

How Financial Ratios and Firm Size Affect Profitability: Evidence from Food and Beverages Industry in Indonesia

Chesa Ivania Larasati¹; Purwanto^{2*}

^{1,2}Faculty of Business, President University
Jababeka Education Park, Jl. Ki Hajar Dewantara, Mekarmukti, Bekasi, West Java 17530, Indonesia
¹ivaniachesa@yahoo.com; ²purwanto@president.ac.id

Received: 27th February 2021/ **Revised:** 25th April 2021/ **Accepted:** 28th April 2021

How to Cite: Larasati, C. I. & Purwanto. (2022). How financial ratios and firm size affect profitability: Evidence from food and beverages industry in Indonesia. *The Winners*, 23(1), 43-50.
<https://doi.org/10.21512/tw.v23i1.7099>

Abstract - The research was conducted to determine the influence of financial ratios and firm size on the profitability of the company in the food and beverages industry in Indonesia, both partially and simultaneously and to determine which factor has the most significant influence on profitability, from 2014 to 2019. The researcher selected six independent variables to be evaluated using descriptive statistical analysis, classical assumption evaluation, multiple regression analysis, and hypotheses testing with the Microsoft Excel 2016 and EVIEWS 10 as statistical tools. The sampling method and panel data were used to collect the data. There were 72 observation data collected from the Indonesia stock exchange as well as the company's official webpage from 11 food and beverage companies. The financial ratios chosen for the research were working capital to total asset ratio, current ratio, debt to equity ratio, total asset turnover, inventory turnover, and firm size. On the other hand, return on assets was being used as the dependent variable. The research results indicate that, simultaneously, 51,35% influences the profitability of the company. Total asset turnover, inventory turnover, and firm size insignificantly influence the performance of the company, and the debt to equity ratio is the factor with the most significant influence.

Keywords: financial ratios, firm size, industry profitability

I. INTRODUCTION

People or organizations enter the mass market or any profession due to several motivations such as earning and gaining profit despite other personal interests. Every industry sector is doing financing activities to achieve their goals. The food and

beverages industry is one of the industries growing rapidly year by year. In 2019, the food and beverages industry were predicted to be the number one growing industry. Along with the population growth in Indonesia, the volume of the needs towards foods and beverages is increasing. Throughout the first semester of 2020, Indonesia's economic performance in the first semester of 2019 experienced a contraction of minus 5,32%. Several industrial sectors also experienced the same thing, namely negative performance. However, the performance of the food industry in the first semester of 2020 towards semester 1 in 2019 continued to experience positive growth of 2%. Meanwhile, the second quarter of 2020 experienced a growth of 1,9% against the second quarter of 2019. The tendency of Indonesian to eat fast food has caused the appearance of new companies in food and beverages since the food and beverages industry considerably has a good prospect in the current year or even in the years ahead. The food and beverages industry has an important and strategist role, not only for the fulfillment of the needs of food and beverages but also important in the value improvement from the primary product to help the related industries increase as well (Sanjaya & Henviani, 2020). As a result, investments are becoming a more desirable alternative to existing spending for society, rather than consuming items, and families are saving more. Simply put, more savings will result in greater investment in potential wealth (Dhantine & Donaldson, 2015).

The financial performance of the company is an element directly related to the measurement of the performance of the company that is shown in the financial report called the statement of income. In addition, net profit frequently used as an indicator of performance or as a reference for other indicators. In order to gain profit, many companies create such strategies and systems to achieve it. One of the most

important cores of a company is how they manage their financial activities to get to the community. The value of a company is affected by the economic conditions and the business environment in which a company is located. Therefore, valuation needs to be done by looking at macroeconomic conditions and industrial conditions as well as existing market shares (Cakranegara, 2020). For investors, the study of the financial ratios could be used to see whether the company is worth enough to invest and how well the outlook is in the future by comparing the financial ratio between each entity and relevant agencies, or average rates may indicate a relative financial situation.

Financial ratio analysis can help investors in making investment decision and predicting firm's future performance. It can also give early warning about the slowdown of firm's financial condition (Ohlson, 1980).

