

The Effect of Liquidity, Thin Capitalization, Capital Intensity, and Earnings Management on Tax Avoidance in Manufacturing Companies Listed in Indonesia Stock Exchange (IDX) 2010-2020 Period

Rika Nisma Aisyah¹, Erlina¹, Keulana Erwin¹

¹Department of Accounting, Faculty of Economics and Business at Universitas Sumatera Utara, Indonesia

Corresponding Author: Rika Nisma Aisyah

DOI: <https://doi.org/10.52403/ijrr.20220126>

ABSTRACT

This study aims to determine the effect of liquidity, thin capitalization, capital intensity, and earnings management on tax avoidance in manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2010-2020 period. The type of research used is descriptive quantitative. The research sample used was 34 companies from 184 companies. The sample return method used is the selection of samples for research from the research population by fulfilling several predetermined criteria (purposive sampling). The data type used is secondary data, and the data analysis technique is a multiple linear regression test using Eviews 9 software. The proxy used for tax avoidance is the book-tax difference (BTD). The results of this study indicate that liquidity and earnings management have a positive and significant effect on tax avoidance. Meanwhile, thin capitalization and capital intensity do not affect tax avoidance.

Keywords: Tax Avoidance, Liquidity, Thin Capitalization, Capital Intensity, Earnings Management

INTRODUCTION

The tax sector is the largest source of state revenue. It can be seen from the tax contribution in the state budget revenue posture, which has now reached more than 70%. Collecting taxes is not an easy thing to implement. It is due to the different interests and views held by each party. In terms of

tax authorities, taxes are a source of income whose value is immense for the country's survival. Tax from the company side is one of the factors to be considered because taxes are considered a burden that can affect the company's survival.

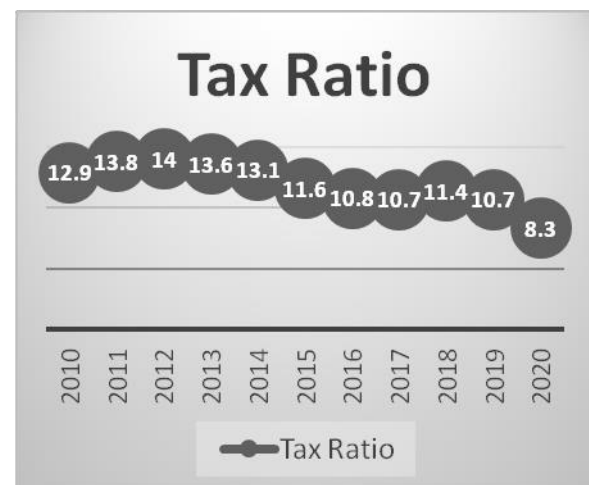


Figure 1. Indonesia's Tax Ratio From Time To Time

Based on Figure 1, it can be seen that the value of Indonesia's tax ratio for 2010-2020 shows that Indonesia has touched the figure of 10.7% for the tax ratio in 2017 and 2019. According to international standards, Indonesia's tax ratio is expected to reach 15%. According to a report released by the OECD (Organization for Economic Co-operation and Development) explained that Indonesia's tax ratio is the lowest compared to Australia, Cook Islands, Fiji, Japan, Kazakhstan,

Korea, Malaysia, New Zealand, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, Thailand Tokelau and Vanuatu with a tax ratio in 2019 below 11%. Compared to other countries in the Asia Pacific, Indonesia has the lowest tax ratio. Based on the Tax Justice Network report in 2020 that Indonesia will face a loss of US\$ 4.86 billion per year or equivalent to Rp. 68.7 trillion (Rp. 14,149 per US Dollar exchange rate) due to tax avoidance. It is caused by corporate taxpayers who do tax avoidance in Indonesia.

Tax avoidance is an active resistance originating from taxpayers by taking advantage of loopholes in the tax law to avoid or reduce tax obligations by not supporting establishing the tax law to obtain state income from taxes. Tax avoidance is often associated with tax planning. Tax planning is not debated about its legitimacy, while tax avoidance is generally considered an unacceptable act.

