

## PERFORMANCE ANALYSIS WITH BALANCED SCORECARD APPROACH IN TIRTA HANDAYANI MUNICIPAL WATERWORKS (PDAM) GUNUNGKIDUL DISTRICT

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### Abstrak

Penelitian ini bertujuan untuk mengetahui capaian kinerja PDAM Tirta Handayani Kabupaten Gunungkidul pada periode 2020 – 2021 menggunakan metode Balanced Scorecard. Data yang digunakan adalah laporan keuangan yang telah diaudit oleh auditor independen. Penelitian ini merupakan penelitian deskriptif kuantitatif. Metode yang digunakan adalah Balanced Scorecard, dimana melakukan perhitungan kepada empat perspektif yaitu perspektif keuangan, perspektif pelanggan, perspektif proses bisnis internal, dan perspektif pembelajaran dan pertumbuhanditambahsatu perspektif baru yaitu sustainability. Hasil penelitian menunjukkan capaian kinerja tahun 2020 mendapat nilai 3.30 dalam predikat “Sehat”, sedangkan tahun 2021 mendapat nilai 3.37 juga dalam predikat “Sehat”. Capaian kinerja tahun 2020 ke tahun 2021 mengalami kenaikan sebesar 0,07 yang dikarenakan adanya kenaikan pada perspektif keuangan, proses bisnis internal, meskipun mengalami penurunan pada perspektif pelanggan.

**Kata Kunci:** *Pengukuran Kinerja, Balanced Scorecard, PDAM.*

### Abstract

*This research aims to investigate performance achievements achieved at PDAM Tirta Handayani in Gunungkidul Regency, Yogyakarta Special Region, in 2020 and 2021 using the Balanced Scorecard approach. This study consists of the independently audited financial statements in 2020 and 2021. This research is quantitative descriptive. The method used is the Balanced Scorecard, which performs calculations on four perspectives such as financial perspective, customer perspective, internal business process perspective, and learning and growth perspective. Also one additional new perspective, namely sustainability. The results of the study show that the performance achievements in 2020 received a score of 3.30 in the "high performance" predicate, while in 2021 they also received a score of 3.37 in the "high performance" predicate. Performance achievements from 2020 to 2021 have increased by 0.07 due to an increase in the financial perspective, internal business processes, although there has been a decrease in the customer perspective.*

**Keywords:** *Performance Appraisal, Balanced Scorecard, PDAM*

## A. Introduction

Water is one of the necessities that cannot be separated from human life. The existence of water is needed to support daily activities, maintain a healthy body, and maintain natural ecosystems. All levels of human beings have the right to have the opportunity to access clean water in the quality and quantity needed to meet their essential needs. However, nowadays, many residents still have difficulty accessing clean water due to the limitations of existing infrastructure (Trenggono, et al., 2017). In Indonesia, not all regions have good water quality, and not even a few areas in Indonesia lack clean water.

Based on the Decree of the Minister of Home Affairs No: 690 - 069 of 1992 concerning the Pattern of Technical Guidelines for PDAM Management, it was stated that PDAMs have the main task of providing public services to the society, where PDAMs are expected to carry out their functions to be able to finance themselves and must strive to improve the quality of their services. In addition, PDAMs are also expected to contribute to the development of local governments. In order to achieve these needs, PDAMs must maximize performance.

When realizing the role of PDAM is very important in people's lives, it is necessary to have a performance appraisal in PDAM. Zhan, Noe & Elingson (2018) defines performance appraisal is an essential factor for companies because the results can be used to evaluate companies to be better in the future and can build the productivity and effectiveness of employees

and the company. From the performance appraisal, top managers can find out the causes and consequences of employee performance in a period that impacts the company. In addition to being responsible for the company's internal sector, PDAM is also responsible to external parties such as the society and the government. This reason supports the performance appraisal in PDAM, so these parties know information about the condition of the PDAM and its growth rate in each period.

The Balanced Scorecard (BSC) is a contemporary management tool measuring company performance that focuses on financial performance and combines non-financial performance. BSC is the most influential performance measurement tool in the strategic management system. The BSC also provides complete and detailed information about the company's performance by providing the information needed to improve the effectiveness of the performance information available to managers and ensuring that managers pay attention to operational steps as a whole to evaluate performance so that the company runs better than usual. In addition, the BSC was also created to increase the company's ability to increase wealth (Mulyadi, 2014).

