



THE EFFECT OF TARIFFS, EXISTENCE OF INTERNAL CONTROL COMMITTEE, AND NUMBER OF CUSTOMERS ON THE PERFORMANCE OF REGIONAL-OWNED WATER SUPPLY COMPANY (PDAM) IN INDONESIA

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ABSTRACT

Based on data from the Ministry of Public Works and Public Housing (PUPR), the majority of Indonesian Regional-Owned Water Supply Company (PDAM) during the financial year of 2019 to 2022 did not show any improvement in performance as indicated by experiencing losses and projected to experience bankruptcy if not managed well. This research aims to examine the effect of tariffs, the existence of an Internal Control Committee, and the number of customers on the performance of PDAMs in Indonesia with firm size as a control variable. In this research, the type of data used is secondary data and is prepared using quantitative research methods using panel data. This research used a sample of 385 PDAMs with a total research period of four years. The results of the research conducted explain that tariffs have a negative and significant relationship to PDAM performance, while the existence of Internal Control Committee and the number of customers have a positive and significant relationship to PDAM performance. This research shows that PDAMs need to review the tariffs, reduce water loss levels, form Internal Control Committee, increase the number of customers, and record and reclassify customers to improve company performance.

1. INTRODUCTION

Water is essential for human survival, making up 50% to 67.85% of body weight, and a loss of over 3% can lead to dehydration (Mitchell et al., 1945; Abdallah et al., 2009, as cited in Collins & Claros, 2011; Popkin et al., 2010; Tortora & Derrickson, 2019). Recognizing its importance, clean water and proper sanitation are included in the Sustainable Development Goals (SDGs) (Kementerian PPN/Bappenas, 2019). In Indonesia, Article 33 of the 1945 Constitution mandates that water resources be utilized for the public good, leading to the establishment of the Water Supply Company (PDAM) to meet community clean water needs (PP No. 122 Tahun 2015). PDAM, as a regionally-owned enterprise, aims to provide sufficient clean water while generating profits for operational sustainability and regional development contributions. The Drinking Water Supply System Development Support Agency (BPPSPAM) evaluates PDAM performance across financial, service, operational, and human resource dimensions, categorizing them as healthy, unhealthy, or sick (Kep. Ketua BPPSPAM No. 002/KPTS/K6/IV/2010).

Indonesia prioritizes PDAM as one of the SPAM organizing bodies to provide clean water supply services to the community (PP No. 122 Tahun 2015). The existence of PDAM services can also boost the economy of a region because economic growth will occur if supported by basic facilities and infrastructure such as the provision of clean water (PerMen PU No. 13/PRT/M/2013). Therefore, PDAM has a role in increasing the Human Development Index (HDI) which is a calculation to assess the quality of life of its people. HDI is measured using three aspects, namely long and healthy life, knowledge, and decent living (Badan Pusat Statistik, 2024). It has been explained previously that water is a basic human need to survive, indirectly the provision of clean water will affect the dimensions of long and healthy life, and decent living in the calculation of HDI. Although Indonesia is still in the category of developing countries, Indonesia has experienced an increase in HDI from 2019 to 2022 (Badan Pusat Statistik, 2023). This illustrates Indonesia's efforts to improve the quality of life of its people.

Table 1. Percentage of PDAM Performance Achievement Per Year

Year	Healthy (%)	Unhealthy (%)	Sick (%)
2019	58,95	26,84	14,21
2020	61,76	24,81	13,44
2021	58,25	27,06	14,69

Source: Data processed by the author (2024)

Table 1 shows that in 2020 the number of PDAMs with healthy performance increased but decreased again in 2021. During 2019 to 2021, the number of

PDAMs with healthy performance was only in the range of 58% to 62% and the rest performed in the unhealthy and sick categories. This indicates that PDAM performance is stagnant. This condition is not in line with the stewardship theory which emphasizes that a servant will act to achieve organizational goals (Davis et al., 1997). In the context of this study, PDAM management which acts as a servant of the community should strive to achieve the company's goals, namely improving service quality and profitability so that each year it can improve the company's performance. However, PDAM did not show any increase in performance as indicated by the majority of PDAMs in Indonesia experiencing losses and projected to go bankrupt if not managed properly (Kumolo, 2019, as cited in Fajri, 2019). Based on this, research related to PDAM performance in Indonesia needs to be conducted.