Research in finance shows that firm's characteristics (such as growth, company size, efficiency) can predict the future stock price. In the research, the financial performance in food and beverages companies will be discovered by using financial ratios analysis such as working capital to total asset (WCTA), current ratio (CR), debt to equity ratio (DER), total asset turnover (TAT), inventory turnover (IT), and firm size (SIZ).

The effective use of the financial ratios focuses on two approaches: 1) accountants and 2) economists for forecasting potential financial conditions, e.g. the estimated future profits by multiplying the expected profit margin revenue (sales ratio/profit) and, more often, statistical methods analysts, especially for predictive inquiries, such as market losses. The data are collected from company's financial report (Shah & Khan, 2018). A financial report serves everything regarding the company's financial condition such as, its financial position, cash flow, and the financial performance of the company that might be beneficial for the stakeholders in making financing decisions. One of the simplest ways to determine a company's financial condition is by doing a financial ratio analysis since the raw data needed is already publicly available by the company. Therefore, it is do-able and accessible to everybody. Commonly, a financial ratio is executed by comparing two or more variables from the company's financial statement to be used to calculate the financial position of the company for a given period of time (Tracy, 2012).

The ratio of a working capital is perhaps the most valuable ratio in forecasting the loss of the company since it is associated with profitability. Inefficient working capital in the management of the company is one of the reasons that may impact the profitability of the company. It may also create a financial crisis in the company, despite all the profitability orientation, firm size, and business orientation, the company's needs a certain amount of it (Purba et al., 2020). Another ratio from the liquidity is current ratio that aims to analyse whether a corporation meets its short-term debt obligation with dividing its current assets into its total

debt. Higher average ratio allows greater ability of the firm to fund new loans by leveraging existing assets, whose amounts are not so high (Rohmah, 2018).

Leverage ratio shows both on the inside and outside of the company itself about how efficient they are in spending borrowed money. The ratio itself results from the activities of the company by external parties, which may be named fixed costs. The debt-to-equity ratio has been used by investors and economists to figure out how much the debt of the firm is relative to the equity of the company or the owners (Irman, et al, 2020). Other research has shown that the value of DER has a substantial effect on the return on assets (Dewi, 2017).

The activity ratio is often referred to as the productivity ratio, a ratio that indicates the quality and usage of all assets owned by the company. Total asset turnover would be used as the calculation of which the activity of this ratio includes in measuring the turnover of every company's assets to know the profitability of sales. Total asset turnover is among the most important factors of the company and is significantly valuable for company's shareholders. However, it is more important for the management section to analyse since this ratio indicates their efficiency in spending money (Purwanto & Bina, 2016). On the other hand, inventory turnover ratio or inventory cycle of a company shows that the less inventory is in the company, the more productive it is for the company (Farooq, 2019).

Firm size is regarded to be a significant and basic firm aspect, in any case, finding a firm size 'size-effect' influences the analytical outcomes (Dang et al., 2017). Wang et al, (2020) state that it is possible to calculate the firm size by using logarithmic nature of total assets at year-end. A higher value of these variables leads to higher rate of the firm size of the company. Similarly, bigger asset makes it possible to have greater capital invested, while more sales also means more money turns in the company (Andy & Johan, 2019).

Return on assets (ROA) can be the measurement of the financial performance of multinational companies, in particular from the point of view of profitability and investment opportunities. Return on asset in this case focuses on the ability of the company in gaining profit in the company's operation. Return is measured by profitability analysis, while risk can be measured using variability sales, cost, and portfolio diversification (Rusydia & Nugroho, 2017). If the return on asset of a company increases, so does the profitability, thus it will be affecting the dividends and capital gain for the stockholders.

Financial performance is a result of the analysis to see how far the firm has come with the right decisions of finance. The components specifically relevant to the calculation of net profit are revenue and cost. Profitability is commonly chosen as the key measurement to indicate a company's financial performance and health. According to Niresh and Velnampy (2014), profitability is the amount of money that can threaten a company's assets and be the main purpose of the companies to maximize their profit.

It appears noticeable the growth of food and beverages in Indonesia is decreasing through the year despite the fact that in a financial situation, the industry is getting better. Based on the history of the ups and downs of the industry, in which many foods and beverages companies can survive, it is interesting to expose and discover the performance of this industry.