At the beginning of the launch of this concept, the balanced scorecard was applied to measure the performance of the private sector or profit-oriented organizations. The organizational strategy, as outlined in the balanced scorecard, is disseminated to all elements in the organization at the individual level so that they can work effectively and efficiently in line with the

general goal of the organization, namely increasing profits (Syahdan, et al., 2018).

According to Mulyadi (2014), the Balanced Scorecard (BSC) has advantages in two aspects: (1) significantly improving the quality of planning and (2) improving the quality of employee performance management. Good planning is the result of successful management. That is why every instrument that can improve the quality of planning will improve the quality of management. It can also maximize the company's revenue. Furthermore, employee performance management aims to increase the company's accountability in utilizing various resources to realize the company's vision through the implemented mission.

Kaplan and Norton (1992), explain that the Balanced Scorecard (BSC) introduces four comprehensive and planned perspectives that link long-term and short-term strategic goals. The four perspectives include: financial perspective, customer perspective, internal business perspective, and the learning and growth perspective.

The four perspectives in the BSC can also minimize weaknesses in performance measurement that are not too specific or only measured from the financial aspect. BSC assesses strategic goals that are difficult to measure, such as strategic goals through customer perspective, internal business processes, learning, and growth so that the company can maximize performance and gain more profits (Mulyadi, 2014).

In addition to these four perspectives, there is a new perspective to consider, which is sustainability. In recent

years, sustainability in corporate strategy has taken on critical importance. The business world has negative effects in the form of environmental harm from the waste it produces and additional effects on society from corporate material. Many businesses have implemented specific environmental and sustainability management systems that combine sustainability and the classic Balanced Scorecard (Hristov, et al., 2019).

The fundamental goal of sustainable development is to achieve the three pillars of economic, social, and environmental requirements without compromising those of future generations (Burritt, et al., 1995). According to Bennett and James (1999), performance in the environment is the "success of a corporation in managing each contact between company activities, products, or services, and the environment."

Sustainability implementation helps in identifying the company's main strategic environmental and social goals (Elijido-Ten, et al., 2014). Hansen and Schaltegger (2012), highlight in their performance evaluation that the result defines the growth of a company's value system as well as its sustainability strategy.

Based on data obtained from Badan Pengawas Keuangan dan Pembangunan (BPKP) DIY, the profits and losses of PDAMs throughout DIY in 2020 include: PDAM Tirta Handayani Kulon Progo a profit of IDR 2,690,435,395, PDAM Tirta Sembada Sleman a profit of IDR 2,230,427.331.31, PDAM Tirtamarta Jogja for IDR 1,514,185,207.55, PDAM Tirta Projotamansari Bantul for IDR 1,349,376,110.23, and PDAM Tirta

Handayani Gunungkidul for IDR 418,358,777. The data is sorted by PDAM which has the largest profit in DIY.

In addition, PDAM Tirta Handayani also encounters various problem such as the lack of budget and infrastructure, lack of the water resources, the high water loss rates, poor management information systems, and a lack of capacity to develop sustainability are the proof that the performance is not efficient. Moreover, Based on 63 Google reviews, PDAM Tirta Handayani only receives 2.3 stars. Customers of PDAM Tirta Handayani have reported that the water constantly dies, the distribution is not consistent, and the water is muddy. Customers also reported that they had to acquire a water tank in case the tap water suddenly ran out, causing them to pay twice for the tank and the tap water.

Therefore, this researcher wanted to contribute and took the initiative to apply the assessment using the Balanced Scorecard method so that the performance appraisal becomes complete and any deficiencies or weaknesses in each indicator can be detected.

This research is also expected to provide an assessment of company performance using the Balanced Scorecard that can be applied following theory and practice in the real world. The results of the research can provide added value for companies and researchers. They can be used as a basis for decision-making for PDAM Tirta Handayani Gunungkidul to improve its performance and gain more

The research approach can be described as descriptive quantitative where the data are presented in numerical and descriptive form. The population in this study is the financial statements of PDAM Tirta Handayani in 2020 and 2021, which an independent auditor has audited. The sampling technique in this study uses non-probability sampling. The sample analyzed in this study is the entire Sub-District Capital Unit (IKK) of PDAM Tirta Handayani. This study tries to analyze and describe the implementation of the balanced scorecard in measuring the performance of PDAM Tirta Handayani, Gunung Kidul Regency.

