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THE EFFECT OF CASH FLOW, LEVERAGE, GROWTH OPPORTUNITIES AND COMPANY SIZE ON WORKING CAPITAL MANAGEMENT

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ABSTRACT

This study aims to determine the relationship between Cash Flow, Leverage, Growth Opportunities and Company Size on Working Capital Management as measured by the Cash Conversion Cycle. This study uses a quantitative approach with multiple regression analysis tools. Sample Using food and beverage sub-sector manufacturing companies listed on the Indonesian stock exchange. The dependent variable is working capital management proxied by the cash conversion cycle. The longer the cycle, the more funds are invested in working capital, indicating the need for additional capital. While the independent variables consist of cash flow, leverage, growth opportunities and company size. This study found that growth opportunities and debt policies had a positive and significant effect on the company's working capital management. Aggressive selling and use of debt will result in a longer cash conversion cycle for the company. This study also found that company size and cash flow had no effect on the company's working capital management.

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1. INTRODUCTION

Perfect capital market theory states that investment decisions do not depend on financing decisions and, therefore, investment policy only depends on the availability of investment opportunities that have a positive Net Present Value (Modigliani and Miller, 1958) in [1]. This happens because it is assumed that the company has unlimited access to external financial sources and provides a perfect substitution effect for internal resources. In this situation, the longer Cash Conversion Cycle (CCC) is also viewed as a disadvantageous opportunity *cost*, because companies can obtain external funding without problems and at reasonable prices [2]. In practice, however, internal and external sources of finance are not perfect substitutes. External finance, debt or issuance of new shares, will have a higher cost of capital than internal finance due to market imperfections[3]. Under these circumstances, the firm's investment and funding decisions are interdependent, and the firm may have an optimal CCC that will balance costs and benefits and maximize its value [4].

In particular, a large CCC can increase a company's sales and consequently its profitability for several reasons [5]. Larger inventories can prevent interruptions in the production process and business losses due to product scarcity, can reduce supply costs and price fluctuations [6]. In addition, through the expansion of greater credit sales, companies can increase their sales [7], because it allows customers to check that the merchandise they receive is as agreed (quantity and quality) and to ensure that what has been written in the contract has been carried out. This argument is also supported by [8], which states that the provision of sales credit stimulates sales because it allows customers to assess product quality before paying. It also helps companies to strengthen long-term relationships with their customers. In addition, from a debt perspective, companies may get significant discounts on early payments if they reduce supplier financing [9]. However, maintaining high investment in working capital also has an opportunity cost if the company forgoes other, more productive investments to maintain that level and. Therefore, CCC is sensitive to internal resources, external funding costs, access to capital markets, and bargaining power with suppliers and customers [1].

Information asymmetry implies higher costs for external funding sources and bank credit for companies, therefore leading to conflicts of interest between shareholders and creditors [10]. This conflict can lead to the problem of underinvestment, given the priority of creditors in the event of bankruptcy. In addition, shareholders also expect more incentives to issue new debt, as this increases risk and lowers the value of existing debt. Consequently, creditors demand a higher risk premium. Information asymmetry exists between company management and potential outside investors, therefore, resulting in higher costs

for external sources of funds, thus making companies prioritize internally generated resources over debt or issuing new shares.

Empirical research shows that firms with greater capacity to generate internal resources have higher levels of current assets, which may be due to the lower cost of funds invested in working capital for these firms [11]. Furthermore [12] also showed the effect of cash flow on working capital management and suggested companies with larger cash flows had better working capital management. Cash flow is used to consider the capacity to generate internal resources. Cash flow is used because, according to several previous studies, it is the most appropriate variable to represent the capacity to generate internal resources. Empirical evidence to date provides different indications, making it difficult to anticipate the direction of the influence of cash flows on working capital variables. On the other hand, external funding sources are represented by corporate leverage. The cost of capital invested in CCC is higher for companies with greater leverage, because according to the pecking order theory, they have to pay a higher risk premium [11]. In fact, empirical evidence suggests a reduction in working capital management measures when firms increase their leverage [13].

