PENGARUH LIKUIDITAS DAN BIAYA OPERASIONAL TERHADAP PROFITABILITAS (ROA) (Survei Pada Perusahaan Pertambangan yang Terdaftar di Bursa Efek Indonesia Tahun 2011-2015)

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ABSTRACT

This study empirically tested the influence of liquidity, operational costs, to profitabilitas in mining sector companies listed in Indonesia Stock Exchange 2011-2015. The problem with mining companies is the decline in Problems that occur in mining companies is the decline in profitability despite liquidity decreased, operating costs decreased.

The research method that is used is descriptive analysis method verifikatif with unit of analysis researched is financial report of mining sector companies listed in BEI in year 2010-2015. And the population of 23 Purposive Sampling and obtained sample research as many as 30 financial reports from 6 companies. Data analysis technique used is multiple linear regression analysis and assisted by SPSS application program version 23.

The results showed that liquidity has a significant effect on profitability with a negative relationship, operational costs have a significant effect on profitability with a positive relationship with a positive relationship.Partially profitability dominant influenced by operational cost compared with liquidity.

Keywords: *Operational Cost, Liquidity, and Profitability*

I INTRODUCTION

1.1 Background Research

Profitability ratios used in this study is Return On Assets (ROA). Return On Assets (ROA) is the ratio that shows the return (return) on the amount of assets used in the company. In addition, ROA provides a better measure of the company's profitability as it demonstrates management effectiveness in using assets to generate revenue by Cashmere (2014: 201).

Every management is required to improve the financial structure because it is responsible for creating profitability and liquidity. Liquidity is the ability of a company to pay its current debt (short-term liabilities) (Kuswandi, 2006: 149).

Increased Liquidity in the company will actually lower the level of profitability of a company and vice versa. High liquidity is an indicator that corporate risk is low. That is, the company is safe from the possibility of failure to pay various current liabilities. But it must be achieved by giving up the low level of profitability, which will affect the low growth of the company. Conversely, if the company wants high profitability, the company must be willing to face low liquidity or an increasing risk of failure to pay short-term liabilities (which could lead to business bankruptcy) (Handono Mardiyanto, 2008: 100).

The ratio of liquidity used in this study is the current ratio (ratio of current) is a common measure used on short-term solvency, the ability of a company to meet the needs of debt when maturing (Irham Fahmi, 2014: 121).

In various business cost reductions affect the profitability of the company. Cost is the most important part and must be in running the company's activities or start a business. A company to earn a profit or profit should be able to generate greater revenue than the amount of costs he sacrificed. Therefore, in order to compete the company must understand the basic

concepts of cost and the units of the company so that the cost can still be controlled and minimized as much as possible with the prediction of a large profit rate (Widi Winarso, 2014).

The operational term is often used in an organization that produces output or outptut, both in the form of goods and services. In general operational is defined as a business, activity or process transform input (input) into output (output). In this general sense the usage is broad enough to cover the output (output) in the form of goods and services. So in the production and operational sense, it includes every process that changes inputs and uses resources to produce outputs in the form of goods or services (Abrams & Laplante, 2010). Operational costs are the overall cost- commercial costs incurred to support or support the activities or activities of the company to achieve predetermined targets, and in other words operational costs are the costs incurred in relation to the process of the company's operational activities in an effort to achieve maximum corporate objectives (Widi Winarso, 2014) .

1.2 Identification of Problems

1. Bumi Resources Tbk in 2014 to 2015 the amount of corporate liquidity decreased continuously but not followed by increased profitability of the company. This is not effective because if liquidity decreases profitability (ROA) should increase.
2. In 2014 to 2015 the amount of operational costs collected by the company has decreased, but what happens, the profitability of the company in may decrease compared to the previous year. Under conditions of decline in operational costs, the company's profitability should increase.
3. In 2015, Adaro Energy Tbk company experienced a decrease in company revenue, sales volume and decrease in average selling price.

1.3 Formulation Of Problems

1. How much influence liquidity to profitability At Mining Sector Manufacturing Company listed on Indonesia Stock Exchange Period 2011-2015?
2. How big is the effect of operational costs on profitability? In the Mining Sector Manufacturing Company listed in Indonesia Stock Exchange Period 2011-2015?

1.4 Research Objectives

1.4.1 Research Purposes

The purpose of this study is to obtain data and information on the Influence of Liquidity and Operational Costs on Profitability in Mining Sector Manufacturing Companies listed on Indonesia Stock Exchange.

1.4.2 Research Objectives

1. To find out how big Liquidity Influence on Profitability at Mining Sector Manufacturing Company listed on Indonesia Stock Exchange period 2011-2015.
2. To find out how much influence Influence Operational Costs on Profitability At Mining Sector Manufacturing Companies listed in Indonesia Stock Exchange period 2011-2015.

1.6. Usefulness Research

1.6.1 Practical Usefulness

The authors hope that the results of this study may contribute to thinking and problem solving in relation to the effects of liquidity and operational costs on profitability.

1.6.2 Academic Uses

1. For Authors
   First the author discusses the usefulness for the author. The usability for the author is as follows:
   a. This study can know directly by looking at the results of calculations in the research of the influence of liquidity and operational costs on profitability in the company.

b. Strengthen the previous theory of liquidity and operational costs. That operating profit is influenced by liquidity and operating costs incurred by the company.

