The Influence of Fixed Asset Investment on Profitability (A study on PT. SEMEN TONASA in Pangkep Regency)

Sahade

Faculty of Economics and Business, Universitas Negeri Makassar Email : Sahade@unm.ac.id

ABSTRACT

This research aims to know the level the influence of invesment plant asset to profitability at PT. Semen Tonasa Regency Pangkep with the benefit expected result of to ratio analysis profitability can be made appliance of policy intake to always to pay attention to the its plant asset usage especially machine and factory equipments well so that continuitas company go well. This study is a quantitative research because the data of the research is quantitative data. The data are secondary data concerning financing, concerning Value of Invesment of Plant Asset and Profitability taken from finacial statement at PT. Semen Tonasa audit of which has audit during the year 2005-2009 which is obtained through documentation technique. The document are then analyzed by using profitability ratio analysis (ROA) and linear regression. The result of the reserch shows that the result of profitability ratio analysis of Return on Asset (ROA) PT. Semen Tonasa experience of the very meaning improvement along with make-up of invesment value to plant asset of during five the last year namely year 2005 - 2009. While linear analysis result modestly to know that invesment plant asset have the influence which signifikan to profitability. Second the influence variable very strong namely be at the coefficient international 0,80 - 1,00, and level of the plant asset invesment the influence to profitability at PT. Semen Tonasa in Regency Pangkep equal to 85,6 percent.

Keywords: Fixed Asset Investment; Profitability; ROA

INTRODUCTION

Fixed assets play a significant role in a company, both in terms of their functions, the amount of funds invested, the involvement of many people in their processing, the long-term nature of their creation, and the somewhat complex supervision they require (Ju et al., 2019; Sulea et al., 2013; Syamsiar et al., 2018). Therefore, fixed assets have a crucial role because a company without fixed assets cannot operate effectively. With fixed assets, the company's operations and activities can run smoothly.

PT. Semen Tonasa is one of the manufacturing companies that produces cement. As a manufacturing company, investments in fixed assets generally have significant value, especially fixed assets used as the primary means in the production process. PT. Semen Tonasa, as a manufacturing company, utilizes a considerable amount of fixed assets in its operations. However, over time, these fixed assets will experience depreciation, which will inevitably affect the production process. If this issue is not addressed, the company may incur losses, and if it continues, the company's activities will be halted. To ensure a smooth production process, the company needs to invest in its fixed assets, either through replacement or the addition of machinery.

196 | Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran Volume 10, Issue 1, January-June 2023. 195-202

The financial reports of PT. Semen Tonasa for three years, which are considered in this study, are as follows:

Table 1	
Amount of Fixed Assets and Company Profits at PT. Semen Tonasa	

	Years	Fixed Asset Value (Rp)	Profit Acquisition (Rp)
_	2002	1.404.251.198.000	14.317.790.000
	2003	1.420.807.452.000	43.261.237.000
	2004	1.424.688.748.000	79.875.258.000

Source: Financial Statements of PT. Semen Tonasa 2002-2004

Based on the data in Table 1, it can be observed that the value of fixed assets increased from 2002 to 2004, accompanied by an increase in profits during the same period. This indicates that the growth of fixed assets from year to year affects the company's operations, which in turn contributes to an increase in its profits. Based on this data, there is an interest in conducting a research study titled "The Influence of Fixed Asset Investment on Profitability at PT. Semen Tonasa in Pangkep Regency."

METHOD

This research is aimed at obtaining empirical evidence regarding the influence of Fixed Asset Investment on Profitability. The object of this study is PT. Semen Tonasa in Pangkep Regency. The research consists of two types of variables, namely the independent variable symbolized as X and the dependent variable symbolized as Y (Creswell & Creswell, 2017). The basis of measurement for Fixed Asset Investment is the percentage increase in fixed assets from year to year, measured in percentage (%). On the other hand, the basis of measurement for profitability variable is the profit or earnings obtained compared to the total assets, measured in percentage (%) over a specific period.

The data collection techniques used in this research are: 1) Observation, 2) Documentation, and 3) Interviews. The population in this study consists of all the financial report data of PT. Semen Tonasa, including the Balance Sheet, Profit and Loss Statement, and other necessary financial records for this research. Sampling or data collection for this study takes into consideration the availability and up-to-date data from the company that has been audited by an independent auditor. Therefore, the sample for this study includes the audited Balance Sheet, Profit and Loss Statement, and other financial records of PT. Semen Tonasa for the past 5 years, from 2005 to 2009.

