Working Capital Management Of Food And Beverage Industry In Indonesia

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Abstract. This research determines the effect of Working Capital Management on Profitability in manufacturing companies in the food and beverage industry sub-sector in Indonesia The study uses a quantitative approach, employing descriptive statistical analysis, regression analysis, The data used are secondary data, focusing on the financial statements of manufacturing companies in the food and beverage sub-sector listed on the IDX from 2019 to 2022. The study found that working capital management has a significant impact on profitability. The results indicate that Average Collection Period, Inventory Turnover, Average Payment Period, Liquidity, Firm Size, and Debt Ratio all have a significant influence on profitability. The study's findings have implications for policy and practice. Effective working capital management is crucial for companies in the food and beverage manufacturing industry in Indonesia to improve their profitability.

Keywords: Working Capital, Profitability

1. Introduction

Various studies have explored WCM's impact on profitability with mixed findings. Previously reserch by [1], [2] found a negative relationship between the ACP and profitability, while [3] found that ACP has a positive effect. Similarly, differing results exist for IT, Research by [1], [4] revealed that IT has a significant negative effect on the profitability of the company. In contrast to research by [2], [3] IT has a significant positive effect on the profitability of the enterprise. Previous research by [1], [5] It was found that the APP has a significant negative effect on the profitability of the company. Dissent by [2] that the APP has a positive effect also negatively affects the profitability of the company.

In this competitive era, companies must develop their competitive advantages to survive, with financial performance and working capital management (WCM) being key components. [9] found that WCM significantly influences profitability and liquidity. Financial managers

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frequently dedicate considerable time to optimizing WCM decisions, which involve short-term investments and managing bonds. Effective WCM is essential, especially in manufacturing, where current assets often exceed total assets, emphasizing the need for balanced management.

[16] note that companies aim to maintain liquidity and maximize profit to ensure longterm survival. Ignoring liquidity risks bankruptcy, highlighting WCM's importance in profitability decisions. Firms prefer internal funding over external due to liquidity concerns. Efficient WCM enables better management of current assets and liabilities, allowing companies to offer credit sales, which can boost sales and provide benefits such as delayed payments for quality assessment.

Managing receivables is crucial, as timely collections prevent financial strain and support profitability [7] Proper inventory management ensures smooth sales and avoids excessive investment that can burden finances. Debt management also requires strategic timing to balance costs and benefits [6]. This study focuses on WCM's relationship with profitability in Indonesian manufacturing companies in the food and beverage sub-sector, examining how efficient WCM effect to financial performance over time.

2. Literature Review

Theoretical Framework Profitability

The definition of profitability is the capacity of a company to generate profits over a certain period, based on sales volume, number of assets, and share capital it owns [6]. Profitability refers to a measure that describes management efficiency through income generated from investments made by companies [6]. Profitability also marks an indication of management's success in managing the company's WCM.

Working Capital Manajement (WCM)

Working capital management means the governance of a company's current assets and the organization of the funds needed to support current assets [6]. WCM is the difference between current assets and current liabilities after deduction. Both definitions emphasize the management of a company's current assets and liabilities, where current liabilities are used to finance current assets. According to experts [6] WCM has 2 main concepts: Net WCM refers to the difference in the value of money between current assets and short-term debt. Gross WCM describes the amount of a company's investments in current assets.

Average Collection Period (ACP)

Evaluating liquidity through working capital and the current ratio is crucial for assessing the quality and liquidity of receivables [6]. Longer outstanding trade receivables reduce the likelihood of successful collection. Liquidity measures how quickly receivables can be converted to cash, using the Inventory Turnover indicator [6]. Managers can utilize the ACP ratio to determine the time taken to collect receivables, reflecting the company's collection efficiency [7]

Inventory Turnover (IT)

Inventory is an important component of working capital [8]. The majority of companies maintain inventory levels at certain limits [6], this aims to ensure the availability of adequate inventory to maintain smooth sales of the company. Management can evaluate the effectiveness of inventory management by measuring the level of IT. IT shows how long it takes a company to convert inventory into cash flow or receivables. In conducting inventory management quality analysis, management can use the inventory turover.

