
Do Audit Costs and Quality Curb Corporate Tax Aggression? Insights from the Basic Materials Manufacturing Sector

Resha Rosilita¹, Alfita Rakhmayani^{2*}, Maya Aresteria³, Apip⁴, Deddy Sulestiyono⁵

^{1,2,3,4,5} Faculty of Economics and Business, Diponegoro University

*alfitar@lecturer.undip.ac.id

Abstract

The issue of tax aggressiveness in Indonesia, particularly among manufacturing companies in the basic materials sector, has become a major concern given the significant contribution of this sector to national tax revenue. This study aims to analyze the effect of audit fees and audit quality on tax aggressiveness in manufacturing companies in the basic materials sector listed on the Indonesia Stock Exchange during the 2019–2023 period. The research uses a quantitative approach with secondary data from financial statements, and tests are conducted on 162 samples using multiple linear regression analysis. The results show that audit fees have no effect on tax aggressiveness, while audit quality, as represented by Big 4 auditors, reduces tax aggressiveness. The practical implications of these findings suggest that high-quality audits will uncover aggressive tax practices, prompting companies to be more transparent and compliant with tax regulations. In addition, regulators can encourage auditors to play a greater role in improving tax compliance.

Keyword : Tax Aggressiveness, Audit Fees, Big 4, Agency Theory, Basic Materials Sector

Introduction

The government's high reliance on tax revenue demands an effective and transparent taxation system in order to achieve national revenue targets optimally (Khaltar, 2024). Tax avoidance practices remain an ongoing challenge for Indonesia's fiscal system. Aggressive tax strategies employed by companies result in suboptimal state revenue (Besdy et al., 2024). The phenomenon of tax aggressiveness in the raw materials manufacturing sector in Indonesia has become a national concern. There has been a downward trend in tax contributions from this sector.

Tax aggressiveness refers to a company's legal efforts to minimize its tax burden by taking advantage of loopholes in existing tax policies and regulation (Adelakun et al., 2024). From the perspective of agency theory (Jensen & Meckling, 1976), management tends to act opportunistically to maximize bonuses or short-term financial performance by reducing tax expenses, while shareholders desire healthy, long-term, and tax-compliant performance. The presence of corporate governance through robust external oversight processes is one of the key factors in curbing aggressive tax avoidance behavior.

Abid & Dammak (2022) state audit fee transparency is one important indicator because the fee reflects the complexity of the audit and the potential independence of

the auditor in detecting tax avoidance practices. Audit fee transparency is also related to the potential cooperation between auditors and management (Usman et al., 2022). The more open and reasonable the recorded audit fees are, the lower the likelihood of financial statement manipulation aimed at reducing tax burdens.

Apart from audit fees, audit quality is an important aspect that can be relied upon to supervise companies in carrying out tax aggressiveness. Auditors with high reputations or those from the Big Four audit firms tend to apply stricter audit procedures and are more meticulous in identifying discrepancies in tax reporting (Blum et al., 2022). This is due to the higher reputation risk and professionalism compared to smaller auditors. Therefore, the presence of reputable auditors can help curb aggressive tax practices.

Sarirati & Wahyuningsih, 2022a found that audit quality has a significant influence on tax aggressiveness. Paramita & Fuad, 2023 found that audit quality and audit fees affect corporate tax aggressiveness. Onatuyeh & Ukolobi, 2020 found that the higher the cash tax rate, the higher the audit fees. These studies indicate a relationship between audit fees and audit quality on corporate tax practices. However, the tendency of the influence given has not yet been determined.

This study will specifically examine the effect of audit fees and audit quality on the tax behavior of manufacturing companies in the basic materials sector in Indonesia. It is expected that this research will serve as a consideration for fiscal authorities in formulating more effective tax supervision policies, especially regarding the strengthening of external audits. In addition, for companies, the findings of this study can serve as a reference in designing healthier and more credible financial and tax governance strategies. Thus, this research contributes both theoretically, by developing the literature on tax governance in Indonesia, and practically, by supporting efforts to reform national taxation.

