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THE EFFECT OF WORKING CAPITAL TURNOVER, LIQUIDITY, LEVERAGE TO PROFITABILITY: FOOD & BEVERAGE COMPANIES LISTED IN INDONESIA STOCK EXCHANGE

ВПЛИВ ОБОРОТНОСТІ ОБОРОТНОГО КАПІТАЛУ, ЛІКВІДНОСТІ, ЛЕВЕРИДЖУ НА ПРИБУТКОВІСТЬ: КОМПАНІЇ ХАРЧОВОЇ ПРОМИСЛОВОСТІ, ЩО КОТИРУЮТЬСЯ НА ІНДОНЕЗІЙСЬКІЙ ФОНДОВІЙ БІРЖІ

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Endo Waroka, Enda Noviyanti Simorangkir, Rasinta Ria Ginting, Galumbang Hutagalung. Вплив оборотності оборотного капіталу, ліквідності, левериджу на прибутковість: Компанії харчової промисловості, що котируються на Індонезійській фондовій біржі. Науково-методична стаття.

Щоб виміряти, наскільки успішно є компанія в отриманні норми прибутку, необхідно проводити фінансовий аналіз за допомогою коефіцієнтів рентабельності. Це дослідження має на меті вивчити вплив оборотності оборотного капіталу, ліквідності та левериджу на прибутковість. Об'єктом дослідження є компанії харчової промисловості, акції яких котируються на Індонезійській фондовій біржі (IDX) за період 2013-2018 рр. Вибірка складала 15 компаній. Для визначення кількості вибірок використовувався метод цілеспрямованої вибірки, таким чином, було отримано вибірку з 10 компаній харчової промисловості. Перевірка гіпотез здійснена за допомогою методів множинного лінійного регресійного аналізу. Метод перевірки гіпотез використовує рівень значущості 5%. На основі результатів тестування та обговорення, яке було висунуто дослідниками, оборотність оборотного капіталу, ліквідність та леверидж впливають на прибутковість компаній харчової промисловості, акції яких котируються на Індонезійській фондовій біржі, за період 2013-2018 років.

Ключові слова: оборотність оборотного капіталу, ліквідність, леверидж, рентабельність

Endo Waroka, Enda Noviyanti Simorangkir, Rasinta Ria Ginting, Galumbang Hutagalung. The Effect of Working Capital Turnover, Liquidity, Leverage to Profitability: Food & Beverage Companies Listed in Indonesia Stock Exchange. Scientific and methodical article.

To measure how much success the company has in obtaining a rate of return on profit, it is necessary to conduct financial analysis with profitability ratios. This study aims to examine the effect of working capital turnover, liquidity, and leverage on profitability. This research is focused on Food & Beverage companies listed on the Indonesia Stock Exchange (IDX) for the period 2013-2018 with a population of 15 companies. Determination of the number of samples using purposive sampling method, so that a sample of 10 food & beverage companies was obtained. Hypothesis testing is done with multiple linear regression analysis techniques. The hypothesis testing method uses a significance level of 5%. Based on the test results and discussion that has been put forward by researchers Working Capital Turnover, Liquidity, and Leverage affect Profitability in Food & Beverage Companies listed on the Indonesia Stock Exchange for the 2013-2018 period.

Keywords: turnover of working capital, liquidity, leverage, profitability

Every business wants to make the most money possible. The company may continue to exist, develop, and give its owners profitable returns by turning the greatest profit feasible. By using profitability measures in financial analysis, it is possible to assess if the company has been successful in generating a high rate of return on its investments.

The business will be able to finance its operational activities if it has enough working capital. The presence of unproductive cash is indicated if the working capital is large. Lack of working capital, on the other hand, will also result in losses for the business because it takes away the chance to turn a profit. Therefore, it is important to examine the turnover of working capital in order to prevent an excess or lack of working capital. The amount of time needed for a working capital unit to rotate is measured by working capital turnover.

Analysis of recent researches and publications

The working capital turnover will be higher and the company will be more efficient, which in turn will boost profitability, the shorter the working capital turnover period, the faster the turnover. Meidiyustiani's [7] research demonstrates that working capital has no impact on profitability. Mualifah et al. [8], who claimed that working capital had an impact on profitability, presented contrasting findings.