The primary data of this research comes from interviews with various sources, while the secondary data comes from the PDAM's financial records for the 2020 and 2021 periods. Balance scorecard assessment involving four perspectives consisting of Financial Perspective, Customer Perspective, Internal Business Process Perspective, and Sustainability Perspective (BPPSPAM, 2016)

Data from multiple sources must be instantly processed and reported in descriptive quantitative research. In this study, secondary data analysis is employed since it uses PDAM Tirta Handayani data for 2020 and 2021, which are robust data obtained straight from the organization

## **C. Results and Discussion**

### **Performance Analysis from Financial Perspective**

#### **1. Return on Equity (ROE)**

## **B. Research Method**

In the year 2020, the ROE value obtained from the formula calculation is 2 of the maximum value of 5. So the weight obtained in the ROE measurement is 0.11 or 0.63% of the total value obtained in the indicator. The result shows that the ROE value in 2020 still needs to be increased to increase the company's net profit. In the year 2021, the ROE value obtained from the formula calculation is 2 of the maximum value of 5. So the weight obtained in the ROE measurement is 0.11. PDAM Tirta Handayani produced the similar ROE in the last two years.

### **3. Operating Ratio**

In the year 2020, the operating ratio value obtained from the formula calculation is 2 of the maximum value of 5. So the weight obtained in measuring the operating ratio is 0.11 or 0.99. The result shows that the operating ratio in 2020 still needs to be improved through cost efficiency. In the year 2021, the operating ratio value obtained from the formula calculation is 2 of the maximum value of 5. So the result in measuring the operating ratio is 0.11, the same as in 2020.

#### **a. Liquidity**

##### **1) Cash Ratio**

In the year 2020, the cash ratio value obtained from the formula calculation is 2 of the maximum value 5. So the value obtained in measuring the cash ratio is 48.77% or 0.11. In the year 2021, the value of the cash ratio obtained from the formula calculation is 5 of the maximum value of 5. So the value obtained in the measurement of the cash ratio is 103.77% or 0.28. In this case, PDAM Tirta Handayani Gunungkidul is

categorized as very liquid in guaranteeing its short-term obligations. PDAM Tirta Handayani Gunungkidul has also succeeded in increasing its cash flow.

##### **2) Billing Effectiveness**

In the year 2020, the billing effectiveness value obtained from the formula calculation is 5 out of a maximum value of 5. So the value obtained in measuring billing effectiveness is 0.28, which is the maximum value that can be obtained in this indicator. In the year 2021, the billing effectiveness value obtained from the formula calculation is 5 out of 5. So the weight obtained in measuring billing effectiveness is 0.28, the same as in 2020. This appraisal indicator shows that PDAM Tirta Handayani Gunungkidul can increase the collection of its accounts receivable in a year.

#### **b. Solvency**

In the year 2020, the solvency value obtained from the formula calculation is 5 out of a maximum value of 5. The value obtained is 497.4% or 0.15. Furthermore, for 2021, the solvency value obtained from the formula calculation is 5 out of 5. So the value obtained in the solvency measurement is 533.1% or 0.15, the same as in 2020. PDAM Tirta Handayani Gunungkidul is in the solvable category (the company can meet all of its financial obligations if the company is liquidated).

The financial perspective performance in 2020 scored 0.76, while in 2021, it was 0.93, resulting in an increase of 0.17 due to a significant increase in the cash ratio, followed by a rise in other indicators.



## **Performance Analysis from Customer Perspective**

### **a. The Technical Service Coverage**

In the year 2020 the value of technical service coverage obtained from the formula calculation is 2 of the maximum value of 5. So the value obtained in measuring technical service coverage is 20.28% or 0.10. In the year 2021, the value of technical service coverage obtained from the calculation of the formula is 2 of the maximum value of 5. So the value obtained in measuring the technical service coverage is 21.73% or 0.10, slightly bigger than 2020.

