

Evaluation of the Performance of Perumda Air Minum Tirta Khayangan Sungai Penuh City Using the Balanced Scorecard Method for 2019-2022

Muhammad Fajran^{1*}, Iskandar Sam², Salman Jumaili³
Faculty of Economics and Business, Universitas Jambi

Corresponding Author: Muhammad Fajran muhammadfajran21@gmail.com

ARTICLE INFO

Keywords: Performance, Balanced Scorecard

Received : 14, August

Revised : 19, September

Accepted: 25, October

©2023 Fajran, Sam, Jumaili: This is an open-access article distributed under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

The purpose of this study is to examine and describe how the Regional Public Company (Perumda) Drinking water, Tirta Khayangan, Sungai Penuh City uses the Balanced Scorecard with the perspectives of finance, customers, internal business processes, growth and learning. Customers and employees of Perumda Air Minum Tirta Khayangan and the company's financial statements for 2019, 2020, 2021 and 2022 are used as the population of this study. The simple random sampling technique with the slovin formula in this study obtained a total sample of 100 customer respondents and 101 respondents from the Perumda Air Minum Tirta Khayangan City of Sungai Penuh. Descriptive research with a quantitative focus was used for this study.

INTRODUCTION

Balanced Scorecard proposed by Robert S. Kaplan and David P. Norton, (1990), states that the Balanced Scorecard concept was developed to complement financial performance measurement (or known as traditional measurement), and as a measuring tool that is quite important for corporate organizations to reflect new thinking. in the era of competitiveness and organizational effectiveness. This concept introduces a company performance measurement system using certain criteria which are an elaboration of the company's long-term mission and strategy. These criteria are classified into four perspectives, namely financial, customer, internal business process, and growth and learning perspectives. Through measuring these four perspectives,

Improvements in provincial clean water organizations, especially in the Jambi Region, in the implementation of their capabilities, have been created in each region by involving administration from the environmental government to fulfill clean water quality requirements so that they are met properly. As a local government-claimed organization, correlation between expected implementation goals and existing levels can empower expanded implementation. The progress of regional drinking water organizations, especially in the Jambi Region, creates in each region with administrative contributions from the environmental government to ensure that water quality requirements are sufficiently met to fulfill its capabilities. (Kaplan and Norton, 2017)

Based on the Regional Regulation of the City of Sungai Penuh Number 9 of 2017 concerning the Establishment of the Regional Water Supply Company of Tirta Khayangan of the City of Sungai Penuh (Regional Gazette of the City of Sungai Penuh of 2017 Number 9, Supplement to the Regional Gazette of the City of Sungai Penuh City Number 26), the Tirta Khayangan Regional Public Air Minum Company changed the name became the Perumda Air Minum Tirta Khayangan of Sungai Penuh city. Perumda Air Minum Tirta Khayangan city of Sungai penuh aims to provide clean water services and manage wastewater for the local community, increase regional economic growth, and diversify regional income sources.

Perusahaan Umum Daerah Air Minum, abbreviated as Perumda Air Minum Tirta Khayangan, is a Regional Owned Enterprise for the City of Sungai Penuh, Jambi Province, which is engaged in the business of drinking water management, whose capital is wholly owned by the Regional Government of Sungai Penuh City and not divided into shares. Perumda Air Minum Tirta Khayangan City of Sungai Penuh is a Regional Drinking Water Company whose operating income and operational expenses are always increasing from year to year, along with operating income and operating expenses from 2019 to 2022 received by Perumda Air Minum Tirta Khayangan city of Sungai Penuh:

Table 1. Income Business and Operating Expenses Perumda Tirta Khayangan, City of Sungai Penuh, 2019-2022

Year	Operating revenues	Operating expenses
2019	IDR 10,438,134,772	IDR 17,245,399,993
2020	IDR 13,293,969,478	IDR 16,002,462,485
2021	IDR 13,629,917,370	IDR 16,291,051,745
2022	IDR 16,516,984,752	IDR 16,886,222,698

Source: notes on the 2019-2022 regional government financial statements

Based on table 1, the income from Perumda Tirta Khayangan, Sungai Penuh City is not commensurate with operating expenses, which has resulted in Perumda Tirta Khayangan, Sungai Penuh City experiencing losses for 4 consecutive years. This is not in accordance with the purpose of Perumda Tirta Khayangan of Sungai Penuh city, namely as a source of local revenue (PAD).

