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## **Performance Analysis of Grhasia Mental Hospital Training and Installation Development with Balanced Scorecard Method**

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### **ABSTRACT**

*The Education Research and Development Installation of Grhasia Mental Hospital (RSJ) has never implement a performance measurement, then it is not known what extent the success of financial and non-financial management in achieving organization vision and goals. This research was conducted to analyze the performance of Training and Development Installation of RSJ Grhasia through balanced scorecard (BSC) method with 4 perspectives, called finance, customers, internal business processes, then learning and growth. This research is a descriptive research which is analyzed descriptively analytic. The quantitative data were obtained from secondary data and survey results from internal (employees) and external customers (practice students). The research results from financial perspective shows poor results for income level and effectiveness ratio. On the other hand, it shows good results for Cost Recovery Rate / CRR. Customer perspective that shows satisfied results on employee satisfaction level and good results on student satisfaction level with education and training installation services.*

**Keywords:** *Performance Analysis, Balanced Scorecard, Training and Development*

## INTRODUCTION

Hospital is a public health service institution that influenced by the development of health science, technological progress, and socio-economic life of the community that will take a part in improving the quality and affordable services for society. The aim of the Hospital Plan was to rationalize and modernize the existing hospital stock and to better match the geographical distribution of acute services to apparent need (Jones, 2015). The hospital need to respond the changes in government policies and customer needs rapidly (Buathong & Bangchokdee, 2017). The rapid development of health services is a challenge for hospitals in facing increasingly open and accessible competition (Kundariyah et al., 2021).

Performance is the ability of an organization to work within a certain period of time that referring to standards set (2020). The performance has certain characteristics, called quantity, quality, and comprehensiveness (Diab, 2015). The hospital performance measurement is very important to identify the problems with financial and non-financial measures (Cheng & Humphreys, 2016). The achievement of organizational performance is often measured by its budget without using any other analysis (Alvarez et al., 2019).

The performance analysis encourages the improvement of health services. Catuogno (2017) developed a balanced scorecard (BSC) theory with financial and non-financial integration to identify an organization's vision and mission into tangible goals, actions, and performance measures (Alsharari et al., 2019). BSC determine the organization status and potential on specific goals and measurements (Alharbi et al., 2016). BSC is works for control, strategic management tools, information and communication, quality management, benchmarking and budgeting (Kollberg & Elg, 2011). With BSC, people have to look at organization from four perspectives called finance, customers, internal business processes, learning and growth (Janis Rupita & Kurnianto Tjahjono, 2018). The customer's perspective is measured by service quality dimensions delivered (Nurhasnah & Eliza, 2017).

Grhasia Mental Hospital is a class A Mental Hospital with an accreditation certificate of plenary hospital accreditation which also been designated as an Affiliated Teaching Hospital since April 29<sup>th</sup>, 2020. The Education, Training, Research and Development Installation (Diklatlitbang) is one of the units that contributes in housing income sick and business development plan in RSJ development Master Plan that required to provide optimal and efficient services.

In its practice, many hospitals have not or are overdue in using BSC (Tegar Fadeli Arrahma, 2022). The hospital's success can be assessed from the compatibility between the hospital's strategic plan and its implementation (Nur Hidayah, Arlina Dewi, Gofur Ahmad, Suhendar Sulaeman, 2021). The performance measurement has never been implemented at Training and Development Installation of Grhasia Mental Hospital (RSJ). Then, it is not known how far the success of

financial and non-financial management in achieving organization vision and goals. Besides that, researchers have not found the balanced scorecard research conducted in hospital work units, especially in education and training services.

The basic idea of performance measurement concept is to balance the financial aspects & non-financial aspects (Tegar Fadeli Arrahma, 2022).

With the implementation of balanced scorecard, Education, Research and Development services of Grhasia Mental Hospital are expected to create quality services according to the vision, called "to create a complete quality, ethical mental health and drug service" which was revealed in the hospital goals, especially the second purpose of Grhasia Mental Hospital, namely "to create a hospital as a center for learning, research and development, mental health and drug development".

