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Strategy Development of Perumda Air Minum Performance Improvement using Combination of Balance Scorecard, SWOT and QSPM Methods

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ABSTRACT

The provision of drinking water is one of the basic needs and socio-economic rights of the community that must be fulfilled by the Government, both the Regional Government and the Central Government. Increasing access to drinking water is closely related to improving the performance of Perumda as a business unit providing drinking water. Perumda Air Minum Tirta Alami Tanah Datar Regency is the only BUMD that provides drinking water in Tanah Datar Regency. As a company that organizes the Drinking Water Supply System (SPAM), Perumda Air Minum is required to be able to provide the best possible service in providing clean water to the community. The performance evaluation study of Perumda Air Minum Tirta Alami Tanah Datar Regency was carried out in general through some stages; data inventory, performance evaluation and determination of performance status. The performance assessment uses four aspects, namely service, operational, human resources and financial aspects for the period of 2023. From the results of the evaluation of the four aspects, the performance of Perumda Air Minum Tirta Alami Tanah Datar Regency showed a quite good performance, with a total indicator value of all aspects of 3.10. This shows that the company can be categorized as healthy because it has a total value of more than 2.8. Based on this study, it is expected that the company can strive to improve performance on indicators that still obtain values that do not meet the predetermined standards.

Keywords: *Drinking Water; Perumda; Evaluation; Performance*

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INTRODUCTION

The provision of drinking water is one of the basic needs and socio-economic rights of the community that must be fulfilled by the Government, both the Regional Government and the Central Government. Increasing access to drinking water and sanitation needs to be increased in order to achieve the target of 100% by 2030, in line with the commitment of realizing the Sustainable Development Goals (SDGs). This is also in accordance with the mission of all 6 Regional Heads, to increase sustainable infrastructure and environmental development by increasing the coverage of drinking water services. [1].

Clean water for public needs is generally supplied by the Regional Drinking Water Company (PDAM). The Regional Drinking Water Company of Tanah Datar Regency was changed to the Regional Drinking Water Public Company of Tanah Datar Regency and is the only BUMD that provides drinking water in Tanah Datar Regency [2]. As the only drinking water company owned by Tanah Datar Regency, Perumda Air Minum Tirta Alami Tanah Datar Regency is required to be able to provide the best service in providing clean water, in addition to seek profits to support the continuity of the company itself.

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Increasing access to drinking water is closely related to improving the performance of Perumda as a drinking water supply business unit. Like other companies, Perumda is also often identified as a business unit whose performance is not optimal. This inefficiency is indicated by the low coverage of service areas, high leakage rates, low service growth and low domestic water consumption. The service coverage of Perumda Air Minum Tanah Datar Regency as of December 31, 2022 was 81,694 people or 21.71% of the population of Tanah Datar Regency of 376,276 people [3]. Meanwhile, the volume of water distributed to customers was 6,314,258 m^3, 4,372,015 m^3 had been sold to customers, so that the Non Revenued Water (NRW) distribution in 2022 was 1,942,243 m^3 or 30.76%. This NRW percentage is higher than the predetermined standard of 25%.

Currently, technological developments have reached the era of the 5.0 revolution, allowing companies to utilize technology in various operational aspects. This development escalates the competition in business that continues to grow and change rapidly. In this competitive environment, information becomes a valuable asset for companies because it plays a role in measuring performance and supporting decision making. Competition in obtaining information is increasingly crucial, because through data from each company activities, a comprehensive picture can be obtained. This information then becomes the basis for decision making that has an impact on the sustainability and development of the company [4]. Good quality information must be supported by several important components, including accuracy in data presentation, timeline so that information can be used effectively, completeness to cover all aspects needed, and concise presentation to make it easy to understand and access. The combination of these factors ensures that the information has high value in supporting decision making [5]

Information about events in the company plays an important role in building strategic management and measuring company performance on an ongoing basis. Performance measurement is the main tool for companies to assess their achievements by comparing plans and results, evaluating errors, and recommending improvements [6]. Traditionally, performance measurement focuses more on the financial aspect, but in the context of modern business, non-financial measurements are also needed to make the results more accurate [7]. To answer this need, Robert S. Kaplan and David P. Norton introduced the Balanced Scorecard which links financial and non-financial measures in a comprehensive framework to support the strategic management system.

