THE INFLUENCE OF OPERATIONAL PERFORMANCE ON PROFITABILITY (Survey On Regional Drinking Companies (PDAM) In West Java)

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Abstract

This study aims to determine the effect of operational performance on profitability at local water companies in West Java Province. The method used in this research is explanatory research method. The population used in this study were all regional drinking water companies in the province of West Java. The sampling technique used was purposive judgment sampling. The analysis used was original least square and processed using the SPSS 21 program. The results showed that the average operational performance achievement of regional drinking water companies in West Java Province reached 1.26. the profitability of PDAMs in West Java is 3.83%, this is very far from the maximum expected target of 10%. The operational performance of regional drinking water companies in West Java has a significant effect on profitability.

Keywords: Performance, Operatonal Performance, Profitability, Return On Equity

Introduction

Regional Drinking Water Company (PDAM) is an inseparable part of a city or district. Almost every city and district has a local drinking water company.

The problem faced by regional drinking water companies is unsatisfactory performance. Head of Sub-Directorate for Technical Planning of the Directorate of Drinking Water, Directorate General of Human Settlements, Ministry of PUPR Dades Prinandes said that currently most cities in Indonesia are facing three deficiency crises, namely old infrastructure and deteriorating performance, limited water resources, and poor human resource capacity. (www.republika.co.id). The government's efforts are reflected in the words of the Director of Drinking Water, Directorate General of Human Settlements, Ministry of PUPR, Yudha Mediawan, who said that his party is committed to helping PDAMs with poor performance and illness. Efforts made this year include providing assistance for the expansion of house connections in order to increase the PDAM's income.

As a public company, service must be the main target of the company, in addition to other tasks, namely making profits, so that it can increase local revenue. The low operating performance and the company's profit level have made it difficult for PDAMs to meet the above demands. Therefore, it is necessary to research whether there is a relationship between operating performance and the level of company profitability.

Literature Review

Operational Performance

Understanding Performance according to Simanjuntak (2005: 1) "Performance is the level of achievement of the results of the implementation of certain tasks". According to Wahyudin (2008: 48) "Company performance is something that is produced by an organization within a certain period by referring to the standards set". According to Wibowo (2007: 2) "Performance has a broader meaning not only stating the results of work, but also how work process takes place". Daft (2016: 12) argues "Performance is defined as the organization's ability to attain its goals by using resources in an efficient and effective manner".

According to the Water Supply Support Agency (2005): 'The operational aspect performance assessment aims to measure the level of operational perspectives such as: the effectiveness of production and distribution, the amount of water loss, the continuity of water services to customers, appreciation of measuring instruments for buying and selling transactions, products sold to customers. and the average water pressure to customers".

Profitability

According to Block and Hirt (2005: 54) "the profitability ratio, allow us to measure the ability of the firm to earn in adequate return on sales, total assets, and invested capital". According to Gitman "There are many measures of profitability As a group of these measures enable the analyst to evaluate the firm's profile with respect to a given level of sales, a certain level of assets, or the owners' investment.(2006: 65).

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Effect of Operational Performance on Profitability

Several previous studies found the effect of operational performance on the level of company profitability. Azim, Ahmed and Khan (2015), stated that: 'Therefore it can be said that the key performance indicators of operational performance have some relationship with the profitability in the context of the ceramic companies of Bangladesh'.

Huiming et al, stated: “Indicators of operating performance, such as less lead time and higher inventory turnover, can significantly enhance firms' profitability”. Tsikkritsis. (2007) said “Our analysis shows that operational performance has a significant impact on profitability”.

Method

The research method used in this research is descriptive method and explanatory research method. According to Nazir (2003: 54) descriptive method is a method of examining the status of a group of people, an object, a set of conditions, a system of thought or a class of events at the present time. Furthermore, according to Sekaran (2010: 123) explanatory research is research conducted to obtain descriptions, systematic, factual and accurate descriptions of the facts, traits and relationships between the variables studied.

The consideration of the researcher applies this method because the researcher aims to obtain a fundamental answer about cause and effect by analyzing the factors that cause phenomena in the concepts raised in the study.

Operational Variables

According to Sekaran & Bogie (2013: 201) operational variables are the process of operationalizing the concept of a variable so that the variable can be measured, which is formulated based on the dimensions of the concept and then categorized on the elements that can be measured.

1) Kinerja Operasional (X)

From the defenitions according to some experts Simanjuntak (2005: 1), Wahyudin (2008: 48), (2007: 2) , Daft ((2016: 12), Badan Pendukung Penyediaan Air (2005) The dimensions used for the concept of operational performances in this study are:

1. Production Efficiency
2. Water Loss Rate
3. Service Operation Hours/Day
4. Customer Connection Pressure
5. Water Meter Replacement

2) Profitability (Y)

From the definitions according to some experts Block dan Hirt (2005: 54), Gitman (2006: 5)” the profibality ratio, allow us to measure the abilityof the firm to earn in adequate return on sales, total assets, and invested capital”.