From the research results, there is an increase in the use of balanced scorecard for decision making and strategic planning (Nielsen, 2015). Balanced scorecard also become an innovation in measuring the strategic performance of Health sector (Gao & Gurd, 2020). The application balanced scorecard is improve the planning effectiveness and improving the communication (Brown, 2017).

BSC is more effective strategic management tool that also formulated in the form of software programs (Koumpouros, 2013). There is a relationship between the level of completeness on performance measurement system with organizational effectiveness. The balanced scorecard is an example of a performance management tool that has successfully contributed to organizational strategy implementation (Lucianetti et al., 2019).

Human resources are good valuable assets in management since they affect other resources in the organization (Ferry et al., 2021). In dealing with today's competition, human resources with high performance and competence are needed (Mardiyah, 2019). The balanced scorecard application is provides feedback in every educational service to encourage individual growth and improving organizational performance (Patro, 2016). The performance measurement has a strategic role in organizational processes for the managers can understand the organization position (Tjahjono, 2015).

This research aims to analyze the performance of Training and Development Installation of Grhasia Mental Hospital with the balanced scorecard method. The benefit of this research is to improve the performance, accountability and transparency of health services at Grhasia Hospital, especially the Education and Mental Research and Development services which can assist the hospital accreditation process and to obtain the input and suggestions for the improvement and development of Training and Development Installation.

By measuring its performance, the Diklatlitbang Installation can improve the quality of its services, especially education, training, research and development services in line with hospital accreditation process.

## RESEARCH METHOD

This research is descriptive research with quantitative and qualitative approaches through analytical descriptive analysis. This type of data helps establish the relevance of an idea or confirm a hypothesis. It helps identify a claim and find out whether it is true or false (Omair, 2015). The research was conducted at Training and Development Installation of Grhasia Mental Hospital Yogyakarta, which is located on Jl. Kaliurang Km 17, Sleman Yogyakarta in March 2022.

The data collection methods for Balanced Scorecard of customer perspective is by using google form questionnaire for hospital employee satisfaction with Diklatlitbang services. There are 81 respondents and students' satisfaction with Diklatlitbang services and interviews with 3 students. The growth learning perspective with secondary data and interviews with 3 Diklatlitbang managers as well as financial perspective and growth learning perspective through the secondary data.

Furthermore, the measurement of balanced scorecard is conducted by measuring the results of performance drivers. The outcome measures are calculation that indicate the success rate of achieving strategic goals by assessing 11 variables from 4 perspectives, measuring overall performance with target comparing and each variable realization, calculate performance scores to assess work performance and assessing the aspects of balanced scorecard.

The measure of performance booster is a calculation that describes the causes of the results achieved by using an analysis plan table or a "dummy" table.

## RESULT AND DISCUSSION

### Financial Perspective

The financial perspective is monitoring the financial performance of Training and Development Installation in 2021. There are 3 variables that are evaluated from a financial perspective, such are income level, effectiveness ratio and cost recovery rate (CRR) or efficiency ratio. This financial variable is used to measure the effectiveness and program efficiency, activity and organizational performance (Halim, A & Kusufi, 2012).

#### Income level

The level of income is obtained from the comparison of income difference in 2021 and 2020 with revenues in 2020. The companies usually emphasize two main aspects in designing financial strategies, called revenue growth and productivity.

The results showed that the income level in 2021 decreased by IDR 49,461,000 or 20.49% compared to 2020 or included as "less" category. This

illustrates that Hospital management and R&D education and training managers need to formulate the strategies and innovations to increase their revenue

### **Ratio Effectiveness**

The effectiveness ratio is obtained from the comparison of income realization income with revenue target set by Training and Development Installation in 2021. The research results show that the effectiveness ratio of Diklatlitbang Installation in 2021 is revenue realization that reached 51.87% of the revenue target in 2021 of IDR 370,000,000 or in "less" category.

The income target was not achieved due to the impact of Covid 19 pandemic which reduced face-to-face services, including the student practices. This illustrates that the education training and development manager formulates a strategy by reviewing the education and training rates that have not been reviewed for a long time, and it is hoped that student services will return to normal practice when the pandemic ends.