2. For other researchers
   For further usability for future researchers who will develop the research, the results of this study can be used as input and comparison material for other researchers, which can add insight into liquidity and operational costs on profitability.

II THEORETICAL STUDIES, FRAMEWORK FOR THINKING AND HYPOTHESES

2.1 Theoretical Review

2.1.1 Profitability

2.1.1.1 Understanding Profitability

The ability of companies to remain competitive in competition with other companies, requires companies to improve profitability. According to Wiagustini (2010: 76), said that profitability is:

"The ability of the company to earn profit or measure the effectiveness of corporate management management. Profitability can be measured from the capital itself as well as from all funds invested into the company ".

According to Sofyan Syafri (2004: 304), states that:

"Profitability is the ability of companies to earn profits through all the capabilities and existing sources such as sales activities, cash, number of employees, number of branches and so on".

According to Kasmir (2014: 196), which states that:

"Profitability ratio is the ratio to assess the ability of companies in the search for profit."

2.1.2 Liquidity

2.1.2.1 Definition of Liquidity

According to Irham Fahmi (2014: 174) states that:

"It is a picture of the ability of a company to fulfill its short term obligations in a smooth and timely manner so that liquidity is often referred to as short term liquidity".

According to Riyanto (2008: 25) states that:

"Liquidity is a problem related to the ability of a company to meet its financial obligations that must be met immediately".

According to Kasmir (2012: 129) states that:

"Liquidity is the ratio to indicate or measure the ability of a company to meet its obligations that have matured, both liabilities to external parties (liquidity of business entities) and within the company (corporate liquidity)".

1. *Current Ratio*

Current ratio (ratio lancer) is a measure to measure the ability of the company in paying short-term liabilities or debts that are due in full when collected entirely. Current ratio can also be said as a form to measure the level of security company. Current ratio is calculated by dividing the current assets with current debt. The greater the value of the ratio will be the more smoothly the company to fulfill its obligations (Cashmere, 2014: 134).

Low current ratio is usually considered to indicate the occurrence of problems in liquidation, otherwise the current ratio is too high is also not good, because it shows the amount of idle funds that can ultimately reduce the profitability of the company (Agnes Sawir, 2009: 10).

Current ratio can be calculated by the formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

2.1.3 Operational Costs

2.1.3.1 Definition of Cost

To run a business requires resources that must be sacrificed as a substitute value for a profit. These resources are generally in value with units of money. Where resources are used are often called costs.

Understanding the cost according to Mulyadi (2009: 8) is as follows:

"Cost is the sacrifice of economic resources measured in units, which have occurred or are likely to occur for a particular purpose".

According to Ony Widilestariningtyas, Sony W.F, Sri Dewi Anggadini (2012: 10) The fees are as follows:

"Costs as exchange rates, expenses, sacrifices to gain benefits."

Meanwhile, according to Kuswandi (2006: 60) that:

"Cost is all expenses to obtain goods or services from third parties. In this case, the cost is cash or cash or cash equivalents (measured non-cash property for goods or services desired) sacrificed for goods or services expected can provide both present and future profits. "

2.1.3.2 Definition of Operational Costs

Understanding operational costs proposed by Jopie Jusuf (2008: 33) that:

"Operational costs or operating expenses are those costs that are not directly related to the company's products but relate to the daily operational activities of the company".

In general, operational costs are defined as costs incurred in relation to the operations of the company and measured in units of money. Where operating costs are often referred to as operational costs or business costs.

According Siamat, 2005: 384 states that:

"Operational costs are all costs directly related to the business activities of the bank".

According to Syahrul and Muhammad Afdi Nizar (2000: 256) states that:

"Operational Costs are the costs associated with the administrative and sales activities of a company. Also called non manufacturing expense. It is time-related costs, not products. This cost is divided into the cost of general sales and administration fees".

2.2 Framework for Thinking

2.2.1 The Influence of Liquidity on Profitability

Some experts claim that there is a relationship between Liquidity and Profitability (ROA).

According to Frianto Pandia, (2012: 124) states that:

"If you want to have a high level of liquidity, then the company will be in high safety but will get a low level of profitability. ".

to James C. Van Horne & John M. Wachowics (2005: 323) states that:

"The greater the level of current assets, the greater the liquidity of the company, if other things equals greater liquidity, the risk will be smaller but profitability is also smaller or inversely proportional to liquidity".

As for the result of some previous research according to Ermaidiani and R, Weddie Andriyanto (2002), entitled influence of liquidity to profitability, result of research indicate that liquidity of current ratio influence to profitability.

2.2.2 Effect of Operational Costs on Profitability (ROA)

Some experts claim that there is a relationship between operational costs to profitability (ROA).

According to Hidayat (2007: 42) states that:

"To get the maximum profitability of the company, the work organization must think to reduce the cost level".

In another opinion according to Jopie (2007: 35) states that:

"If the company can reduce operating costs, then the company will be able to increase net income. Likewise on the contrary, if there is waste of the cost will result in a decrease in net income.

2.3 Hypothesis

Based on the above description can be concluded that the hypothesis is a temporary answer to the formulation of research problems. Because it is temporary, then the hypothesis should contain clearer implications for testing relationships expressed Based on the frame of thought.