Based on the description above, the researcher is interested in conducting research with the title "Evaluation of the Performance of Perumda Air Minum Tirta Khayangan Sungai Penuh City Using the Balanced Scorecard Method for 2019-2022".

LITERATURE REVIEW

Public Sector Accounting

Public Sector Accounting is accounting whose analysis is applied to financial management in high state institutions, called public sector accounting or usually defined as public funds accounting (Bastian 2010). Mardiasmo (2018) claims that public sector accounting is a tool that provides management information and accountability to the government and the public.

According to Sari (2016) The role of public sector accounting is as:

1. So that the information provided is to manage resource allocation appropriately, efficiently and economically in the organization.
2. Information provided from managers to report the results of implementing the responsibilities of managing programs or activities appropriately and the results will be reported from the government to the public.

Performance

According to Mahsun (2013) Performance is the extent to which company operations lead to achieving the goals set in the company's strategic plan. In short, performance is the sum of what can be achieved in a certain period of time. According to Mulyadi (2016) Performance is the result of an authoritative faculty, group or unit in recognizing predetermined vital goals by behaving normally. The government will report to the public the information provided by the management to report the results of implementing programs or activities in the framework of good management accountability.

Evaluation Performance

In Measuring performance is very important to understand the achievement of the company. Ulum and Sofyani (2016) explained that performance measurement helps public institutions to continuously improve the results they get from their work. Performance assessment, as defined by Mulyadi (2016), is a method for regularly assessing the achievements of an organization, division within a company, or a person compared to predetermined benchmarks. Hansen and Mowen's book (2013) defines performance assessment as an evaluation of how well an organization functions according to predetermined criteria. The purpose of performance appraisal is to evaluate the efficiency of business activities against established criteria on a regular basis.

Benefits and Objectives of Performance Appraisal

The main purpose of implementing performance reviews is to encourage workers to implement management policies and formal plans in order to achieve organizational goals (Mulyadi, 2016). Employees can be disciplined for good behavior in order to receive constructive criticism through performance reviews.

The objectives of the performance measurement system according to Mardiasmo (2018) include:

1. To improve strategic communication (both upward and downward);
2. Purpose: Use a mix of financial and non-financial metrics to monitor strategy execution.
3. To accommodate the knowledge and motivation of lower and middle level managers to achieve goal congruence;
4. As a method of achieving satisfaction that relies on independent initiative and group wisdom.

With the help of performance reviews, top management can fairly reward or punish employees based on their contribution to the success of the organization. As stated by Mulyadi (2016), performance reviews function to:

1. Responsible for the daily operations of the business;
2. Assist in decision making related to personnel;
3. Establish requirements for employee training and development, and establish criteria for selecting and evaluating training programs;
4. Offer suggestions to workers;
5. Allows fair allocation of benefits.

Balanced Scorecard

According to Hansen and Mowen (2013), the Balanced Scorecard is a tool for strategic management that provides a framework for a strategy-driven responsibility accounting system. The Balanced Scorecard, as proposed by Kaplan and Norton (1997), is an alternative method of performance evaluation that goes beyond the traditional focus on financial metrics and also considers stakeholder perspectives, internal business processes, and opportunities for improvement.