In the context of PDAM, tariff is the unit price that must be paid by customers for each m³ of water usage. BPPSPAM stated that the factor causing losses in 70% of PDAMs was because the income from tariffs could not cover their production costs, or it could be said that PDAM tariffs had no economic value (Wisnu & Andarwati, 2019). Based on this explanation, tariffs are a factor that can affect income and ultimately impact company performance. The results of research by Khuluk (2017) and Mukhsin (2018) found that tariffs affect PDAM performance. Meanwhile, Wisnu and Andarwati (2019) found that tariffs did not affect PDAM performance. Based on the differences in findings on the effect of tariffs on PDAM performance, further research is needed using different research data.

PP Number 54 of 2017 mandates each BUMD to form an organ tasked with overseeing the company's internal affairs, namely the Internal Control Committee. Internal Control Committee is an internal auditor whose task is to oversee the running of business processes such as efficiency, effectiveness, and quality of governance in order to achieve company goals (PP No. 60 Tahun 2008). Internal Control Committee in PDAM has a crucial task that will provide early warnings in the form of suggestions for improvement to PDAM management based on the results of the supervision that has been carried out (Bandarmasih, 2022). Furthermore, PDAM management can make improvements to corporate governance so as to improve company performance. The results of research by Pratiwi (2012) found that the existence of Internal Control Committee has an effect on PDAM performance because it helps the company's business processes run. In addition, Ready et al. (2014) found that an effective Internal Control Committee can improve managerial performance. However, Mukhsin (2018) found that the existence of Internal Control Committee had no effect on PDAM performance. Based

on the differences in findings regarding the influence of the existence of Internal Control Committee on PDAM performance, further research is needed using different research data.

PDAM is obliged to provide clean water services to the customers (PP No. 122 Tahun 2015). Customers are an important aspect in a market, including in a monopoly market. Monopoly occurs because there is only one company that is able to provide goods or services to its customers without any other goods or services that can substitute them (Kadariah et al., 2022; Koutsoyiannis, 1979). Monopoly can be said to be a natural monopoly because of the relationship between demand for goods or services and a company's ability to meet that demand (Mulyana, 2022; Posner, 1969). This is reflected in the clean water supply industry in Indonesia with PDAM as the only company that is able to meet the community's demand for clean water (Usamah & Djaib, 2019). PDAM certainly requires large costs in distributing clean water to the community. Therefore, PDAM needs to generate income in order to cover the costs incurred while providing dividends to the local government which reflects good company performance. Hartawan and Jember (2022) and Marantiani and Budhi (2017) found the same thing in their research that the number of customers affects the income of art stores and MSMEs. Furthermore, Sembiring (2022) and Aswar (2022) found that increasing income affects company performance. Therefore, it can be concluded that the number of customers will affect company performance. Based on the search results, no research has been found that examines the effect of the number of customers on company performance in natural monopolies, especially PDAM. Therefore, research on the effect of the number of customers as an independent variable on performance needs to be carried out.

This study will also use a control variable to strengthen the research model, namely firm size. Firm size is described by the total assets owned by the company which will then be managed by management to maximize company performance (Parendra et al., 2020). The results of research by Partiwani and Herawati (2022), Agasva and Budiantoro (2020), Meiyana and Aisyah (2019), Prijanto et al. (2017), and Theacini and Wisadha (2014) found that firm size affects company performance. Thus, the use of a control variable, namely firm size in this study is expected to explain the existing phenomenon because it considers factors other than the independent variables being tested.

This study aims to examine the effect of tariffs, the existence of Internal Control Committee, and the number of customers on the performance of Regional-Owned Water Supply Company (PDAM) in Indonesia with firm size as a control variable. Previous studies

examining PDAM performance were conducted by Wisnu and Andarwati (2019), namely the performance of PDAM in Indonesia in 2017, Mukhsin (2018) examining the performance of PDAM in East Kalimantan Province in 2014-2016, Khuluk (2017) examining the performance of PDAM in Aceh Province in 2014-2016, and Nur (2020) examining the financial performance of PDAM in Pare-Pare City in 2014-2018. This study will use PDAM performance evaluation data in Indonesia for the 2019-2022 financial years. Therefore, this study is expected to provide added value for PDAM management and Heads of Regional Governments in making decisions to improve PDAM performance and increase the wealth of research information related to PDAM performance.