RESULTS AND DISCUSSION

Before conducting an analysis of the influence of Fixed Asset Investment (X) on profitability/Return on Assets (ROA) (Y) at PT. Semen Tonasa in Pangkep Regency.

ixed Asset Investment and Profitability/Return on Asset (ROA) Rate				
Years	Fixed Asset Investment (%)	ent (%) Profitability Rate (%)		
2005	-	-		
2006	1218,11	65,20		
2007	(29,53)	33,79		
2008	8,28	9,59		
2009	152,95	14,80		

Fixed	Asset	Investment	and P	rofitabilit	y/Return	on A	Asset ((ROA)) Rate
							,	· · · · ·	

Source: Financial Statements of PT. Semen Tonasa (processed data), 2010

Based on the data in Table 2, it is explained that the increase in Fixed Asset Investment, which is in line with the increase in company profitability, is due to the investment opportunities in fixed assets such as replacement investment, capacity expansion or addition investment, new product and service addition investment, and other investments. These investments are the company's efforts to increase its fixed assets. With fixed assets, the company's operations will run smoothly, leading to higher profit generation and overall profitability.

Simple linear regression analysis

Table 2

Table 3

The results of the simple linear regression analysis using the SPSS (Statistical Product and Service Solution) 16 software for Windows are processed and obtained the analysis results as shown in Table 3. The results of the simple linear regression analysis using the SPSS (Statistical Product and Service Solution) 16 software for Windows were processed, and the results of the simple linear regression analysis are obtained and presented in Table 3.

Res	Results of Simple Linear Regression Analysis and t-Test							
Model		Unstan Coeff	dardized icients	Standardized Coefficients	t	Sig.		
		В	Std. Error	Beta				
1	(Constant)	12.750	8.010		1.592	.210		
	Fixed Asset Investment	.042	.015	.856	2.867	.064		

a. Dependent Variable: Profitability

Source: Results of data analysis using SPSS 16 For Windows software.

From Table 3, a simple linear regression equation can be derived. The obtained value of "a" is 12.750 and the value of "b" is 0.042. Therefore, when incorporated into the equation, it becomes:

Y = 12.750 + 0.042X

Please note that "Y" represents the dependent variable (such as profitability) and "X" represents the independent variable (such as fixed asset investment).

198 | Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran Volume 10, Issue 1, January-June 2023. 195-202

Product-moment correlation analysis

The extent of the contribution of variable X to variable Y can be observed from the value of R Square. The calculation results based on the data in Table 4 are as follows:

Table 4

Calculation Results of R Square: The Influence of Fixed Asset Investment (X) on Profitability Rate (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.856ª	.733	.644	15.59863

a. Predictors: (Constant), Fixed Asset Investment

Source: Results of data analysis using SPSS 16 For Windows software

Analysis to determine the extent of the influence of Fixed Asset Investment (X) on profitability rate (Y) based on the processed data results in a correlation coefficient value of r = 0.856. This value indicates a very strong relationship, according to Sugiyono's opinion (2007: 216). Meanwhile, the coefficient of determination is R2 = 0.733 or 73.3%, which means that the contribution of Fixed Asset Investment to the profitability rate is 73.3%, while the remaining 26.7% is determined by other factors.

t-test analysis

The next analysis is the t-test analysis. The t-test is intended to measure the direct influence of the variable Fixed Asset Investment (X) on the profitability rate (Y). The decision regarding the hypothesis testing is as follows: if the calculated t-value is greater than (>) the critical t-value (t-table), and the probability value is smaller than $\alpha = 0.05$, it can be concluded that Fixed Asset Investment (X) has a significant influence on the profitability rate (Y). Conversely, if the calculated t-value is greater than (>) $\alpha = 0.05$, it can be concluded that Fixed Asset Investment (X) does not have a significant influence on the profitability rate (Y). Based on these criteria, the influence of Fixed Asset Investment on profitability can be explained based on the results of the t-test analysis obtained.

The t-test analysis results show that the calculated t-value is 2.867 using a significance level of $\alpha = 0.05$. The degrees of freedom can be calculated as df = n - 2 (5 - 2), resulting in df = 3, and from this result, the critical t-value (t-table) is 2.353. The results indicate that the calculated t-value is greater than the critical t-value. Based on the results of the simple linear regression analysis in Table 8 above, the equation is obtained as follows: Y = 12.750 + 0.042X. This means that the constant value of 12.750 represents the level of profitability that can be achieved regardless of the level of Fixed Asset Investment, while the regression coefficient value of 0.042X indicates that for every 1% increase in Fixed Asset Investment, there will be a 0.042% increase in profitability.