Average Payments Period (APP)

An assessment of the quality of current obligations should be carried out taking into account how urgently payments are made [9]. Management needs to make efforts to determine the priority of payment for certain obligations at the moment. One type of obligation today that is particularly relevant in WCM is payments to suppliers. Analysis of payments to suppliers can be carried out using the concept of the APP. If a company takes a long time to pay its short-term debt bills or overdue debt, this can have a negative impact on the company's profitability [8].

Liquidity (CR)

Liquidity (CR) refers to a company's capacity to perform its short obligations well. One of the commonly used metrics to measure liquidity is the current ratio [10]. The current ratio measures the availability of current assets that can be used to cover current liabilities [10]. The higher the value of the ratio of current assets compared to current liabilities, the greater the confidence that those liabilities will be repaid [10].

Firm Size (FS)

Companies that have a large scale have the opportunity to take advantage of the capital market. This advantage allows companies to have the flexibility and capacity to raise funds. The

dimension of firm size is closely related to the flexibility and potential of the company in obtaining funding and achieving profits through increased sales [11].

Debt Ratio (DR)

The debt ratio is a comparison generated by uniting the total value of assets with the total amount of debt [12]. The higher the debt ratio, the higher the level of dependence of the company on outside parties (lenders), as well as the increasing interest costs that need to be incurred by the company. The formula used in calculating this Debt Ratio is as explained by [8].

Hypothesis

Effect of Average Collection Period on Company Profitability

A shorter Average Collection Period (ACP) indicates faster receivables collection, often due to improved billing efficiency. Faster conversion of receivables into cash increases turnover, enhancing profitability. Thus, a shorter ACP negatively affects profitability as it implies higher turnover and quicker cash conversion [8].
H_1: Average Collection Period negatively affects the profitability of the company

Effect of Inventory Turnover on Company Profitability

Faster inventory sales, resulting from efficient inventory management and high demand, lead to quicker balance sheet turnover and higher profitability. A higher inventory turnover indicates faster inventory sales, reducing the Inventory Turnover period and boosting profitability [8].
H_2: Inventory Turnover negatively affects the profitability of the company.

Effect of Average Payment Period on Company Profitability

Efficient management of current assets, resulting in faster conversion to cash, increases asset turnover but reduces liquidity. Higher asset turnover due to quicker conversion reduces liquidity and potentially profitability [7].
H_3: The average payment period negatively affects the profitability of the company.

Effect of Liquidity on Company Profitability

A larger Average Payment Period (APP) suggests that a company maximizes supplier credit, lowering debt turnover and increasing APP. Slower debt payments can decrease profitability due to increased costs, despite improved liquidity management [6].
H_4: Liquidity negatively affects the profitability of the company.

Effect of Firm Size on Company Profitability

Larger firms benefit from economies of scale, better resource access, and lower costs per unit, leading to higher profitability. Bulk purchasing and efficient production capacity utilization are key advantages of larger firm size [8].
H_5: The firm size has a positive effect on the profitability of the company

Effect of Debt Ratio on Company Profitability

High debt ratios reduce profitability due to increased interest expenses, especially if returns on debt-funded projects are inadequate. Profitable companies can finance operations from retained earnings, reducing the need for debt and thereby increasing profitability [21].
H_6: The debt ratio negatively affects the profitability of the company

3. Research Method

The study focuses on data from food and beverage sub-sector manufacturing companies in Indonesia, specifically from the Indonesia Stock Exchange (IDX) for the period 2019-2022. The research utilizes secondary data obtained from financial statements available in print and electronic media for the period 2019-2022. Sources include the IDX website, IDX Corner, and IDX Statistics. Data collection is conducted through two primary approaches. The first is literature study: analysis of relevant literature, articles, journals, and other written media and the second is documentation: Collection of data from various documents such as annual reports of the companies being studied. The Research Population and Sample Criteria **is** all food and beverage sub-sector manufacturing companies listed on the IDX during 2019-2022 and the sample criteria is including being listed on the IDX during the period and publishing complete financial statements for 2019-2022. Whereas the Research Approach adopts a quantitative approach using non-probability sampling techniques to analyze data, which is then tested against the research hypothesis. Statistical analysis is performed using the SPSS application.

