Analysis of the Effect of Company Size on the Effective Tax Rate in Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX)

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A R T I C L E I N F O

ABSTRACT

This study aims to analyze how firm size affects the effective tax rate (ETR) of manufacturing companies listed on the Indonesia Stock Exchange (IDX). Using additional data from 54 businesses in the food and beverage subsector for the 2024 period, a quantitative research methodology was employed. Using SPSS software, basic linear regression was used to analyze the data. The analysis results indicate that firm size negatively impacts the effective tax rate; however, this effect is not statistically significant, with a significance value of 0.010 (>0.05). Only 12.2% of the variation in the effective tax rate can be explained by firm size, while the remainder is influenced by factors outside the model, based on a coefficient of determination ($R2$) value of 0.122. The study results indicate that the effective tax rate paid decreases with firm size, although this is not statistically significant. This finding is consistent with several previous studies that concluded that the ETR is not significantly affected by firm size. Thus, it can be concluded that the effective tax rate for manufacturing companies in the Indonesian food and beverage subsector is not primarily determined by firm size.

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1. INTRODUCTION

Law Number 16 of 2009 concerning General Provisions and Procedures for Taxation, tax is a mandatory payment that must be made by an individual or an entity to the government (Law Number 16 of 2009 n.d.). This tax is used for public welfare and is paid without receiving any direct benefits. Tax constitutes the state's primary source of revenue and is essential for funding public initiatives such as development. Furthermore, tax plays a role in controlling the economy and income distribution. To maintain the continuity and sovereignty of the state, all layers of society, both individuals and business entities, are designated as taxpayers. Since tax has an impact on reducing net profit, it is a requirement that must be taken into account by business entities (Fisdiyah, Imawati, Abi Suryono, Marsuking Marsuking & Setiorini, 2023). Therefore, effective tax administration is a key component of a business entity's financial planning.

In the business world, many companies manage their tax burden so that it is not excessive yet still complies with applicable regulations. This effort is known as Tax Planning, namely tax planning aimed at legally minimising tax obligations. This tax management can be observed from the extent of the difference between profit before tax and the tax paid. This difference is measured by

the Effective Tax Rate (ETR). ETR becomes an important indicator for assessing the level of tax burden that must be borne by a company when compared with profit before tax (Harefa, R. S., Panjaitan, M. B., & Siahaan, 2024).

One factor suspected to influence the magnitude of ETR is company size. Large-scale business entities usually have more resources to increase tax efficiency, such as through more effective tax management (Ardiyanti Pratika, A., & Nurhayati, 2022). However, large companies also face stricter public scrutiny and regulation, meaning that the pressure to comply with tax obligations may be higher.

Various previous studies on the relationship between company size and ETR have produced contradictory findings. Large companies generally pay lower taxes than small companies, according to several studies. However, according to other research, large companies typically have lower ETRs because they are able to adopt efficient tax strategies to reduce their tax obligations. This scenario indicates that it is impossible to determine an exact relationship between company size and ETR because it may have both positive and negative effects. Nevertheless, other research reveals that, particularly due to political costs, large companies pay more taxes than small companies (Aulia, R. and Nurafni, 2024). Meanwhile, other studies have shown areas that require further research, especially in industrial sectors listed on the Indonesia Stock Exchange (IDX). The manufacturing sector was chosen as the focus of the research due to the diversity of company sizes, comprehensive and publicly accessible financial records, as well as its significant contribution to the Indonesian economy and tax revenues. This allows the present study to investigate comprehensively and relevantly the relationship between company size and effective tax burden.

This study aims to examine the impact of company size on the effective tax burden of manufacturing companies listed on the Indonesia Stock Exchange. Through this research, it is expected to provide clearer insights into how the scale of a company influences the tax obligations borne, thereby serving as a reference for companies and relevant parties in tax management.

Large companies generally possess greater resources and the ability to engage in more complex tax planning. Large companies also tend to receive more attention from the government and the public, making them more cautious in engaging in tax avoidance practices. The existence of good tax management capabilities may also result in lower tax rates compared with smaller companies. Based on this explanation, the hypothesis in this study is as follows:

H0: Company size does not have a significant effect on the effective tax rate.
Ha: Company size has a significant effect on the effective tax rate.