Therefore, the research obtains information and identify the performance of the food and beverage industry by using financial ratio analysis that affects profitability and by examining the relationship of each variable. This can be useful for the food and beverage business as an insight into the financial success of the business and financial profitability to evaluate and compare between companies and find out the strengths and weaknesses of the company by learning from other companies.

II. METHODS

The research applies a quantitative analysis as a testing tool. All financial data are collected upon its financial results of the company listed on the Indonesian Stock Exchange. All data used in the research come period 2013-2019. Several hypotheses are formulated:

- H₁: There is significant influence of working capital to total asset on company's profitability
- H₂: There is significant influence of current ratio on company's profitability
- H₃: There is significant influence of debt to equity ratio on company's profitability
- H₄: There is significant influence of total assets turnover on company's profitability
- H₅: There is significant influence of inventory turnover on company's profitability
- H₆: There is significant influence of firm size on company's profitability
- H₇: There is significant influence of the whole independent variables towards company's profitability

The research uses a parameter Best Linear Unbiased Estimator (BLUE) aiming the successful outcome will be discovered. There are some of the requirements in using BLUE parameter, namely: 1)

normal distribution data, 2) no serial correlation, 3) homoscedasticity, 4) the model is properly classified, 5) no absolute relationship between independent variable.

Multiple regression approach is a study to see the pattern of the interaction between more than one independent variable and dependent variables (Irman, et al, 2020), where the equation is written:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e \quad (1)$$

Notes:

Y = Return on asset (ROA) of food and beverages companies listed on IDX

β_0 = Constant

X₁ = Working capital to asset (WCTA)

X₂ = Current ratio (CR)

X₃ = Debt to equity ratio (DER)

X₄ = Total asset turnover (TAT)

X₅ = Inventory turnover (IT)

X₆ = Firm size (SIZ)

$\beta_1 - \beta_6$ = Regression Coefficients

e = Error term

III. RESULTS AND DISCUSSIONS

The research requires another method in providing a brief explanation about the data that have been computed on EViews 10 (statistical software) to summarize the specific data set. Therefore, the research uses result of the interpretation of descriptive analysis to calculate the mean, median, maximum and minimum level, and standard deviation with total 77 observation data. According to Creswell (2017), descriptive statistical analysis serves data in details such as mean, median, standard deviation, and the scoring level in terms of the distribution frequency that can be seen in statistical techniques concise statistics (Table 1).

Hausman Test can help the researcher in discovering which are more preferable between fixed and random effects for the research. The Hausman test result in Table 2 implies that the probability value is 1,000, which means that if the probability value surpassed the significance value that has been set which is 5%, it is concluded that the research is best

Table 1 Descriptive Statistic Result

	ROA	WCTA	CR	DER	TAT	IT	Firm Size
Mean	0,1024	0,1338	1,8343	0,9502	1,2197	7,6402	15,1996
Median	0,0780	0,1620	1,6230	1,0280	1,2060	6,1490	14,8740
Maximum	0,6070	0,5380	4,8440	3,3390	2,5930	24,3970	18,3850
Minimum	-0,0890	-2,4160	0,1520	-2,0170	0,5420	2,2170	12,6250
Std. Dev.	0,1312	0,3477	0,9783	0,7101	0,4093	5,1382	1,5542
Observations	77	77	77	77	77	77	77