Research Variables and Measurement

Dependent Variable
Profitability, represented by Net Profit Margin (NPM), which measures a company's ability to generate profits over a specific period.

$$Net\ Profit\ Margin = \frac{Earning\ after\ tax}{Sales}$$

Independent Variables

Average Collection Period is a payment made on credit which is grouped with payments according to the length of each bad loan [13]. This variable is used to measure how long it takes a company to collect and collect receivables. This variable is denoted by ACP (Average Collection Period) and can be measured using the formula:

$$Average\ Collection = \frac{Avearge\ Receivable\ x\ 365\ days}{Sales}$$

Inventory Turnover

Variable Inventory Turnover is a value that shows how much the company needs to convert inventory into cash or into receivables [14]. This variable is denoted by IT (Inventory Turnover). This variable is used to measure how long it takes a company to sell existing inventory or it can be said to be the time it takes a company to convert inventory into cash or receivables. This variable can be measured using a formula.

$$Inventoy\ Turnover = \frac{Cost\ of\ Goods\ Sold}{Avearge\ Inventory}$$

Average Payment Period

The variable Average Payment Period is a value that shows the number of days it takes a company to pay short term or overdue bills [15]. This variable is denoted by APP (Average Payment Period). This variable is used to measure how long it takes a company to pay its current obligations to suppliers.

$$Average\ Payment\ Period = \frac{Average\ Payable\ Trade\ x\ 365\ days}{Cost\ of\ Goods\ Sold}$$

Liquidity (Current Assets)

In this study, the variable liquidity variable is used as a measuring tool to assess the extent to which the company is able to meet its current obligations. Liquidity measurement uses the Current Ratio (CR) indicator, which is an indicator of the availability of current assets that can be used to pay current liabilities [16]. To measure the liquidity variable, the following formula can be used:

$$Current\ Ratio = \frac{Current\ Asset}{Current\ Liability}$$

Firm Size

In this study, the firm size variable was used as a counter indicator of how big the company was [16]. The variable size of the company is represented by the Ln Total Assets. The Ln Total Assets is a number that reflects sales growth. This dimension of firm size can be calculated using the Sales Logarithm formula:

$$\textbf{Firm Size} = \textbf{Ln Total Assets}$$

Debt Ratio

The variable debt ratio is used in this study to measure how much debt the company uses to finance its operational activities. [17]. Debt Ratio is a value that shows the amount of debt ratio to finance assets used by the company in order to carry out its operational activities. The variable debt ratio can be measured using the formula.

$$Debt\ Ratio = \frac{Total\ Liabilities}{Total\ Assets}$$

Data Analysis Methods

Descriptive Statistical Analysis

Descriptive statistical analysis offers a general overview of a data set's characteristics, employing metrics like mean, standard deviation, variance, and range to summarize data trends and distributions [18]. Small standard deviations suggest data points are close to the mean, indicating uniformity among samples. Conversely, large deviations indicate greater variability.

Classical Assumption Test

The classical assumption test evaluates a regression model's appropriateness, ensuring the absence of multicollinearity, heteroscedasticity, and autocorrelation, while confirming data normality [18]. Normality (using Histogram, Normal P-Plot, Kolmogorov-Smirnov test), Heteroscedasticity (Scatterplot, Glejser Test), Multicollinearity (tolerance values, VIF), and autocorrelation (Durbin-Watson Test).

Quantitative Statistical Analysis

Quantitative statistical analysis, particularly: Regression Analysis, estimates the mean values of a dependent variable based on independent variables, assessing overall fit (R^2), joint significance (F-test), and individual parameter significance (t-test). Regression models in the study include factors like Average Collection Period, Inventory Turnover, and Debt Ratio,

aiming to explain the dependent variable's variation effectively. The regression model applied in this study is detailed as follows:

$$NPM = \beta_0 + \beta_1 (ACP) + 2\ \beta\ (IT) + 3\ \beta\ (APP) + 4\ \beta\ (CR) + 5\ \beta\ (DR) + 6\ \beta\ (LnTA) + \varepsilon$$

Note :
ACP : Average Collection Period
IT : Inventory Turnover
APP : Average Payment Period
CR : Current Assets/Liquidity
FS : Firm Size (Logaritma Natural Total Assets)
DR : Debt Ratio