Based on the theoretical basis and framework above, the author makes the following hypothesis:

H1: Liquidity affects Profitability
H2: Operational cost affects Profitability

III. RESEARCH METHODS

3.1 Method of Approch

Purwanto (2010: 164) defines research methods are:

"The method of research is a process that is done in a certain way in a planned, systematic and orderly manner in such a way that each stage is directed to problem solving".

In this research, the researcher use descriptive method, descriptive method is used to know more in liquidity development and operational cost to profitability at Mining Company which listed in Indonesia Stock Exchange year 2011-2015.

According to Moh. Nazir (2013: 54) defines a descriptive method

"A method of examining the status of a human group, an object, a set of conditions, a system of thought, or a class of events in the present."

While, in this research verifikatif method used to test the hypothesis by using statistical test tool that is Statistical Package for Social Sciences (SPSS). The verification method is used to test the effect of X1 and X2 on Y. According to Masyhuri (2008: 45) in Umi Narimawati (2010: 29) defined as follows:

"Check whether or not it is correct to explain a way with or without improvements that have been implemented elsewhere by addressing issues similar to life."

Based on the understanding that has been stated above, the method used in this research is descriptive method and verification method with quantitative approach.

3.2 Operationalization of Variables

Operationalization of variables according to Nur Indriantoro in Umi Narimawati (2010: 31) suggests the operationalization of variables are:

"The determination of the construct so that it becomes a measurable variable. The operational definition explains how a particular method can be used by the researcher in operationalizing the construct, making it possible for other researchers to replicate measurements in the same way or develop better construct measurements. The nationalization of variables is needed to determine the types and indicators of the related variables in this research."

3.3 Data Sources and Data Collection Techniques

Sugiyono (2012: 137) states that the data source can be divided into two primary data sources and secondary data sources.

1. Primary Data
   Primary data is the source of data that directly provide data to the data collector (Sugiyono, 2012: 139).
2. Secondary Data
   Secondary data is a source of data obtained by reading, studying and understanding through other media sourced from literature, books, and corporate documents (Sugiyono, 2012: 141).

3.4 Population, Sample and Place and Time of Study

3.4.1 Population Research

Sugiyono (2012: 80) revealed that:

"Population is a generalization region consisting of: objects / subjects that have certain qualities and characteristics set by the researcher to be studied and then drawn conclusions."

Based on this understanding, the population of this study are 115 consolidated financial statements of 23 mining companies listed on the Indonesia Stock Exchange with annual financial statements during 2011-2015 (5 years).

3.4.2 Research Sample

Sugiyono (2012: 81) revealed that the sample is:

"The sample is part of the number and characteristics possessed by that population."

While the sampling technique revealed by Sugiyono (2012: 81) is:

"Sampling technique is a sampling technique."

In this research, sampling using nonprobability sampling technique.
Nonprobability Sampling by Sugiyono (2012: 84) is:

"Nonprobability Sampling is a sampling technique that does not provide the same opportunity / opportunity for every element or member of the population to be selected as a sample."

The sample in this study are 6 Mining companies listed on the Indonesia Stock Exchange included in the sample criteria required by the author, the financial statements consisting of comprehensive income, consolidated statement of financial position and notes on financial statements. As for the observation years used in this study during 5 years in a row that is starting in 2011 - 2015 because it is considered representative or representative for the test conducted to determine the influence of influence Liquidity and Operational Costs on profitability. So the sample used in this study as much as 30 (6 x 5) financial statements.

3.4.3 Place and Time of Research

1. **Place of Research**
   To obtain data and information relating to the problems studied, the authors conducted a study at the Representative Office of Indonesia Stock Exchange Bandung, located on Jl. PH. H. Mustofa No. 33, Neglasari, Cibeunying Kaler, Bandung 40124 Tel. (022) 20524208.
2. **Time of Research**
   The time of the research began in January 2017 until August 2017

3.5 Data Collection Method

1) Field Study
   This stage, the authors take the secondary data in the form of documents in the form of annual financial statements consisting of comprehensive income, consolidated statements of financial position and financial report records listed on the Indonesia Stock Exchange in 2011-2015.
2) Library Studies
   Data collection at this stage is done by reading the reading of existing libraries in the library and using internet media as supporting media in tracking additional information about the theory and data required in this research.

3.6 Data Testing Method

1) Normality Test

According to Imam Ghozali (2011: 160) the normality test aims to test whether in the regression model, the annoying or residual variable has a normal distribution. A good regression model has a normal or near-normal data distribution.

To determine this test is based on Kolmogorov-Smirnov Test against the model under test. According to Imam Ghozali (2011: 32), KolmogorovSmirnov test conducted by making a hypothesis:

H1: The residual data is normally distributed, if sig. 2-tailed> α = 0.05
H2: Residual data is not normally distributed, if sig. 2-tailed <α = 0.05

2) Multicolinearity Test

According to Imam Ghozali (2011: 105) multicolonierity test aims to test whether the regression model found the existence of correlation between independent variables (independent). Good regression model should not occur correlation between independent variables.If independent variables are mutually correlated, then these variables not orgonal. The orgonal variable is an independent variable whose correlation value among the independent variables equals zero.

