International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

The Impact of Capital Intensity and Advertising Intensity on Tax Aggressiveness with Company Size as a Moderation Variable

Amelia Nurmala Dewi[1], Anggun Putri Romadhina[2]

[1,2] Universitas Pamulang

Abstract

This study aims to analyze the impact of capital intensity and advertising intensity on tax aggressiveness with company size as a moderation variable in non-cyclical consumer sector companies listed on the Indonesia Stock Exchange (IDX) in 2020-2024. The theoretical foundations used in this study are Agency Theory and Positive Accounting Theory. The type of research used is quantitative research with an associative approach. The data source used in this study is secondary data. The population in this study is non-cyclical consumer sector companies listed on the Indonesia Stock Exchange in 2020-2024 consecutively, namely 132 companies. The sampling technique uses the purposive sampling technique to obtain valid observation data. The sample in this study is 36 companies listed on the Indonesia Stock Exchange in 2020-2024 according to the sample criteria. The data analysis method used was panel data regression analysis using E-Views software version 12. Based on the results of the study, it shows that capital intensity and advertising intensity have a simultaneous effect on tax aggressiveness. Capital intensity partially has a significant positive effect on tax aggressiveness, because the amount of fixed asset investment results in legal depreciation expenses that can reduce profits. Advertising intensity partially has a significant negative effect on tax aggressiveness through the imposition of marketing operational costs. The size of the company is not able to moderate the intensity of capital to tax aggressiveness, the size of the company is able to moderate the intensity of advertising to the aggressiveness of tax.

Keywords: ***Capital Intensity, Advertising Intensity, Tax Aggressiveness, and Company Size***

INTRODUCTION

According to Lodang Prananta Widya Sasana et al. (2024:3), tax is viewed as a mandatory contribution to the state by individuals or entities, which is compulsory based

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

on the law, and does not receive direct compensation to manifest the prosperity of the people. Payment of taxes is not just a duty, but based on the latest tax regulations, it is also the right of every citizen to participate in state funding and development for national interests, according to the latest tax law (Dwijayanto, 2024).

According to Fransiska & Diarsyad (2024), tax aggressiveness is a practical approach in reducing tax liabilities to obtain profits that need to be paid either illegally (tax evasion) or legally (tax avoidance). Tax aggressiveness is part of tax planning because it is an important element in tax management. Therefore, if there is a relationship between tax avoidance and tax evasion, aggressive corporate tax reduction and payment strategies are mostly directed at tax avoidance, which is considered legal. Companies apply this tax aggressiveness to reduce their tax liabilities through strategic tax planning and thereby increase their firm value (Abidin, 2023).

Table 1. State Budget (APBN) 2021 – 2024

Year	Target	Realization	Achievement %
State Revenue			
2021	1,743,648.50	2,011,347.10	115.35
2022	2,266,199.00	2,635,843.00	116.31
2023	2,463,024.90	2,783,929.70	113.03
2024	2,802,462.15	2,842,478.02	101.43
Income Tax Revenue			
2021	683,774.60	696,676.60	101.89
2022	813,678.60	998,213.80	122.68
2023	935,068.60	1,061,234.00	113.49
2024	1,057,524.87	1,062,693.27	100.49

According to data from the State Budget (APBN) for the years 2021-2024, from year to year the achievement percentage, especially for state revenues and income tax revenues, obtained fluctuating numbers, but from 2022 to 2024 the percentage numbers dropped, especially in 2024 which experienced a decline at the figure of 22%. It can be concluded that several companies experienced a decline in income so that it affected tax income.

One of the conditions that can affect a company's tax policy is a change in financial performance, especially corporate profits. When profits experience a decline, companies will strive to increase cost efficiency, including in the management of tax expenses. Phenomena of declining profits experienced by several companies in the Consumer Non-Cyclicals sector, such as PT Fast Food Indonesia Tbk, PT Unilever Indonesia Tbk, and

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

PT Sawit Sumbermas Sarana Tbk in 2024, show that the financial condition of the company can influence management policies in managing tax obligations.

Agency theory explains the conflict that will arise between the owner and the management of the company (Jensen and Meckling, 1976). Management in the company certainly expects its company to get a large profit, but with low taxes charged. The higher the profit the company gets, the higher the profit the agent receives (Hayati & Ajimat, 2022). Positive accounting theory uses an empirical approach to explain how companies use accounting to achieve their goals, assuming companies are rational actors seeking to maximize their profits (Athalia, 2024).