4. Result and Discussion

Descriptive Statistical Analysis

Table 1. The Results of Descriptive Statistical Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
NPM	96	0,010	0,970	,107	0,214
ACP	96	2,850	12,630	7,282	1,889
IT	96	0,950	4,570	2,415	1,240
APP	96	0,800	1,910	1,593	2,703
CR	96	0,950	14,300	6,453	4,156
FS	96	4,170	5,770	5,317	1,347
DR	96	-0,200	3,010	0,636	0,414
Valid N (listwise)	96				

Based on the results of descriptive statistical analysis, it can be seen that the Minimum value in the dependent variable Y = 0.010 and the independent variable X1 = 2.850, X2 = 0.950, X3 = 0.800, X4 = 0.950, X5 = 4.170, X6 = 0.200. While there are Maximum dependent values Y = 0.970 and independent X1 = 12.630, X2 = 4.570, X3 = 1.910, X4 = 14.300 X5 = 5.770, X6 = 3.010. In the Mean data above the dependent variable Y = 0.107, and the value of the independent variable X1 = 7.282, X2 = 2.415, X3 = 1.593, X4 = 6.453, X5 = 5.317, X6 = 0.636. Standard Deviation on dependent variable Y = 0.214 and independent variable X1 = 1.889, X2 = 1.240, X3 = 2.703, X4 = 4.156, X5 = 1.347, X6 = 0.414.

Normality Test

Table 2. Normality Test

		NPM	ACP	IT	APP	CR	FS	DR
N		96	96	96	96	96	96	96
Normal Parameters[a,b]	Mean	0.107	7.282	2.415	1.593	6.453	5.317	0.636
	Std. Deviation	0.214	1.889	1.240	2.703	4.156	1.347	0.414
Most Extreme Differences	Absolute	0.095	0.094	.099	0.098	0.097	0.097	0.096
	Positive	0.095	0.094	.088	0.032	0.097	0.056	0.096
	Negative	-0.072	-0.067	-.099	-0.098	-0.063	-0.097	-0.073
Test Statistic		0.095	0.094	.099	0.098	0.097	0.097	0.096
Asymp. Sig. (2-tailed)[c]		0.082	0.087	.056	0.061	0.067	0.069	0.072
Monte Carlo Sig. (2-tailed)[d]	Sig.	0.082	0.087	.056	0.061	0.067	0.069	0.072

Based on the results of data tests on SPSS, it is known that Profitability/NPM (Net Profit Margin) produces a significant Kolmogorov-Smirnov value of 0.820 (>0.05). Test results for variable Average Collection have a value of 0.087 (>0.05), test results for variable Inventory Turnover have a value of 0.56 (>0.05), test results for variable Liquidity have a value of 0.061 (>0.05), test results for variable Average Payment have a value of 0.067 (>0.05), test results for variable Firm Size (Total Assets) have a value of 0.690 (>0.05), and the test results for the variable Debt Ratio have a value of 0.072 (>0.05). This proves that the research data is normally distributed and feasible for further testing because the variable value is greater than 0.050.

Multicollinearity Test

Table 3. The Results of the Multicollinearity Test

Model	Unstandardized	Coefficients	Standardized Coefficients			Collinearity Statistics	
	B	Std. Error		t	Sig.	Tolerance	VIF
(Constant)	0.366	0.058		6.298	0,021		
ACP	-0.007	0.001	0.019	-5,781	0,011	0.642	1.558
IT	-0.010	0.003	0.290	-3,122	0,003	0.652	1.534
APP	0.015	0.003	0.530	-4,855	0,001	0.775	1.290
CR	0.037	0.001	0.693	-9,603	0,012	0.840	1.191
FS	-0.048	0.009	-0.491	-5,137	0,001	0.773	1.294
DR	-0.038	0.006	0.037	-5,929	0,018	0.711	1.406

Based on the research data above, variable dependent X1 has a tolerance value of 0.642 (>0.10) and a VIF value of 1.558 (<10), variable dependent X2 has a tolerance value of 0.652 (>0.10) and a VIF value of 1.534 (<10), variable dependent X3 has a tolerance value of 0.775 (>0.10) and a VIF value of 1.290, variable dependent X4 has a tolerance value of 0.840 (>0.10) and a VIF value of 1.191 (<10), variable dependent X5 has a tolerance value of 0.773 (>0.10), and a VIF value of 1.294, and dependent variable X6 has a tolerance value of 0.711 (>0.10) and a VIF value of 1.406 (<10). This proves that the regression model does not contain symptoms of multicollinearity because the tolerance value is >0.10 and the VIF value is <10.