2. THEORETICAL FRAMEWORK

2.1. Stewardship Theory

According to Raharjo (2007), stewardship theory assumes that the success of an entity is closely related to stakeholder satisfaction. In this context, managers are expected to act in accordance with the common interests to achieve optimal company performance. Furthermore, stewardship theory explains the management's efforts to understand what stakeholders aim to achieve and how to achieve those objectives (Cribb, 2006). According to Davis et al. (1997), stewardship theory states that a steward will act to achieve the organization's goals. According to Muth and Donaldson (1998), stewardship theory highlights the non-financial motives of managers, such as the desire to achieve accomplishments and gain recognition from stakeholders for their success in managing the company. Based on this explanation, it can be concluded that stewardship theory suggests that the board of directors will work optimally as stewards of the stakeholders by utilizing the company's facilities to achieve common goals.

In the context of this research, the management of PDAM, acting as a steward to the community, should strive to achieve the company's goals of providing maximum service to all customers while ensuring profitability related to the established tariffs. An Internal Control Committee will oversee the process of achieving these goals. The outcomes of this process will be reflected in the company's performance values, demonstrating good performance each year.

2.2. Performance

According to Uno and Lamatenggo (2012), performance is the measure achieved as a reflection of the results of the work carried out by a company. Suprihati (2014) explains that performance is the achievement in reaching the organization's goals, which is reflected in various forms of output desired by the organization. Andreas (2009, as cited in Darsa et al.,

2015), explains that performance is a depiction of a manager's achievement in managing the company according to their duties, measured against standards, and this achievement is communicated to various stakeholders. Based on this explanation, it can be concluded that performance is a depiction of a manager's achievement in carrying out their duties to manage the company, thereby achieving the organization's goals.

2.3. The Relationship Between Tariffs and Performance of PDAM

According to Gani (1995, as cited in Wisnu & Andarwati, 2019), a tariff is the value of a good or service provided by a company to its customers, based on certain considerations, and measured in a certain amount of money. The Minister of Home Affairs Regulation No. 71 of 2016 also explains that a tariff is a cost rule set by the Regional Head, which must be paid by customers for the use of water volume per cubic meter (m³). Based on this explanation, a tariff is a set amount that customers are obligated to pay for the use of services provided by a service provider.

Tariffs are related to revenue. PDAM generates revenue from customer payments based on the established tariffs. This revenue is then used by PDAM to cover operational expenses, thereby supporting the business processes of the company, which aim to provide water supply services to the community and contribute to the local government. The achievement of these objectives is reflected in the performance of PDAM.

2.4. The Relationship Between Existence of Internal Control Committee and Performance of PDAM

Hartadi (2000, as cited in Widyaningsih & Dewi, 2012) explains that the Internal Control Committee is a division within an organization that is responsible for oversight and inspection to enhance the organization's performance. Additionally, the Committee is tasked with overseeing business processes such as efficiency, effectiveness, and governance quality to achieve the company's goals (PP No. 60 Tahun 2008).

Based on the theory outlined, the existence of Internal Control Committee is related to the performance of PDAM. The crucial objective of Internal Control Committee is to monitor the company's business processes and provide early warnings in the form of improvement suggestions to PDAM management based on the results of the oversight conducted (Bandarmasih, 2022). PDAM management then makes improvements to the company's governance, thereby enhancing the overall performance of the company.

