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Inventory Turnover and Leverage's Impact on Financial Performance (Case Study of Cement Sub-Sector Companies Listed on the IDX)

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Abstract

The purpose of this study is to ascertain how leverage and inventory turnover affect the financial performance of companies in the cement subsector listed on the IDX from 2017 to 2021. Leverage and inventory turnover are the independent factors in this investigation. Financial performance serves as the study's dependent variable. Companies in the cement subsector that were listed on the IDX between 2017 and 2021 make up the research population. As a method for research sampling, total sampling is used. While the type of data used is secondary data, which is obtained through the documentation technique by visiting the websites www.idx.co.id, and the websites of each company. Multiple linear regression analysis is the method of data analysis performed. A strong negative impact of leverage on a company's financial performance is shown via studies on hypothesis testing. Yet, there was no impact on financial performance for the inventory turnover variable.

Keywords Inventory Turnover; Financial Performance; Leverage

INTRODUCTION

One of Indonesia's economic development's foundations is the cement sector. Cement has been instrumental in the development of the nation's infrastructure and in the construction of several landmark buildings. Since 2011, the nation's capacity to produce cement has grown yearly, which was followed by a rise in cement demand.

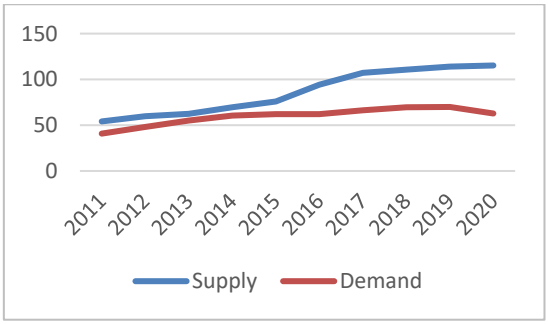

Figure 1: Demand and Cement Production Capacity Since 2011

Nonetheless, despite the rise in cement demand, cement businesses' financial performance is actually on the decline. Profitability is one metric used to assess a company's financial success. Henry (2015: 192) claims that profitability is the ratio used to gauge a firm' capacity to make money from routine operations.

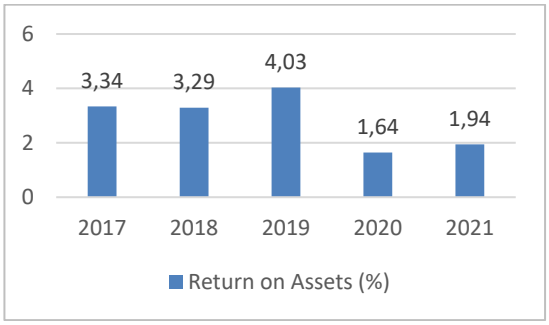

Figure 2: The ROA Ratio as a Gauge of Financial Performance

Investors' income from their interests in cement businesses will be impacted by decreased company profitability. If this keeps happening, investors will start to lose faith in the company and will undoubtedly start to withdraw their money. Without the necessary cash to operate, the company will eventually incur losses and may possibly go bankrupt. Hence, in order to strengthen efforts to improve the attainment of the company's profitability, research or assessment of the incidence of these problems is required.

Sales volume, total assets, and total costs are all aspects that have an impact on profitability. Using debt is one of the things that can cost the business money. Debt is temporary money that originates from outside the company and

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is an obligation that must be met by the company on schedule.

Leverage has a negative and considerable impact on financial performance, according to research by Pratiwi et al. (2023) and Karim et al. (2022). As a result, the company's financial performance will suffer if leverage rises. Leverage is the primary element influencing financial performance, according to significant influence. However according to Sarker & Mamun's research (2023), leverage has a favorable and considerable impact on financial performance. This proves that increasing leverage won't have any negative effects on financial performance. This is due to the management's ability to effectively and efficiently manage the company's debt in order to enhance the financial performance of the business.

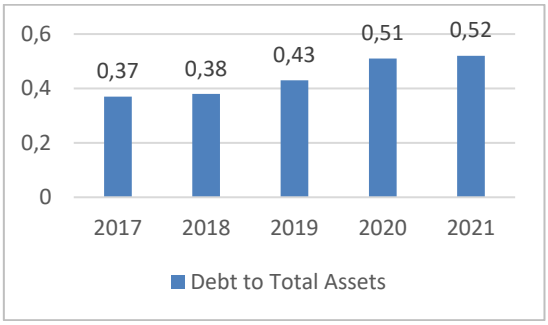

Figure 3: The DAR Ratio as a Measure of Leverage

The increase in the leverage of the cement sector companies is depicted in Figure 3. This shows that businesses typically borrow money to finance their activities. Greater debt indicates that the corporation must pay higher interest costs, which has an impact on decreasing the company's profitability. But when debt is utilized wisely and successfully, a company's financial performance can improve, resulting in a profit that exceeds interest costs.