Heteroscedasticity Test

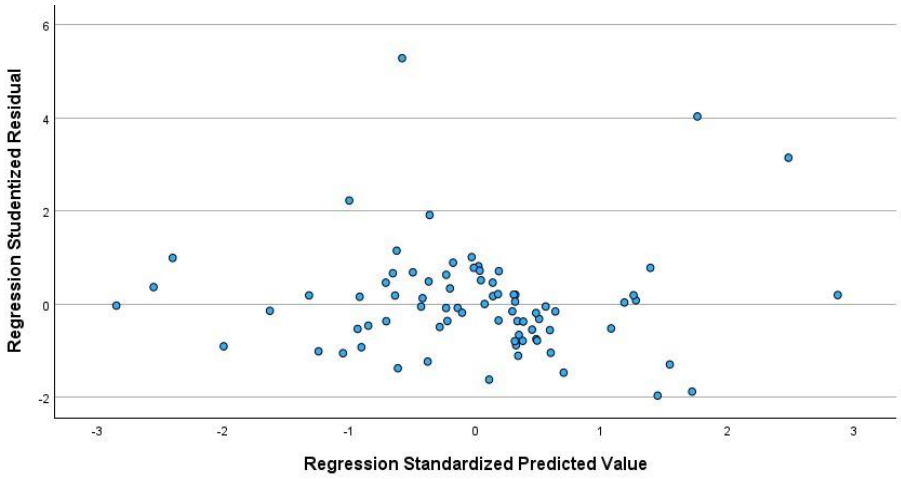

Figure 1. The result of Heteroscedasticity Test

Based on the picture of the research data above, it shows the dots spread above and below or around the number 0 and are random or do not form a certain pattern so that it can be concluded that the data does not occur symptoms of heteroskedasticity in the research data.

Autocorrelation Test

Table 4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,982[a]	0,964	0,960	,01568	1,230

Based on the data above, it is known that the value R = 0.982 which means that working capital has a high level of relationship to the profitability of a manufacturing company in the food and beverage industry subsector. In the coefficient of determination (R2) = 0.960 which means that

96% of the effect of profitability is influenced by working capital, while the remaining 4% is influenced by other factors outside of this study.

Quantitative Statistical Analysis

Regression Analysis

Table 5. Double Linier Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	0.366	0.058		6.298	0,021
	ACP	-0,007	0,001	0,019	-5,781	0,011
	IT	-0,010	0,003	0,290	-3,122	0,003
	APP	0,015	0,003	0,530	-4,855	0,001
	CR	0,037	0,001	0,693	-9,603	0,012
	FS	-0,048	0,009	-0,491	-5,137	0,001
	DR	-0,038	0,006	0,037	-5,929	0,018

Based on the processed data above using the formula:

$$NPM = \beta_0 + \beta_1 (ACP) + 2\ \beta\ (IT) + 3\ \beta\ (APP) + 4\ \beta(CR) + 5\ \beta\ (DR) + 6\ \beta\ (FS) + \varepsilon$$

$$Y = 0{,}366+0{,}007X1+ 0{,}010X2+0{,}015X3+0{,}037X4+0{,}0048X5+0{,}38X6$$

So, from the resultd of the regression equation, then, A constant (bo) of 0.366 means that the consistent value of the ACP, IT, APP, CR, FS, DR variable is 0,366.

Hypothesis Test 1) Statistic F Test (Simultaneous)

Table 6. Statistic F Test Result (Simultaneous)

ANOVA[a]						
Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	
1	Regression	0,447	6	0,074	6,767	0,018[b]
	Residual	1,910	89	0,027		
	Total	2,356	95			

Based on the results of the F Test above, it can be simultaneously seen that this equation model has a significance level of 0.018 smaller than the α value of 0.05 with an F value of 6.767. This means that the model is fit.