2. RESEARCH METHOD

A quantitative approach was used in this study. Quantitative research is a type of research that draws conclusions and explains causal relationships between the variables studied (Candra Susanto, P., 2024). According to (Waruwu, M., Puat, S. N., Utami & Yanti, E., & Rusydiana, 2025), quantitative research is generally used to assess frequency, examine relationships between variables, and identify specific patterns within a population. The Indonesia Stock Exchange (IDX) provides secondary data used in this study through its official website, www.idx.co.id

The Statistical Package for the Social Sciences (SPSS) is the programme used for data processing and analysis. According to (Lovia, L., Rismen, S., & Ramadoni, 2023) SPSS is a computer application that performs statistical analyses accurately and effectively. The outputs generated can be customised to meet specific data processing objectives. According to (Irdhayanti, E., Mustika, U. N., & Syahputri, 2024), SPSS is a popular programme because it produces outputs that are easy to understand in the form of tables and graphs. In addition, this tool offers good connectivity with other software, including the ability to import and export data through Microsoft Excel, and it facilitates the updating or modification of data.

The population of food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange (IDX) consisted of 83 companies in the 2024 period. The sampling method used was purposive sampling. A total of 54 company samples were obtained based on the following criteria:

Table 1 Sampling Criteria

No	Information	Sum
1	Manufacturing companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX) for the 2024 period.	83
2	Manufacturing companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX) with incomplete financial statement data for the 2024 period.	(15)
3	Manufacturing companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX) that suffered losses for the 2024 period.	(14)
	Quantity of examples of companies that meet the requirements.	54

3.   RESULTS AND DISCUSSIONS

The data in this study were obtained from 54 manufacturing companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX). The following are the results of several tests that have been conducted:

Descriptive Statistical Test

Table 2. Descriptive Statistics of the Research Data

	N	Minimum	Maximum	Mean	Std. Deviation
Company Size	54	6,26	19,12	14,9459	2,32902
Effective Tax Rates	54	0,13	0,55	0,2487	0,07848
Valid N (listwise)	54				

Source: Processed Data (SPSS)

The properties of the research data, such as the number of samples, the lowest and highest values, the mean values, and the standard deviation of each variable studied, are often explained by descriptive statistical tests. Based on the table of descriptive statistical test results, the company size variable had 54 samples with the lowest value of 6.26, the highest value of 19.12, the mean (average) of 14.95, and the standard deviation of 2.32902. Meanwhile, the variable effective tax rate has the lowest value of 0.02, the highest value of 0.55, with an average of 0.2487 and a standard deviation of 0.07848.

Classic Assumption Test
Normality Test

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test

		Standardized Residual
N		54
Normal Parameters, b	Mean	,0000000
	Std. Deviation	,99052111
Most Extreme Differences	Absolute	,178
	Positive	,178
	Negative	-,137
Test Statistic		,178
Asymp. Sig. (2-tailed)		.063c

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
Source: Processed Data (SPSS)

Asymp results. Sig. (2-tailed) of 0.063 is greater than (>) 0.05 according to the normality test of the K-S method. This indicates that the collected data has a normal distribution.

Multicollinearity Test

Table 4. Multicollinearity Test Results

Coefficient

Type		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIVID
1	(Constant)	,425	,066		6,418	,000		
	Company Size	-,012	,004	-,350	-2,692	,085	1,000	1,000

Dependent Variable: Effective Tax Rate
Source: Processed Data (SPSS)

The multicollinearity test yielded a VIF of 1,000 and a tolerance value of 1,000. Because the VIF is less than 10 and the results for the Tolerance section are greater than 0.10, these numbers show no signs of multicollinearity.