Source: Proceed data by EViews 10

Table 2 Hausman Test Result

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0,000000	6	1,0000

Source: Proceed data by EViews 10

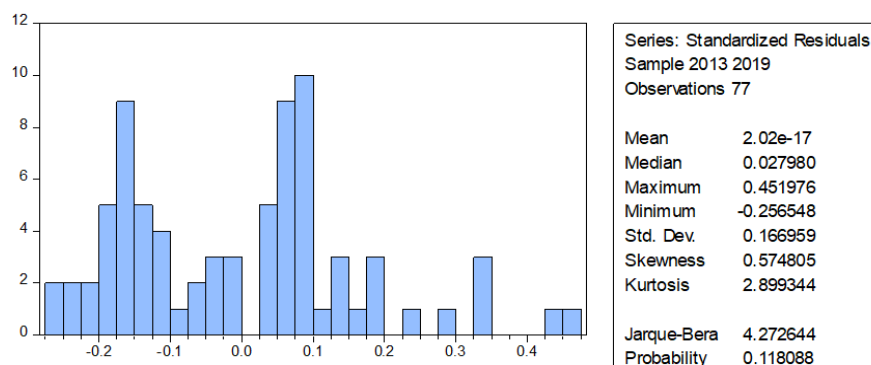


Figure 1 Normality Test Result
Source: Proceed data by EViews 10

Table 3 Heteroscedasticity Test

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 12/09/20 Time: 10:38
Sample: 2013 2019
Periods included: 7
Cross-sections included: 11
Total panel (balanced) observations: 77
Swamy and Arora estimator of component variances
White cross-section standard errors & covariance (d.f. corrected)
WARNING: estimated coefficient covariance matrix is of reduced rank

Source: Proceed data by EViews 10

suiting to the use of a random effect model.

According to normality test result provided in Figure 1, the result of the Jarque-Bera is 0,118088 which surpasses the significant value of 5% or 0,05. It is indicated that the data are generally spread and fulfill the criteria of the normality test.

The aim of the heteroscedasticity test is to determine if there is an inequivalent variation in the regression model through one finding to the other. The white test is to assess whether or not there is heteroscedasticity in this study. According to the result of the white test, it is shown that 'white cross-section standard errors & covariance (d.f. corrected)'. The benefit of this method is that this method has a function to solve the heteroscedasticity. It turns out that heteroscedasticity does not occur in the research.

The objective of the multicollinearity study is to check whether a correlation can be identified among

independent variables. If the independent variables are associated, the variables are not orthogonal. Test results in Table 4 explain the highest matrix is found between WCTA and CR by 0,6216. The result is valid since the value of correlation of each independent variable is not more than 0,7 which means that the multicollinearity issue of the research does not occur.

According to the outcome of the regression analysis in Table 5, Durbin-Watson's calculation value is 1,730332 and it fulfills the condition of $-2 \leq DW \leq 2$. Therefore, it is concluded that the result is $-2 \leq 1,730332 \leq 0,5$, so there is no autocorrelation existing in this research. According to Ghazali (2016), a good regression model is a model that has no autocorrelation.

The findings of the multiple regression study help to estimate the mean value of the dependent variable in this sample based on other independent

Table 4 Multicollinearity Test

	WCTA	CR	DER	TAT	IT	Firm Size
WCTA	1,0000	0,6216	0,1684	0,0007	-0,0400	0,2424
CR	0,6216	1,0000	-0,3152	-0,2485	-0,0197	0,3248
DER	0,1684	-0,3152	1,0000	0,3206	0,0138	-0,1562
TAT	0,0007	-0,2485	0,3206	1,0000	-0,1627	-0,6230
IT	-0,0400	-0,0197	0,0138	-0,1627	1,0000	-0,1158
Firm Size	0,2424	0,3248	-0,1562	-0,6230	-0,1158	1,0000

Source: Proceed data by EViews 10

Table 5 Durbin-Watson Test Result

Weighted Statistics	
Durbin Watson Statistics	1,730332

Source: Proceed data by EViews 10

Table 6 Multiple Regression Analysis Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,8750	0,7044	1,2423	0,2187
WCTA	0,1815	0,0564	3,2186	0,0020
CR	-0,0344	0,0126	-2,7259	0,0083
DER	-0,0704	0,0212	-3,3287	0,0015
TAT	0,0527	0,0497	1,0602	0,2930
IT	0,0095	0,0065	1,4617	0,1487
SIZ	-0,0529	0,0450	-1,1743	0,2446

Source: Proceed data by EViews 10

variables. According to Ghozali (2016), the coefficient of determination (R^2) basically measures how far the model's ability to explain variation of the dependent variable. Based on the output of EViews 10 partially from the six independent variables which are WCTA, CR, DER, TAT, IT and SIZ towards ROA as the dependent variable, it is shown in Table 6.

The first hypothesis states that working capital to total asset positively and significantly has impact towards return on asset. The result obtains that the regression coefficient of WCTA is 0,1815 with its significant value is 0,0020, which means less than 0,05. WCTA displays the net operating capital of the company's total current assets to sustain the company's activities. Purba et al. (2020) state that the ratio of a working capital is perhaps the most valuable ratio in forecasting the loss of the company since it is associated with profitability.