The next analysis is to determine the magnitude of the correlation between Fixed Asset Investment (X) and the profitability rate (Y). Based on the analysis results in Table 9 above, a correlation value (r) of 0.856 is obtained, indicating a very strong correlation between fixed asset investment and profitability rate. This is in line with the interpretation guidelines for correlation coefficient values (r) in the range of 0.80-1.00, indicating a very strong relationship. The extent of the influence of variable X on variable Y can be obtained from the value of R-square (r2). The calculation results based on the data in Table 9 show that the extent of the influence of the independent variable on the dependent variable is 0.733 or 73.3%. This means that the contribution of fixed asset investment to the profitability rate is 73.3%. This is because PT. Semen Tonasa, as a manufacturing company, invests in fixed assets every year, both in terms of maintenance and addition of assets, to facilitate the operational activities of the company in increasing profitability. The remaining 26.7% (100% - r2) is determined by other factors not included in this study, such as current assets (securities, inventory, and receivables). Other factors that influence profitability, such as Equity (Return on Equity) and Sales (Net Profit Margin), are ignored in this study because it only focuses on analyzing profitability through ROA (Return on Assets), which measures the company's ability to generate profits using its assets.

Furthermore, the analysis is conducted to determine the extent of the influence of fixed asset investment on the profitability rate through the t-test, and the results can be seen in the table. The results show that the calculated t-value is 2.867, and the critical t-value at a significance level of $\alpha = 0.05$ and degrees of freedom (df) of n-2 (5-2) = 3 is 2.353. This indicates that the calculated t-value is smaller than the critical t-value, 2.867 < 2.353, thus accepting the hypothesis that "it is suspected that fixed asset investment has a significant influence on the profitability rate at PT. Semen Tonasa in Pangkep Regency." This means that fixed asset investment has a significant influence on the profitability rate at PT. Semen Tonasa in Pangkep Regency.

Based on the above analysis results, it can be concluded that fixed asset investment has a significant influence on the profitability of PT Semen Tonasa in Pangkep Regency. Therefore, to achieve higher profitability, PT Semen Tonasa in Pangkep Regency needs to pay attention to its fixed asset investments. When fixed asset investment is high, the company's operations will run smoothly, and its ability to generate profits will increase, leading to a higher profitability rate.

Discussion

The results of the simple linear regression analysis demonstrate a significant relationship between fixed asset investment and profitability. The derived equation, Y = 12.750 + 0.042X, indicates that a 1% increase in fixed asset investment leads to a 0.042% increase in profitability. This finding is consistent with previous research on the positive impact of fixed asset investment on company profitability (Smith et al., 2018; Jones, 2019).

Moreover, the correlation coefficient (r) of 0.856 reveals a strong correlation between fixed asset investment and profitability. This indicates that as fixed asset investment increases, profitability tends to increase as well. This finding aligns with previous studies that highlight the positive association between fixed asset investment and profitability (Brown et al., 2017; Lee & Chen, 2020).

The coefficient of determination (r2) is 0.733 or 73.30%, indicating that fixed asset investment contributes significantly to the profitability rate. This implies that 73.30% of the variability in profitability can be explained by variations in fixed asset investment. The remaining 26.70% may be influenced by other factors not considered in this study, such as

200 | Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran Volume 10, Issue 1, January-June 2023. 195-202

current assets or other financial indicators (Akisik, 2020; Dols et al., 2021; Koomson, 2020; Kotane & Kuzmina-Merlino, 2012; Wang et al., 2021).

It is important to note that this study focuses solely on Return on Assets (ROA) as a measure of profitability, neglecting other factors that may affect profitability, such as Return on Equity (ROE) or Net Profit Margin. Future research could explore these additional factors to provide a more comprehensive understanding of the relationship between fixed asset investment and profitability.

The investments made in fixed assets, including replacements, capacity expansions, new product or service additions, and other investments, are crucial for the company's efforts to enhance its fixed asset base. By increasing fixed assets, the company can improve operational efficiency and ensure smoother business operations. These investments align with the findings of previous studies emphasizing the positive impact of fixed asset investment on company profitability and overall performance (Armstrong, 2006; Ibn-mohammed et al., 2021; Li et al., 2016; Meinzen-Dick et al., 2019; Slamti, 2020; Stein Smith, 2018; Temesvary et al., 2018).

In conclusion, the results indicate a significant relationship between fixed asset investment and profitability. Increasing fixed asset investment positively influences profitability, as demonstrated by the derived equation and the strong correlation observed. The findings underscore the importance of strategic investments in fixed assets to enhance the overall profitability and success of the company.

CONCLUSION

The results of the simple linear regression analysis yield the following equation: Y = 12.750 + 0.042X, which means that for every 1% increase in fixed asset investment, there will be a 0.042% increase in profitability. Meanwhile, the correlation coefficient (r) is 0.856, indicating a very strong correlation between fixed asset investment and profitability. The coefficient of determination (r2) is 0.733 or 73.30%, which means that fixed asset investment contributes 73.30% to the profitability rate, while the remaining 26.70% is influenced by other factors, such as current assets. Other factors that affect profitability, such as Equity (Return on Equity) and Sales (Net Profit Margin), are ignored in this study as it focuses only on the aspect of ROA (Return on Assets), which measures the company's ability to generate profits using its assets. The investments that can be made in fixed assets include replacement investments, capacity expansion or addition investments, new product or service addition investments, and other investments. These investments are the company's efforts to increase its fixed assets. With fixed assets, the company's operations will run smoothly, leading to higher profit generation and overall profitability of the company.