Companies must balance issues affecting profitability and liquidity while deciding on an effective working capital policy. The degree of liquidity will probably be maintained if the company decides to set aside huge amounts of working capital, but the likelihood of realizing sizable profits will decline. On the other hand, it can have an impact on the company's liquidity level if it wishes to maximize profits. The corporation will be in a stronger position in the perspective of creditors the higher its liquidity. This increases the likelihood that the business will be able to meet its financial obligations on time. However, excessive liquidity is also unprofitable because it presents the possibility of creating idle funds that may be used to fund initiatives that would be advantageous to the business. Sustia and Tohir [9] found that liquidity affects profitability. While research by Trisnasuci, at all [10] found that liquidity has no effect on profitability.

According to Sartono [1], Leverage is fulfillment of company needs by using assets and sources of funds that have fixed costs and fixed expenses. Brigham at al [4] suggested that the greater use of leverage in financing will affect profitability since the larger the amount of debt used to buy assets will mean that the company will have to pay higher loan interest, reducing the amount of profit that can be made. Kurniawati and Apollo [6] found that leverage has a large impact on profitability. Sustia and Tohir's [9] research, revealed that leverage has no impact on profitability.

Because it plays a crucial part in the Indonesian industry, the food and beverage company was the one the researcher selected. This sub-sector managed to endure and was not seriously impacted by the world financial crisis.

Based on the description above, the author intends to conduct research with the title "The Effect of Working Capital Turnover, Liquidity, and Leverage to Profitability in food and beverage companies listed in Indonesia Stock Exchange Period 2013-2018".

The main part

Profitability is the company's ability to generate profits by using existing resources, namely sales, total assets, and its own capital. In this study, return on assets (ROA) is used as a proxy for profitability because the return on assets explains the company's ability to earn profits by using its assets. The formula is as follows:

$$\text{ROA (Return On Assets)} = \frac{\text{Earning After Tax}}{\text{Total Assets}} \quad (1)$$

Working capital is the capital contained in the company, such as cash, banks, securities, receivables, inventories, and other current assets that are used for the company's operations so that the company's ultimate goal, which is to generate profits, can be achieved. Working capital turnover is one of the ratios used to measure the effectiveness of a company's working capital over a certain period. The formula is as follows:

$$\begin{aligned} \text{Working capital turnover} &= \\ &= \frac{\text{Sales}}{\text{Current Assets}-\text{Current Liabilities}} \end{aligned} \quad (2)$$

Liquidity is the company's ability to meet financial obligations that must be paid off on time. To measure liquidity, the researcher uses the current ratio. The current ratio is the best indicator to measure the extent to which short-term debt has been repaid by its assets. The current ratio includes all components of current assets and all components of current liabilities, regardless of their level of liquidity. The formula is as follows:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (3)$$

Leverage is the ability of the corporation to use assets or money obtained from loans that come with fixed expenses, such as interest and depreciation costs, to increase the company's profitability. The company's goal is to adopt a leverage policy, namely in order to increase and maximize the wealth of the company's owner. The formula is as follows:

$$\begin{aligned} \text{DER (Debt to Equity Ratio)} &= \\ &= \frac{\text{Total Liabilities}}{\text{Total Shareholder's Equity}} \end{aligned} \quad (4)$$

RESULT. In this study, the data analysis model used: a. Multiple linear regression (table 1).

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784	.614	.593	4.48271
a. Predictors: (Contant),				

Source: the authors' own elaboration

From the table above, it shows that the DW value obtained is 1.968. The way to test the autocorrelation test is $du < dw < 4-du$. The dl and du values in this study with the number of independent variables (k) = 3, for a sample (n) of 60 observations is dl of 1.4797

and du of 1.6889. Then the measurement results are $1.6889 < 1.968 < (4 - 1.6889)$ i.e.: $1.6889 < 1.968 < 2.3111$ so it can be concluded that there is no positive or negative autocorrelation with the decision not to be rejected (table 2).

Table 2. Coefficients

Model		Unstandardized Coefficient		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	2.707	3.295	
	Working Capital	.355	.157	.195
	Liquidity	2.161	.443	.519
	Leverage	-3.952	1.515	-.269

a. Dependent Variabel: PROFITABILITY

Source: the authors' own elaboration

Based on the table above, the multiple linear regression equation can be obtained as follows: Profitability = 2.707 + 0.355 working capital turnover + 2.161 liquidity - 3.952 leverage. The interpretation results are as follows:

a. The value of a (constant) of 2.707 means that if the variable working capital turnover X1, liquidity X2, leverage X3, is considered constant with the assumption that other factors are considered zero, then the company's profitability is 2.707.

b. The regression coefficient of working capital turnover (X1) of 0.355 indicates that if each increase in working capital turnover is one standard deviation, it will be followed by an increase in profitability of

0.355 assuming all other independent variables are considered zero. In other words, the higher the working capital turnover, the higher the profitability.

c. The liquidity regression coefficient (X2) of 2.161 indicates that if each increase in liquidity is one standard deviation, an increase in profitability of 2.161 will follow, assuming all other independent variables are considered zero. In other words, the higher the liquidity, the higher the profitability.

d. The leverage regression coefficient of -3.952 indicates that if each increase in leverage is one standard deviation, it will be followed by a decrease in profitability of -3.952, assuming all other independent variables are considered (table 3).