Statistic t Test (Partial)

Based on research data, the t test above shows the following results, an average Collection Period has a value of -5.781 with a significant value of 0.011. Based on these results, it can be said that the significance value of the Average Collection Period is smaller than the test level value (<0.05), so the Average Collection Period (X1) has a significant effect on profitability/NPM(Y).

Table 7. Statistic t Test Result (Partial)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.366	0.058		6.298	0,021
ACP	-0,007	0,001	0,019	-5,781	0,011
IT	-0,010	0,003	0,290	-3,122	0,003
APP	0,015	0,003	0,530	-4,855	0,001
CR	0,037	0,001	0,693	-9,603	0,012
FS	-0,048	0,009	-0,491	-5,137	0,001
DR	-0,038	0,006	0,037	-5,929	0,018

Inventory Turnover has a value of -3.122 with a significant value of 0.003. Based on these results, it can be said that the significance value of Inventory Turnover is smaller than the test level value (<0.05), so Inventory Turnover (X2) has a significant effect on profitability/NPM(Y).

1. The Average Payment Period has a value of -9.603 with a significant value of 0.012. Based on these results, it can be said that the significance value of the Average Payment Period is smaller than the test level value (<0.05), so the Average Payment Period (X4) has a significant effect on profitability/NPM(Y).
2. Liquidity has a value of -4.855 with a significant value of 0.001. Based on these results, it can be said that the significance value of the Liquidity is smaller than the test level value (<0.05), so the Liquidity (X4) has a significant effect on profitability/NPM(Y).
3. Firm Size has a value of -5.137 with a significant value of 0.001. Based on these results, it can be said that the significance value of Firm Size is smaller than the test level value (<0.05), then Firm Size (X5) has a significant effect on profitability/NPM(Y).
4. Debt Ratio has a value of -5.781 with a significant value of 0.018. Based on these results, it can be said that the significance value of the Debt Ratio is smaller than the test level value (<0.05), then the Debt Ratio (X6) has a significant effect on profitability/NPM(Y).

Discussion

The Effect of Average Collection Period on Company Profitability

The results of the first hypothesis test show that the Average Collection Period variable has a significant effect on the profitability of a company, which means that the first hypothesis is accepted. The results of this discussion were also approved by previous researchers [19], [20], [21]. It can be seen that the relationship between the Avarage Collection Period variable and the company's profitability, namely a value of t -5.781, shows that the regression coefficient (β) is very different from zero in the negative direction, indicating a strong and significant relationship between ACP and profitability. The ACP have a negativ significant impact on profitability. A p-value of 0.011, less than 0.05, indicates that the result is statistically significant at a 95% confidence level. In other words, there is a significant relationship between ACP and profitability. The small avarage collection period can increase the profitability, The short avarage collection period refers the company more efficient, because the cost of capital more efficient. An F-value of 6.767 indicates how well the regression model matches the data. The significance of the F-value of 0.018, which is also less than 0.05, indicates that the regression model is significant.

The Effect of Inventory Turnover on Company Profitability

The results of the second hypothesis test show that the Inventory Turnover variable has a significant effect on the profitability of a company, which means that the second hypothesis is accepted. The results of this discussion were also approved by previous researchers, namely [8]. The relationship between Inventory Turnover and Company Profitability seen from the tvalue of -3.122 shows that the regression coefficient (β) is very different from zero in the negative direction, indicating a significant relationship between Inventory Turnover and profitability. A negative and large t-value indicates that changes in Inventory. The higher inventory turnover refer the fund that invested in the inventory smaller. It means that the cost of capital more efficiennt, so can improve the companies profitability.

The Effect of Average Payment Period on Company Profitability

The results of the third hypothesis test show that the Average Payment Period variable has a significant effect on the profitability of a company, which means that the third hypothesis is accepted. The results of this discussion were also approved by previous researchers [16]. The relationship between the Average Payment Period indicating a positive impact on profitability. Higher APP means the companies have smaller cash conversion cycle and can improve the profitablity [4].

The Effect of Liquidity on Company Profitability

The results of the fourth hypothesis test show that the Liquidity variable has a significant effect on the profitability of a company, which means that the fourth hypothesis is accepted. The results of this discussion were also approved by previous researchers by [16], [19], [23]. The relationship between Liquidity and Profitability of a company indicates that there is positive and significant. It means that higher liquidity can improve the profitability. It is posible that the higher cash, account receivable and inventory can improve the sales, and the increasing sales can increase the profitability.