Mulyadi (2016) The Balanced Scorecard has the following advantages:

1. Comprehensive
In this view, the Balanced Scorecard incorporates not only financial dimensions but also customers, internal company processes, and development/improvement into strategic planning.
2. Coherent
To use the Balanced Scorecard effectively, one must detail the linkages between the various important objectives and the prerequisite actions to be taken. Any important goal set from an extra-monetary perspective must be directly or indirectly related to a monetary goal.
3. Balanced
Long-term financial success depends on the strategic planning system's ability to produce a balanced set of objectives. Companies should work to achieve the following four strategic goals.
 - a. Financial benefits both now and in the future (from a business perspective)
 - b. The products and services that provide the greatest value to their target market (from the target market's point of view).
 - c. Effective and efficient procedures (from within the company) that produce a positive return on investment.
 - d. Productive and dedicated human resources (from a learning and development point of view).
4. Scalable
Balanced Scorecard Strategic goals that are difficult to measure must still be measured. In the Balanced Scorecard method, objectives from three non-financial perspectives-customers, internal company operations, and learning and growth-are defined so that they can be achieved so that they can be realized.

Main Elements of Performance Measurement

According to Mahsun (2016), there are 4 performance measurements that are assessed from 4 perspectives, namely:

1. Financial Perspective
The financial point of view evaluates the realization of the company's financial performance. The level of financial performance indicates if the adopted company strategy increases the company's revenue. The Balanced Scorecard's goals and other perspective measures are centered on the company's financial goals.
2. Perspective of Consumer / Customer (Customer)
The business must determine which client and market groups to target from the customer perspective of the Balanced Scorecard. The main source of money needed to meet a company's financial goals is market segment. In this view, the business determines and evaluates the value proposition to offer its clients and target market. To communicate the company's vision and strategy to all employees, the customer

perspective can be used to turn it into specific goals for customers and target markets.

3. Internal Business Process Perspective

A company's capacity to continually grow through better production processes, faster distribution, and a wider scope of public relations is explained from an internal business process perspective. Product innovation is accelerating, while social responsibility is increasing.

4. Perspective of Learning and Growth (Growth And Learn)

The learning and growth perspective places more emphasis on the operation of the company's internal resources, such as employee training and development, and creating information systems that comply with the company's business procedures and requirements for an efficient and productive company structure. The scorecard is a strategic management technique used by forward-thinking companies to monitor and adjust their long-term plans.

METHODOLOGY

The research method used is descriptive research method with a quantitative approach. This research uses a case study method at the Regional Public Water Company (Perumda) Air Minum Tirta Khayangan, Sungai Penuh City in 2019-2022 with the aim of analyzing and measuring financial and non-financial performance using the Balance Scorecard method. This study uses data sourced from primary data and secondary data. Primary data was obtained directly from the research location, namely in the form of information directly explained by Perumda Tirta Khayangan, Sungai Penuh City, while secondary data..obtained..from reports..Finance of Perumda Tirta Khayangan, Sungai Penuh City. Data collection techniques in this study are documentation and questionnaires. In the documentation, researchers collected data by collecting and analyzing documents in the regional government, while questionnaires were carried out by giving questions or written statements to respondents to be answered, namely to employees and customers of the Perumda Tirta Khayangan, Sungai Full City.

Performance measurement with Balance Scorecard

Fitriyani, Tiswiyanti, and Prasetyo (2017), The performance measure of Perumda Air Minum based on the balanced scorecard is done by making a score based on the assessment of the four perspectives of the balanced scorecard. The performance of Perumda Air Minum will be measured on average and then compared with the target score. The following is the assessment score for each perspective:

Table 2. Financial Perspective Assessment Scores

Variable	Intervals	Criteria	Value weight
Financial perspective			
Revenue Growth	< 10%	Not enough	-1
	10%	Enough	0
	>10%	Good	1
<i>Profit Margins</i>	< 0.10	Not enough	-1
	0.10	Enough	0
	>0.10	Good	1
ROA	< 10%	Not enough	-1
	10%	Enough	0
	>10%	Good	1
ROE	< 15%	Not enough	-1
	15%	Enough	0
	>15%	Good	1
DER	> 1	Not enough	-1
	1	Enough	0
	< 1	Good	1
Cash Ratio	< 35%	Not enough	-1
	35%	Enough	0
	>35%	Good	1
Current Ratio	< 1.5	Not enough	-1
	1.5	Enough	0
	> 1.5	Good	1
Billing Effectiveness	< 100%	Not enough	-1
	100%	Enough	0
	>100%	Good	1
Fixed Asset Turnover	< 0.70	Not enough	-1
	0.70	Enough	0
	>0.70	Good	1