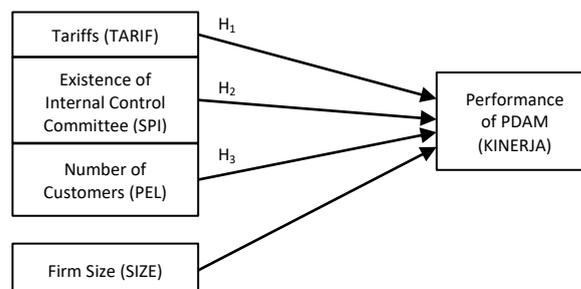
2.5. The Relationship Between Number of Customers and Performance of PDAM

According to Zami (2019), customers are consumers who repeatedly purchase goods or services offered by the same producer. Based on this explanation, the number of customers a company has is directly proportional to the amount of revenue generated. This is consistent with the findings of Hartawan and Jember (2022) and Marantiani and Budhi (2017), who found that the number of customers affects revenue. The revenue received by the company is then used to carry out business processes as an effort to achieve one of the company's goals, which is to provide water services. Additionally, the number of customers will distribute the fixed operational costs. This explains that as the number of customers increases, the fixed cost per customer decreases, resulting in more efficient production and distribution of water to customers. Efforts to increase revenue and reduce operational costs impact the chances of achieving one of PDAM's goals, which is to earn a fiscal profit and thus provide dividends to stakeholders. Achieving the company's goals is a reflection of good PDAM performance. Based on this, the number of customers will impact the amount of revenue that PDAM can generate, thereby affecting PDAM's performance.

2.6. Framework of Thought

This study examines tariffs, the existence of an Internal Control Committee, and the number of customers as independent variables, with PDAM performance as the dependent variable and firm size as the control variable. The first hypothesis will explore the relationship between tariffs and PDAM performance. The second hypothesis will investigate the link between the existence of the Internal Control Committee and PDAM performance. The third hypothesis will assess the relationship between the number of customers and PDAM performance. Firm size will serve as a control variable to eliminate bias in the relationships between the independent and dependent variables, thereby strengthening the research model (Silaban & Pengestuti, 2017). This framework is illustrated in Figure 1.

Figure 1. Framework of Factors Influencing Performance



Source: Data processed by the author (2024)

Based on Figure 1, the hypotheses that will be proposed in this study are as follows.

H₁ : Tariffs affect Performance of PDAM.

H₂ : Existence of Internal Control Committee affect Performance of PDAM.

H₃ : Number of Customers affect Performance of PDAM.

3. RESEARCH METHODOLOGY

3.1. Data collection

In this study, the type of data used is secondary data, which is then processed by the party that collected it before being presented to others (Sugiyono, 2016). The data source comes from the performance evaluation results of PDAM conducted by the Financial and Development Supervisory Agency (BPKP) for the fiscal years 2019 to 2022. This research is designed using a quantitative approach utilizing panel data with the help of Microsoft Excel and Stata 17.

The population targeted in this study consists of all PDAMs in Indonesia whose performance was evaluated by BPKP over the fiscal years 2019 to 2022, totaling 393 PDAMs. The sample for this study will use population data, considering the specified criteria are that the PDAM must have its performance evaluated consecutively for the fiscal years 2019 to 2022 and possess relevant information related to the study, such as tariffs, Existence of Internal Control Committee, number of customers, total assets, and PDAM performance scores. Thus, the total sample in this study for four year time span is 1.540 samples as explained in Table 2.

Table 2. Summary of Sample Selection

No.	Criteria	Total
1.	PDAM whose performance was evaluated for the 2019 to 2022 financial years	393
2. Samples that do not meet the purposive sampling criteria:		
3.	PDAM's performance was not evaluated consecutively for the 2019 to 2022 financial years.	-6
4.	PDAM does not have information regarding the required variables	-2
5.	Number of PDAMs selected (1 + 3 + 4)	385
6.	Number of research periods (years)	4
7.	Total Sample (5 x 6)	1.540

Source: Data processed by the author (2024)

3.2. Research Variables

This study will utilize three independent variables, namely tariff (TARIF), the existence of Internal Control Committee (SPI), and the number of customers (PEL). The dependent variable used is performance of PDAM (KINERJA). Firm size (SIZE) will be used in this study as a control variable to strengthen the research model. The explanation of each variable is as follows.