3) Autocorrelation Test

According to Imam Ghozali (2011: 110) states that:

"The autocorrelation test aims to test whether in the linear regression model there is a correlation between the confounding error in period t with the intruder error in period t-1 (previous), if there is correlation, then there is an autocorrelation problem, a good regression model is a regression independent of autocorrelation . "

4**) Heteroscedasticity Test**

According to Imam Ghozali (2011: 139) heteroskedastisitas test aims to:
"Testing whether in the regression model there is a variance inequality of the residual one observation to another observation. If the variance of the residual one observation to another observation remains, it is called homoscedasticity and if different is called heteroscedasticity, a good regression model is homoscedasticity or does not occur heteroscedasticity. "

A. Multiple Linear Regression Analysis

This analysis to predict the value of the dependent variable if the value of the independent variable increases or decreases and to know the direction of the relationship between the independent variable with the dependent variable whether each independent variable is positive or negative.

B. Pearson Correlation Coefficient Analysis

According to Sujana in Umi Narimawati (2010: 49), correlation test is used to determine the strongness of the relationship between variables X and Y, which in this research is the effect of Liquidity and operational costs to profitability by using the Pearson correlation coefficient approach with the formula:

$$r = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{\{n \sum X^2 - (\sum X^2)\}\{n \sum Y^2 - (\sum Y)^2\}}}$$

Source: Umi Narimawati (2010: 50)
Information:
r = correlation coefficient
n = amount of data
x = free variable (independent variable)
y = dependent variable (dependent variable)

Correlation coefficient has value -1 ≤ r ≤ +1 where:

1. If r = + 1, then the correlation between the two variables is said to be very strong and unidirectional, meaning that if X rises by 1 then Y will also rise by 1 or vice versa.
2. If r = 0, then the relationship between the two variables is very wide or there is no relationship at all.
3. If r = 0, then the relationship between the two variables is very wide or there is no relationship at all.

C. Coefficient of Determination

According to Imam Ghozali (2011: 97) the coefficient of determination (R2) is defined as:
"The tool to measure the extent of the model's ability to explain the variation of the dependent variable, the coefficient of determination is between 0 and 1, the greater the R2 (close to 1), the better the result for the regression model and closer to 0 then the independent variable as a whole can not explain the dependent variable, the small R2 means the ability of the independent variables to explain the variation of the dependent variable is very limited, the value close to one means the independent variables provide almost all the information needed to predict the variation of the dependent variable. "

To see how much influence each of them will be used kuadrat from the coefficient of determination, namely:

$$KD = r^2 \times 100\%$$

Information:
KD = Coefficient of Determination
r = Correlation coefficient

The purpose of the coefficient of determination method is different with the coefficient of multiple correlation. In the coefficient of determination method, we can know how big the influence of loan interest rate and capital adequacy level to profitability but not level of relationship as in coefficient doubled (more gives physical description or actual condition) from liquidity and operating costs on profitability.

C. Analisis Korelasi Berganda

Multiple correlation analysis is used to measure the weakness of the relationship between loan interest rate variable and capital adequacy rate with profitability (Sugiyono, 2012: 258). The formula of multiple correlation:

$$RY.X_1X_2 = \frac{b_1 \sum X_1 Y + b_2 \sum X_2 Y}{\sum Y^2}$$

Source: (Sugiyono, 2012: 258)

Information:
R = Correlation between variables X and Y
X1 = Independent variable (Liquidity)
X2 = Free variable (Operational Cost)
Y = Dependent variable (Profitability)
b_{1-2} = Regression coefficients of each variable

Strong or not the relationship between the three variables can be seen from several categories of correlation coefficient has a value of 0 ≤ R ≤ 1 where:
a. If R = 1, then the correlation between the three variables is said to be perfect.
b. If R = 0, then the relationship between the two variables is very wide or not.

1. Hypothesis Test

According to Moh. Nazir (2013: 151) the hypothesis is:
"A statement received temporarily as a truth as it is, at the time the phenomenon is known and is the basis of work and guidance in verification."

The hypothesis to be used in this study relates to the presence or absence of correlation and the influence of independent variables X1 and X2 significantly to the dependent variable (Y).

A) Partial Test (Test Statistic T)

In this research, t test is done to know how far the influence of liquidity and operational cost to profitability partially or separated. According to Imam Ghozali (2011: 98) t test is used to test the influence of each independent variable used in this study to the dependent variable partial. The null hypothesis (H_0) has no significant effect and the alternative hypothesis (Ha) shows the influence between independent variable and dependent variable.
Calculate the value of t_{count} and compare it with ttable.Adapun tcount, can be searched with the equation as follows:

$$t_{hitung} = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Source: Sugiyono (2012: 230)
Information:
t = t test value
r = correlation coefficient
n = number of samples

B) Draw Regional Acceptance and Rejection Hypothesis

The description of the acceptance or rejection of the hypothesis along with the criteria are as follows:

The result of t_{count} is compared with t_{table} with criterion:

a If $t_{hitung} \geq t_{table}$ then H_1 is in rejection area, it means that H_2 is accepted and means between variable X and variable Y has influence.
b If $t_{hitung} \leq t_{table}$ then H_1 is in the reception area, this means that H_2 is rejected and means between variable X and variable Y has no influence.
c tcount is sought by t calculation formula.
d the t_{table} is searched in the $t_{student}$ distribution table with the terms $\alpha = 0.05$ and dk = (n - k - 1).

C) Withdrawal Conclusion

Based on the picture above, the shaded area is the rejection area H0, and vice versa.Jika thitung falls in the area of rejection (acceptance), then H0 rejected (accepted) and Ha accepted (rejected).That is significant regression coefficient (not significant). The significance level is 5% ($\alpha = 0.05$), meaning that if the null hypothesis is rejected (accepted) with a 95% confidence level, then it is likely that the result of the conclusion has 95% truth and this indicates the presence (absence) (significant) between the two variables.