Source: (Embrace, 2013)

Table 3. Customer Perspective Rating Score

Variable	Intervals	Criteria	Value weight
Customer Perspective			
Customer Acquisition	< 10%	Not enough	-1
	10%	Enough	0
	>10%	Good	1
Customer Profitability	< 1,000,000	Not enough	-1
	1,000,000	Enough	0
	> 1,000,000	Good	1
Customer satisfaction	< 3	Not enough	-1
	3	Enough	0
	> 3	Good	1

Source: (Fitriyani, et al., 2017)

Table 4. Internal Business Process Perspective Assessment Score

Variable	Intervals	Criteria	Value weight
Internal Business Process Perspective			
Production Efficiency	< 60%	not enough	-1
	60%	Enough	0
	>60%	Good	1
Water Loss Rate	>30%	not enough	-1
	30%	Enough	0
	< 30%	Good	1
Service Operational Hours	<20	not enough	-1
	20	Enough	0
	>20	Good	1
Customer Water Pressure	< 20%	not enough	-1
	20%	Enough	0
	>20%	Good	1
Water Meter Replacement	< 5%	not enough	-1
	5%	Enough	0
	>5%	Good	1

Source: (Nurchaya & Slamet, 2015)

Table 5. Learning and Growth Process Perspective Assessment Score

Variable	Intervals	Criteria	Value weight
Learning and Growth Perspective			
Training Cost Ratio	< 10%	Not enough	-1
	10%	Enough	0
	>10%	Good	1
Employee Productivity	<10,000,000	Not enough	-1
	10,000,000	Enough	0
	>10,000,000	Good	1
Employee Satisfaction	< 3	Not enough	-1
	3	Enough	0
	> 3	Good	1

Source: (Fitriyani et al., 2017)

The composition of the Balanced Scorecard assessment is shown below:

Table 6. Composition of Balanced Scorecard Assessment

Perspective	Number of Indicators	Max Score	Indicator Score Weight	Total Weight Max
Finance	9	1	5	45
Customer	3	1	5	15
Internal Business Processes	5	1	5	25
Learning and Growth	3	1	5	15
TOTAL SCORE				100

Source: Adapted from (Fitriyani et al., 2017)

RESULTS AND DISCUSSION

This research will show how the performance of Perumda Tirta Khayangan from the four Balance Scorecard perspectives is described based on financial and non-financial aspects. The four perspectives are a financial perspective, a customer perspective, an internal business process perspective and a growth and learning perspective.

Performance Assessment Results from a Financial Perspective

A financial viewpoint is used to assess a company's financial performance and show how the strategy has helped the company make more money. In this research, the financial perspective is measured by income growth rates, profitability ratios, solvency ratios, liquidity ratios and activity ratios.

Table 7. Performance of Perumda Tirta Khayangan

No	Financial Perspective	Average	Score
1	Income growth rate	15%	1
2	<i>Profit margins</i>	-0.16%	-1
3	ROA	-3.16%	-1
4	ROE	-3.19%	-1
5	DER	0.008	1
6	Cash ratio	156%	1
7	Billing effectiveness	94.5%	-1
8	Lance ratio	8.03	1
9	<i>Fixed assets turn over</i>	0.21	-1
Total			-1