The second hypothesis is that the current ratio has a major impact return on asset, as seen in the food and beverage industry in Indonesia. The outcome of the regression coefficient of CR is -0,0344 with a significant value of 0,0083. It is concluded that CR has a negative significant value towards company's ROA because its significant value is less than 0,05 but with a negative t-test result. The current ratio (CR)

is indeed a formula used to determine the firm pays off all its short-term obligations to existing assets and is also part of the liquidity ratio. The higher the CR percentage means that the company has a better efficiency in its financial management (Hasanah & Enggaryanto, 2018).

As Table 6 provides, DER as the third independent variable comes out with the regression coefficient result of -0,0704 and with its p-value (significant value) is 0,0015. The negative value of DER and its p value, which is less than 0,05, indicates that DER occurs to have a negative and major effect on ROA. The DER is necessary to find out the sum of money provided to the owner of the business by the creditor. The higher the percentage, the healthier it is for the company. This variable indicates that each rupiah to its own money is being used as collateral for the debt. There is also no limits on how much DER is good for the company. However according to Irman et al. (2020) for conservatives, the normal DER that crosses 66% or 2/3 is considered risky.

The next hypothesis relates to the impact of TAT on ROA. Based on Table 6, the variable TAT has the significant value of 0,2930 with the regression coefficient is 0,0527. With a p-value of more than 0,05, this shows that TAT does have an insignificant

and positive impact on the return on the asset of the firm. For the company, the greater the ratio of TAT, the better it is for the company. Total asset turnover (TAT) shows the level of efficiency in the use of all company's assets in generating certain income. This is the calculation of which activity of this ratio is included in measuring the turnover of every company's assets to know the profitability of sales (Hasanah & Enggariyanto, 2018). High total asset turnover means the cooperative management's ability to manage asset both current and fixed assets. Therefore, total asset turnover can be enlarged by adding assets on one hand and on the other so that increase in sales can be greater than the increase in asset.

Table 6 shows that IT has a significant value by 0,1487 with the regression coefficient result is 0,0095. Based on the fact that the p-value of IT is more than 0,05 and the t-test is positive, it is concluded that IT has a positive but not significant influence towards company's ROA. IT is included in the activity ratio, which becomes an indicator of a company in control and allocates its assets (Gibson, 2011). This inventory turnover ratio or inventory cycle of a company shows that the less inventory in the company, the more productive it is for the company. It is also better if the company can sell inventory quickly to avoid overload inventory stored in the warehouse for a long time.

The outcome of the analysis displays that SIZ is the last independent variable with a regression coefficient value of -0,0529 with a p value of 0,2446. The research finds that SIZ has a negative result and significance value more than 0,05, which makes SIZ to be the variable that has negative and insignificant influence towards ROA. This insignificance result means that the company is getting bigger, so the company needs greater cost in maintaining its operational activities. The negative influence occurs since activities such as administrative, labor costs, maintenance costs of vehicles, general costs, and many more might reduce company's return on assets (Ali, 2019).

According the result of multiple regression analysis it shows that the adjusted R^2 is 0,513506, where it implies that 51,35% of profitability of the company is the return on the asset. In the research, profitability is affected by the WCTA, CR, DER, TAT, IT and SIZ. The rest of the 51,15% is impacted by many other factors that are not examined in the research. On the other hand, the result of the f-test also displays that the significance value is 0,000, which means under the 0,05. It is concluded that the independent variables has significant influence towards company's financial performance (ROA) simultaneously. Moreover, based on the level of significance towards the dependent variable, independent variable with the most significant value is debt equity ratio with -0,074 and the p-value is 0,0015.

Coefficient determinant analysis aims to see how much impact its independent variables have on the ROA as a percentage. If the value is equal to one, then the R^2 is considered great since it has a strong capacity

to influence the dependent variable (Shadmehri & Fathi, 2013). The higher the R^2 value, the higher the influence between independent variables and ROA, and *vice versa*.