The research aims to analyze the benefits and contributions of implementing the Balanced Scorecard (BSC). This study shows that BSC is not only functions as a performance evaluation tool, but also as a strategic management system that helps organizations translate missions and strategies, improve communication, and support the whole organization. In addition, this study provides a theoretical basis for further studies and encourages the adoption and development of BSC in various organizations [8]. Thus, it is necessary to evaluate the existing performance of Perumda Air Minum Tirta Alami Tanah Datar Regency by using BSC to determine the existing conditions and existing problems.

METHOD

The use of the Balanced Scorecard in public organizations involves determining strategic objectives, performance measures, targets, and initiatives that support its implementation. Research shows that not only for business but the Balanced Scorecard can also be adapted for public organizations to help achieve missions and improve operational effectiveness. Measuring company performance over a period is important for assessing achievements accurately. However, this far, the measurement has focused more on the financial aspect, which

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only reflects internal performance. External factors are often ignored. [9]

Several studies have been conducted by developing the BSC model through collaboration with experts and managers to help decision makers manage water utility performance efficiently [10]. In addition, BSC is also used to measure the results of company performance from measuring each indicator of the four performance perspectives [11].

This study was conducted to determine and evaluate the existing performance of Perumda Air Minum Tirta Alami Tanah Datar Regency based on service aspects, operational aspects, human resource aspects and financial aspects using the Balanced Scorecard. From each of these aspects, several performance indicators will be determined which are obtained from processing the collected data. These performance indicators indicate the factors that influence the performance of Perumda Air Minum Tirta Alami Tanah Datar Regency.

Secondary data were obtained from literature studies, organizational surveys and field surveys on the performance of Perumda Air Minum Tirta Alami Tanah Datar Regency. This data also includes several aspects; service aspects, operational aspects, human resource aspects and financial aspects. The data then processed with the PDAM performance evaluation formula using performance indicator calculation conduct a performance evaluation of Perumda Air Minum Tirta Alami Tanah Datar Regency. The aspects assessed are based on the technical instructions for measuring the performance of the Ministry of Public Works and Public Housing [12]. The PDAM performance indicator formula and standards can be seen in table 1

Table 1. Formula Indikator Kinerja dan Standar PDAM (BPPSPAM, 2010)

No	Indicators	Formula	Standard	Infromation
I	**Service Aspect**			
1	Technical Service Coverage	$\frac{\text{Number of Population Served}}{\text{Number of residents in the service area}} \times 100\%$ which: - Number of residents served: number of connections (number of active connections at the end of the assessment period) multiplied by the average number of people per household - Number of residents in the service area: number of residents in the technical service area	≥ 80 (%)	This indicator determines the extent to which PDAM management has been able to provide water services to its technical service areas.
2	Customer Growth	$\frac{\text{Number of customers this period} - \text{last period}}{\text{Number of Customers Last Year}}$ which: - Number of customers this period: total number of customers recorded in the service administration at the end of the evaluation period - Number of customers last period: total number of customers recorded in the service administration at the end of the previous period	≥ 10 (%)	This indicator describes PDAM efforts to increase the number of its customers.