Source: processed research data, 2023

$$\text{Revenue Growth Rate} : \frac{\text{Pendapatan} - \text{pendapatan } t-1}{\text{pendapatan}} \times 100\% \quad (1)$$

$$\text{ROE} : \frac{\text{laba bersih sesudah pajak}}{\text{Total Ekuitas}} \times 100\% \quad (2)$$

$$\text{profit margin} : \frac{\text{laba bersih}}{\text{penjualan bersih}} \times 100\% \quad (3)$$

$$\text{ROA} : \frac{\text{laba bersih}}{\text{Total aset}} \times 100\% \quad (4)$$

$$\text{DER} : \frac{\text{Total Utang}}{\text{Total Ekuitas}} \quad (5)$$

$$\text{Rasio kas} : \frac{\text{Kas dan setara kas}}{\text{Total Utang jangka pendek}} \times 100\% \quad (6)$$

$$\text{Efektivitas Penagihan} : \frac{\text{Jumlah penerimaan rek.air}}{\text{Jumlah penjualan rek.air}} \times 100\% \quad (7)$$

$$\text{Current ratio} : \frac{\text{Total Aset lancar}}{\text{Total Utang lancar}} \quad (8)$$

$$\text{fixed assets turn over} : \frac{\text{Penjualan bersih}}{\text{aset tetap}} \quad (9)$$

The overall results of the research on the performance of the financial perspective Regional Public Enterprises Air Minum Tirta Khayangan City of Sungai Penuh in the table above shows that the financial perspective gets a

score of -1, this can be seen from the indicators of income growth rate, DER, cash ratio, current ratio, get a score of 1 while the profit margin indicator, ROA, ROE, billing effectiveness, and fixed assets turn over get a score of -1. Perumda Air Minum Tirta Khayangan of Sungai Penuh City has suffered losses for three years in a row which clearly has an impact on financial performance. Matter..This also shows that the Regional Public Company for Air Minum Tirta Khayangan, Sungai Penuh City has not been able to achieve its water account sales target and that there is an imbalance between sales of customer water accounts and receipt of water accounts from customers.

Performance Assessment Results from a Customer Perspective

Performance from the customer perspective of the three indicators can be seen in the table below:

Table 8. Perumda Air Minum Tirta Khayangan from a Customer Perspective in 2019-2022

No	Customer perspective	Average	Score
1	Customer satisfaction	3.99	1
2	Customer acquisition	3.41%	-1
3	Customer profitability	945,749.43	-1
Amount			-1

Source: processed research data, 2023

$$\text{Profitabilitas Pelanggan} : \frac{\text{pendapatan}}{\text{Jumlah Pelanggaran}} \times 100\% \quad (1)$$

$$\text{Akuisisi Pelanggan} : \frac{\text{Jumlah Pelanggan baru}}{\text{Jumlah Pelanggan}} \times 100\% \quad (2)$$

Based on the table above The performance assessment of the Balance Scorecard in the customer perspective of the Air Minum Tirta Khayangan Regional Company, Sungai Penuh City in 2019-2022 is categorized as not good, this is because one indicator reaches the target, namely customer satisfaction and two indicators do not reach the target. the customer perspective indicators achieve performance targets such as customer satisfaction of 3.99 which has a value of 1 because it is above 3, customer acquisition is 3.41% which has a value of -1 because it is below 10% and a customer profitability indicator is 945,749.43 which has a value of -1 because it is below 1,000,000.

Rating Result Performance from Perspective Business process Internals

Performance from the perspective of internal business processes as a whole can be seen in the table below:

Table 9. The Performance of Perumda Tirta Khayangan from an Internal Business Process Perspective

No	internal business process perspective	Average	Score
1	Production efficiency	105.88%	1
2	Water loss rate	43.46%	-1
3	Service operating hours	21.49	1
4	Customer connection water pressure	49.59%	1
5	Water meter replacement	1.09%	-1
	Amount		1

Source: processed research data, 2023

$$\frac{\text{Realisasi Produksi (m}^3\text{)}}{\text{Kapasitas Terpasang (m}^3\text{)}} \times 100\% \quad (1)$$

$$\frac{\text{Distribusi air- Air terjual (m}^3\text{)}}{\text{Distribusi Air}} \times 100\% \quad (2)$$

$$\frac{\text{Waktu Distribusi air ke pelanggan dalam 1 thn}}{365 \text{ hari}} \quad (3)$$

$$\frac{\text{Jumlah pelanggan terlayani dengan tekanan minimal 0,7 bar}}{365 \text{ hari}} \times 100\% \quad (4)$$

$$\frac{\text{Jumlah meter air pelanggan yang diganti}}{\text{Jumlah pelanggan}} \times 100\% \quad (5)$$