Companies experiencing financial difficulties may not comply with tax regulations to maintain cash flow so that the level of liquidity is thought to encourage companies to take tax avoidance actions. The thin capitalization practice can be used as a tax avoidance strategy (Lietz, 2013). Based on Modigliani and Miller's (1963) capital structure theory, debt can provide tax incentives for companies through the ability of loan interest expense to reduce taxable income. Capital intensity is the next factor influencing companies' tax avoidance strategies. Capital intensity will determine the effective tax rate directly. Another action that aims to reduce the number of tax payments is to regulate the number of company profits, commonly called earnings management.

The object of this research is a manufacturing company listed on the Indonesia Stock Exchange. The choice of manufacturing company as the object of research is due to the immense influence of manufacturing sector companies in meeting the needs of people's lives.

1. Does liquidity affect tax avoidance?

2. Does thin capitalization affect tax avoidance?
3. Does capital intensity affect tax avoidance?
4. Does earnings management affect tax avoidance?

LITERATURE REVIEW

1. Tax Avoidance

Tax avoidance or resistance to taxes are obstacles in tax collection, resulting in reduced state treasury revenues. Tax avoidance is a business that takes advantage of the weakness of the legislation as an opportunity to get a lower amount of tax burden than it should be. The definition of tax has a different definition for each researcher so that measuring the value of tax avoidance is also different. Commonly used tax avoidance measures are the Effective Tax Rate (ETR), Cash ETR (CETR), and Book Tax Differences (BTD).

There are 2 (two) resistance to taxes, namely active and passive resistance. Taxpayers do not do passive resistance, but it occurs because of the taxpayers' circumstances. Active resistance to taxes is resistance whose initiative comes from the taxpayers themselves. There are 3 (three) ways of active resistance to taxes, namely tax avoidance, tax avoidance, and tax neglect.

There are several motives carried out by taxpayers when doing tax avoidance. First, it can only reduce the tax burden. Philosophically, no one is aware or willing to pay taxes. It is done to comply with the law and avoid taxes only if it uses a loophole or weakness. Second, deliberately obtain financial benefits. This practice is usually carried out in violation of the law, such as VAT evasion.

2. Liquidity

Liquidity is the company's ability to convert its assets into cash to pay its obligations as they fall due. The primary measure for calculating the value of liquidity is the current ratio and the quick ratio (Gitman, 2015). If the company's

liquidity ratio is high, the company's profit allocation for the current year to the next year will increase. It makes the company consider whether to avoid tax because there will be an increase in the tax burden as the profit increases. This statement is in line with the research results by Andersen and Tveiten (2017) and Hajiannejad and Sararoodi (2019), which states that liquidity affects tax avoidance.

3. Thin Capitalization

Thin capitalization refers to a situation where a company has a much more considerable amount of debt than capital or is often called highly leveraged or highly geared (Organization for Economic Co-operation and Development, 2012). Thin capitalization is the practice of financing a giant branch or subsidiary with interest-bearing debt than with share capital.

Many countries in the world apply thin capitalization rules to prevent tax avoidance. In general, the rule of thin capitalization has an approach: limiting the amount of debt (debt limitation), which affects the amount of interest expense that can be deducted by reference to the ratio of interest to other variables. There are two types of this approach: the Arm's Length approach and the Debt Equity Ratio (DER) approach.

Research by Taylor and Richardson (2013) shows a strong relationship and significant influence between thin capitalization on international tax avoidance in Australia. Companies that approach or exceed the interest limit allowed by the thin capitalization rule tend to avoid tax. In line with that, Khomsatun and Martani (2016) determined that the practice of thin capitalization also affects tax avoidance, and regulations regarding interest-bearing debt limits can reduce the positive relationship between thin capitalization and tax avoidance.

4. Capital Intensity

The capital intensity or capital intensity is a form of financial decision

determined by the company's management to increase the company's profitability in the form of fixed assets (Non-Current Assets). The company invests a large amount of capital in its production process to expect a higher proportion of its fixed assets to generate revenue. Almost all fixed assets will experience depreciation which will be a depreciation expense in the company's financial statements. At the same time, this depreciation expense is a cost that can be deducted from income to calculate corporate tax.

The greater of fixed assets proportion and the cost of capital depreciation, the company will have a low ETR. Companies with high fixed assets tend to do tax planning, so they have a low ETR (Noor and Sabli, 2012). The results of this study are in line with the research of Richardson and Lanis (2007) and Kasim and Saad (2019), which state that capital intensity affects tax avoidance.