HASIL PENELITIAN DAN PEMBAHASAN

4.1 Descriptive analysis results

The acquisition of quantitative data will be presented as the relevant variables in the study. Quantitative data is obtained based on predefined variables and scales. The available data will be presented in the form of descriptive statistics in order to make it easier to explain the research results. The following is presented data from research variables with statistical description table approach with SPSS 21 software.

This research is conducted at Mining company which is in Indonesia Stock Exchange for 5 period of financial report from 2011 until 2015. Before discussing the influence of Liquidity (CR) and Operational Cost to Profitability (ROA), firstly will be simulated Liquidity data, Operational Cost , and Profitability at Mining companies located in Indonesia Stock Exchange period 2011-2015. The data used and analyzed in this research is secondary data, because it is data collected and obtained from the results of annual financial statements.

4.1.1.1 Descriptive Analysis of Liquidity

The largest liquidity that can be collected in the period 2011 to 2015 is obtained by PT. Harum Energy Tbk for the smallest amount of Liquidity that can be collected in the period 2011 to 2015 obtained by PT. Atlas Resource Tbk and PT. Earth Resource Tbk.

4.1.1.2 Descriptive Analysis of Operational Cost

The largest operating expenses that can be collected in the period 2011 to 2015 are obtained by PT. Bumi Resource Tbk and Darma Henwa Tbk for the smallest amount of Liquidity that can be collected in the period 2011 to 2015 obtained by PT. Atlas Resource Tbk.

4.1.1.3 Descriptive Analysis of Profitability

The greatest profitability that can be collected in the period 2011 to 2015 is obtained by PT. Harum energy Tbk and PT. Indo Tambangraya Megah Tbk for the smallest amount of Liquidity that can be collected in the period 2011 to 2015 obtained by PT. Darma Henwa Tbk and PT. Earth Resource Tbk.

4.1.1.4 Descriptive Analysis of Operational Costs

The largest operating expenses that can be collected in the period 2011 to 2015 are obtained by PT. Bumi Resource Tbk and Darma Henwa Tbk for the smallest amount of Liquidity that can be collected in the period 2011 to 2015 obtained by PT. Atlas Resource Tbk

4.1.1.5 Descriptive Analysis of Profitability

The greatest profitability that can be collected in the period 2011 to 2015 is obtained by PT. Harum energy Tbk and PT. Indo Tambangraya Megah Tbk for the smallest amount of Liquidity that can be collected in the period 2011 to 2015 obtained by PT. Darma Henwa Tbk and PT. Earth Resource Tbk.

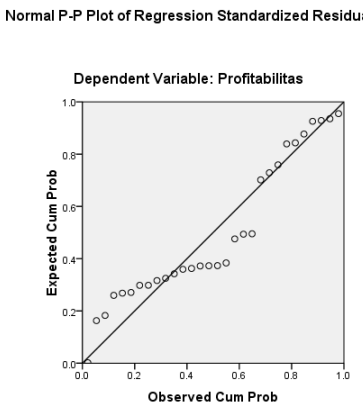
1. Result of Verifikatif Analysis

After describing each variable that is in this research, then to test whether there is influence Liquidity and Operational Cost to Profitability, then do statistical test partially. **4.1.2.1 Classic assumption test**

Before the hypothesis testing using multiple linear regression analysis, there are several assumptions that must be fulfilled so that the conclusion of the regression is not biased, such as normality test, multicollinearity test (for multiple linear regression), heteroscedasticity test and autocorrelation test (for time series data) . In this research the four assumptions mentioned above are tested because the independent variables used in this study are more than one (multiple) and the data collected contain time series element (5 years of observation) with six Mining Companies as research objects

Normality test

The normality test on the regression model is used to test whether the residual value generated from the regression is normally distributed or not. A good regression model is one that has a normally distributed residual value.



Gambar 4.4
Normality Test Results

Based on the normality graph using normal p-plot above, it is known that the spots spread following the diagonal line indicating that the data have met the assumption of normality proved from normality using Kolmogorov-Smirnov test as follows:

Table 4.7
Normality test
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		30
Normal Parameters[a]	Mean	.0000000
	Std. Deviation	10.46359053
Most Extreme Differences	Absolute	.187
	Positive	.187
	Negative	-.152
Kolmogorov-Smirnov Z		1.025
Asymp. Sig. (2-tailed)		.244

a. Test distribution is Normal.

Based on the above test table kolmogorov smirnov, obtained significance value (Asymp Sig. (2-tailed)) of 0.244. Value of significance (Asymp Sig. (2-tailed)) The residual data is normally distributed, if sig. 2-tailed> α = 0.05 Imam Ghozali (2011: 32), so it can be concluded that the data has met the assumption of normality.

1) Multicolinearity Test

Multicollinearity test aims to determine whether the regression model found the existence of correlation between independent variables.

Multicolinearity Test

Coefficients[a]

Model	Collinearity Statistics	
	Tolerance	VIF
1. (Constant)		
Likuiditas (x1)	.733	1.364
Biaya Operasional (x2)	.733	1.364

From the results of multicollinearity testing in Figure 4.8 above, it is known that the tolerance values obtained by each independent variable> 0.1 and Variance Inflation Factor (VIF) is less than 10. From the results show that from the two independent variables tested no correlation strong, so that the assumption of multicollinearity of data is met.

