
Quantitative analysis of the factors affecting profitability in Indonesian consumer goods industry

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Abstract: This study aims to quantitatively examine the factors that influence profitability in Indonesia consumer goods industry. Profitability is the dependent variable in this test, while cash turnover, inventory turnover and accounts receivable turnover are independent variables. Samples were taken using a purposive sampling technique and resulted in 22 consumer goods industry companies listed on the Indonesia Stock Exchange during the 2019-2021 period. Data were analyzed using multiple linear regression to examine the influence of cash turnover, inventory turnover, and accounts receivable turnover on profitability. The results showed that cash turnover and accounts receivable turnover had a positive effect on profitability, while inventory turnover had no effect on profitability. The adjusted R square value indicates that 27% of profitability can be influenced by cash turnover, inventory turnover, and accounts receivable turnover, while the remaining 73% is influenced by other variables not included in the study.

Keywords: profitability; cash turnover; inventory turnover; account receivable turnover

INTRODUCTION

In the era of globalization where the economy is increasingly advanced and competition among business people is increasingly stringent, it requires companies to run their companies effectively and efficiently so that they will increase profits for the company. One way that can be done is to manage cash, receivables, and inventory owned efficiently so that the company can have optimal profitability.

Profitability is a company's ability to generate profits through the use of assets, capital, and sales. Higher profitability means that a company has a good ability to run its business to generate optimal profits. The profitability ratio is explained as the ratio used to measure management effectiveness as a whole which is aimed at the size of the profit level obtained from sales and investment, Fahmi [3]. Profitability is a ratio to measure the level of effectiveness of company management (management) as indicated by the amount of profit generated from sales and investment.

High profitability will be able to support the company's operational activities to the fullest. The high or low profitability of a company is influenced by various factors such as working capital. In carrying out its business activities, each company will need resources, one of which is working capital such as: cash, receivables, and inventories, and fixed capital such as fixed assets. Capital is the main problem that will support the company's operational activities to achieve its goals, Fahmi [3].

Working capital is a short-term company investment such as cash, securities, accounts receivable, and inventories or current assets owned by the company. Given the importance of working capital in the company, financial managers are also required to be able to plan properly the amount of working capital that is right and by the needs of the company, because if the company has excess working capital it will cause a lot of idle funds, so this can cause the company to suffer losses. due to the use of funds that are not effective and can reduce profitability. Meanwhile, if there is a shortage of working capital, it will hamper the company's operational activities. The components of working capital include cash, accounts receivable, and

inventories. To determine the working mode requirements that the company will use in its operational activities can be seen from the turnover of each working capital itself, such as cash turnover, inventory turnover, and accounts receivable turnover.

Cash is the most liquid form of an asset on the balance sheet because cash is a current asset that can be used at any time in the company's operations. Cash is very important for the company because cash is an element of working capital and part of the investment. To measure the efficiency of cash use by measuring the number of times the company's cash rotates in one period related to the company's sales activities use the cash turnover ratio. Cash turnover refers to the number of times the company has turned over its cash during the reporting period. It is calculated by dividing the company's revenue by the average cash balance over the same period, Nurmawardi & Lubis [10]. According to Riyanto [11] cash turnover is a comparison of sales with average cash in a period. A high cash turnover ratio will be better for the company because it indicates that the company uses its cash optimally by using it more often as capital for sales so that if the cash turnover is high it will affect the company's profitability because high profits can be obtained by making sales with more frequency tall. This is in line with the results of research by Nurmawardi & Lubis [10], Nugroho et al. [9], Wilasmi et al. [16], Fuady & Rahmawati [5], and Makatutu & Arsyad [8] which state that cash turnover has a positive effect on profitability.