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No	Indicators	Formula	Standard	Infromation
3	Complaint Resolution Rate	$\frac{\text{Number of Complaints handled}}{\text{Number of Complaints}} \times 100\%$ which: - Number of customers handled: the number of customer complaints recorded and resolved within one evaluation period - Number of complaints: the total number of complaints from customers recorded	≥ 80 (%)	This indicator describes the level of PDAM efforts to resolve complaints about water services and others from customers and/or non-customers.
4	Customer Water Quality	$\frac{\text{Numbers of Qualified Tests}}{\text{Numbers of Tests}} \times 100\%$ which: - Number of qualified tests: number of water quality test results at customer points that meet the requirements - Number tested: number of water quality test samples taken	≥ 80 (%)	This indicator describes the PDAM capabilities to serve its customers with quality drinking water services.
5	Domestic Water Consumption	$\frac{\text{Average amount of water sold to domestic customers}}{\text{Number of Domestic Customers}}$ which: - Average amount of water sold to domestic customers: the average amount of water consumed by domestic customers - Number of domestic customers: the number of domestic customers who are still active	≥30(m^3/ month)	This indicator determines the average level of water consumption per household in one month in the relevant year, furthermore, it also shows the average liter consumption per person per day. This is important considering the minimum consumption approach (Basic Need Approach / BNA) by comparing PDAM achievements to BNA, thus the achievements that PDAM

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No	Indicators	Formula	Standard	Infromation
				has made to its customers can be measured.
II	**Operational Aspecsts**			
1	Production Efficiency	$\frac{\text{Production Realization}}{\text{Installed capacity}} \times 100\%$ which: - Production Realization: volume of water produced (in real terms)/ real production volume - Installed Capacity: capacity of production units installed and in accordance with the plan	≥ 90 (%)	Production Efficiency shows the level of efficiency of PDAM in utilizing its installed capacity.
2	Water loss (NRW)	$\frac{\text{Water distribution} - \text{water sold}}{\text{Water distribution}}$ which: - Water distribution: the amount of water distributed to customers using the distribution pipe network carried out during the evaluation period. - Water sold: the amount of water used by customers and recorded in the IRA (Water Account Summary) during the evaluation period.	≤ 25 (%)	Non-Revenue Water (NRW) shows PDAM abilities to control the volume of water sold through its distribution system.
3	Service operating hours	$\frac{\text{Customer water distribution time during the evaluation period}}{\text{Water distribution to customers in a year}}$ which: - Water distribution time to customers: water distribution services that can be provided by the regional drinking water company to customers carried out during the evaluation period.	21-24 (hours)	Service Operating Hours determines PDAM abilities to provide drinking water services to its customers continuously 24 hours a day.
4	Water pressure on SR	$\frac{\text{Number of customers served with pressure} > 7 \text{ bar}}{\text{Numbers of customers}}$ which: - Number of customers served with a minimum pressure of 0.7 bar: the number of customers who receive service with a minimum water pressure of 7m water column during peak hours (07.00 – 08.00) - Number of customers: the number/amount of active customers	≥ 80 (%)	Water pressure at Customer Households complements the service operating hours indicator and water quality indicator as effort to find out whether PDAM has

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No	Indicators	Formula	Standard	Infromation
				been able to maintain its service by meeting the qualifications of drinking water, where the achievement must meet the 3K requirements. This indicator finds out the achievement of PDAM average water pressure in its customer pipes.
5	Customer water meter replacement	$\frac{\text{Number of customer water meters replaced}}{\text{Numbers of customers}} \times 100\%$ which: - Number of water meters replaced: the number of customers' water meters replaced during the evaluation period - Number of customers: the number/amount of active customers	≥ 20 (%)	Customer Water Meter Replacement assesses the extent to which PDAM has replaced water meters.
III	**Human Resources Aspects**			
1	Employee to customer ratio	$\frac{\text{Number of Employees}}{\text{Total Number of Customers}/_{1000}}$ which: - Number of employees: the number/amount of employees registered as permanent and honorary employees - Customer realization/1000: the number/amount of active customers	Cities ≤ 6 Regencies ≤ 8	This indicator measures the efficiency of PDAM employees towards customers.
2	Employee Training Ratio	$\frac{\text{Number of Employees who participated in the training}}{\text{Number of Employees}}$ which: - Number of employees who attended training: the number/amount of employees recorded as attending education and training during the evaluation period - Number of employees: the number of employees recorded as permanent and honorary employees	≥ 80 (%)	This indicator assesses the competency level of PDAM employees.
3	Training Expense to	$\frac{\text{Training Expenses}}{\text{Employees Expenses}} \times 100\%$	≥ 10 (%)	This indicator determines the