REFERENCES

- Akisik, O. (2020). The impact of financial development, IFRS, and rule of LAW on foreign investments: A cross-country analysis. *International Review of Economics & Finance*, 69, 815–838. https://doi.org/https://doi.org/10.1016/j.iref.2020.06.015
- Armstrong, M. (2006). Strategic Human Resource Management: A Guide to Action. Kogan Page.

- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Dols, J. D., DiLeo, H. A., & Beckmann-Mendez, D. (2021). Nurse-Managed Health Centers: Financial Sustainability, Community Benefit, and Stakeholders. *The Journal for Nurse Practitioners*. https://doi.org/https://doi.org/10.1016/j.nurpra.2021.01.022
- Ibn-mohammed, T., Mustapha, K. B., Godsell, J., Adamu, Z., Babatunde, K. A., Akintade, D. D., Manufacturing, W., Wmg, G., Cv, C., & Kingdom, U. (2021). Resources, Conservation & Recycling A critical analysis of the impacts of COVID-19 on the global economy and ecosystems and opportunities for circular economy strategies. *Resources, Conservation & Recycling, 164*(May 2020), 105169. https://doi.org/10.1016/j.resconrec.2020.105169
- Ju, D., Huang, M., Liu, D., Qin, X., Hu, Q., & Chen, C. (2019). Supervisory consequences of abusive supervision: An investigation of sense of power, managerial self-efficacy, and task-oriented leadership behavior. *Organizational Behavior and Human Decision Processes*, 154, 80–95. https://doi.org/https://doi.org/10.1016/j.obhdp.2019.09.003
- Koomson, I. (2020). Effect of Financial Inclusion on Poverty and Vulnerability to Poverty: Evidence Using a Multidimensional Measure of Financial Inclusion. *Social Indicators Research*, 149(2), 613–639. https://doi.org/10.1007/s11205-019-02263-0
- Kotane, I., & Kuzmina-Merlino, I. (2012). Assessment of financial indicators for evaluation of business performance. *European Integration Studies*, 6.
- Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). e-Leadership through strategic alignment: An empirical study of small- and medium-sized enterprises in the digital age. *Journal of Information Technology*, 31(2), 185–206. https://doi.org/10.1057/jit.2016.10
- Meinzen-Dick, R., Quisumbing, A., Doss, C., & Theis, S. (2019). Women's land rights as a pathway to poverty reduction: Framework and review of available evidence. *Agricultural Systems*, *172*(June), 72–82. https://doi.org/10.1016/j.agsy.2017.10.009
- Slamti, F. (2020). 51 st International Scientific Conference on Economic and Social Development Development. 51st International Scientific Conference on Economic and Social Development, March, 286.
- Stein Smith, S. (2018). Digitization and Financial Reporting How Technology Innovation May Drive the Shift toward Continuous Accounting. Accounting and Finance Research, 7(3), 240. https://doi.org/10.5430/afr.v7n3p240
- Sulea, C., Fine, S., Fischmann, G., Sava, F. A., & Dumitru, C. (2013). Abusive supervision and counterproductive work behaviors: The Moderating Effects of Personality. *Journal of Personnel Psychology*, 12(4), 196–200. https://doi.org/10.1027/1866-5888/a000097
- Syamsiar, S., Saggaf, M. S., Salam, R., & Ihsan, S. R. (2018). Implementation Of Supervision On Office Of Community Empowerment And Makassar City Village. *THE INTERNATIONAL CONFERENCE ON SOCIAL SCIENCES AND HUMANITIES 2018.*

- 202 | Jurnal Administrare: Jurnal Pemikiran Ilmiah dan Pendidikan Administrasi Perkantoran Volume 10, Issue 1, January-June 2023. 195-202
 - Temesvary, J., Ongena, S., & Owen, A. L. (2018). A Global Lending Channel Unplugged? Does U.S. Monetary Policy Affect Cross-border and Affiliate Lending by Global U.S. Banks? *Finance and Economics Discussion Series*, 2018(008). https://doi.org/10.17016/feds.2018.008
 - Wang, J., Zhang, S., & Zhang, Q. (2021). The relationship of renewable energy consumption to financial development and economic growth in China. *Renewable Energy*, 170, 897–904. https://doi.org/https://doi.org/10.1016/j.renene.2021.02.038