The Effect of Firm Size on Company Profitability

The results of the fourth hypothesis test show that the Liquidity variable has a significant effect on the profitability of a company, which means that the fourth hypothesis is accepted. The results of this discussion were also approved by previous researchers by [10], [21], [24]. A negative and significant t-value indicates a significant negative relationship between company size and profitability. In other words, the larger the size of the company, the lower the profitability [25]. The Big companies can give impact decreasing profitability, if the companies have higher financing that invested in unproductive asset.

The Effect of Debt Ratio on Company Profitability

The results of the sixth hypothesis test show that the Debt Ratio variable has a significant effect on the profitability of a company, which means that the sixth hypothesis is accepted. The results of this discussion were also approved by previous researchers [19], [20], [21]. The relationship between Debt Ratio and profitability indicates that the Debt Ratio has a negative significant influence on the profitability [25]. The higher debt ratio can increasing cost of capital that can decreasing the profitability.

5. Conclusion

This research shows that to increase the efficiency of working capital to boost profitability. the Average Collection Period significantly affects a company's profitability. Turnover significantly impacts a company's profitability. Higher inventory turnover indicates rapid sales and replenishment of inventory, suggesting effective inventory management and minimizing the accumulation of unmarketable products. The Average Payment Period significantly affects a company's profitability. The liquidity also significantly gives impacts on company's profitability, The Firm Size variable has a significant effect on the profitability of a company. The Debt Companies that wisely use debt can finance profitable investment projects thus boosting profitability. The companie that need to improve the profitability, have to consider working capital management.

References

[1] A. Raheman and M. Nasr, “Working Capital Management and Profitability-case of Pakistani Firms International Review of Business Research Papers Working Capital Management And Profitability,” *Int. Rev. Bus. Res. Pap.*, vol. 3, no. 1, pp. 279–300, 2007.

[2] M. Singhania and P. Mehta, “Working capital management and firms’ profitability: evidence from emerging Asian countries,” *South Asian J. Bus. Stud.*, vol. 6, no. 1, pp. 80–97, 2017, doi: 10.1108/SAJBS-09-20150060.

[3] K. Fryer, J. Antony, and S. Ogden, “the Impact of Corporate Finance Decisions on Market Value in Emerging Markets,” *Int. J. Product. Perform. Manag. Iss Meas. Bus. Excell. Iss Int. J. Public Sect. Manag.*, vol. 54, no. 6, pp. 551–567, 2018.

[4] K. Socrates and B. V. Gopalakrishna, “Working capital management: evidence from Norway,” *Int. J. Manag. Financ.*, vol. 12, no. 3, pp. 1–16, 2016.

[5] M. Tahir, M. Arturo, R. Estrada, A. Ekonomiczno-humanistyczna, and I. Khan, “Journal of Asia Business Studies Article information :,” *J. Asia Bus. Stud.*, vol. 10, no. January, pp. 93–103, 2016.

[6] C. Bussoli and D. Conte, “Trade credit and firm profitability: moderation analysis of intercompany financing in Italy,” *J. Small Bus. Enterp. Dev.*, vol. 27, no. 6, pp. 965–985, 2020, doi: 10.1108/JSBED-04-2020-0133.

[7] K. Amponsah-Kwatiah and M. Asiamah, “Working capital management and profitability of listed manufacturing firms in Ghana,” *Int. J. Product. Perform. Manag.*, 2020, doi: 10.1108/IJPPM-02-2020-0043.

[8] N. Altaf and F. A. Shah, “How does working capital management affect the profitability of Indian companies?,” *J. Adv. Manag. Res.*, vol. 15, no. 3, pp. 347–366, 2018, doi: 10.1108/JAMR-06-2017-0076.

[9] L. Rey-Ares, S. Fernández-López, and D. Rodeiro-Pazos, “Impact of working capital management on profitability for Spanish fish canning companies,” *Mar. Policy*, vol. 130, 2021, doi: 10.1016/j.marpol.2021.104583.