Table 7 Coefficient of Determination

Weighted Statistics	
R-Squared	0,590321
Adjusted R-Squared	0,513506

Source: Proceed data by EViews 10

Table 7 shows that the result of the R^2 is 0,590321 or 59,03%. Nevertheless, it is better to use the adjusted result of the R^2 to obtain more balanced and correct result of the coefficient determination. The result of the adjusted R^2 is 0,513506, so it can be concluded that 51,35% of variability of ROA can be linked or connected to the independent variables (WCTA, CR, DER, TAT, IT, and SIZ) simultaneously. The remaining 50,65% are affected by certain variables that are not being used in this regression model.

It is discovered that the most significant aspect impacting the profitability of the company in food and beverages industry in Indonesia is debt to equity ratio. DER has its smallest p-value which is 0,0015 and less than 0,05, which makes it the most significant factor that influence profitability. Companies really need to pay attention on the percentage of the debt to equity ratio as it is directly and significantly influence ROA.

IV. CONCLUSIONS

There have been six independent variables throughout the research, which are all tested by descriptive statistical analysis, classical assumption test, multiple regression analysis, and hypothesis testing. Working capital to total asset ratio has a positive significant effect on the profitability of the company. Current ratio has a negative significant influence towards company's profitability. Debt to equity ratio as the third independent variable indicates a negative significant influence towards profitability of the company. Total asset turnover shows an insignificant positive influence towards profitability of the company. Inventory turnover shows a positive significant influence towards company's profitability. Firm size as the last independent variables shows that it has significant negative influence towards company's profitability. DER has its smallest p-value which is 0,0015 and less than 0,05 that make it the most significant factor that influence profitability.

The respective foods and beverages companies in Indonesia are also fully suggested to take a deep look and improve on the chosen financial ratios in the research as independent variables such as, working capital to total asset, current ratio, debt to equity ratio,

total asset turnover, inventory turnover and firm size in assets which have been confirmed to have a major effect on asset returns. All of those financial ratios are affecting the company's profitability for 51,35%. Indonesia's food and beverages industry is able to survive during economic crisis and keep moving to a better economic condition.

It is suggested that company should maintain their sustainability and pay attention to their financial report as part of their risk management to gain profitability that will affect Indonesia's GDP and attract more investors to invest in this sector to help the country economic progress. In addition, it is advisable that investors understand about financial ratio analysis and corporate financial performance before investing in a company. It will help investors to have a better insight in investing by looking on the fundamental investment analysis.

The research has several limitations, in terms on the financial ratios and the sample period. Thus, future researchers are suggested to extend the time period and expand the size of the sample or input population of the research to obtain more observation data and get more specific background of the food and beverages industry in Indonesia. Knowing that 51,35% of the company's profitability is impacted by the chosen independent variables in the research. Adding more variable is also suggested for the next future research to find more factors that might affect profitability of the company.