Growth opportunities can also be related to the company's working capital management, as has been shown in various empirical studies. This variable may affect the sale of trade credits granted and received by companies, as well as their investment in inventory [14]. Future sales growth has a positive effect on a firm's working capital, and they suggest that firms might build inventory in anticipation of future sales growth. However, a company with higher growth options may have a smaller CCC for two reasons. First, high-growth companies tend to use more credit sales as a source of financing for their growth, because they have more difficulty accessing other forms of financing. Second, such companies might give more credit to their customers to increase their sales during periods of low demand. Therefore, since these different considerations lead to conflicting conclusions about the expected effect of growth options on working capital investment, the expected relationship is not clear [11].

Size is another variable related to working capital management [14]. This may be because the cost of capital used to invest in current assets decreases with firm size, since smaller firms have greater information asymmetry. In addition, according to the trade-off theory, small companies have a higher probability of bankruptcy, because larger companies tend to be more diversified and fail less frequently [10]. This can affect the sale of credit provided, because companies with better access to capital markets provide more credit sales. In fact, the latter shows that firm size positively influences credit sales issued [14]. Smaller companies also face greater financial constraints, which can also increase the trade credit they receive, because they use this form of credit when other forms are not available. In short, the cost of capital invested in current assets is higher for small companies, so they may have lower accounts receivable and inventories. In addition, as already mentioned, these companies make more use of credit purchases from their suppliers. Therefore, this study aims to determine the relationship between Cash Flow, Leverage, Growth Opportunities and Company Size on Working Capital Management as measured by the Cash Conversion Cycle.

2. METHOD

Type and Data Source

The population in this study uses food and beverage sub-sector manufacturing companies for the 2020-2022 period. The sampling method used is purposive sampling with the criteria of a sample of companies registered during the observation period and submitting financial reports consistently. Data were obtained from the publication of financial reports, either through the official website of the Indonesian stock exchange or the official website of each sample company.

Analysis Method

This study uses a quantitative approach with multiple regression analysis tools. The dependent variable used in this analysis is calculated as (accounts receivable/sales)*365 + (inventories/purchases)* 365)+(payables/purchases)*365. The longer the cycle, the more funds are invested in working capital, indicating the need for additional capital. While the independent variables consist of cash flow, leverage, growth opportunities and company size. Cash Flow is calculated as the ratio of net income plus depreciation to total assets. Leverage is measured using the ratio of debt to total assets. Growth opportunities are measured by the sales growth ratio. This ratio measures past growth, and assumes that companies that have grown well so far are better prepared to continue growing in the future. Meanwhile, the company size variable is defined as the natural logarithm of assets.

3. RESULT AND DISCUSSION

3.1 Descriptive Analysis

This study uses research sample companies in the food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange. The number of samples that met the criteria for further analysis were 33 companies and the observations were carried out for three years so that the total observation data was 99 data. In summary, the descriptions of the research variables are summarized in table 1.

Tabel 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Growth Opportunities	99	-,36	1,76	,1586	,31713
Company Size	99	11,49	19,01	15,2923	1,66755
Cash Conversion Cycle	99	68,66	803,89	274,9205	181,01470
Debt policy	99	,10	,96	,3807	,18686
Cash flow	99	-,06	,44	,1218	,10345
Valid N (listwise)	99				

From Table 1 it can be seen that the maximum value for sales growth is 1.76 and the lowest value is -0.36. This minus sign means that the company experienced a decrease in sales from the previous year. On average, during the observation period, sales of food and beverage sub-sector companies increased by 0.1586 times or around 15.86%. This indicates that from a sales point of view, this sub-sector has shown stable performance. Company size is the natural logarithm of total asset value. Judging from the value of its assets, the range of the largest company and the smallest company is not too far away, namely between 11.49 and 19.01. The average cash conversion cycle for food and beverage companies is 275 days. This means that from the company's credit sales to cash takes 275 days. This indicates that the company has a long enough time to obtain cash. The fastest time that a food and beverage sub sector company can produce is 67 days, while the longest time can reach 803 days or more than 2 years. This also shows that there are companies that will experience liquidity problems later.