[10] N. S. Abdel Megeid, “Liquidity risk management: conventional versus Islamic banking system in Egypt,” *J. Islam. Account. Bus. Res.*, vol. 8, no. 1, pp. 100–128, 2017, doi: 10.1108/JIABR-05-2014-0018.

[11] F. Laghari and Y. Chengang, “Investment in working capital and financial constraints: Empirical evidence on corporate performance,” *Int. J. Manag. Financ.*, vol. 15, no. 2, pp. 164–190, 2019, doi: 10.1108/IJMF10-2017-0236.

[12] I. Ramlall, “Ratios/Metrics of Financial Stability Assessment,” *Tools Tech. Financ. Stab. Anal.*, pp. 91–114, 2018, doi: 10.1108/978-1-78756-845-720181005.

[13] D. A. R. Inten, SE., M.Si., “Pengaruh Perputaran Persediaan Dan Perputaran Hutang Terhadap Solvabilitas.,” *J. Akunt. dan Bisnis Krisnadwipayana*, vol. 7, no. 2, pp. 67–82, 2020, doi: 10.35137/jabk.v7i2.379.

[14] A. Agustin, “Analisis Pengendalian Piutang Terhadap Penagihan Piutang Arus Kas Pt.Cowell Development Tbk,” *J. Bina Akunt.*, vol. 6, no. 2, pp. 42–65, 2019, doi: 10.52859/jba.v6i2.61.

[15] J. Rahayu, E. A., & Susilowibowo, “Pengaruh Manajemen Modal Kerja Pada Industri Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2011.,” *J. Ilmu Manaj.*, vol. 2, no. 4, pp. 1444–1455, 2013.

[16] K., J. Ali, M. Ud Din, A. Waris, M. Tahir, and S. Khan, “Working Capital Management and Firms’ Profitability: Dynamic Panel Data Analysis of Manufactured Firms,” *J. Financ. Risk Manag.*, vol. 09, no. 04, pp. 494–517, 2020, doi: 10.4236/jfrm.2020.94027.

[17] J. Digout, “EuroMed Journal of,” *Researchgate.Net*, vol. 12, 2021.

[18] J. Zhang, Y. Zhao, and Y. Wang, “A study on statistical methods used in six journals of library and information science,” *Online Inf. Rev.*, vol. 40, no. 3, pp. 416–434, 2016, doi: 10.1108/OIR-07-2015-0247.

[19] A. S. Alarussi and S. M. Alhaderi, “Factors affecting profitability in Malaysia,” *J. Econ. Stud.*, vol. 45, no. 3, pp. 442–458, 2018, doi: 10.1108/JES-05-2017-0124.

[20] C. Basdekis, A. Christopoulos, I. Katsampoxakis, and A. Lyras, “Profitability and optimal debt ratio of the automobiles and parts sector in the Euro area,” *J. Cap. Mark. Stud.*, vol. 4, no. 2, pp. 113–127, 2020, doi: 10.1108/jcms-08-2020-0031.

[21] I. Dalci, “Impact of financial leverage on profitability of listed manufacturing firms in China,” *Pacific Account. Rev.*, vol. 30, no. 4, pp. 410–432, 2018, doi: 10.1108/PAR-01-2018-0008.

[22] H. C. Hoang, Q. Xiao, and S. Akbar, “Trade credit, firm profitability, and financial constraints: Evidence from listed SMEs in East Asia and the Pacific,” *Int. J. Manag. Financ.*, vol. 15, no. 5, pp. 744–770, 2019, doi: 10.1108/IJMF-09-2018-0258.

[23] C. F. Egbunike and C. U. Okerekeoti, “Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria,” *Asian J. Account. Res.*, vol. 3, no. 2, pp. 142–168, 2018, doi: 10.1108/AJAR-09-2018-0029.

[24] E. J. Cyril and H. K. Singla, “The mediating effect of productivity on profitability in Indian construction firms,” *J. Adv. Manag. Res.*, vol. 18, no. 1, pp. 152–169, 2021, doi: 10.1108/JAMR-05-2020-0092.

[25] Mulyono, H. (2018). Kepemimpinan (leadership) berbasis karakter dalam peningkatan kualitas pengelolaan perguruan tinggi. *Jurnal Penelitian Pendidikan Sosial Humaniora*, 3(1), 290–297.