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No	Indicators	Formula	Standard	Infromation
	Employee Expense	which: - Total training expenses: the total amount of costs incurred by the regional drinking water company related to employee education and training activities - Total employee expenses: the total amount of employee loads recorded as permanent and honorary employees		efforts of PDAM management to ensure its employees are competent.
IV	**Financial Aspects**			
1a	Return of equity (ROE)	$\frac{\text{Net Profit after tax}}{\text{Total Equity (stock + reserves)}}$ which: - - Net profit after tax: excess of total income over total expenses for one year after deducting income tax - - Total equity: total stocks plus reserves or assets minus liabilities	≥ 10 (%)	*Return on Equity (ROE)* determines the level of profitability of a company by comparing net profit to the amount of equity.
1b	Operational Ratio	$\frac{\text{Operating Costs}}{\text{Operating income}} \times 100\%$ which: - Operating expenses: all operating expenses consist of direct operating expenses (water source expenses, water treatment expenses and transmission and distribution expenses) and indirect operating expenses (administrative and general expenses) - Operating income: all operating income consisting of water income and non-water income	≤ 0,5	Operating Ratio (RO) shows the capabilities of PDAM management to carry out efficiency/control of operating expenses and efforts to increase its income to generate sufficient income to cover operating expenses.
2a	Cash Ratio	$\frac{\text{Total Cash + Cash Equivalents}}{\text{Total Current Liabilities}} \times 100\%$ which: - Cash amount: all cash available both in the company's cash (cash) and in the bank - Cash equivalents: marketable securities owned and can be cashed including deposits, securities, promissory notes and post-dated checks (included in current assets) - Current liabilities amount: all liabilities	≥ 100 (%	Cash Ratio shows the capabilities of PDAM cash to meet its short-term obligations.

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No	Indicators	Formula	Standard	Infromation
		that must be paid off within one fiscal year		
2b	Billing Effectiveness	$\frac{\text{Water Bill Receipt Amount}}{\text{Water Bill Amount}} \times 100\%$ which: - Total water bill receipts: receipts (receipts via cash and/or via bank) in one fiscal year for the volume of water sold (total water bills) - Total water bills: total amount of bills to PDAM customers for one year	≥ 90 (%)	Billing Effectiveness shows the capabilities of PDAM to manage revenue from water sales to customers (water receivables) effectively so that it becomes PDAM revenue.
3	Solvability	$\frac{\text{Total Assets}}{\text{Amount of Liabilities}} \times 100\%$ which: - Total assets: resources owned by the regional water company as a result of past events and also from future economic benefits and expected to be obtained by the entity. - Total liabilities: the amount of obligations to be paid	≥ 200 (%)	Solvability determines the abilities of PDAM to guarantee its long-term liabilities/debts or a ratio that can describe the loads of liabilities it can bear, compared to the amount of its assets.

To determine the performance status, weight, standard and standard value of performance indicators, are reference figures used to determine the status of PDAM. Determination of weight, standard and standard value for each PDAM performance indicator is explained in table 2.

Table 2. PDAM Performance Indicator and Standard Values (BPPSPAM, 2010)

No	Indicators	Weight	Standard	Values
I	**Service Aspect**			
1	Technical Service Coverage	0,05	≥ 80 (%)	5
			60 - < 80 (%)	4
			40 - < 60 (%)	3
			20 - < 40 (%)	2
			≤ 20 (%)	1
2	Customer Growth	0,05	≥ 10 (%)	5
			8 - < 10 (%)	4
			6 - < 8 (%)	3