Debt policy is measured by a ratio of debt to assets. On average, companies in the food and beverage sub-sector are quite safe in using debt, which is around below 40%. However, there are companies that are quite aggressive in using debt, even reaching 96%. There are also companies that are quite conservative using debt of only 10% of total assets. Cash flow in this study illustrates the power of cash owned by the company compared to the assets it owns. On average, companies in the food and beverage sub-sector have a value of 12.18%, which means that the cash generated from the company's operating activities is 12.18% of its total assets.

3.2 Classic assumption test

The classic assumption test in this study is a way to determine the feasibility of a multiple regression model that meets the requirements for further analysis. The tests are data normality test, heteroscedasticity test, autocorrelation test, and multicollinearity test. The normality test was carried out to determine the distribution of data. This is the main requirement for the parametric test which requires the data to be normally distributed. This study uses the Kolmogorov-Smirnov test. The data is declared normally distributed if the asymp value Sig > 0.05. The normality test results can be summarized in table 2.

Table 2 Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		99
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	2377,31865410
Most Extreme Differences	Absolute	,188
	Positive	,188
	Negative	-,134
Test Statistic		,188
Asymp. Sig. (2-tailed)		,213[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Based on table 2, the asymp. value is obtained. sig (2 tailed) is 0.213 where the value is greater than the significance level of 0.05 so it can be concluded that the data in this study are normally distributed.

The next test is the heteroscedasticity test. This test aims to test whether in the regression model there is an inequality of variance from one residual to another. If the variance from one residual from one observation to another is fixed, then homoscedasticity occurs, if different, it is called heteroscedasticity. A good regression model is one that does not have heteroscedasticity. If a significant independent variable occurs statistically affecting the dependent variable, then there is an indication of heteroscedasticity. This study uses the park test (park test) to determine symptoms of heteroscedasticity. The test criterion is if the significance value of each variable is greater than 0.05 then heteroscedasticity does not occur, and vice versa. The results of the park test are presented in table 5. It can be seen that all the significance values of the park test for each independent variable are greater than 0.05. This means that all variables in this regression model have no symptoms of heteroscedasticity.

Table 3. Park test[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Say.
1	(Constant)	-5.425	2.179		-2.490	.017
	Growth Opportunities	,964	,870	,148	2,108	.742
	Company Size	-,391	,173	-,316	-2,255	.294
	Debt policy	5,720	1,567	,518	3,650	.496
	Cash flow	-,260	2,598	-,013	-3,100	.664

a. Dependent Variable: LnRes

The next classic assumption test is the multicollinearity test. This test was conducted to see whether the regression model found a correlation between the independent variables. A good regression model should not have multicollinearity. The way to detect it is to look at the Variance Inflation Factor (VIF) value. If VIF > 10, then the variable has a multicollinearity problem with other independent variables.

Table 4. Multicollinearity Test[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Growth Opportunities	,887	1,127
	Company Size	,809	1,236
	Debt policy	,787	1,270
	Cash flow	,935	1,070

a. Dependent Variable: : Cash Conversion Cycle

The table above shows that the tolerance value of the three independent variables in this study is <1 and the Variance Inflation Factor (VIF) value is <10, meaning that all independent variables in this study are free from the classic multicollinearity assumption.

The last classic assumption test is the autocorrelation test in this study using a run test. The indicator is the asymp. sig (2-tailed) in the run test is greater than 0.05, so there are no symptoms of autocorrelation, and vice versa. The results of the run test can be seen in table 5 below. From table 7 it is known that the asymp. sig (2-tailed) of 0.568 which means that there is no autocorrelation

Table 5. Runs Test

	Unstandardized Residual
Test Value[a]	-297,24894
Cases < Test Value	48

Cases >= Test Value	51
Total Cases	99
Number of Runs	47
WITH	-,572
Asymp. Sig. (2-tailed)	,568

a. Median

3.3 Regression Analysis

R determination test[2] used to determine the contribution of the influence of the independent variables on the dependent variable. The results of the coefficient of determination are presented in table 6 as follows:

Table 6. Determination Test (R^2)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,697[a]	,486	,441	2480,72819

a. Predictors: (Constant), Cash Flow, Debt Policy, Growth Opportunities, Company Size

The results of calculating the regression coefficient in this study obtained an R value[2] 0.509. This means that the independent variables can explain the variation of the dependent variable by 48.6%, while the remaining 51.4% is explained by other variables outside the research variables. This result is quite good, which means that the variability of the independent variables is sufficient to explain the variability of the dependent variable.