In addition to debt, inventory turnover is another cost-causing element that is regarded to have an impact on the cement industry's capacity to attain profitability. Inventory turnover is a ratio used to determine how frequently monies invested in inventory will rotate in a given period or how many days (on average) the average amount of inventory is kept in the warehouse before being sold (Hery, 2015: 182).

Cement businesses had a massive oversupply, as seen in Figure 1 before. This is evident from the stark disparity between the amount of cement produced and the amount that is needed on the market.

A firm's operations will be most profitable when inventory management is functional and efficient, while a company with ineffective inventory management may have excess or insufficient inventory. An insufficient supply of items on the market might prevent a company from earning profits that it should, while an excessive supply of goods can force the company to pay for storage, which will have an impact on the profits the company is able to make.

According to studies done in 2023 and 2022 by Subhan and Larasati & Purwanto, inventory turnover has little bearing on a company's financial performance. Inventory turnover, however, has been shown in studies by Nworie et al. (2023) to have a favorable and significant impact on financial performance.

In order to serve as a reference for future researchers, particularly in the field of company financial performance, and for the company itself so that it can continue to improve performance in the future, the authors conducted a study to analyze how leverage and inventory turnover influence the financial performance of the cement sub-sector.

LITERATURE REVIEW

Financial Performance

Financial performance is a description of the company's financial state within a specific time period, including features of raising and channeling cash, which are typically gauged by indices of capital adequacy, liquidity, and profitability (Sudarti et al., 2022: 239).

$$ROA = \frac{Net\ Income}{Total\ Assets}$$

Leverage

The leverage ratio, according to Kasmir (2012: 113) is a ratio used to assess how much debt is being utilized to fund a company's assets. As compared to the company's capital, this indicates the substantial amount of debt that was employed to support its operations.

$$DAR = \frac{Total\ Debts}{Total\ Assets}$$

Inventory Turnover

According to Kuswadi (2005:82), the inventory turnover ratio tries to gauge how effectively a company manages and sells its inventory (in the form of finished goods). The turnover ratio, which measures the degree of demand for or sales of a company's goods, and the effectiveness of the inventory management team's job, both influence how much profit is made. Yet, a high inventory turnover rate may

also be a sign of inventory insufficiency, which may result in missed sales opportunities.

$$ITO = \frac{Cost\ of\ Goods\ Sold}{Average\ Inventories}$$

HYPOTHESES

Leverage's Impact on Financial Performance

The Debt to Asset Ratio is a metric of financial performance that reveals the extent to which a company's assets are financed by debt. Using this ratio will increase interest expenses, which could lower business earnings. The company's total loan capital will therefore increase if the Debt to Asset Ratio is higher, which will then force the company to incur significant expenses.

H1: Leverage has an impact on financial performance

Inventory Turnover's Impact on Financial Performance

It's challenging to manage inventory, and mistakes in estimating inventory levels can have disastrous consequences. Inventory turnover at a high level will result in increased sales, which will raise revenue and boost operating profit. When sales are low, which is what happens when the inventory turnover rate is low, there will be a fall in income, which will lead to a decrease in operating profit since the company will have to pay more expenses like maintenance and storage fees.

H2: Inventory turnover has an impact on financial performance

METHODS

Secondary data—a time series of data collected between 2017 and 2021—was the type of data used in this investigation. The information used includes financial reports and summaries of corporate financial performance that were downloaded from either the official websites of the Indonesia Stock Exchange (IDX), located at http://idx.co.id, or the websites of the individual companies.

The Study's Population and Sample

All of the cement companies listed on the Indonesia Stock Exchange from 2017 to 2021 make up the population of this study. Also, due of the population's small size, total sampling—which includes all five cement businesses registered on the Indonesia Stock Exchange—was employed to create the research sample.

Method of Data Analysis

Many steps in the data analysis process were used in this study, including description analysis, data prerequisite test, multiple regression analysis, classical assumption test, hypothesis test, and determinant coefficient.

RESULTS AND DISCUSSION

Results of the Analysis of Research Data

1. Analytical Description

The minimum, maximum, mean, and standard deviation for each research variable will be discussed in order to describe the data gathered in this study. Table 1 below provides an overview of the descriptive statistical findings for all the data utilized in this study.

Table 1. Analysis of Descriptive Findings

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
Leverage	30	.15	1.40	.4423	.27323
Inventory Turnover	30	2.00	13.00	7.6667	2.56412
Financial Performance	30	-4.92	7.25	2.8553	3.37767
Valid N (listwise)	30				

2. Testing the Classic Assumptions of Research

a. Test for Normality

Testing for data normality is done to determine if the data being used is distributed regularly.

Table 2. Outcomes of the Normality Test

One-Sample Kolmogorov-Smirnov Test

	Unstandardized Residual
N	30
Asymp. Sig. (2-tailed)	.997

a. Test distribution is Normal.

The definition of normally distributed data is data with a sig value (2-tailed) > 0.05. It can be deduced that the data in this study were normally distributed based on table 2, where the Asymp. Sig. (2-tailed) = 0.997 is greater than 5% (> 0.05).

b. Test for Multicollinearity

Looking at the tolerance value and the variance inflation factor is the requirement for not having multicollinearity in research. It can be said that there is no multicollinearity between the independent variables in the

regression model if the tolerance value is > 0.10 and the VIF value is 10.