Based on the table above, the performance of the Balanced Scorecard from an internal business process perspective at Perumda Tirta Khayangan, Sungai Penuh City in 2019-2022 shows that the perspective..business process..internal gets a score of 1, this..seen..from the indicators of production efficiency, hours of service operation, and water pressure the customer connection gets a score of 1 while the level of water loss and replacement of water meters gets a score of -1.

Results of Performance Assessment from Learning and Growth Perspective

Performance from the perspective of the learning and growth process as a whole can be seen in the table below:

Table 10. Performance of Perumda Air Minum Tirta Khayangan from a Learning and Growth Perspective in 2019-2021

No	Learning and growth perspective	Average	Score
1	Training expense ratio	0.45	-1
2	Employee productivity	-20,591,139	-1
3	Employee satisfaction	3.98	1
Average			-1

Source: processed research data, 2023

$$\text{Rasional Biaya Diklat} : \frac{\text{jumlah biaya pendidikan}}{\text{jumlah biaya karyawan}} \times 100\% \quad (1)$$

$$\text{Produktivitas karyawan} : \frac{\text{laba bersih}}{\text{jumlah karyawan}} \times 100\% \quad (2)$$

Based on the table above, the performance of the Learning and Growth Balanced Scorecard at Perumda Tirta Khayangan, Sungai Penuh City in 2019-2022 is categorized as not good. value 1.

Performance Measurement of the Balanced Scorecard of Perumda Tirta Khayangan, Sungai Penuh City

Based on calculation data for each perspective at Perumda Air Minum Tirta Khayangan City of Sungai Penuh in 2019-2022 and shows the results in the table below:

Table 11. Performance of the Balanced Scorecard of the Perumda Air Minum Tirta Khayangan, Sungai Penuh City in 2019-2022

No	Perspective	Score	Indicator score weight	Total score weights
1	Financial perspective	-1	5	-5
2	Customer perspective	-1	5	-5
3	Internal business process perspective	1	5	5
4	Learning and growth perspective	-1	5	-5
	Amount	-2		-10
	Performance conclusion			Not enough

Source: processed research data, 2023

Based on the table above, the performance score of the Perumda Tirta Khayangan City of Sungai Penuh Balanced Scorecard is obtained with a total score of -10 and categorized as unfavorable. This is because only from an internal perspective is considered good with a score of 5 while the financial, customer and growth and learning perspectives are categorized as poor by obtaining each with a score of -5.

CONCLUSIONS AND RECOMMENDATIONS

From the exposure of the research results and discussion in this study, the following conclusions are obtained.

1. In the process, the performance of the Balance Scorecard is measured in the Financial Perspective of Perumda Air Minum Tirta Khayangan, Sungai Penuh City from 2019 to 2022 which can be measured according to the standee level of income growth, Profit Margin, ROA, ROE, DER, Cash ratio, Current Ratio, Billing Effectiveness and Fixed Asset Turnover in 2019-2022 showed unfavorable financial performance.

2. In the process of performance that can be measured the Balance Scorecard in the Customer Perspective of Perumda Air Minum Tirta Khayangan Sungai Penuh City in 2019 to 2022 which can be measured by client satisfaction, customer acquisition, and customer profitability in 2019-2022 which shows poor performance from the customer perspective.
3. In the perspective of Internal Business processes Performance measurement of the Balance Scorecard of Perumda Air Minum Tirta Khayangan Sungai Penuh City in 2019 to 2022 as measured by production efficiency, water loss rate, hours including service operating hours, customer connection water pressure, and water meter replacement in 2019 -2022 which shows good internal business process performance.
4. Measuring the performance of the Balance Scorecard in the Learning Perspective and growth of Perumda Air Minum Tirta Khayangan, Sungai Penuh City in 2019-2022, which is measured by the ratio of training costs, employee productivity and employee satisfaction, shows that the performance from the internal business process perspective is not good.