An operational summary of the variables can be seen below:

Table 1
Variable Operational Summary

Variable	Concept	Indicator	Scala
Operational Performance (X)	Performance is the level of achievement of the results of the implementation of certain tasks (Simanjuntak, 2005: 1)	1. Production Efficiency 2. Water Loss Rate 3. Service Operation Hours/Day 4. Customer Connection Pressure 5. Water Meter Replacement	Ratio

Profitability (ROE) (Y)	The return on common equity (ROE) measures the return earned on the common stockholder's investment in the firm.(Gitman, 2006: 69).	Net Income / Stock Holders' Equity	Ratio

Population Research

Population is the entire subject of research (Suharsimi, 2010: 173). Population refers to the whole group of people, events or things of interest that researchers want to examine (Sekaran & Bougie 2013: 240). Likewise Sugiono (2008: 61) population is a generalization area that consists of objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then draw conclusions. Population in this study are companies that have status as Municipal Water Work in West Java, amounting to 23 companies.

Method of Collecting Data

In connection with this type of research, the method used to collect data is the survey method. The survey method is a study of large and small populations, but the data studied are data from samples taken from these populations, so that relative events, distribution and relationship between sociological and psychological variables are found (Sekaran and Bougie, 2010: 60)

Result and Discussions

PDAM Operational Performance Achievement in West Java

Table 2
PDAM Operational Performance Achievement in West Java
Tahun 2017, 2018, 2019

NO	Company	Weight of Operating Performance		
		2017	2018	2019
1	PDAM Tirta Kahuripan Kabupaten Bogor	1,61	1,61	1,61
2	PERUMDAM Tirta Jaya Mandiri Kabupaten Sukabumi	1,21	1,21	1,28
3	PERUMDAM Tirta Mukti Kabupaten Cianjur	1,4	1,4	1,4
4	PERUMDAM Tirta Raharja Kabupaten Bandung	1,48	1,62	1,68
5	PERUMDAM Tirta Intan Kabupaten Garut	0,81	1,08	1,01
6	PDAM Tirta Sukapura Kabupaten Tasikmalaya	1,08	1,15	1,22
7	PDAM Tirta Galuh Kabupaten Ciamis	1,32	1,25	1,21
8	PDAM Tirta Kamuning Kabupaten Kuningan	1,28	1,28	1,41
9	PDAM Tirta Jati Kabupaten Cirebon	1,15	1,22	1,28
10	PDAM Kabupaten Majalengka	1,21	1,21	1,34
11	PDAM Tirta Medal Kabupaten Sumedang	1,40	1,40	1,21
12	PDAM Tirta Darma Ayu Kabupaten Indramayu	1,23	1,16	1,29
13	PDAM Tirta Rangga Kabupaten Subang	1,14	1,14	1,35
14	PDAM Tirta Dharma Purwakarta Kabupaten Purwakarta	1,14	1,01	1,07
15	PDAM Tirta Tarum Kabupaten Karawang	1,22	1,21	1,35
16	PDAM Tirta Bhagasasi Kabupaten Bekasi	1,28	1,28	1,27
17	PDAM Tirta Pakuan Kota Bogor	1,62	1,42	1,35
18	PERUMDAM Tirta Bumi Wibawa Kota Sukabumi	1,06	1,06	0,99
19	PDAM Tirta Wening Kota Bandung	1,13	1,2	1,05
20	PERUMDAM Tirta Giri Nata Kota Cirebon	1,28	1,28	0,78

21	PDAM Tirta Patriot Kota Bekasi	1,48	1,35	1,15
22	PDAM Tirta Asasta Kota Depok	1,54	1,54	1,54
23	PDAM Tirta Anom Kota Banjar	0,94	0,81	1,21

Source : Yudha Mediawan, Buku Kinerja BUMD Air Minum 2020 Wilayah II (2020)

Operational aspects have a weight of 35% or 0.35 including:
1. Production efficiency (production utilization factor) with a weight of 0.07;
2. Non-accounted water-ATR (NRW) with a weight of 0.07;
3. Service operating hours with a weight of 0.08;
4. Water pressure at the customer connection with a weight of 0.065;
5. Replacement and (or) calibration of the customer's water meter with a weight of 0.065.