### **b. The Customer Growth**

In the year 2020, the customer growth value obtained from the formula calculation is 2 of the maximum value of 5. So the value obtained in measuring customer growth is 4.65% or 0.10. In the year 2021, the customer growth value obtained from the formula calculation is 3 out of a maximum value of 5. So the value obtained in measuring customer growth is 6.15% or 0.05 or more significant than in 2020.

### **c. The Complaints Settlement**

In the year 2020, the value of the complaint settlement rate obtained from the formula calculation is 5 out of a maximum value of 5. So the value obtained in measuring the complaint settlement rate is 100% or 0.12. Meanwhile, In the year 2021 the value of the complaint settlement rate obtained from the formula calculation is 5 out of 5. So that the value obtained in measuring the complaint settlement rate is 100% or 0.13 is the same as in 2020.

### **d. The Customer Water Quality**

In the year 2020, the value of customer water quality obtained from the formula calculation is 3 of the maximum value of 5. So the value obtained in measuring customer water quality is 52.78% or 0.22. In the year 2021, the value of customer water quality obtained from the formula calculation is 1 of the maximum value 5. So that the value obtained in measuring customer water quality is 7.12% or 0.08, and water quality has decreased significantly since 2020.

### **e. The Domestic Water Consumption**

In the year 2020, the value of domestic water consumption obtained from the formula calculation is 2 of the maximum value of 5. So the weight obtained in the measurement of household water consumption is 15.27 or 0.10. Meanwhile, In the year 2021 the value of household water consumption obtained from the formula calculation is 1 of the maximum value of 5. So the value obtained in measuring domestic water consumption is 14.89 or 0.05. The appraisal in 2021 has decreased in value from 2020.

The performance of the customer perspective in 2020 was 0.64. In 2021 got a value of 0.50, so it decreased by 0.14 due to many disturbances from PLN such as insufficient electricity distribution and frequent power outages in Gunungkidul Regency, which resulted in PDAM pumps not being able to receive sufficient electrical power to produce and distribute water.

### **a. The Production Ratio**

In the year 2020, the value of the production ratio obtained from the formula calculation is 5 out of 5. So the value

obtained in the measurement of production efficiency is 95.81% or 0.35. In the year 2021, the value of the production ratio obtained from the formula calculation is 2 of the maximum value of 5. So the weight obtained in the measurement of production efficiency is 61.98% or 0.14.

#### **b. The Level of Water Loss**

In the year 2020, the value of the water loss rate obtained from the formula calculation is 5 of the maximum value of 5. So the value obtained in measuring the water loss rate is 23.40% or 0.35. In the year 2021, the value of the water loss rate obtained from the formula calculation is 5 of the maximum value of 5. So the result obtained in measuring the water loss rate is 23.40% or 0.35, the same as in 2017.

#### **c. The Service Operating Hours**

In the year 2020, the value of service operating hours obtained from the formula calculation is 2 of the maximum value of 5. So the value obtained in measuring service operating hours is 15.81 or 0.16. In the year 2021, the value of service operating hours obtained from the formula calculation is 5 of the maximum value of 5. So that the value obtained in measuring service operating hours is 22.52 or 0.40.

#### **d. The Water Pressure at Customer Connection**

In the year 2020, the water pressure value at the customer connection obtained from the formula calculation is 5 of the maximum value 5. So the value obtained in measuring the water pressure at the customer connection is 97.28% or 0.33. In the year 2021, the water pressure value at the customer connection obtained from the

formula calculation is 5 out of a maximum value of 5. So the weight obtained in measuring the water pressure at the customer connection is 97.10% or 0.33.

#### **e. The Customer Water Meter Replacement**

In the year 2020, the result value obtained from the formula calculation is 2 out of 5. So the weight obtained in measuring customer water meter replacement is 5.04% or 0.13. In the year 2021, the customer water meter replacement value obtained from the formula calculation is 2 out of 5. So the result obtained in measuring customer water meter replacement is 5.04% or 0.13 or the same as in 2021.

The internal business process perspective in 2020 reached a score of 1.32, while in 2021 it was 1.35, resulting in an increase of 0.03 due to a decrease in the production ratio of 0.21 but followed by an increase in the service operating hours of 0.24.

