International Journal of Economics and Financial Issues

ISSN: 2146-4138

available at http: www.econjournals.com

International Journal of Economics and Financial Issues, 2024, 14(3), 23-32.

Ownership Structures, Executive Compensation and Tax Aggressiveness in Indonesia Mining and Plantation Companies: The Moderating Effect of Audit Quality

Eriana Kartadjumena[1]*, Nuryaman Nuryaman[2]

[1]Department of Accounting, Faculty Economics and Business, Widyatama University, Bandung, Indonesia, [2]Master of Accounting Study Program, Postgraduate School, Widyatama University, Bandung, Indonesia. *Email: eriana.kartadjumena@widyatama.ac.id

Received: 13 January 2024 **Accepted:** 10 April 2024 **DOI:** https://doi.org/10.32479/ijefi.15862

ABSTRACT

This study examines how the ownership structure, executive compensation, and audit quality interact to influence tax aggressiveness in Indonesian mining and plantation companies. The proxy for ownership structures is institutional and family ownership, and the proxy for executive compensation is the total salary of directors per year. Meanwhile, the proxy for tax aggressiveness uses the cash effective tax rate (CETR), and audit quality is proxied by the big four audit firms. Research data were taken from the 233 annual reports of 47 mining and plantation companies that listed on the Indonesia stock exchange during the period 2018-2022. The data were analyzed by a panel data regression technique. The results show that both institutional and family ownership have a significant positive effect on tax aggressiveness. While executive compensation has not influenced tax aggressiveness. Moreover, audit quality has a positive moderating effect on the negative relationship between family ownership and the CETR. High-quality auditors can restrain family shareholders' ability to take aggressive tax positions. However, audit quality could not interact to influence the relationship between institutional ownership or executive compensation and tax aggressiveness.

Keywords: Institutional Ownership, Family Ownership, Executive Compensation, Tax Aggressiveness, Audit Quality

JEL Classifications: G32, M12, H26, C23, L72, M42

1. INTRODUCTION

In general, taxes are typically seen by companies as an expense that should be avoided. The cost of paying income tax is one of a company's biggest operating expenses, which directly affects shareholder value and profitability (Landry et al., 2013). As a result, businesses have financial incentives to be aggressive with taxes. This is because it's assumed that paying taxes doesn't give the business any direct advantages. A proactive strategy to manage the tax burden is being adopted by businesses in this situation, as opposed to a passive one. Companies are no longer content to just pay their taxes; instead, management is expected to employ strategies that would lower taxes rather than paying them.

However, it is important to remember that tax avoidance practices must be carried out in accordance with applicable tax laws and regulations. Companies and shareholders could always abide by tax rules and conduct business in accordance with the values of accountability and responsibility to society and the nation. Different preferences for a company's aggressive in tax avoidance efforts may exist. Indeed, these actions are viewed as dangerous business choices (Armstrong et al., 2015).

Tax avoidance tactics that are unethical or illegal can harm the company's reputation and present significant legal and financial threats. Furthermore, tax-aggressive behaviour could harm a company's brand, a priceless asset (Landry et al., 2013). On the other hand, some supporters contend that businesses should

This Journal is licensed under a Creative Commons Attribution 4.0 International License

properly work to reduce tax obligations in order to boost value for shareholders and promote economic growth.

In fact, tax avoidance practices by businesses could be contentious and draw criticism from the public and government authorities. Hence, global policymakers and researchers are paying increasing attention to aggressive corporate tax practices, which deprive governments of their primary resources (Chen et al., 2010). Lots of countries seek to address this practice by implementing strict regulations and rules to limit unethical or illegal tax avoidance. This is necessary where the consequences of tax avoidance will have significant macroeconomic impacts. In this context, it is shown that the nation's revenues in Indonesia are greatly affected by tax avoidance practices.

In fact, it is well known that Indonesia's revenue from taxation, when compared to other nations, is still much below the average worldwide based on the tax ratio. According to the OECD (2020), Indonesia has the lowest tax burden among the nations in the Asia-Pacific region, at 11.5% less than the average tax burden of OECD members, which is 34.2%. As a result, the Indonesian government must be able to maximise and raise state revenue from taxes. However, these efforts are limited by businesses' efforts to engage in tax avoidance in order to pay the least amount of tax possible. This is due to the fact that taxes are a burden on businesses and can lower their profitability (Ginting, 2016).