Simultaneous Test (F Test) to find out whether all the independent variables are able to influence the dependent variable. In addition, the F test was conducted to test the accuracy of the regression model. The results of the F test calculations in this study can be seen in table 7. Based on the table the F test results obtained a value with a significance level of 0.000 where the significance value is less than 0.05, it can be said that free cash flow, profitability, debt policy and company liquidity affects the company's dividend policy.

Table 7. Simultaneous Test (F test)

ANOVA[a]

	Model	Sum of Squares	df	Mean Square	F	Say.
1	Regression	262226788,236	4	65556697,059	10,653	,000[b]
	Residual	276930555,173	45	6154012,337		
	Total	539157343,409	49			

a. Dependent Variable: Cash Conversion Cycle

b. Predictors: (Constant), Cash Flow, Debt Policy, Growth Opportunities, Company Size

To see the effect of each independent variable on the dependent variable, the t test is used. A summary of the results of this test can be seen in table 8.

Table 8. Partial Test (t test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Say.
1	(Constant)	2180,875	3493,043		,624	,536
	Growth Opportunities	5255,710	1186,432	,502	4,430	,000
	Company Size	-261,401	236,240	-,131	-1,107	,274
	Debt policy	6543,659	2137,180	,369	3,062	,004
	Cash flow	-4756,506	3542,732	-,148	-1,343	,186

a. Dependent Variable: Cash Conversion Cycle

Based on the results of the t test, it can be seen the effect of each variable in this study. Growth opportunity variables and debt policy have a positive and significant effect on working capital management

with a significance value of less than 0.05. On the other hand, firm size and cash flow have no significant effect on working capital management because the significance test value is greater than 0.05.

3.4 Discussion

Manufacturing companies in the food and beverage sub-sector that are listed on the Indonesian stock exchange for the 2020-2022 period generally use credit sales as an effort to maintain stable sales. Working capital management is aimed at balancing the profits and risks faced by companies when making sales and or purchases. credit. In this study it was confirmed that growth opportunities proxied by sales growth had a significant effect on the cash conversion cycle as a proxy for working capital management. This means that when a company increases sales or has growth opportunities, it will increase the company's cash conversion cycle. The variable that also has a significant effect is the company's debt policy. This study shows a positive relationship between debt policy and working capital management. This means that when a company uses more debt, the cash conversion cycle also increases. Aggressive use of debt will also improve the company's working capital management. This is in line with research conducted by [15] and [16]

On the other hand, the variable company size has no significant effect on working capital management which also means that in the case of working capital management it has nothing to do with company size, both large companies and small companies. The variable that also has no significant effect on working capital management is cash flow. This means that the size of the company's cash flow has no impact on the company's cash conversion cycle. Lack of company cash does not affect how the company manages its working capital, as well as if it experiences excess cash. This study supports research conducted by [1]; [14]; and [16].

4. CONCLUSION

This study found that growth opportunities and debt policies had a positive and significant effect on the company's working capital management. Aggressive selling and use of debt will result in a longer cash conversion cycle for the company. This study also found that company size and cash flow had no effect on the company's working capital management.

REFERENCE

[1] S. Baños-Caballero, P. J. García-Teruel, and P. Martínez-Solano, "Working capital management, corporate performance, and financial constraints," *J. Bus. Res.*, vol. 67, no. 3, pp. 332–338, 2014, doi: 10.1016/j.jbusres.2013.01.016.

[2] H. Nobanee and M. N. Dilshad, "A bibliometric analysis on working capital management: Current status, development, and future directions," *Acad. Strateg. Manag. J.*, vol. 20, no. SpecialIssue2, pp. 1–13, 2021.

[3] K. Padachi, C. Howorth, and M. S. Narasimhan, "Working capital financing preferences: The case of Mauritian manufacturing small and medium-sized enterprises (SMEs)," *Asian Acad. Manag. J. Account. Financ.*, vol. 8, no. 1, pp. 125–157, 2012.