5. Earnings Management

Earnings management is the steps taken by the parties preparing financial statements in the process of compiling financial statements with the level of reported profits as desired, but still within the limits of applicable accounting principles or rules (Davidson et al., 1987). Until now, the view and understanding of earnings management have been controversial. Practitioners categorize earnings management as fraud, while academics state that earnings management is not fraud (Sulistyanto, 2006).

Scott (2015) states five earnings management techniques: taking a bath, income minimization, income maximization, and income smoothing. One of the earnings management techniques that are often used is income smoothing.

The earnings management measurement models are Healy Model (1985), De Angelo Model (1986), Jones Model (1991), Dechow and Sloan Industry/Model (1991), Modified Jones Model (1995), Dechow and Dichev (2002),

Model Kothari Model (2005), Stubben Model (2010), and New Approach Model/Dechow et al. (2011). The earnings management model that is widely used is the Jones Model and the Modified Jones Model.

Earning management is a practice carried out to achieve profit targets and avoid losses in the company's operational activities. The company will try as much as possible so that the taxes paid are low by avoiding tax. Management deliberately avoids taxes by increasing the burden through specific accounting methods and policies so that the profit earned is small. Based on the research results conducted by Cappelleso and Rodrigues (2019) and Kurniasih et al. (2017), earnings management affects tax avoidance.

Framework

Following the description of the background of the problem, literature review, and previous research, a conceptual research framework is prepared as follows:

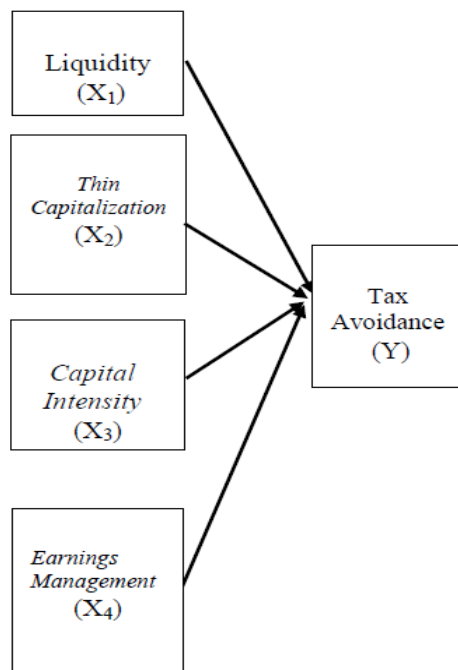


Figure 1. Conceptual Framework

a. In previous research, the analytical journal from Hajiannejad and Sararoodi (2019) showed that liquidity affected tax avoidance.

- b. Khomsatun and Martani's research (2016) shows that thin capitalization affects tax avoidance.
- c. The research conducted by Kasim and Saad (2019) showed that capital intensity affected tax avoidance.
- d. Research conducted by Cappelleso and Rodrigues (2019) shows that earnings management affects tax avoidance.

RESEARCH METHODS

Technical analysis of the data used in this study is a multiple linear regression analysis of panel data with software tools Eviews 9. This study was conducted to determine the effect of liquidity, thin capitalization, capital intensity, and earnings management on tax avoidance in manufacturing companies listed on the Stock Exchange. Indonesia (IDX) for the period 2010-2020. The technique of determining the sample is purposive sampling so that 34 companies from 184 companies are the research population for the sample based on predetermined criteria.

Following are the sampling criteria:

1. The company is included in the manufacturing companies listed on the Indonesia Stock Exchange for 2010-2020.
2. The company has complete financial statements from 2010-2020.
3. The company uses the fiscal year as of December 31.
4. Do not use foreign currency in publishing financial statements.

RESULT AND DISCUSSION

1. Regression Analysis and Hypothesis Testing

a. Regression Results

This study uses multiple linear regression analysis to determine whether or not there is an influence between the variables of liquidity, thin capitalization, capital intensity, and earnings management on tax avoidance. The estimation results can be seen in the research model that was processed with the help of the Eviews 9

program, so the results of the regression analysis results are shown in Table 1.