KINERJA is obtained from the performance assessments conducted by BPKP representatives throughout Indonesia. The performance assessment

uses various indicators compiled by BPPSPAM. These indicators are grouped into four dimensions. Each of these dimensions consists of sub-dimensions, each with its own weight. The weighted values are then multiplied by the scores obtained, ranging from 1 to 5, based on the evaluation results for each sub-aspect of the indicators. The results are then summed up. The sum represents the performance score based on the PDAM performance indicators.

According to Khuluk (2016), Mukhsin (2018), and Wisnu and Andarwati (2019), TARIF is proxied by dividing the income from water sold by the volume of water sold.

$$\text{TARIF} = \frac{\text{Income from Water Sold}}{\text{Volume of Water Sold}} \dots (1)$$

SPI is proxied by examining the data in the compilation report of the PDAM performance evaluation results in Indonesia for the fiscal years 2019 to 2022. If a PDAM has an Internal Control Committee, it is assigned a value of "1"; otherwise, if a PDAM does not have an Internal Control Committee, it is assigned a value of "0".

PEL is proxied by examining the data in the compilation report of PDAM performance evaluation results in Indonesia for the fiscal years 2019 to 2022. The examination aims to find information related to the number of customers in the compilation data from the performance evaluations conducted by BPKP, measured in units.

SIZE can be described by the total asset value. The total asset value of each company has a different magnitude, allowing for a large gap between companies. Therefore, the total asset value is reprocessed using the natural logarithm formula. This is in accordance with Kuncoro et al. (2020), Qadri and Najiha (2021), and Firmansyah et al. (2022) who proxy firm size by naturalizing the total asset value to minimize the total asset value that is far apart between companies.

$$\text{SIZE} = \text{Ln} (\text{Total Assets}) \dots (2)$$

3.3. Data Analysis

In this study, data analysis begins with descriptive analysis. After that, continued by determining one of the three most appropriate regression models between Common Effect Model (CEM), Fixed Effect Model (FEM), dan Random Effect Model (REM) by running the Chow test, Hausman test and Lagrange Multiplier test (Sihombing, 2021). Furthermore, the author conducted a classical assumption test to ensure that the research data was suitable for use. Then conducted an influence test, namely the simultaneous significance test (F-statistic test), partial significance test (t-statistic test), and analysis of the coefficient of determination (R²)

4. RESULT AND DISCUSSION

4.1. Result

Table 3. Descriptive Statistics

Scale	KINERJA	TARIF	SPI	PEL	SIZE
Mean	2,8769	4.973,2290	0,5688	37.258,5000	24,5318
Med.	2,8900	4.771,2070	1,0000	18.879,0000	24,5937
Max.	4,4500	18.527,7200	1,0000	929.148,0000	28,8233
Min.	1,2600	674,8212	0,0000	401,0000	16,2743
Std. Dev	0,5781	1.842,1180	0,4954	72.494,2800	1,2126
Obs.	1.540	1.540	1.540	1.540	1.540

Source: Data processed by the author (2024)

Based on table 3, TARIF has a maximum value of 18.527,72, a minimum value of 674,82, an average value of 4.973,23, and a median value of 4.7721,21. SPI has a maximum value of 1, a minimum value of 0, an average value of 0,5688 which explains that 56,88% of the total samples in the study have an Internal Control Committee. PEL has a maximum value of 929.148, a minimum value of 401, an average value of 37.258,5, and a median value of 18.879. KINERJA has a maximum value of 4,45, a minimum value of 1,26, an average value of 2,8769, and a median value of 2,89. SIZE has a maximum value of 28,8233, a minimum value of 16,2743, an average value of 24,5318, and a median value of 24,5937.

Based on the regression model selection test, the Chow test produces a probability value of 0,0007 or less than the 5% significance threshold ($\alpha < 0,05$) so that the best regression model based on the Chow test is FEM. The Lagrange Multiplier test produces a probability value of 0,0000 or less than the 5% significance threshold ($\alpha < 0,05$) so that the best regression model based on the Lagrange Multiplier test is REM. The Hausman test produces a probability value of 0,0000 or less than the 5% significance threshold ($\alpha < 0,05$) so that the best regression model based on the Hausman test is FEM. Based on the three tests, it can be concluded that the right model is FEM. The results of the best model selection are summarized in Table 4.