The second component is inventory. The sales process in manufacturing companies cannot be separated from the influence of the inventory owned by the company. Inventory is a company's current asset post whose value is large enough so that inventory has an important role for the company. inventory is an active element in the company's operational activities because the amount of inventory in the company is always changing due to reductions in the production process to be sold to consumers. With good inventory management in the company, the company can quickly change the funds stored in the form of inventory into cash or receivables through sales which will later become company profits. This inventory can be evaluated by calculating the inventory turnover rate. The inventory turnover rate can be calculated by dividing the total cost of goods sold by the average inventory owned by the company. is an indicator used to measure the frequency of turnover of funds invested in inventory in one period, Kasmir [7], a high inventory turnover rate indicates a high level of sales to the company. With a high inventory turnover rate, it can minimize the risk of losses and costs from inventory, Fitriana et al., 2017 [4]. Therefore, the higher the inventory turnover of a company, indicates that the company also can earn higher profits and increase the company's profitability. this is in line with the research results of Fuady & Rahmawati [5], Makatutu & Arsyad [8], and Fitriana et al.[4] in his research shows that there is an effect of inventory turnover on company profitability.

The next component is accounts receivable. In a business world with very tight competition, one way that can be done to retain customers is to do credit sales. Credit sales will give rise to receivables, which are activities that occur due to credit sales of merchandise or services. In addition, companies need to know how much the level of accounts receivable turnover will affect the company's receipts and expenses. because the level of accounts receivable turnover is very influential on the survival or operational activities of the company related to the profit that will be generated. The receivables turnover rate can be calculated by dividing the sales value by the average receivables. The more credit sales, the greater the number of accounts receivable, and the profit earned will be even greater. The company must be able to manage sales well to prevent losses. The Receivables Turnover Ratio is the ratio used to measure how long it takes to collect receivables during one period or how many times the funds invested in these receivables rotate in one period. The higher ratio indicates that the working capital invested in receivables is lower (compared to the previous year's ratio) and of course, this condition is getting better for the company. Conversely, if the ratio is lower, it

indicates that there is excess investment in receivables, Kasmir [7]. The higher the receivables turnover ratio indicates that the working capital invested in receivables is low, conversely, if the receivables turnover ratio is low, there is over-investment in receivables so that it requires further analysis, perhaps because the credit and billing departments work ineffectively or there is a change in credit policy, Fuady [5]. The turnover rate of receivables can affect the company's ability to generate profits, because the funds impeded in receivables are more effective when used to generate profits through sales. This is in line with the results of research from Sari et al. [12], Fujilestari et al [6], Nurmawardi & Lubis [10], Makatutu & Arsyad [8], and Arita [1] which state that receivable turnover has a positive effect on profitability.

Some studies have shown differences in the results of the influence of cash turnover, inventory turnover, and accounts receivable turnover on profitability. The economy in a company increases when the company earns a profit. [18] The results of research by Fuady & Rahmawati [5] cash turnover, inventory turnover, and accounts receivable turnover have a positive effect on company value. Similar research was also conducted by Fitriana et al. [4] shows that of all the independent variables studied, only inventory turnover affects profitability. Research by Nugroho et al. [9] shows that cash turnover affects profitability, while inventory and accounts receivable turnover does not affect profitability. An investor must consider the performance of a company that will be the object of his investment by collecting information in the company's financial statements, which can later assist in making investment decisions. [17]

From what was stated above, the researcher will examine the effect of cash turnover, inventory turnover, and accounts receivable turnover on profitability in food and beverage sub-sector companies on the Indonesia Stock Exchange for the 2019-2021 period. This research is a continuation of research conducted by previous researchers. However, the difference is the period of research and the object of research. The research period is during the period 2019-2021. The research objects used are food and beverage sub-sector companies listed on the Indonesia Stock Exchange. This is done so that the research results obtained are more specific.

METHOD

The research method used is a quantitative method with a causality research type because this research was conducted to determine the effect of cash turnover, inventory turnover, and accounts receivable turnover on profitability in the consumer goods industry in the food and beverage sub-sector which are listed on the Indonesian Stock Exchange for the 2019-2021 period. In this study, there is a dependent variable namely profitability, and independent variables consisting of cash turnover, inventory turnover, and accounts receivable turnover.

The population in this study are all companies engaged in consumer goods in the food and beverage sub-sector that is listed on the Indonesian Stock Exchange in the 2019-2021 period. Sampling in this study was carried out by purposive sampling method obtained 22 companies as a sample with the following criteria; (1) companies listed on the Indonesian stock exchange in the consumer goods industry in the food and beverage sub-sector during the study period, (2) companies published successive financial reports during the 2019-2021 observation year, (3) companies that experienced profits during the observation period, (4) companies that publish financial reports in rupiah.