Heteroscedasticity Test
Table 5. Heteroscedasticity Test Results

Coefficient

Type		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	,130	,043		3,024	,004
	Company Size	-,005	,003	-,240	-1,783	,080

a. Dependent Variable: ABRESID
Source: Processed Data (SPSS)

Through the heteroscedasticity test of the Glejser, obtained a significance value (Sig.) for the company size variable of 0.80, which exceeds the limit of 0.05. These results indicate that the in variableDependent has no significant effect on the residual absolute value. Therefore, it can be stated that this regression model is free from the symptoms of heteroscedasticity.

Hypothesis Testing Results
Table 6. Results of simple regression tests (Coefficients)

Coefficient

Type		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	,425	,066		6,418	,000
	Company Size	-,012	,004	-,350	-2,692	,010

Dependent Variable: Effective Tax Rate
Source: Processed Data (SPSS)

Discussion
With a sample size of 54 organisations, the regression coefficient for the company size variable is -0.012, according to the results of the simple regression analysis in Table 6. This means that the effective tax rate will decrease by 0.012 for every one-unit increase in company size, ceteris paribus. The negative sign of the coefficient indicates an inverse relationship between the effective tax rate and company size; the larger the company, the lower the effective tax rate paid. Larger companies typically have more resources (such as internal tax teams, accounting specialists, and lobbying

capacity), enabling them to implement more effective tax planning, according to accounting–economic rationale. This is consistent with tax economics and agency theory.

Partial Hypothesis Testing (t-test)
The calculated t-value, as indicated by the results of the partial test (t-test), is -2.692 with a significance value (Sig.) of 0.010, exceeding the significance level of 0.05. Therefore, it can be statistically concluded that the effective tax rate is not significantly affected by the company size variable.

Although the direction of the relationship indicated by the regression coefficient is negative, its effect is not strong enough to be considered statistically significant in the context of this study. Therefore, H0 is accepted and Ha is rejected, meaning that company size does not have a significant influence on the effective tax rate.

According to the study by (Satyo, Y. A., & Paranita, 2025) "The Effect of Company Size, Profitability, and Capital Intensity on the Effective Tax Rate (ETR)," which examined businesses in the food and beverage sub-sector, company size and debt have no significant impact on ETR. In addition, the study by Widati et al., "Effective Tax Rate: Business Size, Leverage, and Return on Assets" (2024), indicates that business size has no effect on ETR in the Indonesian food and beverage sub-sector. However, according to other research, business size has a significant impact on ETR (Dailimi & Setyowati, 2020)

Table 7. Simple regression test results (Model Summary)

Model Summaryb

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	,350a	,122	,105	,07422	,122	7,249	1	52	,010

a. Predictors: (Constant), Company Size
b. Dependent Variable: Effective Tax Rate

Source: Processed Data (SPSS)

Testing the Coefficient of Determination (R^2)
The analysis results presented in Table 7 show that the R-Square value is 0.122, which means that company size is only able to explain 12.2% of the variation in the effective tax rate. Meanwhile, the remaining 87.8% is influenced by other variables outside the scope of this research model, such as profitability, leverage, and other factors. After being adjusted for the number of samples in the Adjusted R-square section, which is 0.105, the ability of company size to explain the effective tax rate variable decreases to 10.5%.

This relatively small coefficient of determination indicates that the relationship between company size and the effective tax rate is weak. In other words, changes in company size do not provide a meaningful influence on changes in the effective tax rate of manufacturing companies in the food and beverage sub-sector listed on the IDX (Berta Agus, 2020).

4.   CONCLUSION
According to the analysis of 54 manufacturing companies in the food and beverage sub-sector listed on the IDX, company size has a regression coefficient of -0.012, indicating a negative relationship with the effective tax rate (ETR). In other words, as company size increases, the effective tax rate paid tends to decrease. Nevertheless, the significance value of 0.010 > 0.05 shows that the effect of company size is not statistically significant. The null hypothesis (H_0) is therefore accepted in light of the current research findings, indicating that the effective tax rate is not substantially affected by company size (Wulandari, Suci, 2023). Company size explains only 10–12% of the variation in ETR, with other factors influencing the remaining portion, according to the adjusted R-squared and R-

squared values of 0.105 and 0.122. These findings are consistent with the studies conducted by Satyo & Paranita (2025) and Widati et al. (2024), which likewise do not reveal conclusive relationships between ETR and company size (Satyo, Y. A., & Paranita, 2025). Overall, business size has a small and moderate impact on the effective tax rate, despite indications of a negative relationship. Consequently, the effective tax rate for manufacturing companies in the Indonesian food and beverage sub-sector is not primarily determined by company size.