Table 4. Regression Model Selection Results

Test Type	Regression Model		
	CEM	FEM	REM
Uji Chow		✓	
Uji Lagrange Multiplier			✓
Uji Hausman		✓	
Chosen Model		✓	

Source: Data processed by the author (2024)

Classical assumption test is done by conducting four types of tests. The normality test conducted shows that there are variables with a probability value of 0,0000 or less than the 5% significance level ($\alpha < 0,05$), so it can be concluded that the residuals are distributed abnormally. It is explained in the Central Limit Theorem

(CLT) that the residuals of research data can be considered normally distributed if the number of samples is > 100 (Montgomery & Runger, 2011; Gujarati, 2003). For this reason, the residuals in this study can be considered normally distributed. The multicollinearity test produces a Variance Inflation Factor (VIF) value of less than 10, so it can be concluded that the independent variables studied are not affected by the multicollinearity problem. The heteroscedasticity test produces a probability value of 0,0000 or less than the 5% significance threshold ($\alpha < 0,05$) so it can be concluded that the research model experiences heteroscedasticity issues. The autocorrelation test produces a probability value of 0,0000 or less than the 5% significance threshold ($\alpha < 0,05$) so it can be concluded that the research model experiences autocorrelation issues. Based on the classical assumption test that has been carried out, the residuals is normally distributed and free from multicollinearity issues. However, the research model experiences heteroscedasticity and autocorrelation issues. To address these issues, research can use the Panel-Corrected Standard Error (PCSE) model (Aprilianti & Harken, 2021; Marques & Fuinhas, 2012; Praja & Wijaya, 2023; Sihombing, 2021; Tarawalie & Jalloh, 2021). To run the PCSE model, researchers use the `-xtpcse-` command in the Stata 17 application (Stata.com, n.d.). Moundigbaye et al. (2018) also explained that the `-xtpcse-` command in the Stata application is the best estimator if the main purpose of the research is to test the hypothesis.

Based on the results of the regression test shown in Table 5, the F-statistic test indicates a Chi-square probability of 0,0000, which is less than the 5% significance threshold ($\alpha < 0,05$). Therefore, it can be concluded that all independent variables and control variables simultaneously affect the dependent variable.

Table 5. Regression Test Results PCSE Model

Group variable:	ID	Number of obs	=	1.540
Time variable:	TAHUN	Number of groups	=	385
Panels:	correlated (balanced)	Obs per group:		
Autocorrelation:	no autocorrelation	min	=	4
		Avg	=	4
		max	=	4
Estimated covariance	=	74305	R-squared	= 0,3263
Estimated autocorrelations	=	0	wald chi2(4)	= 93720,51
Estimated coefficients	=	5	Prob > chi2	= 0,0000

KINERJA	Panel-corrected				
	Coefficient	Std. Err.	z	P > z	[95% conf. interval]
TARIF	-0,0000306	4,13e-06	-7,42	0,000	-0,0000387 -0,0000225
SPI	0,2263225	0,0264440	8,56	0,000	0,1744914 0,2781535
PEL	7,61e-07	8,03e-08	9,47	0,000	6,04e-07 9,19e-07
SIZE	0,1961969	0,0123533	15,88	0,000	0,171985 0,2204089
_cons	-1,940869	0,2835301	-6,85	0,000	-2,496578 -1,38516

Source: Data processed by Stata 17 (2024)

Based on the results of the regression test shown in Table 5, the F-statistic test indicates a Chi-square probability of 0,0000, which is less than the 5% significance threshold ($\alpha < 0,05$). Therefore, it can be

concluded that all independent variables and control variables simultaneously affect the dependent variable.

Based on Table 5, the t-statistic test shows that all the variables used have a $P > |z|$ probability value of 0,0000 or less than the 5% significance threshold ($\alpha < 0,05$). Therefore, it can be concluded that all independent variables and control variables are significantly related, in a partial manner, to the dependent variable.

Based on Table 5, the results show a coefficient of determination (R^2) value of 0,3263 or 32,63%. This indicates that the performance of PDAM is influenced by 32,63% by the variables included in this research model, namely TARIF, SPI, PEL, and SIZE, ceteris paribus, while the remaining 67,37% is explained by other factors or variables outside of this research model.

