

## **Kupang City's Regional Water Supply Company (PDAM) Net Profit Model**

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**Abstract:** PDAM is a government-owned company that aims to provide public services to the community in meeting drinking water needs and is one of the sources of Local Revenue. The operating system carried out by the PDAM so far is the principle of Cost Recovery. The Cost Recovery Principle has the understanding that the company must be able to finance all of its own expenses by not using sources of financing outside the company. The management of the company is entirely the responsibility of the management of the PDAM Kupang City, starting from planning to all operational activities and reporting fully the responsibility of the management of the PDAM Kupang City. The researcher observes that net profit always increases every year and is directly proportional to the components of net profit that is increasing water sales every year and operational costs incurred also increase every year, where the increase in operational costs is highest due to an increase in employee costs that automatically affect the net profit for the period. The purpose of this study is: to find out the net profit model PDAM Kupang City. Data collection methods in this research are interview and documentation study. The population of this study is all Kupang PDAM PDAM financial reports, with a sample of the Kupang PDAM PDAM Profit and Loss report for 10 years. This type of research is quantitative descriptive, and the data analysis method used is multiples regression analysis (multiple). The results showed that: Analysis using a two-way t test showed that the variable sales volume and operating costs significantly affected the PDAM's net profit.

**Keywords:** water supply company, model, net profit

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### **Introduction**

PDAM is a government-owned company that aims to provide public services to the community in meeting their drinking water needs and is one of the sources of local revenue. As an extension of the Regional Government in providing public services, PDAM is required not to burden the community. This is a challenge in itself for PDAM management in carrying out its operations and maintaining the existence of PDAM. Every product that the company produces for sale occurs because of the sacrifice of an economic source called the cost of production.

So far, the PDAM's operating system is the principle of Cost Recovery. The principle of Cost Recovery means that the company must be able to finance all its own expenses by not using outside sources of financing.

In company activities, the ability to obtain profitability shows the effectiveness and efficiency of a company in running its operations. The manager as the driver of a company has an interest in decision making and organizational control for the existence and progress of a company as well as knowing the current condition of the company and forecasting the condition of the company in the future.

The amount of income and profit increases every year but is directly proportional to the costs that increase every year, this is due to the increase in operating costs. One of the operational costs that gave the highest contribution was labor costs. Initial surveys show that many employees of PDAM Kota Kupang have not implemented their work programs properly and their job descriptions and work programs have been made. PDAM Kota Kupang (2017) explains that the decline in employee performance resulted in a water loss rate of 55% in 2016.

Operating costs that continue to increase will affect the amount of profit. Profit is the main goal of the company, because profit is the difference between the revenue received (from sales) and the costs incurred. Each year the Operating Costs that occur are increasing, so that researchers specifically observe the Operational Costs and Sales Volume on the Net Profits of PDAM Kota Kupang and know the Net Profit Model of PDAM

Kota Kupang, based on historical data on Operational Costs, total sales volume and net profit for 10 years. This is because the Operational Costs of the previous period were used as a benchmark in profit planning and profit achievement strategies that had been determined by the company. This research is important for the management of PDAM Kota Kupang as a consideration for management in making decisions, in order to achieve the profit that has been targeted by the government and services to the public for budget planning in the coming year.

The formulation of the problem in this research is: How to model the net profit of PDAM Kota Kupang?. Based on the research question, the purpose of this study is to determine the net profit model of PDAM Kupang City.

### **Literature Review**

There has been some previous research done, namely research conducted by Nuripa Oktapia, Rizal R. Manullang, Hariyani entitled Analysis of the Effect of Production Costs and Operational Costs on Net Profits at PT Mayora Indah Tbk on the Indonesia Stock Exchange (IDX) (Case Study at PT. Indonesia Stock Exchange). *Jurnal Ilmiah Akuntansi Bisnis Dan Keuangan (JIPAK)*, Volume 11, Nomor 2, November 2017, ISSN 2355-9047 [1]. Research conducted by Endang Susilawati and Asep Mulyana entitled The Effect of Sales and Operational Costs on the Net Profit of PT. Indocement Tunggul Prakarsa (Persero) Tbk. 2010-2017 period. 2018. *Jurnal Saintifik Manajemen dan Akuntansi*, 1(2), 82-96 [2]. Research conducted by Adiyanto Koten Doroh entitled "Financial Performance Analysis of Local Water Companies in Kupang City" (2019). Program Studi Manajemen, Fakultas Ekonomika dan Bisnis Universitas Katolik Widya Mandira Kupang.[3] Research conducted by Gunardi Gunardi, Sugianto Ikhsan, Syafirah Sehaq entitled "The Influence of Operational Costs on PT. Sari Indah Teguh Purwakarta Period 2013 - 2017. *Journal of Accounting and Finance* 2019. Vol. 4 No. 01.Hal.710-721[4]

### **Operating Costs**

Jopie Jusuf (2008: 33) argues that operational costs are costs that are not continuously incurred by the entity, which are not related to the product but are related to the company's daily operational activities. [5]Meanwhile, according to Bastian Bustani and Nurlela, (2013: 59) operational costs are costs that are not related to the production process but only include marketing costs and general and administrative costs. [6]