#### **a. The Employee to Customer Ratio**

In the year 2020, the employee-to-customer ratio value obtained from the formula calculation is 5 out of a maximum value of 5. So the value obtained in measuring the employee-to-customer ratio is 311.67% or 0.35. In 2021, the value of the employee-to-customer ratio obtained from the formula calculation is 5 out of a maximum value of 5. So the weight obtained in measuring the employee-to-customer ratio is 275.79% or 0.35.

#### **b. The Employee Education and Training Ratio**

In the year 2020, the value of the employee training ratio obtained from the

formula calculation is 5 out of 5. So the value obtained in measuring the employee training ratio is 100% or 0.20. In the year 2021, the value of the employee training ratio obtained from the formula calculation is 1 out of 5. So the value obtained in measuring the employee training ratio is 100% or 0.20.

### **c. The Education and Training Costs Ratio**

In the year 2020, the ratio of employee training costs to employee costs obtained from the formula calculation is 1 out of 5. So the value obtained in measuring the employee training ratio is 1.49% or 0.04. In the year 2021, the ratio of employee training costs to employee costs obtained from the formula calculation is 1 out of 5. So the ratio of employee training costs to employee costs is 1.49% or 0.04.

The performance of the learning and growth perspective in 2020 and 2021 got the same result, 0.59. These results prove that PDAM Tirta Handayani Gunungkidul has not succeeded in improving its performance from an internal business perspective, but the company can maintain its value.

### **Performance Analysis from Sustainability Perspective**

PDAM's environmental sustainability includes creating non-hazardous waste, specifically mud. In running its operation, PDAM produces mud. PDAM managed the mud as its production waste by collecting the mud in a specific storage to let it dry and ready for farmers to fertilize their land. Farmers can use the mud freely for planting. There is still no further research if used in the long term this mud will have a negative impact on

plants, but PDAM Tirta Handayani believes that this mud can be beneficial for farmers. To minimize fuel use, PDAM has used electrical energy from generators to turn on the water pumps used to distribute water to customers. However, from 2020 to 2021 there is still one pump in Sanggilap Cave, Ponjong District, which uses diesel fuel. In order to preserve the environment, in 2022 PDAM Tirta Handayani will replace pumps that run on diesel fuel into pumps powered by electrical energy. So PDAM Tirta Handayani succeeded in minimizing the use of fuel that is not environmentally friendly.

PDAM's social responsibilities include: First, ethical actions such as providing salaries or wages or incentives to employees on time, employees' rights to leave granted following the agreement of the company and employees, insurance facilities and health insurance for employees, in addition before Covid-19 hit, there was a vacation with all PDAM employees to strengthen relationships between employees and foster enthusiasm to work again. Second, legal aspects such as PDAM ensure the quality of the water they sell by collaborating with the Gunungkidul district health office to take about 25 water samples monthly. PDAM strives to maintain water quality following Ministry of Health Regulation no. 492 in 2010. Third, economic aspect, BPPSPAM and BPKP are in charge of monitoring and evaluating PDAM performance. In addition, an independent auditor audits PDAM's financial reports. So the financial components of the PDAM are under good



command. Lastly, philanthropic aspect, PDAM and BCA unite to give donations for the construction of a Drilling Well Installation to benefit the community. This program helps people who have not been reached by House Connections, including both SRs for Low-Income Communities and Regular SRs. Moreover, PDAM Tirta Handayani also carries out promotions for the installation of subsidized house connections with the condition that simple houses have a maximum electricity power of 900 VA and for disabled people. In addition for every year, PDAM also sets up blood donations and forestry projects.

The result of the performance appraisal in PDAM Tirta Handayani based on the Balanced Scorecard for 2020, received a value of 3.31. It means that PDAM has succeeded in reaching good performance standards. PDAM is considered to be the high performance, while in 2021 it also received a weight of 3.37 in which it is within the high performance predicate. Compared to the previous year, there is an improvement in the score as much as 0.07 which means that PDAM Tirta Handayani is trying to maintain and improve its performance again regardless it has achieved a high performance in the previous year.