2) Heteroscedasticity Test

Heterocedasticity is an indication of non-homogeneous residual residual variation which results in the estimated value obtained is no longer efficient.

In this study, multiple linear regression analysis is used to prove the extent to which the influence of Liquidity and Operational Cost to Profitability. Based on the results of data processing by using SPSS Software v21.diperoleh results as follows:

Table 4.10

Results of Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	17.363	3.408		5.095	.000		
	Likuiditas	-.089	.032	-.384	-2.770	.010	.733	1.364
	Biaya Oprasional	-6.073E-8	.000	-.516	-3.720	.001	.733	1.364

a. Dependent Variable: Profitabilitas

Based on the result of SPSS v21.1 software output above, the regression coefficients value in Unstandardized Coefficients "B" value is 17.363, β1-0.89, β2sebesar -6.073E-8. thus, the multiple linear regression equation to be formed is as follows:

$$\hat{Y} = 17.363 + -0,89\ X_1 + -\ 6.073E\text{-}8X_2$$

Where:

Y = Profitability

X1 = Liquidity
X2 = Operational Cost
From the results of the regression equation each variable can be interpreted as follows:

a. Constant of 17,363; meaning if Liquidity and Operational Cost value is 0, then Profitability value is 17.363.
b. The regression coefficient of Liquidity variable (X1) is -0.89; meaning that if other independent variables are fixed and Liquidity increases 1%, then Profitability (Y) will increase by -0.89. Coefficient of negative value means a negative relationship between Liquidity with Profitability, the higher the Liquidity then Profitability will be lower.
c. The regression coefficient of variable Operating Cost (X2) is -6.073E-8; meaning that if other independent variables are fixed and Operational Cost increases 1%, then profitability (Y) will increase by -6.073E-8. Coefficient of negative value means there is a negative relationship between Operational Cost withProfitabilitas, the higher the Operational Cost so profitability is lower.

4.1.2.3 Correlation Analysis

Correlation analysis aims to see the level of strength of the relationship between independent variables with dependent variables. Correlation method used in this research use correlation analysis pearson product moment.

Table 4.11
Results of Correlation Analysis

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787[a]	.619	.591	10.84421	2.110

a. Predictors: (Constant), Biaya Oprasional, Likuiditas

b. Dependent Variable: Profitabilitas

Based on the above table, obtained information that the correlation (R) obtained between Liquidity and Operational Costs with Profitability is 0.787. The value of 0.787 according to Sugiono (2014: 184) is at the interval of 0.60 - 0.799 including the strong category. So it can be seen that there is a strong relationship between Liquidity and Operational Costs with Profitability on mining companies listed in Indonesia Stock Exchange period 2011-2015. Here is presented partial correlation analysis between independent variables with the dependent variable respectively.

A) Correlation Analysis Between Liquidity with Profitability

To calculate the correlation between Liquidity and Profitability, if Liquidity is considered constant use the following calculation:

Table 4.12
Coefficient of Liquidity Correlation with Profitability

Correlations

Control Variables			Likuiditas	Profitabilitas
Biaya Oprasional	Likuiditas	Correlation	1.000	-.470
		Significance (2-tailed)	.	.010
		df	0	27
	Profitabilitas	Correlation	-.470	1.000
		Significance (2-tailed)	.010	.
		df	27	0

Based on the above table results of data processing, obtained correlation (R) obtained between Liquidity with Profitability is equal to -629 Value -0.470 according Sugiono (2014: 184) is at intervals of 0.40 to 0.599 including medium category with negative value So that can it is known that there is a moderate negative relationship between liquidity with Profitability.

B) Correlation Analysis Between Operational Costs and Profitability

To calculate the correlation between Operational Cost with Profitability, if Operational Cost variable is considered constant used calculation as follows:

Table 4.13
Coefficient of Operational Cost Correlation with Profitability

Correlations

Control Variables			Profitabilitas	Biaya Oprasional
Likuiditas	Profitabilitas	Correlation	1.000	-.582
		Significance (2-tailed)	.	.001
		df	0	27
	Biaya Oprasional	Correlation	-.582	1.000
		Significance (2-tailed)	.001	.
		df	27	0

Based on Table 4:13 the output from data processing above, obtained that the value of correlation (R) obtained between Operational Costs with Profitability is -0.582. The value of -0.582 according to Sugiono (2014: 184) is at the interval of 0.40 to 0.599 including the moderate category with the negative value.

4.1.2.4 Coefficient of Determination Analysis

The coefficient of determination (goodness of fit) denoted by R2 is an important measure in the regression. Determination (R2) reflects the capability of the dependent variable.

Table 4.14
Coefficient of Determination

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.787[a]	.619	.591	10.84421	2.110

a. Predictors: (Constant), Biaya Oprasional, Likuiditas

b. Dependent Variable: Profitabilitas

Based on the above table, obtained information that the value of correlation coefficient or (R) obtained by 0.787. Thus the coefficient of determination can be calculated as follows:

Kd = $(r)^2$ x 100 %

Kd = $(0{,}787)^2$ x 100 %

Kd = 61.93%

Table 4.15
Results of Coefficient Analysis of Liquidity Determination Against Profitability

Correlations

Control Variables			Likuiditas	Profitabilitas
Biaya Oprasional	Likuiditas	Correlation	1.000	-.470

		Significance (2-tailed)	.	.010
		df	0	27
	Profitabilitas	Correlation	-.470	1.000
		Significance (2-tailed)	.010	.
		df	27	0

The following results show the partial influence between the independent variables to the dependent variable with the formula KD = r2 x 100%:
1. Liquidity Variables = (0.470) 2 x 100% = 22.09% From the above calculation results, it is known that Liquidity variable gives a contribution of 22.09%.