The data required is secondary data, so the data collection method in this study uses a documentation technique based on the 2019-2021 financial reports published by the Indonesian Stock Exchange. An analysis technique used in this study uses multiple linear regression where the method is used to understand a phenomenon that affects the condition of the dependent variable because almost all conditions affect a factor

caused by more than one independent variable factor. The function of multiple linear regression analysis to determine the effect of the coefficients of cash turnover, inventory turnover, and accounts receivable turnover on profitability:

$$ROA = a + b_1 CT + b_2 IT + b_3 ART + e$$

Information:

- A = Constant number
- ROA = Profitability (Y)
- CT = Cash turnover (X1)
- IT = Inventory turnover (X2)
- ART = Accounts receivable turnover (X3)
- e = Standard error
- b1 = Regression coefficient of cash turnover
- b2 = Regression coefficient of accounts receivable turnover
- b3 = Inventory turnover regression coefficient

RESULTS AND DISCUSSION

Regression analysis techniques require testing by considering the possibility of deviations from classical assumptions. If there are still deviations from the classical assumptions, revisions will be made to the research data and the regression model. The classical assumption deviation test consists of normality, autocorrelation, multicollinearity, and heteroscedasticity symptoms. These tests can be described as follows:

Normality Test

Normality test using the Kolmogorov-Smirnov. The requirement for this test is if the sig value is greater than 0.05, it can be concluded that the residual value has a normal distribution, whereas if the sig is less than 0.05 it means that the residual value does not have a normal distribution. Following are the results of the Kolmogorov-Smirnov test:

Table 1 Kolmogorov-Smirnov test

| | | Unstandardized Residual | Conclusion |
|-------------------------------|--|-------------------------|------------|
| N | | 22 | Normal |
| <i>Kolmogorov-Smirnov Z</i> | | 0,074 | |
| <i>Asymp. Sig. (2-tailed)</i> | | 0,200 ^{c,d} | |

Source: Output SPSS

Based on Table 1 Asymp. Sig. (2-tailed) of 0.200 which indicates that the residual distribution is normal because the sig value has a value of more than 0.05.

Multicollinearity Test

The multicollinearity test is used to determine whether or not there is a deviation from the classical assumption of multicollinearity, that is, if there is a linear relationship between the regression models, there is no multicollinearity. To determine whether multicollinearity occurs or not, it can be seen from the VIF value contained in each independent variable.

Table 2 Multicollinearity Test

| Model | Collinearity Statistics | | Conclusion |
|------------|-------------------------|-------|-------------------------------|
| | Tolerance | VIF | |
| (Constant) | | | |
| CT | 0,636 | 1,572 | There is no Multicollinearity |
| IT | 0,737 | 1,357 | There is no Multicollinearity |
| ART | 0,629 | 1,591 | There is no Multicollinearity |

Source: Output SPSS

Table 2 shows the Tolerance & VIF values of the independent variables. The tolerance value for the cash turnover variable is 0.636, the inventory turnover variable is 0.737 & the accounts receivable turnover variable is 0.629. From the output of each Tolerance value, it tells us that the Tolerance value is more than 0.10, which means that multicollinearity does not occur. While the VIF value of the cash turnover variable is 1.572, the inventory turnover variable is 1.357 & the accounts receivable turnover variable is 1.591. Each VIF value is smaller than 10, which indicates that there are no signs of multicollinearity.

Autocorrelation Test

The autocorrelation test aims to test whether the linear regression model has a correlation between confounding errors in the t-1 (previous) period. The autocorrelation test was performed using the Durbin Watson (DW) value.

Table 3 Autocorrelation Test

| du | dl | dw | 4-du | Conclusion |
|--------|--------|--------|--------|-----------------------------|
| 1,5079 | 1,6974 | 1,5490 | 2,4921 | There is no Autocorrelation |

Source: Output SPSS

From an autocorrelation test, it can be seen that the regression model formed shows a Durbin-Watson value of 1.5620 and the du value sought in the distribution of the Durbin-Watson table values based on the number of samples (n) in this study is (n) = 66, by using the independent variable (k) as much as k = 3. Therefore, from the Durbin-Watson table the value du = 1.5079 is obtained while the value of 4-du = 2.4921 which means $du < dw < 4-du = 1.5079 < 1.5620 < 2.4921$. Therefore, it can be concluded that there is no autocorrelation that occurs in the data used in this study, so it can be concluded that the data is free from autocorrelation or does not show symptoms of autocorrelation.