### **Cost Recovery Rate (CRR)**

The Cost Recovery Rate (CRR) or efficiency ratio is obtained from comparison of large costs incurred to obtain the revenue with income realization in 2021. The research result shows that the effectiveness ratio of Training and Development Installation in 2021 is 68.89 % or in "good / efficient" category.

This illustrates that the realization of expenditures for Training and Development Installation is already smaller than the income, then the management only needs to maintain the spending efficiency.

### **Customer Perspective**

The customer perspective is customer's review of Education and Training Installation service by calculating the satisfaction level of internal customers (employees) and external customers (students) related to specific performance of products and services. There are 3 variables that are evaluated from customer perspective, called employee satisfaction level, student satisfaction level, and student satisfaction.

### **Employee satisfaction level**

The level of employee satisfaction is an employee's perception of the services provided by Diklatlitbang Installation in implementation of internal training (In house training) by using five dimensions that determine service quality, called SERVQUAL concept, which consists of tangible (physical / real), empathy, reliability, responsiveness and assurance or guarantee. The dimensions of service quality presented by Zeithaml, Parasuraman and Berry has been tested in measuring service quality performance (Nurhasnah & Eliza, 2017).

The results showed that the level of employee satisfaction with Education and Training Installation service in 2021 was 4.10 (82%) or included in "satisfied" category. This illustrates that employee satisfaction with the services of Training and Development Installation is improved by following up on suggestions and input in questionnaire.

**Student satisfaction level**

The level of student satisfaction is a student's perception of Training and Development Installation services in the implementation of Clinical Practice at Grhasia Mental Hospital with Community Satisfaction Survey questionnaire that has been adjusted, referring to Minimum Service Standards of Grhasia Mental Hospital.

The results showed that the level of student satisfaction with Diklatlitbang installation service in 2021 was 78.4 or included in "good" category. This illustrates that student satisfaction with education and training installation services is maintained and improved by following up on suggestions and input in questionnaire (open questions).

### **Student responsibility**

The satisfaction of student in charge is the perception of student in charge in the implementation of student practice at Grhasia Mental Hospital whether it is in accordance with the needs of educational institutions. Based on research results, it was found from 3 (three) informants interviewed, all of them stated that they were very satisfied with the services at Diklatlitbang Installation or in "good" category.

There are 5 themes presented, such as the need to improve libraries and supporting facilities for students, satisfactory room facilities, satisfactory service and the need to re-socialize of ethical clearance management, systems and procedures for run smoothly and satisfactorily, the need to increase research and innovation collaboration, student education and clinical supervisors that are competent and satisfactory. This illustrates that the suggestions and input from informants in charge of students need to be followed up as an effort to improve and develop the services quality for Diklatlitbang Installation.

### **Internal Business Process Perspective**

The Internal Business Process Perspective is a sequence of service processes for the Education, Research and Development Installation from the receipt of applications for educational activities, employee training and student practice permits and the implementation to customers in an efficient, timely, quality / standardized manner and able to provide good financial results. There are 3 variables that are evaluated in internal business processes perspective, called education and training service system and procedures, the completeness of education and training service facilities and education and training innovation process.

### **Training and development service systems and procedures**

Training and development service systems and procedures are hospital efforts to regulate services to employees and students in conforming for established service procedures/standards.

From 20 types of standard procedures, there are 15 types (80%) procedures that are already owned by Training and Development Installation or are included in "good" category. It is supported by interviews of with 3 (three) Diklatlitbang managers where there were 2 themes presented, called evaluation of student service systems and procedures and Diklatlitbang evaluation of service management systems and procedures. This illustrates that education and training managers need to update and complete the standard procedures and need to implement the regular bench marking / comparative studies to other hospital training services.



**Completeness of training and development service facilities**

The completeness of training and development service facilities is the availability of facilities used to provide services to employees and students.

From the research results, it was found that the completeness of service facilities to the standard was including in 12 types of service facility standards, there are 11 types (91.67%) of standard facilities that are already owned by Training and Development Installation or are included in "good" category. There were 2 themes presented in the interview, called improving work facilities of Training and Development Installation and student service facilities, also increasing the staff training. This illustrates that hospital management can seek to improve the facilities by collaborating with educational institutions through grant programs for developing the conformity to standards.