Literature Review

Agency theory explains the relationship between owners and managers, in which there is the potential for conflicts of interest (Jensen & Meckling, 1976). The interests of owners and managers may be linked through the company's chosen tax policies, which can represent the views of both management and shareholders, as well as serve as a basis for the notion that corporate governance influences the potential for tax aggressiveness through tax decisions made by agents and principals (Wardhani & Supratiwi, 2023). Opportunistic behavior by managers causes shareholders to incur agency costs, such as monitoring expenses to oversee managers' actions and ensure that managers act in accordance with shareholders' positive expectations.

Tax aggressiveness can be defined as a company's strategy to reduce its tax burden through aggressive tax planning, whether legally (tax avoidance) or illegally (tax evasion) (Hossain et al., 2024). Conceptually, tax aggressiveness refers to efforts by companies to minimize their tax liabilities in order to maximize firm value. Lower Effective Tax Rates (ETR) indicate higher tax aggressiveness.

Audit fees are the total costs incurred by a company to external auditors for conducting an examination of the financial statements. High expenses are often correlated with the complexity of the company's operations or the quality of the audit itself (Carson et al., 2022). According to agency theory, audit fees are one of the costs

borne by individuals or shareholders as an effort to supervise the company. The determination of audit fees is influenced by the level of difficulty in the audit process, where such complexity may indicate the presence of more aggressive tax planning strategies.

Agency theory explains that an external auditor is a qualified party to act as a mediator between the principal and the manager due to the possibility of conflicting interests (Ivaninskiy & Ivashkovskaya, 2022). Managers tend to minimize their role in corporate tax avoidance strategies when the company's audit quality is high (Amara et al., 2025). Auditor membership in a BIG 4 firm (Deloitte Touche Tohmatsu Limited, Pricewaterhouse Coopers, Ernst & Young, Klynveld Peat Marwick Goerdeler) serves as an indicator of high audit quality because of their global reputation and strict professional standards.

The main focus of this research is the high level of tax aggressiveness carried out by manufacturing companies in the basic materials sector in Indonesia. This practice is implemented through legal strategies to exploit loopholes in tax regulations with the aim of reducing the tax burden. This situation is a significant concern because it can lead to potential loss of state revenue and creates fiscal inequality among taxpayers. The research is based on agency theory, which states that there is a potential conflict of interest between owners and managers in the management of a company. Managers, as agents, tend to act opportunistically to maximize their personal interests, including in tax management, if not strictly supervised (Payamta et al., 2024). Therefore, control mechanisms such as external audits are necessary.

Audit fees are one of the key components in company management that are directly related to the quality of the external audit process. In general, high audit fees are often associated with better audit quality, as auditors will conduct more thorough, independent, and meticulous examination procedures when evaluating the accuracy of financial statements as well as compliance with tax obligations (Xiao et al., 2020). Audit fees are often considered a proxy for the level of external oversight over management. Higher audit fees indicate that auditors are performing more extensive examinations. In the context of agency, this increases monitoring of opportunistic management actions, including tax aggressiveness.

Research by Paramita & Fuad (2023) on manufacturing companies in Indonesia shows that audit fees have a negative and significant impact on tax aggression; the higher the audit fee, the lower the level of tax aggressiveness in the company. A study in Thailand by (Madah Marzuki & Muhammad Al-Amin (2021) also found evidence that audit fees have a negative effect on tax aggression because they are proven to significantly suppress tax aggressiveness, in line with the predictions of agency theory that auditors serve as independent supervisors reducing the risk of aggressive tax planning. Research conducted by Muhammad Rofik Wibowo & Dudi Pratomo, 2023) shows that empirically, audit fees have a negative effect on tax aggressiveness. This means that the higher the audit fees paid by the company, the less likely the company is to engage in aggressive tax practices. Based on this explanation, the first hypothesis can be formulated as follows:

H1: Audit fees have a negative effect on tax aggressiveness

Big 4 audit firms have a global reputation and higher audit standards compared to non-Big 4 firms (Che et al., 2020). This reputation makes them the top choice for companies seeking to reinforce their commitment to accountability and good governance. The presence of auditors from the Big 4 serves as an effective oversight measure. As a result, companies audited by the Big 4 typically undergo a more stringent audit process, thereby limiting the opportunities for management to engage in aggressive tax practices.