Heteroscedasticity test

The heteroscedasticity test aims to observe the Scatterplot where the horizontal axis describes the Predicted Standardized value, the vertical axis describes the Studentized residual value. If the scatterplot forms a certain pattern it indicates that there is a heteroscedasticity problem in the regression model formed, but if the scatterplot spreads randomly it indicates that there is no heteroscedasticity problem in the regression model formed.

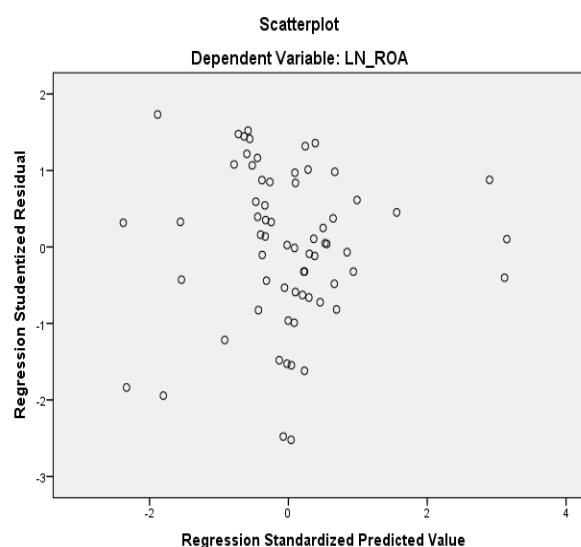


Figure 2. Scatterplots
 Source: Output SPSS

From the picture above, it can be seen that the dots do not form a clear pattern and are scattered above and below the 0 (zero) line. Therefore, it can be concluded that there are no signs of heteroscedasticity in each regression model, so the regression model is feasible to use.

Determination Coefficient Test (R²)

Table 4
Uji Koefisien Determinasi (R²)

| Model | R Square | Adjusted R Square |
|-------|----------|-------------------|
| 1 | 0,269 | 0,270 |

Source: Output SPSS

The coefficient of determination is 0.270, which means that the influence of variable X, namely cash turnover, inventory turnover, and accounts receivable turnover on dividend policy which can be explained in this regression model is 27%, while the remaining 73% is influenced by other factors not included in the regression model.

Hypothesis test

The results of the direct influence test on receivable turnover, cash turnover and inventory turnover variables on profitability can be seen in table 5 below;

Table 5
Regresi Berganda

| Model | Unstandardized Coefficients | | t | Sig. |
|------------|-----------------------------|------------|-------|-------|
| | B | Std. Error | | |
| (Constant) | 2,322 | 0,313 | 7,430 | 0,000 |
| CT | 0,291 | 0,123 | 2,368 | 0,021 |
| IT | 0,060 | 0,097 | 1,617 | 0,140 |
| ART | 0,136 | 0,158 | 2,060 | 0,003 |

Source: Output SPSS

Based on the results of the analysis presented in Table 5, the regression model for the effect of the independent variable on the dependent is as follows;

$$ROA = 2,322 + 0,291 CT + 0,060 IT + 0,136 ART + e$$

The results of the research above indicate that the first hypothesis is the effect of cash turnover on profitability, resulting in a significance value of 0.021 < 0.05 and a t value of 2.368. This shows that cash turnover has a significant positive effect on profitability, so that the first hypothesis proposed by the researcher is accepted.

The second hypothesis the effect of inventory turnover on profitability, the results of a significance of 0.140 > 0.05 with a t value of 1.167. That is, inventory turnover has no significant positive effect on profitability, so the second hypothesis is rejected.

Based on the results of the regression the third hypothesis about the effect of accounts receivable turnover on profitability, it produces a significance value of 0.003 < 0.05 with a t value of 2.060. This means that receivables turnover has a significant positive effect on profitability, so that the third hypothesis proposed is accepted.