Test :

$$BTD = \alpha + \beta_1LK + \beta_2TC + \beta_3CI + \beta_4EM + e$$

Regression results from multiple linear regression analysis:

$$BTD = -0.0216 + 0.0055LK - 0.0145TC - 0.0032CI + 0.0487EM$$

Table 1. Results of Regression Coefficient Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.021579	0.010946	-1.971422	0.0494
LK	0.005520	0.001743	3.167794	0.0017
TC	-0.014548	0.007655	-1.900570	0.0581
CI	-0.003206	0.007824	-0.409777	0.6822
EM	0.048668	0.019320	2.519058	0.0122

Model Prediction:

1. The results of the t-test for the liquidity variable (X1) obtained a T-Count value of 3.1678 with a significance value below 0.05, which is 0.0017 and has a positive coefficient of 0.0055. It means that if the liquidity value increases by 1%, there will be an increase in tax avoidance of 0.0055.
2. The results of the t-test for thin capitalization (X2) obtained a T-Count value of -1.9006 with a significance value above 0.05, which is 0.0581 and has a negative coefficient of -0.0145. If there is an increase in thin capitalization of 1%, it will reduce tax avoidance by -0.0145.
3. The results of the t-test for capital intensity (X3) obtained a T-Count value of -0.4098 with a significance value above 0.05, which is 0.6822 and has a negative coefficient of -0.0032. If there is an increase in capital intensity of 1%, it will reduce tax avoidance by -0.0032.
4. The results of the t-test for the earning management variable (X4) obtained a T-Count value of 2.5190 with a significance value below 0.05, which is 0.0122 and has a positive coefficient of 0.0487. If the value of earning management increases by 1%, there will be an increase in tax avoidance of 0.0487.

b. t-test

The t-test determines whether the independent variable has a partial effect on the dependent variable. The variables used are liquidity, thin capitalization, capital intensity, and earnings management.

1) Liquidity

The liquidity probability value is $0.0017 < 0.05$ with a positive regression coefficient value of 0.0055. It can be concluded that the liquidity variable has a positive and significant effect on tax avoidance. The company's liquidity level is a reference to indicate a flexible or not company. The better the level of liquidity of a company, the more flexibility a company has, then the company can be said to be liquid. If a company has low liquidity or is often called illiquid, its business performance needs to be watched. Thus, some companies use the level of liquidity to see the financial condition and make decisions by utilizing several taxes or fiscal provisions. It is to reduce tax obligations that must be paid off to increase its liquidity level to meet its short obligations better. So the company can use the funds obtained for more profitable investments.

2) Thin Capitalization

The probability value of thin capitalization is $0.0581 > 0.05$ with a negative regression coefficient value of 0.0145. It can be concluded that the thin capitalization variable does not affect tax avoidance. Companies with high leverage levels can have more significant growth opportunities than companies with low debt levels (Haufler and Runkel, 2012). The practice of thin capitalization is one of the reasons for choosing debt as a source of funding. However, the company can also choose debt as funding because the company's equity is not divided into share capital, so there are no other options that can be used besides debt. Thus, it can be concluded that the company's thin capitalization scheme is not solely to practice tax avoidance.

3) Capital Intensity

The probability value of capital intensity is $0.6822 > 0.05$ with a negative regression coefficient value of 0.0032. It can be concluded that the capital intensity variable does not affect tax avoidance. Capital intensity results from the funding decision that the company chooses whether to use debt or equity to fund the company's operations. Capital intensity is the mix of funding obligations that is uncertain but is an essential resource for the company. Companies with a high level of capital intensity have a lower tax burden than companies with low fixed assets (Rodriguez and Arias, 2012). Based on the fiscal provisions, depreciation expense is one of the costs allowed as a deduction from gross income. Ownership of fixed assets does not have a considerable enough influence on companies to reduce the company's tax burden (Irianto et al., 2017). Ownership of the company's fixed assets is used for the company's operational interests, not solely to avoid taxes.

4) Earnings Management

The liquidity probability value is $0.0122 < 0.05$ with a positive regression coefficient value of 0.0486. It can be concluded that the liquidity variable has a positive and significant effect on tax avoidance. Financial statement information is a form of responsibility to stakeholders who want to know the performance and condition of the company. The attention of users of financial statements on earnings is undoubtedly realized by management, so managers usually make how profits in the company's financial statements are used to benefit the company. Cappelleso and Rodrigues (2019) stated that earnings management is carried out simultaneously by increasing the difference between book income and taxable income. In addition, the choice to use earnings management is to adjust the targets achieved by the company based on the budget that has been prepared.

c. F Uji test

Prob value. (F-Statistic) of 0.000 < 0.05 , liquidity, thin capitalization, capital intensity, and earnings management simultaneously affect tax avoidance.