Table 3. Coefficients

Model		Unstandardized Coefficient		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.707	3.295		-.821	.415
	Working Capital	.355	.157	.195	2.255	0.028
	Liquidity	2.161	.443	.519	4.879	.000
	Leverage	-3.952	1.515	-.269	-2.609	0.012

a. Dependent Variabel: PROFITABILITY

Source: the authors' own elaboration

The working capital turnover variable has a partially positive t value of 2.255, while the t table value (df) = n-k-1 = 60-3-1 = 56 is 2.00324; then t count > t table with a significance value of 0.028 0.05, the results show that partially working capital turnover has a positive and significant effect on profitability in food and beverage companies listed on the IDX from 2013 to 2018. So, H₂ is accepted.

This is in line with Mualifah et al that working capital had an impact on profitability.

The liquidity variable has a partially positive t-count value of 4.879, while the t-table value (df) = n-k-1 = 60-3-1 = 56 is 2.00324; then t-count > t-table with a significance value of 0.000 0.05, the results show that partially liquidity has a positive and significant effect on profitability in food and beverage companies listed on the IDX in 2013-2018. So, H₃ is accepted. This line in Sustia and Tohir that liquidity had an impact on profitability.

The leverage variable partially has a negative t-count value of -2.609, while the t-table value (df) = n-k-1 = 60-3-1 = 56 is 2.00324; then t-count > t-table with a significance value of 0.012 0.05, the results show that partially leverage has a negative and significant effect on profitability in food and beverage companies listed on the IDX from 2013 to 2018. So,

H₄ is accepted. This line is Kurniawati and Apollo that leverage had an impact on profitability.

Determination Coefficient (R²).

The coefficient of determination (R²) essentially measures how far the model's ability to explain the variation in the dependent variable.

The results of the coefficient of determination test obtained from the Adjusted R Square of 0.593 or equal to 59.3%. This means that 59.3% of profitability can be explained by variations in the three independent variables, namely working capital turnover, liquidity, leverage. While the remaining 40.7% is explained by other variables not explained in this study.

The test results for the coefficient of determination were obtained from the adjusted R square of 0.593, or 59.3%. This means 59.3% profitability, which can be explained by variations in the three independent variables, namely working capital turnover, liquidity, and leverage. while the remaining 40.7% is explained by other variables not explained in this research.

Simultaneous Significance Test (Statistical Test F).

F test is used to show whether all the independent variables included in the model have a joint effect on the dependent variable (table 4).

Table 4. ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.791	3	.597	29.706	.000 ^b
	Residual	1.125	56	.002		
	Total	2.916	59			

a. Dependent Variable: PROFITABILITY

b. Predictors: (Constant), LEVERAGE, WORKING CAPITAL, TURNOVER, LIQUIDITY

Source: the authors' own elaboration

Based on the research results can be seen $F_{hitung} > F_{tabel}$ ($29.706 > 2.76$) and the significance level is smaller than 0.05 ($0.00 < 0.05$). So, H_1 is accepted that the independent variables of working capital turnover, liquidity, and leverage all have a significant effect on profitability. This is in line with Kurniawati & Apollo's research, which states that working capital

turnover, liquidity, and leverage have an effect on profitability.

Partial Hypothesis Testing (t test).

Partial test (t test) aims to test how far the influence of independent variables individually affects the dependent variable (table 5).

Table 5. Coefficients

Model		Unstandardized Coefficient		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.707	3.295		-.821	.415
	Working Capital	.355	.157	.195	2.255	0.028
	Liquidity	2.161	.443	.519	4.879	.000
	Leverage	-3.952	1.515	-.269	-2.609	0.012

a. Dependent Variabel: PROFITABILITY

Source: the authors' own elaboration

Table 5 shows the partial hypothesis test results, as for the explanation:

a. The working capital turnover variable partially has a t value of 2.255 with a positive sign while the t table value, namely $(df) = n - k - 1 = 60 - 3 - 1 = 56$ is 2.00324; then $t_{count} > t_{table}$ with a significance value of $0.028 < 0.05$, then the results show that partially working capital turnover has a positive and significant effect on profitability in food & beverage companies listed on the IDX in 2013-2018.