**Training and Development Innovation Process**

The Diklatlitbang innovation process is identifying the current and future needs of internal and external customers along with developing solutions based on customer needs.

From the research results, it was found that the innovation process conducted by Training and Development Installation was from at least 1 type of innovation that becomes the agency's performance appraisal. There are 10 types of innovation arranged during 2021 that exceeds the target (250 %) or conforms to the standard > 80 %. It included in "very good" category.

There are 2 themes presented during the interview, called innovation of Education, Research and Development services and organizational development of Education, Research and Development Installation. This illustrates that Hospital management needs to consider providing rewards for innovations development, supporting and facilitating their implementation.

**Growth and Learning Perspective**

The growth and Learning Perspective is an effort made by hospital management to improve their HR performance quality then they have the ability to manage their work. There are 2 variables that are evaluated in growth and learning perspective, called employees education level and the number of Diklatlitbang employees who receive training.



### **Employee Education Level**

Employee education level is the level of education owned by Diklatlitbang Installation employee in the form of latest legal formal education, recognized in personnel administration and in accordance with the regulations.

From the research result, it was found that the suitability of employees education level to Pergub DIY standards was 80% or included in "good enough" category since from the 5 employees of Training and Development Installation, 4 (80%) of them have a minimum education of D3 or not in accordance with Pergub DIY standards.

This illustrates that Employees with high school education need to pursue their education to D3 or be transferred and replaced by employees with at least D3 education. In addition, hospital management must provide the opportunities for employees to extend their education through study assignments / study permits.

### **Number of Diklatlitbang Installation employees who received training.**

Diklatlitbang Installation employees who receive training for 20 hours per year expected to increase competence in conduct the services in form of training, technical guidance, seminars, etc.

The research result showed that out of 5 employees, only 1 person that participated in more than 20 hours of training during 2021. In this case, the number of Diklatlitbang Installation employees who received training was reached by 25% or in "less" category, since it is still not according to Ministry of Health training standards with 20 hours a year at least 60 percent.

This illustrates that Hospital management must strive for a minimum number of employee training in 20 hours per year and include it in strategic goals and conduct a training needs assessment (TNA).

### **Results of Training and Development Installation Performance**

The results achieved by Training and Development Installation in quality and quantity are in accordance with the standards set by Grhasia Mental Hospital with the balanced scorecard method. The performance is measures through 4 (four) perspectives, such as finance, customers, internal business processes, learning and growth.

The results of performance assessment at Grhasia Mental Hospital Diklatlitbang Installation through the balanced scorecard method for each perspective variable and the variables measured by comparing the target with the achievement can be seen in the following table:

Table 1. The Results of 2021 Training and Development Installation Performance

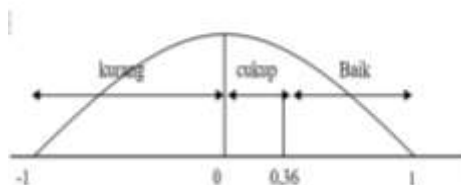
Perspective	Variable		Target	Results	
Finance	1	Income level	Positive value (+)	- 20.49%	Not enough
	2	Effectiveness Ratio	100%	51.87%	Not enough
	3	<i>Cost Recovery Rate</i>	< 100 %	68.89%	Well
Customer satisfaction	4	Employee satisfaction level	□ 4	4.10	Satisfied
	5	Student satisfaction level	□ 81.26	78.4	Well
	6	Student responsibility	Satisfied	Satisfied	Well
Internal Business Process	7	Training and development service systems and procedures	80%	80%	Well
	8	Completeness of training and development service facilities	80%	91.67%	Well
	9	innovation process, research and development	100%	250%	Very good
Learning and Growth	10	Employee education level	> 80 %	80%	Enough
	11	Number of training and education installation employees who received training	60%	20%	Not enough

From the performance results, a performance score is determined that explains the results of scoring 11 variables from 4 (four) perspectives studied. The score of -1 is worth less, that is, the achievement level is below the standard. When the score of 0 is sufficient, it means the achievement level is same as the standard and while score of 1 is good, it concluded that the achievement level is above the standard.