Agency theory explains that external auditors also serve as qualified mediators between the company's owners (principals) and management (agents) due to the potential for conflicting interests. Auditors from the Big 4, with greater resources and expertise, tend to be more capable of detecting and opposing aggressive tax avoidance practices. (Taib et al., 2025) found that high-quality audits conducted by Big 4 firms increase tax compliance. Blaylock et al. (2024) also found that companies audited by Big 4 firms engage in less tax-motivated income shifting compared to those audited by non-Big 4 firms. Based on these explanations, the second hypothesis can be formulated as follows:

H2: Audit quality has a negative effect on tax aggressiveness

Metode Penelitian

This study employs a quantitative approach. The population in this research comprises all raw material manufacturing companies listed on the Indonesia Stock Exchange (IDX) during the period from 2019 to 2023, and the data can be obtained through the website <https://www.idx.co.id/id>. To conduct this research, secondary data is required from raw material manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2019–2023, including financial statements and annual reports. This study uses the purposive sampling method..

The dependent variable in this study is tax aggressiveness, which is measured using effective tax rates, namely the ratio of income tax expense to profit before tax. The independent variables used are audit fees and audit quality. Audit fees are measured using the natural logarithm of audit costs. Audit quality is assessed using a binary code (1 = audited by a BIG 4 firm, 0 = audited by a non-BIG 4 firm).

Descriptive statistical analysis is an important stage to ensure that the data distribution does not deviate far from its central value and to detect the presence of outliers or extreme data that may affect the validity of the regression results. Descriptive statistics provide an overview or description of the data as seen from the mean, standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness (distribution asymmetry) (Ghozali, 2021). In addition, an initial description of the data is also useful for understanding the general profile of the companies in the sample, such as assessing the extent of tax aggressiveness.

This study uses multiple linear regression to test the hypotheses. This method was chosen because it aligns with the research objective of determining the simultaneous and partial effects of audit fees and audit quality on the tax aggressiveness (ETR) of manufacturing companies in the basic materials sector listed on the IDX for the period 2019–2023. The regression model used in this study is formulated as follows:

$$TAXAGGR_{it} = \alpha + \beta_1 AFEES_{it} + \beta_2 BIG4_{it} + \epsilon$$

Description:

TAXAGGR = Tax Aggressiveness

β = Regression Coefficient

AFEES = Audit Fees

BIG 4 = BIG 4

ϵ = Error term

Results and Discussion

The objects of this study are companies included in the basic materials manufacturing sector listed on the Indonesia Stock Exchange (IDX) during the period from 2019 to 2023. The selection of this sector is based on its significant contribution to the national Gross Domestic Product (GDP) and its high operational complexity, which potentially exposes it to fiscal pressures that may encourage aggressive tax behavior. The research sample was obtained using the purposive sampling method. A total of 162 samples met the criteria and were tested.

Table 1 Descriptive Statistics

Variable	Min	Max	Mean	Std. Deviation
<i>AFEES</i>	17,841	24,303	20,475	1,243
<i>TAXAGGR</i>	0,014	12,659	0,338	0,978

Descriptive statistical testing shows that the average effective tax rate for manufacturing companies in the basic materials sector reveals a number. Compared to the general corporate tax rate in Indonesia, which is 22%, this figure indicates that the companies are practicing tax savings, though not aggressively. There are 110 companies, or 67.9%, in the basic materials manufacturing sector that do not use auditor services from Big 4-affiliated public accounting firms. The remaining 52 companies, or 32.1%, use the services of Big 4 auditor.