b. The liquidity variable partially has a t value of 4.879 with a positive sign while the t table value, namely $(df) = n - k - 1 = 60 - 3 - 1 = 56$ is 2.00324; then $t_{count} > t_{table}$ with a significance value of $0.000 < 0.05$, then the results show that partially liquidity has a positive and significant effect on profitability in food & beverage companies listed on the IDX in 2013-2018.

c. The leverage variable partially has a t value of -2.609 with a negative sign while the t table value, namely $(df) = n - k - 1 = 60 - 3 - 1 = 56$ is 2.00324; then $t_{count} > t_{table}$ with a significance value of $0.012 < 0.05$, then the results show that partially leverage has a negative and significant effect on profitability in food & beverage companies listed on the IDX in 2013-2018.

Conclusions

1. The Effect of Working Capital Turnover to Profitability.

The working capital turnover rate shows the effectiveness of the use of working capital in the company, because the higher the working capital turnover rate, the more effective the use of working capital. Companies with a high working capital

turnover indicate a high level of sales. When sales volume increases, inventory investment and accounts receivable will also increase. The faster working capital rotates, the greater the profit that can be achieved by a company to increase profitability.

2. The Effect of Liquidity to Profitability.

In this research, to measure liquidity, we used the current ratio (current assets). In terms of liquidity effect, the results obtained are positive and significant. This positive influence proves that if a company can effectively and efficiently use its current assets to pay short-term obligations, this will have an impact on reducing costs, and profits can also experience growth or increase. Because the higher the current ratio, the more liquid the company will be and the easier it will be to obtain funding from creditors and investors to expedite operational activities, and this will also have an impact on increasing profits. The trend of decreasing liquidity in food and beverage companies has resulted in a decrease in profitability.

3. The Effect of Leverage to Profitability.

The financial ratio increases when the DER ratio rises. The purpose of increasing risk is the possibility of default because the company has financed too many assets with debt. With the risk of default, the costs that must be incurred by the company to overcome this problem are getting bigger. Leverage emphasizes the important role of debt financing for companies by showing the percentage of company assets that are supported by debt financing. In accordance with the Pecking Order Theory, the greater the DER ratio, the greater the costs that must be borne by the company to fulfill its obligations. This causes a decrease in company profitability.

Suggestions.

1. Companies are expected to be able to manage, maintain, and increase working capital turnover effectively and efficiently. For example, managing the period for receiving receivables by accelerating bills so that cash received is fast. Then the cash can be reused as working capital for the company. In addition, management of the inventory conversion period is also necessary, one of which is by accelerating the product sales process so that the company can receive payments from the sales proceeds and there will be no accumulation of goods, which causes additional costs.

2. The company is expected to increase its liquidity level by reducing its current debt and trying to increase its current assets. Companies must reduce the amount of inventory that is too much and reduce the use of cash, as well as increase the value of cash and banks owned by the company.

3. The company should reduce its debt ratio and take advantage of excess internal funds (current assets) rather than using debt to fulfill its obligations. So the costs incurred are also relatively small. Because the use of leverage will always be followed by fixed costs such as interest and depreciation costs.

Abstract

All companies aim to obtain maximum profit. By obtaining maximum profit, the company can maintain its survival and can continue to grow and provide profitable returns for its owners. To measure how much success the company has in obtaining a rate of return on profit, it is necessary to conduct financial analysis with profitability ratios. This study aims to examine the effect of working capital turnover, liquidity, and leverage on profitability.

This research is focused on Food & Beverage companies listed on the Indonesia Stock Exchange (IDX) for the period 2013-2018 with a population of 15 companies. Determination of the number of samples using purposive sampling method, so that a sample of 10 food & beverage companies was obtained. Hypothesis testing is done with multiple linear regression analysis techniques.

The hypothesis testing method uses a significance level of 5%. Based on the test results and discussion that has been put forward by researchers Working Capital Turnover, Liquidity, and Leverage affect Profitability in Food & Beverage Companies listed on the Indonesia Stock Exchange for the 2013-2018 period.