#### **D. Closing**

Based on the explanation above, the performance appraisal of PDAM Tirta Handayani, Gunungkidul Regency, using the Balanced Scorecard approach for 2020, received a score of 3.30 in the "high performance" category, and in 2021 it

received a score of 3.37 in the "high performance" category.

PDAM is expected to improve company performance by focusing on efforts to increase water sales revenue and cost efficiency, PDAM can continually monitor the quality of water treatment and carry out quality tests more regularly in accordance with the Regulation of the Minister of Health of the year 492 of 2010 and the Regulation of the Minister of Health of the year 736 of 2010, PDAM have to carry out promotions more vigorously such as giving free installation or discounts to increase the number of customers and focus more on digital marketing because it will be more effective, PDAM is expected to be more active in socializing about the company, PDAM has to optimizing the role of SPI in carrying out supervision and internal control of the company, conducting water checks meters periodically and replacement of primary production, distribution, and customer water meters, PDAM is expected to increase production capacity and distribution of water to customers, PDAM is expected to reduce the amount of production capacity that is idle or not in To take advantage of this, PDAM has to organize distribution flow and maintain water pressure in order to increase the number of customers with water pressure >0.7 bar and carry out periodic checks and evaluations related to customer water pressure, as well as increase the amount of budget and number of education and training activities in the RKAP.

Apart from that, the author recognized that PDAM Tirta Handayani has

not conducted regular customer satisfaction surveys. Company should pay more attention to it because these surveys help the company to understand what is working across the business and what isn't, providing an opportunity to improve on the negatives and multiply the positives. By opening the door for customers to have their say, company will get ideas for other avenues they can explore to improve their business – such as a new product or service. In addition, a customer satisfaction survey should be included for performance appraisal on the part of the customer perspective.

Last but not least, PDAM Tirta Handayani should also pay more attention to the company's sustainability. So far, PDAM has not considered this perspective due to limited funds. In the future, it is hoped that PDAMs can measure performance through a sustainability perspective as well.

Further researchers who will conduct the same research are expected to examine the internal business and sustainability perspectives more deeply because it will affect the company's reputation with external parties. Suppose the company's reputation can be more excellent. In that case, it can increase the number of customers followed by increased value from a financial perspective so that the research results and suggestions given can be more optimal than the research conducted by this author.

## E. Daftar Pustaka

- Abdelrazek, A. F. (2019). International Journal of Social Science and Economic Research Sustainability Balanced Scorecard : a Comprehensive Tool To Measure Sustainability Performance. 02, 948–962.
- Afandi, Pandi. 2018. Manajemen Sumber Daya Manusia; Teori, konsep dan Indikator. Yogyakarta : Zanafala Publishing.
- Albright, T. L dan Burgess, C. M. 2013. Best Practices of High-Performing Employees: Rewards and Performance in a Balanced Scorecard Environment. s.l. : Journal of Corporate Accounting & Finance, 2013.
- Bardini, Emi Putri. 2020. Analisis Kinerja dengan Pendekatan Balanced Scorecard pada PDAM Kabupaten Hulu Sungai Selatan. Banjarmasin : STIE Pancasetia, 2020.
- Bisbe, J., Barrubés, J. (2012): The Balanced Scorecard as a management tool for assessing and monitoring strategy implementation in health care organizations. *Rev Esp. Cardiol. (Engl. Ed)*. 2012 Oct; 65(10): pp. 919-27.
- BPPSPAM. 2016. Petunjuk teknis Penilaian Kinerja PDAM. Jakarta : Kementerian Pekerjaan Umum, 2016.
- Burritt, R.L. dan Lehman, G. 1995. The Body Shop wind farm—an analysis of accountability and ethics. s.l. : British Accounting Review, 1995.
- Cordella, A. and Bonina, C.M. (2012), “A public value perspective for ICT enabled public sector reforms: a theoretical reflection”, *Government*