4.2. Discussion

4.2.1 The Effect of Tariffs on Performance of PDAM

Based on Table 5, it is shown that the tariff has a negative and significant relationship with the performance of PDAM, as indicated by a coefficient value of -3,06e-05 and a $P > |z|$ value of 0,0000 ($\alpha < 0,05$), thereby rejecting the null hypothesis (H_0). The findings of this study are consistent in terms of significance with the research conducted by Khuluk (2017) and Mukhsin (2018), who found that tariffs have a positive and significant relationship with the performance of PDAM. These studies analyzed the relationship between tariffs and performance in PDAMs in Aceh Province and East Kalimantan Province from 2014 to 2016. In addition, this study also contradicts the research conducted by Wisnu and Andarwati (2019), who found that tariffs do not have a significant relationship with the performance of PDAM.

The finding of a negative relationship between tariffs and performance can be explained by the Laffer Curve. The Laffer Curve is a graph that illustrates the correlation between tax rates and the amount of revenue generated from taxes (Dharmakarja & Solikin, 2017). An increase in tariffs will raise revenue up to a certain point where the tariff level is optimal, beyond which further increases in tariffs will reduce revenue (Dharmakarja & Solikin, 2017). Therefore, the option of lowering tariffs can be applied to increase revenue if raising tariffs beyond a certain point reduces revenue (Pritchett & Sethi, 1994). Based on this explanation, PDAM needs to review the tariffs that have been set to determine whether they have exceeded the optimal tariff point and, if so, consider lowering tariffs to increase water sales revenue.

Tariffs are a factor that influences revenue and impacts a company's performance, as reflected in PDAM's ability to generate profit. Therefore, the determination of tariffs needs to be reviewed, taking into account the financial capability of customers.

However, PDAM will not generate a profit if the revenue obtained from water sales at the established tariffs cannot cover PDAM's operational costs. The ability of tariffs to fully cover operational costs is referred to as Full Cost Recovery (FCR). Based on the performance of 398 PDAMs across Indonesia in the 2021 fiscal year, only 37,79% or 147 PDAMs implemented FCR tariffs (Ministry of Public Works and Housing, 2022). This is still far below the target set in the 2020-2024 National Medium-Term Development Plan (RPJMN), which is 100%. Therefore, the initial step that PDAM needs to take to achieve profitability is to implement FCR tariffs.

There are several ways to achieve Full Cost Recovery (FCR) tariffs, one of which is by reducing the level of water loss (Non-Revenue Water/NRW). Based on the performance of all PDAMs across Indonesia in the 2021 fiscal year, the average NRW was found to be 33,72% (Ministry of Public Works and Housing, 2022). This is still below the NRW target set in the 2020-2024 National Medium-Term Development Plan (RPJMN), which is 25%. With a high NRW level, the tariff factor will not affect the performance of PDAM. A high NRW level will affect the revenue received because NRW represents potential lost revenue, while the costs incurred to produce and distribute water will still be recognized. This will impact the financial performance of PDAM negatively.

4.2.2 The Effect of Existence of Internal Control Committee on Performance of PDAM

Based on Table 5, it is explained that the existence of Internal Control Committee has a positive and significant relationship with the performance of PDAM. This test result aligns with hypothesis H_2 , which states that the existence of Internal Control Committee affects PDAM's performance. Considering the coefficient value of 0,2263, it indicates that the existence of Internal Control Committee and PDAM performance have a directly proportional relationship, meaning that PDAMs with an Internal Control Committee will achieve higher performance scores compared to PDAMs without an Internal Control Committee.

This aligns with the duties and functions previously described, indicating that Internal Control Committee plays a crucial role as an internal oversight element within the company, providing improvement suggestions to the PDAM board of directors (PP No. 54 Tahun 2017). As an internal oversight element, Internal Control Committee has carried out its duties to conduct comprehensive supervision, from planning to the follow-up process (Ready et al., 2014). This explains that the existence of Internal Control Committee is not merely to fulfill PDAM's obligation as a Regional-Owned Enterprise to have an Internal Control Committee (PP No. 54 Tahun 2017), but rather to work optimally and utilize all company resources available to provide

appropriate improvement suggestions to the PDAM board of directors. This also illustrates that the Internal Control Committee receives full support in carrying out its duties from the PDAM board of directors, who are the highest leaders within the company. The PDAM board of directors also strives to follow up on the improvement suggestions resulting from the oversight conducted by Internal Control Committee so that PDAM's business processes can operate optimally.