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No	Indicators	Weight	Standard	Values
			4 - > 6 (%)	2
			< 4 (%)	1
3	Complaint Resolution Rate	0,025	≥ 80 (%)	5
			60 - < 80 (%)	4
			40 - < 60 (%)	3
			20 - < 40 (%)	2
			≤ 20 (%)	1
4	Customer Water Quality	0,075	≥ 80 (%)	5
			60 - < 80 (%)	4
			40 - < 60 (%)	3
			20 - < 40 (%)	2
			≤ 20 (%)	1
5	Domestic Water Consumption	0,05	≥ 30 (m^3/bulan)	5
			25 - < 30 (m^3/bulan)	4
			20 - < 25 (m^3/bulan)	3
			15 - < 20 (m^3/bulan)	2
			≤ 15 (m^3/bulan)	1
II	**Operational Aspect**			
1	Production Efficiency	0,07	≥ 90 (%)	5
			80 - < 90 (%)	4
			70 - < 80 (%)	3
			60 - < 70 (%)	2
			≤ 60 (%)	1
2	Water loss (NRW)	0,07	> 25 (%)	5
			> 25 - 30 (%)	4
			> 30 - 35 (%)	3
			> 35 - 40 (%)	2
			> 40 (%)	1
3	Service operating hours	0,08	21 – 24 (jam)	5
			18 - < 21 (jam)	4
			16 - < 18 (jam)	3
			12 - < 16 (jam)	2
			< 12 (jam)	1
4	Water pressure on SR	0,065	≥ 80 (%)	5
			60 - < 80 (%)	4
			40 - < 60 (%)	3
			20 - < 40 (%)	2
			< 20 (%)	1
5	Customer water meter replacement	0,065	≥ 20 (%)	5
			15 - < 20 (%)	4
			10 - < 15 (%)	3
			5 - < 10 (%)	2
			< 5 (%)	1
III	**Human Resources Aspect**			
1	Employee to customer ratio	0,07	≤ 8 (org)	5
			> 8 - 10 (org)	4
			> 10 - 12 (org)	3
			> 12 - 14 (org)	2
			> 14 (org)	1
2	Employee Training Ratio	0,04	≥ 80 (%)	5

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No	Indicators	Weight	Standard	Values
			60 - < 80 (%)	4
			40 - < 60 (%)	3
			20 - < 40 (%)	2
			< 20 (%)	1
3	Training Cost Ratio	0,04	≥ 10 (%)	5
			7,5 - < 10 (%)	4
			5 - < 7,5 (%)	3
			2,5 - < 5 (%)	2
			< 2,5 (%)	1
IV	**Financial Aspect**			
1	*Return of equity* (ROE)	0,055	≥ 10 (%)	5
			7 - < 10 (%)	4
			3 - < 7 (%)	3
			0 - < 3 (%)	2
			< 2,5 (%)	1
2	Operating ratio	0,055	≤ 0,5 (%)	5
			> 0,5 – 0,65 (%)	4
			> 0,65 – 0,85 (%)	3
			> 0,85 – 1,0 (%)	2
			> 1,0 (%)	1
3	Cash Ration	0,055	≥ 100 (%)	5
			80 - < 100 (%)	4
			60 - < 80 (%)	3
			40 - < 60 (%)	2
			< 40(%)	1
4	Billing Effectiveness	0,055	≥ 90 (%)	5
			85 - < 90 (%)	4
			80 - < 85 (%)	3
			75 - < 80 (%)	2
			< 70(%)	1
5	Solvability	0,03	≥ 200 (%)	5
			170 - < 200 (%)	4
			135 - < 170 (%)	3
			100 - < 135 (%)	2
			< 100 (%)	1

RESULTS AND DISCUSSION

The data analyzed in this study consists of performance indicator data of Perumda Tirta Alami Tanah Datar Regency. The collected data processed to conduct a performance evaluation of Perumda Tirta Alami Drinking Water in Tanah Datar Regency. The total weighting of the four assessment aspects to conduct a performance evaluation of Perumda can be seen in figure 1.