- Information Quarterly, Vol. 29 No. 4, pp. 512-520.
- Dangol, Pooja. 2021. Role of Performance Appraisal System and Its Impact on Employees Motivation. Nepal : Quantitative Economics and Management Studies (QEMS), 2021. Vol. 2. ISSN: 2722-6247.
- Daulay, Siti Rahmah. 2020. Evaluasi Kinerja dengan Metode Balanced Scorecard pada Perusahaan Daerah Air Minum (PDAM) Tirta Nciho Kabupaten Dairi, Sidikalang. Medan : UIN Sumatera Utara, 2020.
- Dewi, Marlinda Citra. 2019. Analisis Penerapan Balanced Scorecard dalam Mengukur Kinerja Perusahaan pada PDAM Kota Makassar. Makassar : Universitas Muslim Indonesia, 2019.
- Edy, Sutrisno. 2016. Manajemen Sumber Daya Manusia. Jakarta: Kencana Prenada Media Group.
- Eko, Widodo Suparno. 2015. Manajemen Pengembangan Sumber Daya Manusia. Yogyakarta: PUSTAKA PELAJAR
- Elijido-Ten, Evangeline O dan Tjan, Y. 2014. Sustainability Balanced Scorecard Disclosures and Corporate Commitment to Sustainability: An Australian Study. Thailand : s.n., 2014.
- Greatbanks and Tapp, 2007: "The Impact of Balanced Scorecard in A Public Sector Environment: Empirical Evidence...", International Journal of Operations & Production Management, Vol. 27, No. 8, pp. 846-873.
- Hansen, E. G. dan Schaltegger, S. 2012. Persuing Sustainability with the Balanced Scorecard: Between Shareholder Value and Multiple Goal Optimisation. Luneburg : Leuphana University of Lueneburg, 2012.
- Hartatik, Puji Indah. 2014. Buku Praktis Mengembangkan SDM. Jogjakarta: Suka Buku
- Hartoyo, Sri. 2016. Buku Kinerja PDAM. Jakarta : BPPSPAM, 2016.
- Hatry, Harry P. 2014. Transforming Performance Measurement for the 21st Century. Washington : Urban Institute, 2014.
- Hristov, Ivo, Chirico, Antonio dan Appolloni, Andrea. 2019. Sustainability Value Creation, Survival, and Growth of the Company: A Critical Perspective in the Sustainability Balanced Scorecard (SBSC) . Rome : MDPI, 2019.
- Kalender, Zeynep. 2016. The Fifth Pillar of The Balanced Scorecard: Sustainability. Turkey : Procedia, 2016. Vol. 235.
- Kaplan, Robert S. dan Norton, David P. 1992. The Balanced Scorecard - Measures That Drives Performance. Boston : Harvard Business Review, 1992.
- Kotler, Philip & Gerry Armstrong, 2014: Principle Of Marketing, 15th edition. New Jersey: Pearson Pretice Hall.
- Kowalczyk, D. (2016). Research methodologies: Quantitative, qualitative, and mixed methods [video file]. Retrieved from <http://study.com/academy/lesson/research-methodologies-quantitative-qualitative-mixed-method.html>