So the maximum value that should be achieved by each regional drinking water company is:

Table 3
PDAM Maximun Performance Achievement in West Java

No	Description	Weight	Maximum Performance
1	Efisiensi produksi (faktor pemanfaatan produksi)	0,07	5
2	Air tak berekening-ATR (NRW)	0,07	5
3	Jam operasi layanan	0,08	5
4	Tekanan air pada sambungan pelanggan	0,065	5
5	Penggantian dan (atau) kalibrasi meter air pelanggan	0,065	5
	Jumlah	0,35	5

Source : Data penelitian diolah kembali

By comparing Table 2 and Table 3, it can be seen that the achievement of PDAM operational performance in West Java has not been satisfactory. The highest and stable achievement is PDAM Tirta Kahuripan Bogor, the average from 2017,2018 and 2019 reached 1.61 or 32.2% of the maximum weight. The lowest is PDAM Tirta Anom Banjar City at 0.98 or 19.73% of the maximum weight. The average operational performance achievement of regional drinking water companies in West Java Province is 1.26. This is still far from the maximum weight value that can be achieved, which is 5. Therefore, it can be said that the operational performance of PDAMs in West Java as a whole is still not satisfactory.

PDAM Profitability Achievement in West Java:

Table 4
PDAM Profitability Achievement in West Java
Tahun 2017, 2018, 2019

NO	Company	ROE (%)		
		2017	2018	2019
1	PDAM Tirta Kahuripan Kabupaten Bogor	9,35	12,05	12,95
2	PERUMDAM Tirta Jaya Mandiri Kabupaten Sukabumi	0,87	0,9	0,94
3	PERUMDAM Tirta Mukti Kabupaten Cianjur	0,29	0,52	0,6
4	PERUMDAM Tirta Raharja Kabupaten Bandung	5,01	5,75	3,63
5	PERUMDAM Tirta Intan Kabupaten Garut	-7,87	-12,61	-8,34
6	PDAM Tirta Sukapura Kabupaten Tasikmalaya	10,41	16,57	18,84
7	PDAM Tirta Galuh Kabupaten Ciamis	0,17	0,09	0,93
8	PDAM Tirta Kamuning Kabupaten Kuningan	4,66	4,51	4,84
9	PDAM Tirta Jati Kabupaten Cirebon	1,87	2,02	2,33
10	PDAM Kabupaten Majalengka	8,52	10,55	7,51
11	PDAM Tirta Medal Kabupaten Sumedang	1,27	1,31	1,37

12	PDAM Tirta Darma Ayu Kabupaten Indramayu	0,83	1,58	1,03
13	PDAM Tirta Rangga Kabupaten Subang	2,23	2,06	2,52
14	PDAM Tirta Dharma Purwakarta Kabupaten Purwakarta	2,19	1,71	0,14
15	PDAM Tirta Tarum Kabupaten Karawang	4,53	2,47	2,7
16	PDAM Tirta Bhagasasi Kabupaten Bekasi	7,09	6,28	5,99
17	PDAM Tirta Pakuan Kota Bogor	8,25	9,22	9,75
18	PERUMDAM Tirta Bumi Wibawa Kota Sukabumi	0,79	2,15	2,99
19	PDAM Tirta Wening Kota Bandung	10,39	6,69	2,20
20	PERUMDAM Tirta Giri Nata Kota Cirebon	13	13,12	11,32
21	PDAM Tirta Patriot Kota Bekasi	1,25	1,49	1,37
22	PDAM Tirta Asasta Kota Depok	4,36	6,56	5,11
23	PDAM Tirta Anom Kota Banjar	-2,55	-5,93	-2,31

Source : Yudha Mediawan, Buku Kinerja BUMD Air Minum 2020 Wilayah II (2020)

The highest ROE value is PDAM Tirta Sukapura, Tasik Regency, Tirta Kahuripan, Bogor Regency. However, there are still PDAMs that suffer losses or have negative ROE, such as PDAM Tirta Anom, Banjar City and Tirta Intan, Garut Regency. The average level of profitability of PDAMs in West Java is 3.83, this is very far from the maximum expected target of 10%.

The Effect of PDAM Operation Performance in West Java on Profitability Level

The effect of operating performance on the profitability of PDAMs in West Java can be seen in the statistical calculations below.

Tabel 5
Pencapaian Bobot Kinerja operasional dan Profitabilitas PDAM di Jawa Barat
Tahun 2017, 2018, 2019