Tax aggressiveness is influenced by several factors, namely capital intensity and advertising intensity. Capital intensity relates to how much a company invests in fixed assets and inventory compared to other activities. When a company invests more in fixed assets, the amount of depreciation that must be paid also increases. Higher depreciation can increase company costs, which then lowers its profits (Sari, 2023). The results of the research by Alfian Syahrul (2025) reveal that how much capital is used greatly affects tax avoidance. Rahellita Firdaus and Limajatini (2025) reveal that capital intensity has a significant positive effect. This is different from the research of Ahmad Safi (2025) where the results of testing and analysis show that capital intensity does not significantly affect tax avoidance. Based on the results of research conducted by Putri Nur Aini and Listya Sugiyarti (2024), capital intensity has a positive effect on tax aggressiveness.

In addition to capital intensity, Advertising Intensity can also affect tax aggressiveness. Advertising Intensity is a business expense for things like advertising or promotion carried out to attract customer interest (Pasaribu, 2023). High advertising costs can lower the amount of taxable income. The results of Jaenal Abidin's (2023) research show advertising intensity partially has a significant positive effect on tax aggressiveness. Ita Darsita, Ratna Dumilah, and Siti Nurcahayati (2024) state there is a positive relationship between tax aggressiveness and the advertising intensity variable. According to the results of research conducted by Sri Rahayu Pasaribu (2023), advertising intensity affects tax aggressiveness.

Another variable that affects the level of tax aggressiveness is firm size. Firm size describes the magnitude of operational scale and economic activities carried out. According to Aldira Zahra Febrian and Purwatiningsih (2025), firm size is also believed to play an important role in determining tax strategy. The research conducted by Riska Dwi Utami (2025) shows that firm size affects tax aggressiveness. Meanwhile, research conducted by Amalia Ayu Paramitha, Anik Malikah, and Umi Nandiroh (2025) states firm size does not have a significant effect on tax aggressiveness. According to the results of research conducted by Dika Fitria Asianingrum and Vivi Iswanti Nursyirwan (2024), firm size is able to moderate capital intensity on tax aggressiveness. Meanwhile, according to

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Jaenal Abidin (2023), firm size is unable to moderate advertising intensity on tax aggressiveness.

The results of the research above show that there are differences in the analysis results of the variables used in this study. Therefore, the researcher is motivated to conduct a re-study to confirm previous research and provide new empirical evidence regarding the impact of capital intensity and advertising intensity on tax aggressiveness with firm size as a moderation variable.

METHOD

This research is a type of quantitative research with an associative method. The research data source used is secondary data taken from the official website of the Indonesia Stock Exchange www.idx.co.id.

The population in this study is consumer non-cyclical companies listed on the Indonesia Stock Exchange for the 2020-2024 period. The sampling technique uses the purposive sampling method. The sample of this study is 36 companies with an observation period of 5 years; the total amount of data used in this study is 180 observational data.

The dependent variable in this study is tax aggressiveness which is proxied by the Effective Tax Rate (ETR). The independent variables are capital intensity which is calculated by dividing total fixed assets by total assets, and advertising intensity which is calculated by dividing total advertising costs by total sales. The moderation variable is firm size which is calculated using the natural logarithm of total assets (Ln Total Assets) formula.

The data analysis technique used is the E-Views ver-12 application. Panel data regression analysis is used to test the effect between independent variables and dependent variables. This study uses panel data regression with Moderated Regression Analysis (MRA) to determine the relationship between capital intensity and advertising intensity with tax aggressiveness with firm size as a moderating variable.

RESULTS AND DISCUSSIONS

Table 2. Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.
AGRE_PAJAK	0.310271	0.224938	4.115994	0.006876	0.408143
INT_MODAL	0.330306	0.311577	1.032051	0.013853	0.170554
INT_IKLAN	0.041669	0.024114	0.280424	0.000027	0.053610
UK_PER	29.44275	29.37389	32.93787	26.29828	1.625946

The Tax Aggressiveness variable (Y) has a mean value of 0.310271 and a standard deviation of 0.408143. The average value that is smaller than the standard

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

deviation indicates that the data has a fairly high level of variation, so the data spread is quite high around the average value. The Capital Intensity variable (X1) has a mean value of 0.330306 and a standard deviation of 0.170554. The Advertising Intensity variable (X2) has a mean value of 0.041669 and a standard deviation of 0.053610. The Firm Size variable (Z) has a mean value of 29.44275 and a standard deviation of 1.625946.

Panel Data Regression Model Analysis and Classical Assumption Test

Based on the Chow test and Hausman test, the appropriate estimation model to use is the Fixed Effect Model (FEM). The classical assumption tests show that the regression model can be used. Although the normality test shows a non-normal distribution, the regression model can still be used because it is supported by a large amount of data (180 observation data), which is statistically sufficient to produce consistent and valid estimations based on the central limit theorem. The multicollinearity test shows there is no high correlation among independent variables. The heteroscedasticity test shows all probability values of independent variables are greater than the 0.05 significance level. The autocorrelation test using Durbin-Watson shows a value of 2.062475, concluding there are no autocorrelation problems.