Table 3. Results of a Test for Multicollinearity

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Leverage	.571	1.751
	Inventory Turnover	.571	1.751

a. Dependent Variable: Financial Performance

Table 3's variables all have tolerance values greater than 0.10 and VIF values lower than 10. As a result, it may be said that this study's independent variables are not multicollinear.

c. Test for Heteroscedasticity

If the significance level is more than 0.05, the study is said to be heteroscedasticity-free.

Table 4. Tests for Heteroscedasticity Findings

Coefficients[a]

Model		t	Sig.
1	(Constant)	-.197	.845
	Leverage	.953	.349
	Inventory Turnover	.424	.675

a. Dependent Variable: LN_RES

It is clear that there was no heteroscedasticity in this study because every variable in Table 7 has a significant value greater than 0.05.

d. Test for Autocorrelation

The Durbin Watson Test was used in this investigation to identify signs of autocorrelation. There is no autocorrelation in this investigation unless DL>DW<4-DU, which is a requirement.

Table 5. Results from an Autocorrelation Test

Model Summary[b]

Model	Durbin-Watson
1	1.822

a. Predictors: (Constant), LAG_ITO, LAG_DAR

b. Dependent Variable: LAG_ROA

Using a total of 30 study data (N) and a total of 2 independent variables (K), Table 5 shows that the DL value is 1.2837 and the DU value is 1.5666 based on the Durbin Watson table with an alpha of 5%. As a result, it can be said that where 1.2837> 1.822<2.178, there is no autocorrelation based on the conditions for the autocorrelation test.

3. Analysis of Multiple Regression for Research

a. Statistical Test Coefficient of Determination (R2)

The R2 test is used to determine how much the independent factors simultaneously influence the dependent variable.

Table 6. The R2 Test Outcomes

Model Summary[b]

Model	R Square
1	.294

a. Predictors: (Constant), Inventory Turnover, Leverage

b. Dependent Variable: Financial Performance

The R2 score in Table 6 is 0.294, or 29.4%. This indicates that the independent variables (Leverage and Inventory Turnover) have a combined effect of 29.4% on the dependent variable (Financial Performance). While additional factors outside the scope of this study are what affect the remaining 70.6%.

b. The Testing of Research Hypotheses

To ascertain whether or not the independent factors individually significantly affect the dependent variable, hypothesis testing was done.

Table 7. Partial Results of Hypothesis Testing

Coefficients[a]

Model		t	Sig.
1	(Constant)	3.101	.004
	Leverage	-3.217	.003
	Inventory Turnover	-1.392	.175

a. Dependent Variable: Financial Performance

A significance level of 0.05 is used when comparing the t_{count} and t_{table} in hypothesis testing. The research hypothesis is accepted if the t_{count} exceeds the t_{table}.

The t_{table} value is 2.048 based on the data in the t_{table} with a total sample size of 30 and a two-tailed kind of test.

The leverage variable, according to table 7, has a t_{count} value of 3.217 > t_{table} of 2.048 and a significance level < 0.05, as well as a negative influence direction. In other words, leverage has a detrimental and sizable impact on the financial success of the company.

The estimated t_{count} and t_{table} for the inventory turnover variable are 1.392 and 2.048, respectively, with a significance level > 0.05. In other words, the financial performance of the organization is not significantly impacted by inventory turnover.

Discussion of the Research Findings

1. Leverage's Impact on Financial Performance

Leverage has a negative and considerable impact on the performance of financial companies, according to the findings of the research hypothesis test. In other words, the performance of the company will suffer as leverage rises. According to Ali et al. (2022) and Rahman et al. (2020), excessive leverage suggests that debts are employed more frequently than equity, which would raise financial costs as a result. High financial leverage also results in excessive interest payments due to lower earnings per share. However, Sinambela et al. (2022) and Lestari (2021) presented conflicting findings, claiming that leverage had a favorable impact on financial performance. In other words, the company's financial performance will improve in direct proportion to the amount of debt it uses.

2. Inventory Turnover's Impact on Financial Performance

Inventory turnover has no impact on the financial success of the company, according to the findings of hypothesis testing. There is no relationship between profitability and inventory management, according to Nasution (2020) and Farooq (2019). Even while other ratios in the econometric model have an impact on business profitability, it cannot be said that inventory management has no bearing on it. The bottom line is that inventory management has little impact on a company's profitability. It might have an indirect impact by lowering transaction costs, maintenance fees, and account receivables. As for the relationship between inventory turnover and financial success, Suryawan (2021) contends that it is both favorable and significant.

CONCLUSION

1. The debt-to-assets ratio, which measures leverage, shows a negative and strong correlation with the return on assets ratio, which measures financial performance. So, the study's first hypothesis is confirmed.
2. Inventory turnover and financial performance as determined by return on assets do not significantly affect one another. In other words, the second hypothesis is disproved.

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