**Table 2.** 2021 Training and Development Installation Performance Score

Perspective	Variable		Performance Results	Score	□
Finance	1	Income level	Not enough	-1	-1
	2	Effectiveness Ratio	Not enough	-1	
	3	<i>Cost Recovery Rate</i>	Well	+1	
Customer satisfaction	4	Employee satisfaction level	Satisfied	+1	3
	5	Student satisfaction level	Well	+1	
	6	Student responsibility	Well	+1	
Internal Business Process	7	Training and development service systems and procedures	Well	+1	3
	8	Completeness of training and development service facilities	Well	+1	
	9	innovation process research and development	Very good	+1	
Learning and Growth	10	Employee education level	Enough	0	-1
	11	Number of training and education installation employees who received training	Not enough	-1	
Total score				4	4

From the table above, it can be seen that total hospital score weight is 4 from the total standard weight, then the average score is  $4 / 11$ , or 0.36. The following is a description of Grhasia RSJ Training and Development Installation performance:

**Figure 1.** The overview of Training and Development Installation Performance

Based on the calculation of total score from Diklatlitbang installation performance, the value is 0.36 or "enough" of 11 performance parameters. This is in accordance with previous relevant research, called the Outpatient Polyclinic of Surya Husadha General Hospital Denpasar with a sufficient performance score of 0.55 or "enough". Another research was conducted at RSUD Dr Zainoel Abidin Banda Aceh where the overall performance was included in good category with a performance score of 0.88 (Martunis et al., 2020). To see a comparison of the balance of various aspects of the balanced scorecard perspective can be seen in the table as follows:

**Table 3.** Balanced Scorecard Comparison

No	Aspect Comparison		Score	Quantity	Explanation
A	The comparison of internal and external aspects				
1	Interfinal	Internal business processes	3	2	There is a balance between internal and external aspects
		Lessons & partum buhhan	-1		
2	external	Finance	-1	2	
		Customer	3		
B	The comparison of process and people aspects				
1	Process	Internal business processes	3	2	There is a balance between process and people aspects
		Finance	-1		
2	Person	Lessons & partum buhhan	-1	2	
		Customer	3		
C	The comparison of financial & non-financial aspects				
1	Finance	Finance	-1	-1	There is an imbalance between financial and non-financial aspects where the R&D Training Installation focuses more on non-financial aspects
2	Non-financial only	Internal business processes	3	5	
		Learning & growth	-1		
		Customer	3		

Based on the table above, there is a balance of internal and external aspects and a balance of process and people aspects, but there is an imbalance between financial and non-financial aspects, then the financial aspect needs to improve its performance. While the measure of performance booster is a calculation that describes the cause of the results achieved through an analytical plan table or "dummy table". The dummy table is a table design with selected parameters or obtained from data set. The use of this table as implement in research on performance quantifying through the balanced scorecard at Nutrition Installation of Panembahan Senopati Hospital, Bantul (Purnamasari, 2015).

Perspective and Variable		Strategic Goals/Aims	Size & Target	Facts / Performance Boosters	Performance Results		Score	Initiative
<b>A</b>	<b>Finance</b>							
1	Income level	The realization of increased revenue and cost efficiency	Income level increases or positive value (+)	Income level in 2021 decreased by 20.49% compared to 2020	- 20.49%	Not enough	-1	Management & education and training managers need to formulate strategies and innovations to increase income and it is hoped that student service practices will return to normal when the pandemic ends.
2	Ratio Effectiveness		Effectiveness Ratio 100% (Realized revenue is at least equal to the revenue target)	The income target was not achieved due to the influence of the Covid 19 pandemic which reduced face-to-face services, including student practices	51.87%	Not enough	-1	The education and training manager formulates a strategy by reviewing the education and training rates that have not been reviewed for a long time (the last tariff change was in 2016 and currently the tariff is considered too cheap)
3	Cost Recovery Rate (CRR)		Cost Recovery Rate (CRR) / efficiency ratio < 100%	2021 expenses = Rp 132,211.116 does not exceed realized income = Rp 191,910,000 (68.89%)	68.89%	Good / Efficient	+1	The realization of expenditure/expenditure for the Training and Development Installation is already smaller than the income, so management only needs to maintain spending efficiency.
<b>B</b>	<b>Customer</b>							
4	Employee satisfaction level	Increased customer satisfaction	Average employee satisfaction with the Servqual	The level of employee satisfaction with the Training and Development Installation service in 2021,	4.10	Satisfied	+1	Employee satisfaction with the Diklatlitbang Installation service is improved by