REFERENCES

Ardiyanti Pratika, A., & Nurhayati, I. (2022). Pengaruh Profitabilitas, Leverage Dan Kualitas Audit Terhadap Manajemen Laba. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, *10*(2), 387–401.

Aulia, R. and Nurafni, N. (2024). Pengembangan Media Interaktif Berbasis Canva pada Materi Pecahan dalam Meningkatkan Numerasi Matematika di SD. *Ideguru: Jurnal Karya Ilmiah Guru*, *9*(3).

Berta Agus, P. et al. (2020). Pengaruh Ukuran Perusahaan , Current Ratio Dan Perputaran Persediaan Terhadap Pertumbuhan Laba. *Jurnal Online Insan Akuntan*, *5*(2), 197–214.

Candra Susanto, P., dkk. (2024). Konsep Penelitian Kuantitatif : Populasi, Sampel, dan Analisis Data (Sebuah Tinjauan Pustaka). *Jurnal Ilmu Multidisiplin*, *3*(1), 1–12.

Dailimi & Setyowati. (2020). Analysis of Factors Affecting Effective Tax Rates of Companies Listed on the Indonesia Stock Exchange 2009-2018. *Jurnal Administrasi Publik (Public Administration Journal)*, *10*(1), 53–62.

Fisdiyah, Imawati, Abi Suryono, Marsuking Marsuking, K. R., & Setiorini. (2023). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan, Dan Capital Intensity Ratio Terhadap Effective Tax Rate (Studi Empiris Pada Perusahaan Sektor Industrials Yang Terdaftar Di Bursa Efek Indonesia Periode 2019 - 2021). *IJMA (Indonesian Journal of Management and Accounting)*, *4*(2), 74.

Harefa, R. S., Panjaitan, M. B., & Siahaan, T. M. (2024). Pengaruh Model Pembelajaran Word Square Terhadap Hasil Belajar Siswa Pada Pembelajaran IPA Kelas V SD Negeri 095136 Negeri Bosar. *Innovative: Journal Of Social Science Research*, *4*(1).

Irdhayanti, E., Mustika, U. N., & Syahputri, A. (2024). Pengaruh Beban Kerja Terhadap Kelelahan Kerja Serta Dampaknya Pada Kinerja Pegawai Di PERUM DAMRI Cabang Pontianak. *Prosiding Management Business Innovation Conference (MBIC)*, *7*(1), 689–703.

Lovia, L., Rismen, S., & Ramadoni, R. (2023). Pelatihan Pengolahan Data Menggunakan Software SPSS di Kantor Lurah Bungo Pasang Kec. Koto Tangah. *ADMA: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, *3*(2), 357–364.

Satyo, Y. A., & Paranita, E. S. (2025). The Effect of Size, Profitability, Leverage and Capital Intensity on the Effective Tax Rate (ETR) in Food and Beverage Industry Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX). *Journal Research of Social Science, Economics & Management*, *5*(3).

Waruwu, M., Puat, S. N., Utami, P. R., & Yanti, E., & Rusydiana, M. (2025). *Metode Penelitian Kuantitatif: Konsep, Jenis, Tahapan Dan Kelebihan*. *10*(1), 917–932.

Wulandari, Suci, H. S. (2023). Pengaruh Tarif Pajak Efektif, Intenistas Persediaan Dan Kepemilikan Mayoritas Terhadap Tax Avoidance Pada Perusahaan Indeks Kompas100 Tahun 2017-2021. *Accounting Information System, Taxes and Auditing Journal (AISTA Journal)*, *2*(1), 1–14.