REFERENCES

- Ali, S. A. (2019). *Determinants of profitability in the manufacturing firm: The case of natural mineral water producing companies*. [Master Thesis, Addis Ababa University].
- Andy & Johan, S. (2019). Analisis faktor-faktor yang mempengaruhi nilai perusahaan di sektor properti dan real estate terdaftar di Bursa Efek Indonesia pada tahun 2014-2018. *Journal Manajemen Bisnis dan Kewirausahaan*, 4(6), 264-269. <http://dx.doi.org/10.24912/jmbk.v4i6.9791>
- Cakranegara, P. (2020). Valuasi aset tak berwujud perusahaan start up teknologi dengan menggunakan metode Navaro Lopez untuk penawaran saham perdana. *Prosiding Working Papers Series in Management*, 12(2), 27-35. <https://doi.org/10.25170/wpm.v12i2.27-35>
- Creswell, J. W. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage Publications.
- Dang, C., Li, Z., & Yang, C. (2018). Measuring firm size in empirical corporate finance. *Journal Banking and Finance*, 86(C), 159-176. <https://doi.org/10.1016/j.jbankfin.2017.09.006>
- Dewi, T. F. (2017). *Pengaruh current ratio, working capital to total asset, debt to total asset, return on asset dan total asset turnover terhadap perubahan laba pada perusahaan dagang sektor retail yang terdaftar di Bursa Efek Indonesia*. [Thesis] 1-12.
- Dhantane, J. & Donaldson, J. (2015). *Intermediate Financial Theory*. Oxford: Elsevier Inc.
- Farooq, U. (2019). Impact of inventory turnover on the profitability of non-financial sector firms in Pakistan. *Journal of Finance and Accounting Research*, 1(1), 34-51. <https://doi.org/10.32350/JFAR.0101.03>
- Ghozali, I. (2016). *Aplikasi Analisis Multivariate dengan Program SPSS*. Semarang: Penerbit Diponegoro.
- Gibson, D. N. (2011). *Financial Statement Analysis*. Canada: South-Western, Cengage Learning.
- Hasanah, A. & Enggariyanto, D. (2018). Analisis faktor-faktor yang mempengaruhi return on assets pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia. *Journal of Applied Managerial Accounting*, 2(1), 15-25. <https://doi.org/10.30871/jama.v2i1.658>
- Irman, M., Purwati, A., & Juliyanti. (2020). Analysis on the influence of current ratio, debt to equity ratio and total asset turnover toward return on assets on the otomotive and component company that has been registered in Indonesia Stock Exchange within 2011-2017. *International Journal of Economics Development Research*, 1(1), 36-44. <https://doi.org/10.37385/ijedr.v1i1.26>
- Niresh, J. A. & Velnampy, T. (2014). Firm size and profitability: A study of listed manufacturing firms in Sri Lanka. *International Journal of Business and Management*, 9(4), 57-64. <https://doi.org/10.5539/ijbm.v9n4p57>
- Ohlson, J. A. (1980). Financial ratios and the probabilistic prediction of bankruptcy. *Journal of Accounting Research*, 18(1), 109-131. <http://dx.doi.org/10.2307/2490395>
- Purba, M. I., Sitorus, A. S., Rinanda, A., Malau, I., & Danantho, Q. (2020). Pengaruh working capital to total asset (WCTA), current ratio (CR), dan debt to equity ratio (DER) terhadap profitabilitas pada perusahaan manufaktur sektor aneka industri terdaftar di Bursa Efek Indonesia periode 2014-2017. *Universitas Dharmawangsa*, 14(3), 404-418.
- Purwanto & Bina, C. R. (2016). Analysis of financial ratio on predicting earning growth in selected mining companies. *Universal Journal of Industrial and Business Management*, 4(3), 81-87. <https://doi.org/10.13189/ujibm.2016.040301>
- Rohmah, I. (2018). *Pengaruh Current Ratio (CR), Debt to Equity Ratio (DER), Total Asset Turnover (TATO) dan Net profit Margin (NPM) Terhadap Return on Assets (ROA) pada Perusahaan Food and Beverage yang Terdaftar di Bursa Efek Indonesia (BEI) Tahun 2013-2016*. Kudus: Fakultas Ekonomi dan Bisnis, Universitas Muria Kudus.
- Rusydia, A. S. & Nugroho, T. (2017). Measuring efficiency of life insurance institution in Indonesia: Data envelopment analysis approach. *Global Review of Islamic Economics and Business*, 5(1), 12-24. <http://dx.doi.org/10.14421/grieb.2017.051-02>
- Sanjaya, R. & Henviani. (2020). Factors that influence on the price to book value of the company in Indonesia Stock Exchange. *Riset: Jurnal Aplikasi Ekonomi*

- Akuntansi dan Bisnis*, 2(2), 361-372. <https://doi.org/10.35212/riset.v2i2.58>
- Shah, M. & Khan, F. (2018). Profitability and working capital management Nexus: Evidence from food & personal care products sector firms listed on Pakistan stock exchange. *Journal of Business and Tourism*, 4(1), 55-67.
- Tracy, A. (2012). *Ratio Analysis Fundamentals: How 17 Financial Ratios Can Allow You to Analyse Any Business on the Planet* (1st Ed.). CreateSpace Independent Publishing Platform.
- Wang, N., Wang, L., Zhang, L., & Yu, Y. (2020). Tax shelters, reputational costs and CEO turnover: Evidence from tax-violating enterprises in China. *Emerging Markets Finance and Trade*, 57, 1986-2005. <https://doi.org/10.1080/1540496X.2020.1768070>