Table 2 Big 4 Frequency

Auditor	Total	Percentage
Big 4	52	67,9%
Non Big 4	110	32,1%

There are issues with data normality, so transformation is necessary for regression testing. Data transformation is carried out using the inverse double reciprocal (Inverse DF) method to improve the residual distribution, and outlier elimination is done through casewise diagnostics with a criterion of 1.8 standard deviations. This step is in line with (Ghozali, 2021), who states that data transformation and outlier removal are legitimate ways to improve residual distribution without disrupting the relationship patterns among variables.

The F-test results show a significance value of 0.13, which is below 0.05. This means the model can be used to predict corporate tax aggressiveness. However, the R² value is low, indicating that more factors are needed to better explain the tax aggressiveness exhibited by companies.

Table 3 Regression Result

Variable	B	t	Sig
Audit Fee	-0,186	-1,585	0,115
Big 4	0,729	2,111	0,036
F test		0,13	
R2		0,071	

The regression coefficient result for the AFEES variable is -0.186 with a significance value of 0.115 (> 0.05), indicating that audit fees do not affect tax aggressiveness. Thus, it can be proven that the first hypothesis (H1) is rejected. The regression coefficient result for the BIG 4 variable is 0.729 with a significance value of 0.036 (< 0.05), indicating that BIG 4 has a positive and significant effect on ETR. This means that companies audited by BIG 4 accounting firms tend to have higher ETR values. A high ETR value indicates non-aggressive tax avoidance, so it can be proven that the second hypothesis (H2) is accepted.

In general, high audit fees are often associated with better audit quality, as auditors will carry out more thorough, independent, and meticulous examination procedures when assessing the validity of financial statements and compliance with tax obligations (Qawqzeh, 2023). High-quality audits are expected to identify practices of financial statement manipulation, including companies' efforts in aggressive tax planning tactics.

The research results indicating that audit fees do not have a significant effect on tax aggressiveness are consistent with several previous empirical findings and remain relevant within agency theory. Although, theoretically, high audit fees are expected to reflect stricter and more independent supervision to limit management's opportunistic behavior, in practice, audit fees do not always serve as an effective control mechanism against aggressive tax planning (Blaufus et al., 2023). This could be due to auditors' limitations in detecting complex tax avoidance practices or because audit fees do not directly reflect the intensity of the audit regarding taxation aspects.

Similar research has also been stated by Sarirati & Wahyuningsi (2022b), as well as Amara et al. (2025), which shows that audit fees do not have a significant effect on tax aggressiveness. The implication of this research reinforces the importance of including the separation variable between audit and non-audit services in fiscal governance studies in developing countries. Public companies are expected to be more selective in using audit and tax consulting services in order to maintain the quality of fiscal governance and investor trust.

Big 4 firms are known for their international audit standards and global reputation, which encourages companies to choose them to strengthen accountability and the implementation of corporate governance principles. On the other hand, Big 4 auditors are also often trusted as external parties who play a strategic role in overseeing and ensuring companies' compliance with financial reporting and taxation regulations (Al Shbail et al., 2025). The results of this study are consistent with agency theory, whereby Big 4 auditors are recognized for their good reputation in delivering high-quality and impartial audit services.

In the study by Lestari & Nedyia (2019), it is emphasized that large auditors reduce aggressive corporate tax planning. Furthermore, these results are consistent with the research of Shafiq et al. (2024), which states that higher audit quality is associated with

lower tax avoidance. In other words, strict and credible audits hinder aggressive tax planning.

Research findings reinforce the role of quality audits as an effective external governance mechanism in curbing managers' opportunistic behavior regarding taxation. For investors and shareholders, a high-quality audit serves as an indicator that the company has a strong governance system and low tax risk. In addition, regulators can encourage auditors to play a role in improving tax compliance.

Conclusion

Based on the results of data analysis and discussion that have been conducted, it can be concluded that audit fees do not affect tax aggressiveness, while audit quality can reduce aggressive tax avoidance in manufacturing companies in the basic materials sector. The practical implications of this research show that high-quality audits will uncover aggressive tax practices, encouraging companies to be more transparent and compliant with tax regulations. However, this study has not yet considered non-financial external factors that may influence tax aggressiveness. Future research could include these factors for further development.

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