d. Coefficient of Determination

The value of the coefficient of determination (R²) produced is 0.0624. The variation of all variables can affect the dependent variable by 6.24%. Meanwhile, the remaining 93.76% is influenced by other variables outside the study.

e. Classic assumption test

1. Normality test, the results of the Jarque-Bera (J-B) normality test with a significance level of 0.05 ($\alpha = 5\%$) indicate that the Jarque-Bera value is 1339.015 and the probability value is $0.000 < 0.005$. Based on these results, it can be judged that the assumption of normality is not met.
2. Multicollinearity test, if the correlation value is < 0.90 , then there is no multicollinearity problem. Based on the test results, the resulting correlation value is smaller than 0.90, so there is no multicollinearity.
3. Heteroscedasticity test has a provision for the value of Prob. Chi-square > 0.05 , then there is no heteroscedasticity problem. Based on the test results, the value of Prob. Chi-square is $0.172 > 0.05$, so there is no heteroscedasticity problem.
4. The Autocorrelation test has a statistical value of the Durbin Watson Test, smaller than one or greater than 3, indicating autocorrelation. The value of the Durbin-Watson statistic is 0.9070, then based on the provisions of the Durbin-Watson test statistic, there is autocorrelation in the data.

CONCLUSIONS AND SUGGESTIONS

Based on the results of data analysis and discussion of research results that have been carried out, the conclusions that can be drawn are as follows:

1. The first hypothesis (H1) is accepted. Namely, liquidity has a positive and significant effect on tax avoidance.
2. The second hypothesis (H2) is rejected, namely, thin capitalization has a negative and insignificant effect on tax avoidance.
3. The third hypothesis (H3) is rejected, namely capital intensity has a negative and insignificant effect on tax avoidance.
4. The fourth hypothesis (H4) is rejected, namely earnings management has a positive and significant effect on tax avoidance.

2. Suggestions

Based on the research results, the suggestions that can be given are:

- a. For further research, include Profitability as a research variable because, in some studies, it is essential to include Profitability if the author wants to test liquidity against tax avoidance as a research variable.
- b. Using proxies other than the Jones, Dechow, or Kohatri models for measuring earnings management and using more than 1 (one) proxy to measure tax avoidance in a study.

Acknowledgement: None

Conflict of Interest: None

Source of Funding: None

REFERENCES

1. Andersen, Joachim., & Tveiten, Axel Heim. 2017. *The Effect of Corporate Tax Avoidance on Investments, and its Relationship to Firm Liquidity*. (Master of Science in Business, BI Norwegia Business School, Oslo). Retrieved from <https://biopen.bi.no/bitstream/handle/11250/2483984/1760150.pdf?sequence=1&isAllowed=y>
2. Budianti, Shinta., & Curry, Khirstina. 2018. Pengaruh Profitabilitas, Likuiditas, dan Capital Intensity Terhadap Penghindaran Pajak (Tax Avoidance). *Prosiding Seminar Nasional Cendekiawan 2018 Buku II*. Retrieved from: <https://trijurnal.lemlit.trisakti.ac.id/semnas/article/view/3567>
3. Cappellesso, Gessica., dan Rodrigues, Jomar Miranda. 2019. Book-tax Differences as an Indicator of Earnings Management and Tax Avoidance: An Analysis in G-20 Countries. *Journal of Accounting, Management, and Governance*, 22(3), 352-367. doi: 10.21714/1984-3925_2019v22n3a3
4. Chen, Y., Ge, R., Louis, H., & Zolotoy, L. 2017. Stock liquidity and corporate tax avoidance. *Review of Accounting Studies*, 24(7). doi: 10.1007/s11142-018-9479-6
5. Davis, J. H., Schoorman, D. L., & Donaldson, L. (1997). Toward a Stewardship Theory Management. *Academy of Management Review*, 22(1), 20-47. doi: 10.2307/259223
6. Freeman, R Edward., & Reed, David L. (1983). Stockholder and Stakeholders: A New Perspective on Corporate Governance. *The Regents of the University of California*, 25(3), 88. doi: 10.2307/41165018
7. Friedman, M. (1962). Capitalism and freedom. *University of Chicago Press*. Retrieved from: [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1074003](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1074003)
8. Gitman, Lawrence L., & Zutter, C J. 2015. *Principles of Managerial Finance*. Bloomington: Pearson
9. Hajiannejad, Amin., & Sararoodi, Sayed Rasool Danesh. 2019. Effects of Agency Cost and Liquidity on Tax Avoidance by the Use of Profitability. *Journal of Accounting Knowledge*. 10(1), 115-136. Retrieved from <https://www.sid.ir/en/Journal/ViewPaper.aspx?ID=728832>
10. Haufler, Andreas., dan Runkel, Marco. 2012. Firm's Financial Choices and Thin Capitalization Rules under Corporate Tax Competition. *European Economic Review*. 56, 2429. doi: 10.1016/j.eurocorev.2012.03.005
11. Irianto, BS, Sudibyo, YA, dan Wafirli Abim. 2017. The Influence of Profitability, Leverage, Firm Size and Capital Intensity Towards Tax Avoidance. *International Journal of Accounting and Taxation*, 5(2). doi: 10.15640/ijat.v5n2a3