- Landy, Frank, Zedeck, Sheldon dan Cleveland, Jeanette. 2017. *Performance Measurement and Theory*. London & New York : Lawrence Erlbaum Associates, Inc, 2017.
- Madsen, et al. 2019. *The Diffusion and Implementation of the Balanced Scorecard in the Norwegian Municipality Sector: A Descriptive Analysis*. 2019.
- Lansiluoto, A. & Jarvenpaa, M. (2010) Greening the balanced scorecard, *Business Horizons*, 53, pp.385-395
- Mahmudi. 2015. *Manajemen Kinerja Sektor Publik*. Yogyakarta: UPPSTIM YKPN.
- Mulyadi. 2014. *Sistem Terpadu Pengelolaan Kinerja Personel Berbasis Balanced Scorecard*. Yogyakarta : UPP STIM YKPN, 2014.
- Nawawi, Hadari. 2017. *Evaluasi dan Manajemen Kinerja di Lingkungan Perusahaan dan Industri*. Yogyakarta : Gadjah Mada University Press, 2017.
- Northcott, Deryl dan Taulapapa, Tuivaitu. 2012. *Using the balanced scorecard to manage performance in public sector organizations: Issues and challenges*. Auckland : Emerald Group Publishing Limited, 2012. Vol. 25.
- Nurchaya, Alfian Hakim. 2016. *Analisis Kinerja PDAM Kota Pekalongan dengan Menggunakan Metode Balanced Scorecard*. Semarang : Universitas Negeri Semarang, 2016.
- Nursam, Nasrullah. 2017. *Manajemen Kinerja*. Makassar : Journal of Islamic Education Management, 2017. Vol. II.
- Ozturk, E. dan Coskun, A. 2014. *A strategic approach to performance management in banks: The balanced scorecard*. s.l. : Accounting and Finance Research, 2014.
- Pangesti, Daru Anggit. 2012. *Pengukuran Kinerja dengan Pendekatan Balanced Scorecard pada RSUD Kebumen*. Yogyakarta : Universitas Negeri Yogyakarta, 2012.
- Perpamsi. 2022. *Buku Kinerja BUMD Air Minum*. s.l. : Ditjen Cipta Karya, 2022.
- Prawironegoro, Darsono., & Ari Purwanti. 2013. *Akuntansi Manajemen*. Jakarta: Mitra Wacana Media
- Quesado, P., Guzmán, B. A., & Rodrigues, L. L. (2018). Advantages and contributions in the balanced scorecard implementation. *Intangible Capital*, 14(1), 186–201. <https://doi.org/10.3926/ic.1110>
- Rangkuti, Freddy. 2012. *SWOT Balanced Scorecard: Teknik Menyusun Strategi Korporat yang Efektif plus Cara Mengelola Kinerja Dan Risiko*. Jakarta: Cetakan Ketiga, PT Gramedia Pustaka Umum.
- Sakti, Anisa Hardian dan Pradana, Bayu. 2018. *Perfomance Evaluation in PT PLN East Java Distribution Using Sustainability Balanced Scorecard (BSC)*. Malang : Jurnal Ilmiah FEB UB, 2018. Vol. 6.
- Sedarmayanti. 2017. *Perencanaan dan Pengembangan SDM untuk Meningkatkan Kompetensi, Kinerja dan Produktivitas Kerja*. Bandung: PT Refika Aditama.
- Siedlecki, Sandra. 2020. *Understanding Descriptive Research Designs and*

- Methods. s.l. : Wolters Kluwer Health, 2020.
- Solikhah, Rizky. 2018. Implementasi Balanced Scorecard sebagai Pengukuran Kinerja Rumah Sakit Islam Yogyakarta PDHI. Yogyakarta : UNY, 2018.
- Sugiyono. 2018. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung : Alfabeta, 2018.
- Syahdan, Saifhul Anuar, Munawaroh, RR Siti dan Akbar, Hj. Masithah. 2018. Balance Scorecard Implementation in Public Sector Organization, A Problem? Banjarmasin : s.n., 2018.
- The Supporting Agency for The Development of Drinking Supply Systems (BPPSPAM). 2016. Petunjuk Teknis Penilaian Kinerja PDAM. Jakarta Selatan : Kementerian Pekerjaan Umum, 2016.
- Torang, Syamsir. 2014. Organisasi dan Manajemen (Perilaku, Struktur, Budaya, dan Perubahan Organisasi). Bandung: Alfabeta.
- Trenggono, Fransisca Chrystalia dan Wahyono, Hadi. 2017. Persepsi Masyarakat Mengenai Kinerja Pelayanan Pamsimas Di Kota Semarang. Semarang : Universitas Diponegoro, 2017.
- Tsalis, Thomas A., Nikolaou, Ioannis dan Grigoroudis, Evangelos. 2013. A framework development to evaluate the needs of SMEs in order to adopt a sustainability-balanced scorecard. Campus : Journal of Integrative Environmental Sciences, 2013. Vol. 10.
- Widiyasari, Alifah Novrina. 2019. Perspektif Balance Scorecard terhadap Kinerja PDAM Jember . Jember : s.n., 2019.
- Xavier, L. 2012. O Controlo de Gestão nas Instituições Financeiras e a Aplicabilidade do BalancedScorecard numa Instituição. Lisboa : Instituto Politécnico de Lisboa, 2012.
- Zhan, Yuhan, Noe, Raymond A dan Ellingson, Jill. 2018. A New Look at Workplace Learning: Qualitative Study of Autonomous Learning. Ohio : Academy of Management Annual Meeting Proceedings, 2018.