### **Sales Volume**

According to Basu Swastha (2014: 197), sales volume is net sales from the company's income statement (operating report). [7] The definition of sales volume according to Daryono (2011: 187) is as follows: "A measure that shows the number or amount of goods or services sold." The greater the number of sales a company generates, the more likely it is that the company will generate profits. [8]

### **Net Profit**

According to Hery (2013: 46) what is meant by net income is "Net income comes from transactions of income, expenses, gains and losses. These transactions are summarized in the income statement. Profits are generated from the difference between incoming resources (income and profits) and outgoing resources (expenses and losses) during a certain period". [9] According to Muhammad Sholahudin (2011: 82), net income is the profit earned in the current financial year after deducting the estimated tax debt. [10] In addition, the definition of net income according to Keiso et al (2009: 148): "Net income is the net result of the company's performance over a period of time". [11]

### **Research Method**

Referring to the formulation of the problem, this research is a social research, considering that not all variables and experimental conditions can be strictly regulated and controlled, and the research analysis is a quantitative descriptive analysis.

The selection of this analysis design is adjusted to the expected data, namely knowing the Kupang City PDAM Net Profit Model based on Sales Volume and Operating Costs. The dependent variable (dependent) in this study is net income (Y). As independent variables (free) are Sales Volume (X1) and Operating Costs (X2). Hypothesis testing in this study was carried out using multiples regression analysis (multiple). The regression equation is:  $Y = a + b1.X1 + b2.X2$

In this study, data analysis was first carried out with the following stages: 1). Perform multiple regression test; 2). Hypothesis testing; 3). Determine the net profitmodel.

The population of this study were all PDAM Kota Kupang Financial Statements, with the sample being the PDAM Kota Kupang Profit and Loss Report for 10 years. Data processing using the SPSS Statistics program.

The researcher assumes that he takes a provisional decision (hypothesis) as follows: 1). It is assumed that Sales Volume (X1) has an effect on Net Profit (Y); 2). It is suspected that Operating Costs (X2) will have an effect on Net Income (Y); and 3). It is assumed that Sales Volume (X1) and Operating Costs (X2) together have an effect on Net Profit (Y).

### Results and Discussion

Multiple Linear Regression Test Testing on the effect of sales volume and operating costs on net profit is to determine whether jointly and partially these variables have an effect on Net Profit. The following table is the result of multiple regression analysis to determine the effect of sales volume and operating costs on PDAM net profit simultaneously and partially.

The regression model based on the results of the analysis can be seen in the following functions:  $Y_{\text{Net Income}} = 1.148E8 + 0.119 x_1 - 0.003x_2$

**Table 1.** Results of the Net Profit Model Analysis in Kupang City's Regional Water Supply Company (PDAM), 2020.

No.	Variabel	Coefficients	Std. Error	t-Statistic	Sig.
1	C(bo)	1.148E8	9.459E7	1.213	.264
2	Volume penjualan (X1)	.119	.008	14.573	.000
3	Biaya Operasional (X2)	-.003	.001	-4.053	.005
4	R-squared			.991	
5	Adjusted R-squared			.982	
6	Std. Error of the Estimate			2.10512E8	
7	F-statistic			192.387	
9	Prob (F-statistic)			.000 <sup>a</sup>	

Source: Primary Data Analysis, 2020

The results showed that the calculated F value of 192.387 was greater than the F table value at the 99% confidence level. This means that net profit is influenced by the volume of water sales and operating costs.

The large variety of PDAM net profit variables can be explained by the variable sales volume and operating costs. The results of the analysis show that the coefficient of determination ( $R^2$ ) is 0.982, this means that 98.20% of the variability of the net profit variable can explain the variability of sales volume and operating costs, while 1.80% is explained by other variables outside the model.

To determine the partial effect of the independent variable on net profit using the t test. The results of the analysis show that the t test value ( $\alpha / 2$ ) for the sales volume variable has a very significant effect on the PDAM's net profit at the 99% confidence level. Furthermore, operational costs have a significant effect on net income at the 95% confidence level.

The results of the analysis show that the value of b0 is positive 1.148E8, which means that when the sales volume and operational costs are zero, the net profit is 1.148E8.

The regression coefficient value b1 is positive 0.119, which means that if the sales volume increases by Rp. 1 then the net profit will increase by Rp. 0.119 and in accordance with the results of the analysis of Endang Susilawati and Asep Mulyana's research (2018). This means that the sales volume increases, the water debit used also increases, which affects the PDAM's net profit.

The regression coefficient value b2 is negative 0.003, this means that if the operational costs increase by 1 unit, the net profit will decrease by 0.003. This is in accordance with the research of Nuripa Oktapia, Rizal R. Manullang, Hariyani (2017). This can be explained that with increasing operating costs, cash will be reduced so that net profit will decrease.

### Conclusion

The conclusions of the research results is analysis using the two-way t test shows that the variable sales volume and operational costs have a significant effect on the PDAM's net profit. The suggestion that can be given is to increase net profit, the government is advised to use the net profit model generated in this study.

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