Список літератури:

1. Iris Sianipar. 2021. Pengaruh Komitmen Organisasi Dan Budaya Organisasi Terhadap Kinerja Perawat Di Dengan Organizational Citizenship Behavior Sebagai Variabel Intervening Di Rsd Jaraga Sasameh Buntok.
2. Sutrisno, Andi Tri Haryono, Moch. Mukeri Warso. 2018. Pengaruh Kepuasan Kerja Dan Komitmen Organisasi Terhadap Kinerja Karyawan Melalui Organizational Citizenship Behavior Sebagai Variabel Intervening (Studi Kasus Karyawan Pt. Fumira Semarang).
3. Venty Hertina Maulani, Widiartanto, Reni Shinta Dewi. 2015. Pengaruh Budaya Organisasi Dan Komitmen Organisasi Terhadap Kinerja Karyawan Melalui Organizational Citizenship Behavior (Ocb) Sebagai Variabel Intervening (Studi Kasus Pada Karyawan Pt Masscom Graphy Semarang).
4. Sucky Astrining Sari. 2016. Pengaruh Budaya Organisasi Terhadap Kinerja Karyawan Melalui Organizational Citizenship Behaviour Sebagai Variabel Intervening. Jurnal Ilmu Manajemen. Volume 4. Nomor 3.
5. Agustini, Fauzia. 2011. Manajemen Sumber Daya Manusia Lanjutan (Edisi Pertama). Medan: Penerbit Madenatera.
6. Hasibuan, S.P Malayu (2009). Organisasi dan Motivasi Dasar Peningkatan Produktivitas. Cetakan Ke-7. Jakarta: PT Bumi Aksara.
7. Mangkunegara, Anwar Prabu. 2013. Manajemen Sumber Daya Manusia Perusahaan (Cetakan Ke-12). Bandung: PT Remaja Rosdakarya.
8. Mangkunegara, Anwar Prabu (2012). Manajemen Sumber Daya Manusia Perusahaan. Cetakan Ke-12. Bandung: PT Remaja Rosdakarya.
9. Mangkunegara, Anwar Prabu (2017). Manajemen Sumber Daya Manusia Perusahaan. Cetakan Ke-12. Bandung: PT Remaja Rosdakarya.
10. Sugiyono. 2012. Metode Penelitian Bisnis. Bandung: Alfabeta.
11. Sutrisno, Edy. 2011. Budaya Organisasi (Edisi 1). Jakarta: Penerbit Kencana (Prenada Media Group).
12. Kuncoro, Mudrajad. 2011. Metode Riset untuk Bisnis & Ekonomi. Jakarta: Erlangga.
13. Sugiyono. (2018). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.

References:

1. Iris Sianipar (2021). The Effect of Organizational Commitment and Organizational Culture on Nurse Performance With Organizational Citizenship Behavior as an Intervening Variable at Rsud Jaraga Sasameh Buntok [in Indonesian].
2. Sutrisno, Andi Tri Haryono, Moch. Mukeri Warso (2018). The Effect of Job Satisfaction and Organizational Commitment on Employee Performance Through Organizational Citizenship Behavior as an Intervening Variable (Case Study of Employees of Pt. Fumira Semarang) [in Indonesian].
3. Venty Hertina Maulani, Widiartanto, Reni Shinta Dewi (2015). The Effect of Organizational Culture and Organizational Commitment on Employee Performance Through Organizational Citizenship Behavior (Ocb) as an Intervening Variable (Case Study on Employees of Pt Masscom Graphy Semarang) [in Indonesian].
4. Sucky Astrining Sari (2016). The Effect of Organizational Culture on Employee Performance Through Organizational Citizenship Behaviour as an Intervening Variable. Journal of Management Science. Volume 4. Number 3 [in Indonesian].
5. Agustini, Fauzia (2011). Advanced Human Resource Management (First Edition). Medan: Madenatera Publisher [in Indonesian].
6. Hasibuan, S.P. Malayu (2009). Organization and Motivation The Basis for Productivity Improvement. 7th Edition. Jakarta: PT Bumi Aksara [in Indonesian].
7. Mangkunegara, Anwar Prabu (2013). Corporate Human Resource Management (12th Edition). Bandung: PT Remaja Rosdakarya [in Indonesian].
8. Mangkunegara, Anwar Prabu (2012). Corporate Human Resource Management. 12th Printing. Bandung: PT Remaja Rosdakarya [in Indonesian].
9. Mangkunegara, Anwar Prabu (2017). Corporate Human Resource Management. 12th Printing. Bandung: PT Remaja Rosdakarya [in Indonesian].
10. Sugiyono (2012). Business Research Methods. Bandung: Alfabeta [in Indonesian].
11. Sutrisno, Edy (2011). Organizational Culture (1st Edition). Jakarta: Kencana Publisher (Prenada Media Group) [in Indonesian].
12. Kuncoro, Mudrajad (2011.) Research Methods for Business & Economics. Jakarta: Erlangga [in Indonesian].
13. Sugiyono (2018). Quantitative Research Methods, Qualitative and R&D. Bandung: Alfabeta [in Indonesian].

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