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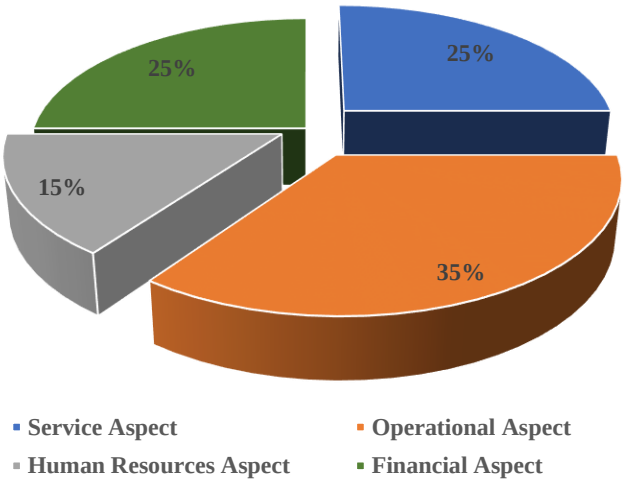

Figure 1. Total Weights of the Four Assessment Aspects

Performance Evaluation of Service Aspect

The service aspect has a very important influence on the performance of the Regional Drinking Water Company. Good service quality can increase customer satisfaction, which is a key factor in retaining and attracting new customers. Customer satisfaction assessment is needed to find out complaints about the products produced [13]. The evaluation of the performance of the regional drinking water company in the service aspect can be seen in table 3.

Table 3. Performance Evaluation of Service Aspect

No.	Service Aspect Indicators	Value	Standard
1.	Technical Service Coverage	23,36 %	2
2.	Customer Growth	3,79 %	1
3.	Complaint Resolution Rate	100%	5
4.	Customer Water Quality	0 %	1
5.	Domestic Water Consumption	14,65	1

In terms of service, indicators that have not reached the minimum standard and received a score of 1 (one) are customer growth, customer water quality and domestic water consumption. This shows the need for improvements in infrastructure, processing systems, and services to improve service quality and customer satisfaction.

Performance Evaluation of Operational Aspect

Operational aspects are one of the key factors in assessing the performance of Regional Drinking Water Companies, because it covers all technical and managerial processes related to the production, management, distribution, and service of clean water to the community. Each company carries out a number of procedures to create value for customers and generate profits [14]. The performance evaluation of regional drinking water companies in the operational aspect can be seen in table 4.

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Table 4. Performance Evaluation of Operational Aspect

No.	Operational Aspect Indicators	Value	Standard
1.	Production Efficiency	65,86 %	2
2.	Unrevenue Water	30,28 %	3
3.	Service Operating Hours	24	5
4.	Water Pressure on Customer Units	83,66 %	5
5.	Customer Water Meter Replacement	7,29%	2

A good operational system reflects the ability of the Regional Drinking Water Company to produce, process, and distribute water with quality that meets standards, without supply disruptions, and maintain cost and infrastructure efficiency. Optimal water distribution management, pipe network maintenance, leak handling, and Non-Revenue Water (NRW) control greatly affect performance assessment. Efficiency in operations also has an impact on customer satisfaction, service sustainability, and company profitability. In addition, compliance to the water quality standards and environmental regulations ensures that the company can operate according to provisions and maintain the sustainability of raw water resources.

Performance Evaluation of Human Resources Aspect

This indicator determines the efforts of the Regional Drinking Water Company to appreciate and make its employees competent. The performance evaluation of the regional drinking water company in the human resources aspect can be seen in table 5.

Table 5. Performance Evaluation of Human Resources Aspect

No.	Human Resources Aspect Indicators	Value	Standard
1.	Employee to Customer Ratio	3,69 %	5
2.	Employee Training Ratio	97,09 %	5
3.	Training expenses to Employee expenses	3,35%	2

In terms of human resources, the indicator that has not meet the standard is the training expenses on employees of 3.35% and below the standard ≥10%. This indicator determines the efforts of the Regional Drinking Water Company appreciate and make its employees competent. The low training expenses on employees is due to the minimal availability of budget for training costs in 2023. To improve the professionalism of human resources at Perumda Air Minum Tirta Alami Tanah Datar Regency, the company has made efforts to increase work productivity. These efforts include training activities, technical guidance, workshops and others.