Hypothesis Testing and Moderated Regression Analysis (MRA)

Table 3. Panel Data Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.177193	5.603445	-1.459315	0.1467
INT_MODAL	1.584202	0.487623	3.248828	0.0014
INT_IKLAN	-6.253793	2.052435	-3.047011	0.0028
UK_PER	0.279348	0.187623	1.488880	0.1388

Table 4. Moderated Regression Analysis (M1 and M2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INT_MODAL_UK_PER	-0.891587	0.313008	-2.848453	0.0050
INT_IKLAN_UK_PER	7.580092	1.750700	4.329750	0.0000

The coefficient of determination test shows that the Adjusted R-squared is 0.292109. This means that 29.21% of tax aggressiveness can be explained by the independent variables, namely capital intensity and advertising intensity, while the remaining 70.79% is explained by other variables not included in this research model. The F statistical test shows an F-count value of 2.943785 with a probability level of 0.000002 < 0.05, so it can be concluded that capital intensity, advertising intensity, and firm size simultaneously affect tax aggressiveness. The t-test results indicate there is a

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

positive effect between the capital intensity variable on tax aggressiveness, and there is a significant negative effect between the advertising intensity variable on tax aggressiveness.

DISCUSSIONS

The Effect of Capital Intensity and Advertising Intensity on Tax Aggressiveness

The data shows that all independent variables, namely capital intensity and advertising intensity, simultaneously or together have a positive effect on tax aggressiveness in consumer non-cyclical sector companies listed on the IDX for the 2020-2024 period. This finding indicates that the company's investment decisions on fixed assets and advertising expense policies are two factors that simultaneously influence the company's strategy in managing tax expenses. The simultaneous effect shows that tax aggressiveness is not formed only from one corporate operational decision, but is the result of a combination of various management policies.

The Effect of Capital Intensity on Tax Aggressiveness

The results show that the higher the proportion of fixed assets owned by the company, the higher the level of corporate tax aggressiveness. This positive relationship indicates that fixed assets do not only function as a means of company operations but also provide tax benefits through the recognition of depreciation expenses. The larger the company's investment in fixed assets such as production machinery, buildings, warehouses, and distribution facilities, the greater the depreciation costs that can be charged each period. This depreciation expense will reduce taxable income so that the company's tax liability becomes lower.

The Effect of Advertising Intensity on Tax Aggressiveness

Advertising intensity has a significant effect on tax aggressiveness. It can be said that the higher the advertising intensity of a company, the less aggressive the company's tax practices are. This finding indicates that companies in the consumer non-cyclical sector utilize promotional costs more as long-term investments to increase sales and strengthen consumer loyalty rather than as a primary instrument to suppress tax expenses. Although advertising costs are fiscally deductible, companies are more oriented towards increasing competitiveness and revenue growth than just obtaining tax savings benefits.

The Effect of Capital Intensity on Tax Aggressiveness with Firm Size as a Moderation Variable

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

The Moderated Regression Analysis (MRA) test results prove that firm size is unable to moderate the effect of capital intensity on tax aggressiveness. This means that the larger the firm size, the weaker the effect of capital intensity on tax aggressiveness. This finding indicates that large companies tend to be more careful in utilizing fixed assets as a tax efficiency strategy. Although large companies have much higher fixed asset investments compared to small companies, they also face a higher level of scrutiny from regulators, investors, external auditors, and the public. This condition causes large companies to be more conservative in formulating tax policies so that the benefits of fixed asset depreciation are not overutilized to reduce tax expenses.

The Effect of Advertising Intensity on Tax Aggressiveness with Firm Size as a Moderation Variable

The Moderated Regression Analysis (MRA) test results prove that firm size is able to moderate the effect of advertising intensity and tax aggressiveness. This result shows that large companies have a higher financial capability in allocating promotional budgets compared to small companies. Large promotional expenditures do not only aim to increase sales but also increase operational costs that can be recognized as fiscal costs according to tax provisions. Therefore, large companies have a greater opportunity to optimize promotional costs as part of a legal tax planning strategy.

CONCLUSION

This study aims to determine the impact of capital intensity and advertising intensity on tax aggressiveness with firm size as a moderation variable in consumer non-cyclical sector companies listed on the Indonesia Stock Exchange (IDX) in 2020-2024. Based on the results of the research and hypothesis testing that have been carried out, it is concluded that capital intensity and advertising intensity simultaneously affect tax aggressiveness. This shows that the company's investment policies on fixed assets and advertising expense policies are factors that simultaneously influence the level of corporate tax aggressiveness, making the management of both aspects a part of the company's strategy in optimizing tax efficiency. Furthermore, capital intensity has a positive effect on tax aggressiveness; the higher the proportion of fixed assets owned by the company, the greater the company's opportunity to perform tax efficiency through the utilization of depreciation expenses recognized as a deduction from taxable income. Therefore, investment in fixed assets not only supports the company's operational activities but also provides benefits in managing tax obligations. Conversely, advertising intensity has a negative effect on tax aggressiveness, showing that companies with higher advertising intensity tend to have lower levels of tax aggressiveness. This condition indicates that advertising expenses are directed more towards increasing

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

competitiveness, strengthening brand image, and driving sales growth rather than as a primary strategy in suppressing tax expenses.