In fulfilling its role as the internal auditor of the company, competent personnel are also required. This can be achieved by providing relevant training to Internal Control Committee's members. When viewed from the performance evaluation elements of PDAM, two of the assessment points are the employee training ratio and the training cost ratio. In conducting training, the company will budget for training activities for all PDAM employees, including Internal Control Committee's members. This indicates the company's support to enhance the capabilities of all its personnel, which, in turn, impacts the company's performance. Based on this explanation, collaboration between different elements of the company, such as Internal Control Committee and the board of directors, is necessary to improve PDAM's performance.

4.2.3 The Effect of Number of Customers on Performance of PDAM

Based on Table 5, it explains that the number of customers has a positive and significant relationship with the performance of PDAM. The test results are in accordance with the H_3 hypothesis that has been determined that the number of customers affects PDAM performance. When viewed from the value of the coefficient, which is $7,61e-07$, it shows that the number of customers and PDAM performance have a directly proportional relationship, namely that as the number of customers increases, PDAM performance also increases.

The results of the hypothesis testing are in line with the theory that has been described that along with the increasing number of customers owned by PDAM, it will increase water sales revenue. Revenue from water sales is one of the elements that supports the achievement of company goals because the revenue will be used to run the company's business processes. In addition, the results of the hypothesis testing can also describe the ability of all levels of the company to manage its customers optimally so as to achieve the targeted performance. The Board of Directors can lead the company to provide satisfactory service to customers such as resolving customer complaints, providing quality clean water, and continuous water flow. By considering the large number of customers, this will increase water usage so that it has an impact on improving PDAM's financial performance.

A large number of customers can also indicate population density in an area. This will have an impact on the overall lower burden in operating water pumps to distribute clean water to customers. It is also possible that areas served by PDAM are already densely populated so that efforts to increase the number of customers cannot improve PDAM's performance effectively. Therefore, the board of directors needs to use other strategies to increase revenue which will have an impact on PDAM's overall performance.

5. CONCLUSIONS AND SUGGESTIONS

Tariffs has a negative and significant relationship with the performance of PDAM. Thus, lowering tariffs may be a viable option if current rates exceed this ideal threshold. Therefore, the author suggests to Head of Regional Government and The PDAM's Board of Directors can conduct a study on the tariffs that have been set to determine whether the tariffs are at the optimal tariff point while still considering the operational burden of PDAM and the financial capabilities of customers. In addition, PDAM management also needs to reduce NRW to minimize financial losses by calibrating water meters owned by customers.

The existence of the Internal Control Committee has a positive and significant relationship to PDAM performance. Therefore, the author suggests to The PDAM's Board of Directors to fully support the Internal Control Committee in carrying out its duties as an internal supervisory element, and also providing relevant training to members of the Internal Control Committee so that it can improve PDAM performance. It is also recommended that PDAMs that do not yet have an Internal Control Committee immediately form the committee.

The number of customers has a positive and significant relationship to the performance of PDAM. Therefore, the author suggests to The PDAM's Board of Directors to provide satisfactory service to customers, increase the number of customers, record and reclassify the customers so that it can increase income which will later have an impact on PDAM's performance.

6. LIMITATIONS AND IMPLICATIONS

This study is not free from problems that can be considered by researchers in the future, such as the limited access to deeper information related to tariffs, Internal Control Committee, and number of customers as independent variables with firm size as a control variable. It is also recommended that future researchers who will conduct tests related to the performance of PDAM can extend the time span in conducting research. In addition, future researchers can also explore more appropriate sampling selection methods so that the selected samples are more representative of the

population. Future researchers can also explore different proxies for the variables set in this study, as well as use other variables outside this study so that the information on research related to PDAM performance can become more complex.

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