12. Kasim, F M., & Saad, N. (2019). Determinants of Corporate Tax Avoidance Strategies among Multinational Corporations in Malaysia. doi: 10.18488/journal.74.2019.62.74.81
13. Khomsatun, S., & Martani, D. (2016). Pengaruh Thin Capitalization dan Assets Mix Perusahaan Indeks Saham Syariah Indonesia (Issi) Terhadap Penghindaran Pajak. *Simposium Nasional Akuntansi XVIII*. Retrieved from: <https://staff.blog.ui.ac.id/martani/files/2016/07/BF-B2c2-18-Pengaruh-Thin-Capitalization...Dwi-Martani.pdf>
14. Kurniasih, Lulus., Sulardi., & Suranta, Sri. (2017). Earnings Management, Corporate Governance Mechanism, and Tax Avoidance: Cases of Indonesia. *Journal of Financial and Bank Review*.
15. Lietz, Gerrit M. 2013. Tax Avoidance vs Tax Aggressiveness: A Unifying Conceptual Framework. *SSRN*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2363828
16. Lietz, Gerrit M. 2013. Determinants and Consequences of Corporate Tax Avoidance. *SSRN*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2363868
17. Manurung, Josua Tommy Parningotan. Praktik Penghindaran Pajak di Indonesia. <https://www.pajak.go.id/id/artikel/praktik-penghindaran-pajak-di-indonesia> (Diakses pada 10 Mei 2020)
18. Modigliani, F., dan Miller, Merton H. 1963. Corporate Income Taxes and the Cost of Capital: A Correction. *JSTOR*, 53(3), 433-443. Retrieved from <https://www.jstor.org/stable/1809167>
19. Noor, R. Md., dan M. Sabli. 2012. Tax Planning and Corporate Governance. International Conference on Business and Economic Research (3rd ICBER) Proceeding.
20. OECD. (2012). Thin Capitalisation Legislation. Retrieved from https://www.oecd.org/ctp/tax-global/5.%20thin_capitalization_backgroun d.pdf
21. Richardson, G., & Lanis, R. 2007. Determinants of the Variability in Corporate Effective Tax Rates and Tax Reform: Evidence from Australia. *Journal of Accounting Public Policy*, 26, 689-704. doi: 10.1016/j.jaccpubpol.2007.10.003
22. Rodriguez., & Arias. 2012. Do Business Characteristics Determine An Effective Tax Rate. *The Chinese Economy*, 45(6), 60-83. doi: 10.2753/CES1097-1475450604
23. Scott, William R. 2015. Financial Accounting Theory (7th ed). Canada: Prentice-Hall.
24. Sugiyono. 2011. Statistik Untuk Penelitian. Alfabeta. Bandung.
25. Taylor, G., & Richardson, G. (2013). The determinants of thinly capitalized tax avoidance structures: Evidence from Australian firms. *Journal of International Accounting, Auditing, and Taxation*, 22(1), 12-25. doi: 10.1016/j.intaccudtax.2013.02.005

How to cite this article: Rika Nisma Aisyah, Erlina, Keulana Erwin. The effect of liquidity, thin capitalization, capital intensity, and earnings management on tax avoidance in manufacturing companies listed in Indonesia stock exchange (IDX) 2010-2020 period. *International Journal of Research and Review*. 2022; 9(1): 201-208. DOI: <https://doi.org/10.52403/ijrr.20220126>