Overall, it shows the results of the performance of the Balance Scorecard at the Perumda Air Minum Tirta Khayangan, Sungai Penuh City in 2019-2022 yielding a score of -10, which means that the company's performance is in the category not good.

Based on the research above, there are several recommendations that can be given, namely as follows:

Perumda Tirta Khayangan of Sungai Penuh City on customer satisfaction, the company must continue to strive to improve its services while still paying attention to drinking water payment rates. Apart from that, the company must increase the piping network, think about alternative sources of raw water so that it can reach all residents of the Sungai Penuh City area and widen the customer information system as a place to accommodate complaints that occur in the field so that they can be followed up optimally either through electronic media or websites to establish communication between customers and service providers. Regarding the internal business process perspective, companies must improve innovative strategies to overcome various problems such as water loss and regular meter replacement. Regarding the growth and learning perspective.

ADVANCED RESEARCH

Future researchers are expected to be able to use other methods such as the Performance Prism method, Integrated Performance Measurement System (IPMS) and so on so they can find out which method is better.

REFERENCES

- Fintari, IH & Fachrizal. (2018). PDAM Performance Measurement using the Balance Scorecard Approach (Case Study of Tirta Bengi Regional Drinking Water Company, Bener Meriah Regency). *Scientific Journal of Accounting Economics Students*, 3(1), 167-189
- Fitriyani, D., Tiswiyanti, W., & Prasetyo, E. (2017). Good Corporate Governance and its Impact on Performance Based on the Balanced Scorecard. *Accounting journal* . 20(3), 91-103, <https://doi.org/10.24912/ja.v20i3.7>
- Rangkuti, F. (2013). SWOT Balanced Scorecard. Techniques for developing effective corporate strategies plus ways to manage performance and risk. PT Gramedia Pustaka Utama
- Hubaisy, Zarrin, et al. (2013). Performance Evaluation of Regional Water Supply Company (PDAM) Probolinggo City in the Perspective of the Balanced Scorecard. *Student Research Scientific Articles*.
- Huda, A.Z. (2013). Performance Analysis with the Balanced Scorecard Approach (Case study of PDAM Tirta Dharma, Klaten Regency. *Publication Journal of Muhammadiyah University, Surakarta*.
- Kaplan, Robert S. & Norton, David P. (1997). Performance Measurement with Balanced Scorecard. Jakarta: Harvarindo.
- Katili, Putiri B., Marselia, Tiara & Whyuni, Nuraida. (March 1, 2017). Measuring Company Performance Using the Balanced Scorecard Method at PDAM Tirta Al-Bantani, Serang Regency. *Journal of Industrial Engineering* Vol.5 No.1.
- Mahsun, M. (2016). Public Sector Performance Measurement. BPFE.
- Mulyadi. (2001). management accounting 3rd edition. Jakarta: Salemba Empat.
- Mulyadi. (2007). Management Planning and Control Systems Edition 3. Jakarta: Salemba Empat.
- Nurchahya, AH (2016). Pekalongan City PDAM Performance Analysis Using the Balanced Scorecard Method.
- Sungai Full City Regional Regulation Number 9 of 2017.*
- Performance Book of Perumda Kota Sungai Banyak According to the Ministry of Home Affairs number 47 of 1999*

Fajran, Sam, Jumaili

Rusdiyanto, AF (2010). Performance Analysis Using the Balance Scorecard Approach at PDAM Semarang Regency.

Sujarweni, VW (2017). Financial Report Analysis: Theory, Application, and Research Results. New Library Press.

Mardiasmo. (2016). Public sector accounting. Andi.

Sugiyono. (2017). Quantitative Qualitative Research Methods and R&D. Bandung: Alfabeta.

Law of the Republic of Indonesia Number 25 of 2009.