Table 4.16
Result of Coefficient of Determination of Operational Cost to Profitability

Correlations

Control Variables			Profitabilitas	Biaya Oprasional
Likuiditas	Profitabilitas	Correlation	1.000	-.582
		Significance (2-tailed)	.	.001
		df	0	27
	Biaya Oprasional	Correlation	-.582	1.000
		Significance (2-tailed)	.001	.
		df	27	0

2. Variable Operational Cost = (-0.582) 2 x 100% = 33.87% From the above calculation, it is known that Operational Cost variable gives the most dominant contribution to Profitability with contribution given equal to 33.87% and followed by Liquidity of 22.09%.

4.1.2.5 Hypothesis Testing

a) Hypothesis Testing Liquidity against Profitability

The formulation of the hypothesis to be tested is as follows: H0: β1 = 0 That is, Liquidity has no significant effect on Profitability of Mining companies listed in Indonesia Stock Exchange period 2011-2015 period. H1: β1 ≠ 0 That is, Liquidity significantly affects Profitability of Mining companies listed in Indonesia Stock Exchange period 2011-2015 period. With a significant level (α) of 5%, dk = 27, so obtained ttable with two-party test of -2.051 and 2051 Testing criteria: 1. Reject H0 if thitung> ttabel atauthitung <-httpable to H1 2. Reject H1 if t count <ttable or -thount> -ttabel, accept H0 By using SPSS v21 software. Obtained by result of hypothesis test X1 as follows:

Table 4.17
Hypothesis Testing X1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	17.363	3.408		5.095	.000		
	Likuiditas	-.089	.032	-.384	-2.770	.010	.733	1.364

	Biaya Oprasional	-6.073E-8	.000	-.516	-3.720	.001	.733	1.364

a. Dependent Variable: Profitabilitas

Based on the above table, it is known that the tcount obtained Liquidity of -2.770. This value will be compared with the ttable value in the t distribution table. With α = 0.05, df = n-k-1 = 30-2-1 = 27, obtained ttable value for two-party testing of ± 2.051. From the above values it can be seen that the value of tcount obtained for 2,770, is beyond the ttable (-2.051 and 2.051). In accordance with the criteria of hypothesis testing that H0 is rejected and H1 accepted, it means partially liquidity significantly affects Profitability of Mining Companies listed in Indonesia Stock Exchange period 2011-2015 period.

b) Testing The second hypothesis of Operational Costs on Profitability

H0: β1 = 0 That is, Operational Cost has no significant effect to Profitability of Mining company listed in Indonesia Stock Exchange period 2011-2015 period. H1: β1 ≠ 0 That is, Operational Costs have a significant effect on the Profitability of Mining companies listed in Indonesia Stock Exchange period 2011-2015 period. With a significant level (α) of 5%, dk = 27, so obtained ttable with two-party test of -2.051 and 2051 Testing criteria: 3. Reject H0 and accept Ha if the value of tcount> ttable / -thount <-ttabel 4. Reject H0 and accept Ha if the value of t count <ttabel / -thitung> -ttabel By using SPSS v21 software. Obtained by result of hypothesis test X1 as follows:

Table 4.18
Hypothesis Testing X2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	17.363	3.408		5.095	.000		
	Likuiditas	-.089	.032	-.384	-2.770	.010	.733	1.364
	Biaya Oprasional	-6.073E-8	.000	-.516	-3.720	.001	.733	1.364

a. Dependent Variable:Profitabilitas

Based on the above table, it is known that the tally value obtained Total asset turnover of -3.720. This value will be compared with the ttable value in the t distribution table. With α = 0.05, df = n-k-1 = 30-2-1 = 27, the ttable value for the two-party test is ± 2.051. From the above values it can be seen that the tcount obtained at -3.720, is beyond the ttable (-2.051 and 2.051). In accordance with the hypothesis testing criteria that H0 is rejected and H1 accepted, it means partially Operational Cost significantly influence Profitability Mining Companies listed in Indonesia Stock Exchange.

4.1 Discussion

4.2.1 Effect of Liquidity on Profitability

Research that has been done to produce correlation value between Liquidity to Profitability that is equal to 0.470 which pertained in category of relationship which is. This can be seen from the correlation value between 0.40 to 0.599 belonging to the medium category and the negative relationship means that every liquidity value will decrease the value of profitability. The results of this study also supported by the theory described by Frianto Pandia, (2012: 124) states that, If you want to have a high level of liquidity, then the company will be at high safety but will

get a low level of profitability. The percentage of influence Liquidity to profitability of 22.09%, which means that 22.09% profitability influenced by Liquidity, while the rest of 77.91% influenced by other factors not examined in this study such as Total Asset Turnover (TATO), Debt To Equity Ratio (DER), Debt Ratio (DR), Sales Growth and Company Size.