NO	NAMA PDAM	Weight of Operating Performance			ROE (%)		
		2017	2018	2019	2017	2018	2019
1	PDAM Tirta Kahuripan Kabupaten Bogor	1,61	1,61	1,61	9,35	12,05	12,95
2	PERUMDAM Tirta Jaya Mandiri Kab. Sukabumi	1,21	1,21	1,28	0,87	0,9	0,94
3	PERUMDAM Tirta Mukti Kabupaten Cianjur	1,4	1,4	1,4	0,29	0,52	0,6
4	PERUMDAM Tirta Raharja Kabupaten Bandung	1,48	1,62	1,68	5,01	5,75	3,63
5	PERUMDAM Tirta Intan Kabupaten Garut	0,81	1,08	1,01	-7,87	-12,61	-8,34
6	PDAM Tirta Sukapura Kabupaten Tasikmalaya	1,08	1,15	1,22	10,41	16,57	18,84
7	PDAM Tirta Galuh Kabupaten Ciamis	1,32	1,25	1,21	0,17	0,09	0,93
8	PDAM Tirta Kamuning Kabupaten Kuningan	1,28	1,28	1,41	4,66	4,51	4,84
9	PDAM Tirta Jati Kabupaten Cirebon	1,15	1,22	1,28	1,87	2,02	2,33
10	PDAM Kabupaten Majalengka	1,21	1,21	1,34	8,52	10,55	7,51
11	PDAM Tirta Medal Kabupaten Sumedang	1,40	1,40	1,21	1,27	1,31	1,37
12	PDAM Tirta Darma Ayu Kabupaten Indramayu	1,23	1,16	1,29	0,83	1,58	1,03
13	PDAM Tirta Rangga Kabupaten Subang	1,14	1,14	1,35	2,23	2,06	2,52
14	PDAM Tirta Dharma Purwakarta Kab. Purwakarta	1,14	1,01	1,07	2,19	1,71	0,14
15	PDAM Tirta Tarum Kabupaten Karawang	1,22	1,21	1,35	4,53	2,47	2,7
16	PDAM Tirta Bhagasasi Kabupaten Bekasi	1,28	1,28	1,27	7,09	6,28	5,99
17	PDAM Tirta Pakuan Kota Bogor	1,62	1,42	1,35	8,25	9,22	9,75
18	PERUMDAM Tirta Bumi Wibawa Kota Sukabumi	1,06	1,06	0,99	0,79	2,15	2,99

19	PDAM Tirta Wening Kota Bandung	1,13	1,2	1,05	10,39	6,69	2,20
20	PERUMDAM Tirta Giri Nata Kota Cirebon	1,28	1,28	0,78	13	13,12	11,32
21	PDAM Tirta Patriot Kota Bekasi	1,48	1,35	1,15	1,25	1,49	1,37
22	PDAM Tirta Asasta Kota Depok	1,54	1,54	1,54	4,36	6,56	5,11
23	PDAM Tirta Anom Kota Banjar	0,94	0,81	1,21	-2,55	-5,93	-2,31

Sumber : Yudha Mediawan, Buku Kinerja BUMD Air Minum 2020 Wilayah II (2020)

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
ROE	3,8316	5,46664	69
Kinerja	1,2601	,19645	69

Correlations

		ROE	Kinerja
Pearson Correlation	ROE	1,000	,344
	Kinerja	,344	1,000
Sig. (1-tailed)	ROE	.	,002
	Kinerja	,002	.
N	ROE	69	69
	Kinerja	69	69

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	Kinerja[a]	.	Enter

a. All requested variables entered.
b. Dependent Variable: ROE

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,344[a]	,118	,105	5,17218

a. Predictors: (Constant), Kinerja

b. Dependent Variable: ROE

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	239,777	1	239,777	8,963	,004[a]
	Residual	1792,344	67	26,751		
	Total	2032,121	68			

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,344[a]	,118	,105	5,17218

a. Predictors: (Constant), Kinerja

b. Dependent Variable: ROE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-8,214	4,071		-2,017	,048
	Kinerja	9,559	3,193	,344	2,994	,004

a. Dependent Variable: ROE

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-,7579	7,8448	3,8316	1,87780	69
Std. Predicted Value	-2,444	2,137	,000	1,000	69
Standard Error of Predicted Value	,623	1,655	,839	,269	69
Adjusted Predicted Value	-2,1349	8,2197	3,8360	1,89062	69
Residual	-14,71965	15,39214	,00000	5,13400	69
Std. Residual	-2,846	2,976	,000	,993	69
Stud. Residual	-2,885	2,999	,000	1,010	69
Deleted Residual	-15,12591	15,62823	-,00440	5,31652	69
Stud. Deleted Residual	-3,060	3,199	,005	1,039	69
Mahal. Distance	,003	5,974	,986	1,424	69
Cook's Distance	,000	,346	,018	,047	69
Centered Leverage Value	,000	,088	,014	,021	69

a. Dependent Variable: ROE

Conclusion

1. The average operating performance of regional drinking water companies in West Java Province is 1.26. This is still far from the maximum weight value that can be achieved, which is 5. Therefore, it can be said that the operational performance of PDAMs in West Java as a whole is still not satisfactory.
2. The average level of profitability of PDAMs in West Java is 3.83, this is very far from the maximum expected target of 10%.
3. The Operational Performance of Regional Drinking Water Companies has a significant effect on the company's profitability.

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