Discussion

The regression model of this research has fulfilled the overall classical assumption test, which means that this regression model is free from the presence of autocorrelation symptoms, heteroscedasticity symptoms and multicollinearity symptoms and the resulting data is normally distributed.

Effect of Cash Turnover on Profitability

Based on the results of the research that has been done, it shows that cash turnover has a positive and significant effect on profitability proxied by return on assets (ROA). This is in accordance with agency theory which explains that management as an agent is tasked with maximizing financial performance, one of which is increasing cash turnover to support company operations to generate profits that can increase profitability, in addition to settling current liabilities.

The research results strengthen the results of Nugroho et al. [9], which explains that there is a positive effect of cash turnover on profitability because companies with high cash turnover allow companies to increase sales which leads to increased profits that the company can generate. Similar results also occurred in the study by Wilasmi et al. [16] which explains that when a company has cash at a certain level it will generate sales at a certain level as well so that the profit generated is directly proportional to cash turnover, besides that in the research of Fuady et al. [5] also show the same results, high cash turnover indicates that cash is used efficiently so that it can increase company sales and profits.

It can be concluded that these results can occur because cash turnover in a company reflects the efficient use of company cash, where if cash is used efficiently by increasing the company's cash turnover it can increase sales which leads to increased company profitability, besides that companies with high cash turnover can settle obligations owned short term.

Effect of Inventory Turnover on Profitability

Based on the results of the research conducted, it shows that inventory turnover has no effect on profitability proxied by return on assets (ROA). In theory, this result is in contrast to the theory of inventory turnover, where the higher inventory turnover indicates that the company manages inventory effectively and efficiently.

The results of this study are in line with research by Fujilestari [6] which states that inventory turnover has no effect on profitability, as well as the results of research by Wilasmi et al. [16] which explains that inventory turnover cannot be a benchmark for determining profitability because inventory goes hand in hand with inventory costs attached to inventory such as the cost of reserves for losses, storage, insurance and others.

It can be concluded that these results can occur because even though inventory turnover is in line with sales, where when the company succeeds in minimizing inventory costs the company will generate profits, there are conditions where management reserves losses on inventory declines, insuring an inventory from risks related to inventory. So that the inventory turnover itself is not able to be a benchmark in determining the profitability of a company.

Effect of Receivable Turnover on Profitability

Based on the results of the research conducted, it is known that receivables turnover has a positive and significant effect on profitability proxied by return on assets (ROA). This is in accordance with agency theory which explains that management needs to optimize the management of accounts receivable so that the funds contained in receivables can be used as soon as possible to be used for operational activities so as to increase sales which leads to increased profits generated.

The results of this study support the results of Fujilestasi et al [6] which explains that high accounts receivable turnover indicates that company accounts receivable successfully managed effectively and the value of uncollectible accounts is getting smaller so that the funds in receivables can be reused to generate sales that can increase company value. Similar results also occurred in research by Sari [12] where companies that have good accounts receivable turnover show that the capital contained in receivables can be

collected as soon as possible to be used as operational capital which can increase company value and which shows that high accounts receivable turnover indicates that the company makes a lot of credit sales which can increase the company's profitability, Makatutu & Arsyad [8].

It can be concluded that these results can occur because the turnover of receivables shows that companies often make sales on a caddy basis which can increase company profits, besides that high cash turnover shows that companies have effectively and efficiently managed to collect receivables to avoid the risk of bad debts, if excess funds contained in receivables will increase the risk of over investment where funds that should be used as operational capital are trapped in receivables. High accounts receivable turnover indicates that the company is able to collect existing receivables and use them to generate resale which can increase the value of the company.

CONCLUSION

The conclusions of the results of this study can be stated as follows: (1) Cash turnover has a positive effect on profitability meaning that high cash turnover indicates that a company can manage its cash efficiently, (2) Inventory turnover does not affect profitability, this can occur because of costs inventory reserves, inventory insurance costs and other costs attached to the company can also increase when inventory turnover increases so that inventory turnover cannot be a determining factor for company profitability, (3) Accounts receivable turnover has a positive effect on profitability, companies that have high receivables turnover indicate that the company able to collect receivables so that the risk of bad debts can be avoided and the funds contained in the receivables can be used to generate sales that increase the company's profitability.

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