			method 4 (good)	including the satisfied category				following up on suggestions and input in the questionnaire
5	Student satisfaction level		Average student satisfaction through the Community Satisfaction Survey / SKM 81.26 (very good)	Overall, the level of student satisfaction with the Education and Research and Development Installation services in 2021, including the good category	78.4	Well	+1	Student satisfaction with Diklatlitbang Installation services is maintained and improved by following up on suggestions and input in the questionnaire (open questions)
6	Student responsibility		The student in charge expressed satisfaction	The informant in charge of the student expressed satisfaction & gave suggestions for improvement	Satisfied	Well	+1	Suggestions and inputs from the informants in charge of students are followed up as an effort to improve and improve the quality of services for the Training and Development Installation
<b>C</b>	<b>Internal Business Process</b>							
7	Training service systems and procedures	Improving the quality of services, infrastructure facilities according to standards and innovation of education and training	Kcompliance with standard systems and procedures, namely 80%	Of the 20 types of standard procedures, there are 15 types (80%) procedures that are already owned by the Training and Development Installation	80%	Well	+1	The education and training manager updates the standard procedures and needs to carry out regular benchmarking / comparative studies to other hospital training services

8	Completeness of training and development service facilities	services bang	Compliance with service facility standards is 80%	Of the 12 types of standard service facilities, there are 11 types (91.67%) of standard facilities that are already owned	91.67%	Well	+1	The hospital management seeks to improve facilities and can cooperate with educational institutions through grant programs
9	development innovation processes research and development		Minimum of 4 types of innovation in a year uploaded to the monitoring application - activity evaluation ring = 100%	There are 10 types of innovations reported in the activity evaluation monitoring application during 2021	250%	Very good	+1	The hospital management is considering providing rewards for the development of innovations, supporting and facilitating its implementation
D	Growth and Learning							
10	Employee education level	Improving the quality and competence of human resources managing Diklat, R & D	Education level according to standard (minimum D3)> 80%,	Of the 5 employees of the Training and Development Installation, there is 1 person with a high school education so that it is not up to the standards of Pergub DIY, which is at least S1	80%	Enough	0	<ul style="list-style-type: none"><li>High school employees continue their education to D3 or are transferred and replaced by employees with a minimum education of D3</li><li>Provide opportunities for employee</li></ul>



								s to continue their education through study assignments / study permits
11	Number of Diklatlitbang Installation employees who received training		Diklatlitbang employees receive training at least 20 hours per year 60%	The number of Diklatlitbang Installation employees who receive training is still not according to the Ministry of Health standards, namely training 20 hours a year at least 60 percent	20%	Not enough	-1	<ul style="list-style-type: none"> <li>The hospital management strives for a minimum employee training rate of 20 hours per year and includes it in strategic goals.</li> <li>Conduct training needs analysis / Training Need Assessment (TNA)</li> </ul>
				Total score			4	

Table 3. The performance Analysis of Balanced Scorecard for 2021 Training and Development Installation

## CONCLUSION

Based on scores assessment in balanced scorecard using 11 variables with 4 perspectives, the performance of Grhasia Mental Hospital and Development Installation is concluded to be "adequate" with a score of 0.36. In addition, there is no balance between financial and non-financial aspects, then the financial aspect needs attention in improving its performance.

The performance measurement with balanced scorecard method is better than using only the performance indicators in Hospital Minimum Service Standards. Through balanced scorecard method, the measurement of Training and Development Installation can be evaluated from four perspectives.

The suggestions for this research are the Education and Research along with Development Manager and hospital management need to follow up on performance achievement results that have not met the standard from income levels, ratio effectiveness and the number of Diklatlitbang employees that received training at least 20 hours per year.

Further research can be conducted to perform the performance analysis with the same method with different variables, work units and integrate it into information technology system to facilitate the results calculation and performance appraisals to support the employee reward system.

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