Based on calculation of hypothesis test by using t test that result of hypothesis testing between Liquidity to Profitability show that tcount obtained in Liquidity variable equal to -2.770 for X1 then this research reject alternative hypothesis H0 and accept hypothesis H1. In other words based on the results of t test calculations can be concluded that Liquidity significantly affects Profitability. By comparing the Liquidity and Profitability data from the statistical test results, the results obtained that the high low value of the Company's liquidity really affect the company's ability in generating liquidity. And also the opposite decline Liquidity is also followed by the decrease in the amount of profitability in the can. (positive correlation). From the research that has been done by the author through the data have been analyzed and through statistical tests, it is known that Liquidity affects the amount of profitability.

The conclusion above is said that the results of research have responded to the phenomenon that occurs, where the phenomenon that occurred in the year 2014-2015 at the company Bumi Resource Tbk. where the total Liquidity decreased during consecutive but the profitability of the company even decreased, should be according to theories put forward by experts when Liquidity decreased then profitability should increase.

But some companies are low Liquidity caused by increased debt and reduced cash amount from the previous year. In addition, decreased liquidity can also be caused by the company can not manage effectively as many funds are unemployed, the high debt of the company. To overcome this, the company should increase the use of working capital by using the working capital effectively, by increasing the amount of production and increase the amount of inventory so that funds in the company continue to be used or used to obtain greater profits and influence increase profitability of the company.

So it can be concluded that when the Liquidity is higher then the possibility of companies to obtain Profitability will be smaller, vice versa when small Liquidity then the possibility of the company gain Profitability will also be greater.

4.2.2 Effect of Operational Costs on Profitability

Research that has been done to produce correlation value between Operational Cost to profitability that is equal to -0.582 which pertained in category of relationship which is. It can be seen from the correlation value is between 0.40 to 0.599 belonging to the category of medium and the relationship is negative meaning, every kenaiakan Operational costs then it will reduce the amount of profitability and vice versa when operating costs decreased then the amount of profitability will increase. this research is also supported by theoretical according to Jopie (2007: 35) states that, if the company can reduce operating costs, then the company will be able to increase net income. Likewise vice versa, if there is a waste of costs will result in a decrease in net income.

The percentage of influence of Operational Cost to profitability is 33.87%, which means 33.87% profitability is influenced by Operational Cost, while the rest of 66.13% is influenced by other factors not examined in this research such as production cost. Total Asset Turnover (TATO) Debt To Equity Ratio (DER), Debt Ratio (DR), Sales Growth and Company Size.

Based on calculation of hypothesis test by using t test that result of hypothesis testing between Operational Cost to Profitability show that tcount value obtained from working capital variable equal to 3,343 for X2, hence result of this research reject alternative hypothesis H0 and accept hypothesis H1. In other words based on the results of t test calculations can be concluded that Operational Costs significant effect on profitability. By comparing between Operational Cost and Profitability data from statistical test result, it is found that when Operational Cost of firms is high, the result really affect the company ability in generating profitability. and also decrease of Operational Cost also followed by increasing amount of profitability in the can. (negative correlation). From the research that has been done by the author through the data that have been analyzed and through statistical test, it is known that Operational Cost affects the amount of profitability.

The conclusion above is said that the results of the study have responded to the phenomenon that occurs, where the phenomenon that occurred in 2014-2015 at the company Adaro Energy Tbk. where operational costs have decreased for successively but Profitability of companies even decreased, should be according to theories put forward by experts when operating costs decreased then profitability should have increased.

However, some companies with low operating costs are due to lower sales costs and reduced cash from the previous year. other than that the profitability decreased can also be caused because the company can not manage the company's assets well as the number of machines or vehicles that are not in use. To overcome this, companies should make efforts to increase the maximum use of assets, by stabilizing the price and inventory, and increase the amount of production followed by increased promotion so that the resulting product can be more competitive in the market so that the company can earn greater profit . thereby increasing the profitability of the company.

So it can be concluded that when Operational Costs higher then the possibility of companies to obtain Profitability will be smaller, vice versa when the small Operating Costs then the possibility of companies gain profitability will also be greater.

5.2 SUGGESTION

5.2.1 Operational Suggestions

Based on the conclusions that have been mentioned above, the researchers provide suggestions that can be used as input to issuers and investors as follows:

a) For the Company:

1. In order for liquidity in determining profitability is not low on mining companies listed in Indonesia Stock Exchange period 2011-2015, then the company should make efforts to increase cash usage maximally, that company must be able to manage its cash, by stabilizing cash in order to improve the company's liquidity.
2. Meanwhile, to reduce the operational costs of large companies and obtain a large profitability, should the company more effectively manage the company's revenue derived from sales in running the company's activities, so that the profitability of the company will continue to increase and it describes the company's profits are increasing

.

b) For Investors:

1. Investors can use liquidity and operational costs as a reference in making investments. But investors should also do analysis on other indicators because there are many other indicators that can affect the profitability of the company, although in this study liquidity and operational costs affect the profitability, so that investors can more precisely in choosing investment decisions.

5.2.2 Academic Suggestions

1. For Science Developers
   It is suggested in subsequent research to conduct the same research, with the same method but different units of analysis and samples in order to obtain conclusions that support the theory of financial accounting and the concept generally accepted.
2. For Other Researchers
   It is expected that other researchers can provide more empirical evidence from the concept that has been studied that profitability is influenced by liquidity and operational costs.

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