,390</b>	<b>173,855,869</b>	<b>198,150,215</b>

Source: Secondary Data processed (2018)

From the table data above, it can be seen that the employee retention percentage from year to year is increasingly showing a decline. This shows that the indicator of employee retention from 2014 to 2017 is getting better. In 2015 the employee retention rate of Ibn Sina Simpang IV Pasaman Barat RSI was at the level of 2.7% and decreased in 2016 by 2.2%. In 2017, it increased to 2.5%. The decrease in employee retention percentage can be interpreted that the employee turnover rate is getting better.

As with the Employee Productivity Ratio from 2014 to 2017 fluctuated. In 2015, the productivity of employees of Ibn Sina Simpang IV Pasaman Barat RSI was Rp. 177,213,390 for one year. And there was a decrease in 2016 of Rp. 173,855,869. Furthermore, in 2017 there was an increase of 198,150,215. From this data it can be seen that the more years, the performance produced by employees is getting better. So, in the end it can contribute to the increasing income for the Islamic Hospital of Ibn Sina Simpang IV West Pasaman.

**5. CONCLUSION:**

Based on the results of the analysis of the performance measurement of Ibnu Sina Simpang IV Pasaman Barat Hospital with the Balance Scorecard model approach with secondary data from 2015 to 2018 it was concluded that the performance was good.

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