Performance Evaluation of Financial Aspect

Performance Evaluation of Financial Aspect of Perumda Air Minum measures the stability, efficiency, and sustainability of the company's operations. The performance evaluation of Perumda Air Minum in the financial aspect can be seen in table 6.

Table 6. Performance Evaluation of Financial Aspect

No.	Financial Aspect Indicators	Value	Standard
1.	*Return of Equity* (ROE)	0,35 %	2
2.	Operating Ratio	1,01 %	1
3.	Cash Ratio	183,47%	5
4.	Billing Effectiveness	92,22 %	5
5.	Solvability	3.161,56 %	5

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To set the financial goals, companies consider profitability by measuring such as operating profit and gross margin, adjusted for the level of investment made to achieve optimal financial targets [15]. The low Return on Equity (ROE) and Operating Ratio values at Perumda Air Minum indicate that the company's financial performance is not optimal. Low ROE indicates low profitability to equity, which means that PDAM has not been able to generate significant profits from its capital stock, possibly due to inadequate water tariffs, high operating costs, or financial management efficiency that still needs to be improved. Meanwhile, a low operating ratio reflects high operating costs compared to the income earned, which can be caused by inefficiencies in water production and distribution, leaks in the network, or high maintenance costs.

Performance Evaluation of Perumda Tirta Alami Tanah Datar Regency

The internal factors evaluated in the performance indicators of Perumda Tirta Alami Tanah Datar Regency in 2023 can be seen in table 7.

Table 7. Performance Evaluation of Perumda Tirta Alami Tanah Datar Regency

No	Indicators	Weight	Value	Points
I	**Service Aspects**			
1	Technical Service Coverage	0,05	2	0,10
2	Customer Growth	0,05	1	0,05
3	Complaint Resolution Rate	0,025	5	0,13
4	Customer Water Quality	0,075	1	0,08
5	Domestic Water Consumption	0,05	1	0,05
II	**Operational Aspects**			
1	Production Efficiency	0,07	2	0,14
2	Unrevenue Water	0,07	3	0,21
3	Service Operating Hours	0,08	5	0,40
4	Water Pressure on Customer Units	0,065	5	0,33
5	Customer Water Meter Replacement	0,065	2	0,13
III	**Human Resources Aspect**			
1	Employee to Customer Ratio	0,07	5	0,35
2	Employee Training Ratio	0,04	5	0,20
3	Training expenses to Employee expenses	0,04	2	0,08
IV	**Financial Aspects**			
1	*Return of Equity* (ROE)	0,055	2	0,11
2	Operating Ratio	0,055	1	0,06
3	Cash Ratio	0,055	5	0,28
4	Billing Effectiveness	0,055	5	0,28
5	Solvability	0,03	5	0,15
Total Points				3,10

The performance evaluation of drinking water companies is carried out to assess the company's performance in providing clean water services to the community. This evaluation is carried out in several aspects shows in the tables above. The performance indicator value at Perumda Tirta Alami Tanah Datar Regency in 2023 shows a total of points from all aspects assessed of 3.10.

This shows that Perumda Tirta Alami Tanah Datar Regency can be categorized as a healthy drinking water company because it has a total value above 2.8. This indicates that the company is well-operated and meets the established standards.

However, Perumda Tirta Alami Tanah Datar Regency still has to make several efforts to improve its performance in all aspects because there are still some low score indicators that have not met the predetermined standard values.

CONCLUSION

Based on the results of the study conducted can be concluded:

a. Perumda Air Minum Tirta Alami Tanah Datar Regency shows quite good performance in terms of service operating hours, water pressure, cash ratio, collection effectiveness and solvency. This indicates an effort to maintain service consistency and financial stability.
b. Problems that need to be considered by Perumda are the low score of coverage of technical services, customer growth, water quality and domestic water consumption. This needs to be considered as a challenge for the company in providing good-quality and equitable clean water services to the community.

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