Firm size is not able to moderate or weaken the effect of capital intensity on tax aggressiveness. This shows that larger companies tend to be more careful in utilizing fiscal benefits derived from fixed asset investments. The high level of scrutiny from regulators, investors, auditors, and the public encourages large companies to implement more conservative tax policies, so the effect of capital intensity on tax aggressiveness becomes weaker. On the other hand, firm size is able to moderate or strengthen the effect of advertising intensity on tax aggressiveness. The larger the firm size, the greater the company's ability to manage promotional expenses as part of business strategy and tax planning. The availability of greater resources allows companies to optimize promotional costs more effectively without ignoring compliance with applicable tax regulations.

REFERENCES

Abidin, J. (2023). Pengaruh Capital Intensity Dan Advertising in-Tensity Terhadap Agresivitas Pajak Dengan Firm Size Sebagai Variabel Moderasi. Distribusi - Journal of Management and Business, 11(2), 197–206. https://doi.org/10.29303/distribusi.v11i2.393

Aini, P. N., & Sugiarti, L. (2024). Pengaruh Kepemilikan Manajerial, Pertumbuhan Penjualan dan Capital Intensity Terhadap Agresivitas Pajak dengan Corporate Social Responsibility (CSR) Sebagai Variabel Moderasi. MANTAP: Journal of Management Accounting, Tax and Production, 2(2), 996–1006. https://doi.org/10.57235/mantap.v2i2.3477

Asianingrum, D. F., & Nursyirwan, V. I. (2024). Pengaruh Capital Intensity terhadap Agresivitas Pajak dengan Ukuran Perusahaan sebagai Variabel Moderasi. Jurnal Akuntansi, Manajemen, dan Perencanaan Kebijakan, 2(1), 13. https://doi.org/10.47134/jampk.v2i1.425

Athalia, A. (2024). Pengaruh Beban Iklan , Harga Transfer Dan Volatilitas Harga Saham Terhadap Agresivitas Pajak Dengan Ukuran Perusahaan Sebagai Variabel Moderasi. 2(1).

Darsita, I., Dumilah, R., & ... (2024). Pengaruh Advertising Intensity Dan Intensitas Persediaan Terhadap Agresivitas Pajak Dengan Intensitas Aset Tetap Sebagai Variabel Pemoderasi. Jurnal Neraca …, 4, 109–114.

Dwijayanto, A. (2024). Mengenal Apa itu Pajak: Ciri-ciri, Jenis, dan Fungsi Pajak. mekari klik pajak. https://klikpajak.id/blog/mengenal-materi-perpajakan-ciri-ciri-jenis-dan-fungsi-pajak/

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Fransiska, C., & Diarsyad, M. I. (2024). Determinan Agresivitas Pajak: Pengaruh Corporate Social Responsibility Sebagai Variabel Moderating Pada Perusahaan Di Indonesia. Jurnal Akuntansi dan Pajak, 24(02), 1–18.

Hayati, D., & Ajimat. (2022). Pengaruh Sales Growth, Intensitas Aset Tetap dan Corporate Governance Terhadap Tax Avoidance (Studi Epiris Pada Perusahaan Manufaktur Sektor Industri Barang dan Konsumen yang Terdaftar di BEI Pada Tahun 2016-2020). Jurnal Disrupsi Bisnis, 5(1), 60.

Kemenkeu. (2025). Data APBN Tahun 2021-2024. Kementerian Keuangan Direktorat Jenderal Pajak. https://data-apbn.kemenkeu.go.id/data-series?akun=all&dari_tahun=2021&sampai_tahun=2025

Pasaribu, rahayu S. (2023). Pengaruh Advertising Intensity, Inventory Intensity, Dan Sales Growth Terhadap Agresivitas Pajak Pada Perusahaan Pertambangan Yang Terdaftar Di Bursa Efek Indonesia Tahun 2018-2021. 1–71.

Sari, D. K. (2023). Pengaruh Intensitas Modal , Return On Asset , Dan Debt To Asset Ratio Terhadap Agresivitas Pajak Pada Perusahaan Sektor Pertanian Yang Terdaftar Dibursa Efek Indonesia Periode 2021-2023. 16(September 2025), 495–504.

Sasana, L. P. W., dkk. (2024). Pengantar Perpajakan: Teori dan Praktik. CV Eureka Media Aksara. Eureka Media Aksara.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.