[4] I. M. D. Satriya and P. V. Lestari, "Pengaruh Perputaran Modal Kerja Terhadap Profitabilitas Perusahaan," *e-Jurnal Manaj. Univ. Udayana*, vol. 3, no. 7, pp. 1927–1942, 2014.

[5] A. Pernanda and H. Tipa, "Pengaruh Perputaran Piutang Dan Perputaran Persediaan Terhadap Profitabilitas Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia," *SEIKO J. Manag. Bus.*, vol. 5, no. 2, pp. 327–337, 2022, doi: 10.24967/jmms.v1i04.605.

[6] R. Elkamhi and Y. Nozawa, "Fire-sale risk in the leveraged loan market," *J. financ. econ.*, vol. 146, no. 3, pp. 1120–1147, 2022, doi: https://doi.org/10.1016/j.jfineco.2022.05.003.

[7] R. Rahayu, M. Zahro, and D. Maryam, "Optimalisasi Working Capital Pada Perusahaan Financial Constraints Di Indonesia," *J. Progr. Stud. Akunt.*, vol. 6, no. 2, pp. 117–123, 2020, doi: 10.31289/jab.v6i2.3525.

[8] B. Wulandari and W. A. Ompusunggu, "Effect of receivables turnover, sales, cash turnover, inventory turnover, and debt against net profit," *J. Econ. Bus. Account.*, vol. 4, no. 2, pp. 445–454, 2021.

[9] N. Lusgiannivia, Sheren, Josephine, A. P. Putri, and D. C. Ovami, "Pengaruh Penjualan Bersih, Perputaran Kas, Perputaran Piutang, Dan Perputaran Persediaan Terhadap Profitabilitas Pada Perusahaan Manufaktur Yang Terdaftar Di BEI Periode 2019-2021," *Manag. Stud. Entrep. J.*, vol. 4, no. 3, pp. 2032–2039, 2023.

[10] R. P. Boisjoly, T. E. Conine, and M. B. McDonald, "Working capital management: Financial and valuation impacts," *J. Bus. Res.*, vol. 108, no. September 2019, pp. 1–8, 2020, doi:

10.1016/j.jbusres.2019.09.025.
[11] B. Le, "Working capital management and firm's valuation, profitability and risk: Evidence from a developing market," *Int. J. Manag. Financ.*, vol. 15, no. 2, pp. 191–204, 2019, doi: 10.1108/IJMF-01-2018-0012.
[12] S. Mahardini and E. M. Arif, "Pengaruh Modal Kerja Bersih Dan Arus Kas Operasi Terhadap Laba Bersih Pada Pt. Kalbe Farma, Tbk.," *J. Akunt. FE-UB*, vol. 11, no. 1, pp. 49–69, 2017.
[13] M. Zaki, J. Manajemen, and F. Ekonomi, "Pengaruh Arus Kas, Kesempatan Investasi, Leverage, dan Modal Kerja terhadap Keputusan Investasi Aktiva Tetap pada Perusahaan Financially Constrained," *J. Ilmu Manaj.*, vol. 1, no. 1, 2013.
[14] S. Rahmawati, M. A. Salim, and M. K. ABS, "Pengaruh Likuiditas, Pertumbuhan Penjualan, Perputaran Modal Kerja, Ukuran Perusahaan dan Leverage Terhadap Profitabilitas Perusahaan," *e-Jurnal Ris. Manaj. Prodi Manaj. FE Unisma*, pp. 82–94, 2016.
[15] Y. Supriadi and R. Puspitasari, "PENGARUH MODAL KERJA PADA PT INDOCEMENT TUNGGAL PRAKARSA TBK (Effect of Working Capital to Sales and Profitability)," *J. Ilm. Kesatuan*, vol. 14, no. 1, pp. 71–80, 2012.
[16] L. N. Megarifera and A. M. Haryanto, "Analisis Pengaruh Ukuran Perusahaan, Profitabilitas, Operating Cycle, Leverage, Dan Pertumbuhan Penjualan Terhadap Jumlahmodal Kerja," *DIPONEGORO JOURNALOFMANAGEMENT http//ejournal-s1.undip.ac.id/index.php/dbr Vol.*, vol. 2, no. 2, pp. 1–12, 2013.