One of the top exporters in the mining industry worldwide is Indonesia. Hence, the mining sector in Indonesia is a fascinating topic to research. The mining industry does, on the one hand, make a significant contribution to state revenues but on the other hand, there appears to be an imbalance between the state's revenue and economic development, which is largely a result of illicit financial flows and tax crimes in the mining sector (Indonesia, 2018).

Indonesia ranks fifth among countries that produce coal, with a production of 485 million metric tonnes, or 7.2% of global production. Additionally, Indonesia is the world's second-largest exporter behind Australia. Due to its significant contribution to GDP and the fact that 80% of the coal produced in Indonesia is exported, the mining industry is therefore comparatively favoured by the government.

However, it turns out that despite the enormous economic value produced by the coal mining industry, tax payments in the mining sector are rather low. In fact, it turns out that the mining industry's contribution to taxes is really small compared to the amazing economic value it produces. The tax ratio for the mining industry has been steadily decreasing since 2016, going from 3.9% to 1.22% in 2020. This demonstrates that the mining industry's tax percentage is low and declining over time (Setiawati and Ammar, 2022). Moreover, the rise in the number of legitimate businesses engaging in tax avoidance was one of the factors contributing to the reduction in the tax ratio. Additionally, there were 5,523 instances of tax notification letters (SPT) in 2015 that mining business licence (IUP) holders failed to declare. The IUP recorded 3,580 instances; thus, this number is higher.

In fact, the government's oversight of those involved in the mining industry is generally insufficient, as evidenced by the prevalence of environmental damage, conflicts with neighbouring communities brought on by pollution, and unethical behaviour in the financial sector, including profit manipulation and tax avoidance (Yuliawati, 2019). The Indonesian forum for budget transparency (FITRA) claims that both domestic and foreign businesses, particularly those operating in the mining and coal industries, have engaged in tax dodging activities that have cost the government over Rp. 110 trillion (Himawan, 2017).

The presence of the Royal Golden Eagle group's subsidiary in the Paradise Papers document made public by the International Consortium of Investigative Journalists also makes it known that the Directorate General of Taxes investigated it in 2017. According to records, the business formed a number of shell corporations in tax-haven countries. The management of the corporation can utilise tax law loopholes to lessen the excessive tax burden. When it comes to tax evasion, this behaviour is undoubtedly just the tip of the iceberg. It is crucial to remember that tax evasion involves illegal actions, whereas tax avoidance entails using legal tax tactics. Tax avoidance is considered a severe issue that hurts the economy. This is the reason that tax avoidance research has attracted the attention of several studies recently.

In Indonesian context, evidence suggests that institutional and family ownership arrangements are linked to tax avoidance activities. Corporate policies, including internal control system design and implementation, are determined by those ownership structures (Bimo et al., 2019). Institutional ownership has been proven to have an impact on corporate tax evasion, with foreign institutional ownership encouraging investee companies to lower their tax evasion levels (Fauzan et al., 2021; Rakayana et al., 2021; Tansuria and Nelwan, 2022; Wahyuningrum et al., 2024). Moreover, it has been discovered that foreign, government, and family ownerships are connected to business tax avoidance strategies (Bimo et al., 2019; Hohmann, 2021; Tansuria and Nelwan, 2022; Siagian, 2024). Family-owned companies often have unique characteristics, and the management tends to be family-oriented, including the oversight of the company (Bimo et al., 2019). In general, those studies indicate that ownership patterns contribute to tax avoidance activities in Indonesia.

Management characteristics and leverage (Kartadjumena, 2021), ownership structure (Claessens et al., 2000; Fauzan et al., 2021; Rakayana et al., 2021), executive compensation (Dyreng et al., 2010; Jihene and Moez, 2019), and audit quality (Jihene and Moez, 2019; Kanagaretnam et al., 2016; Marzuki and Al-Amin, 2021) are some of the variables that have been examined in academic literature as potential drivers and inhibitors of tax avoidance practices. However, it is crucial to emphasise that depending on the particular circumstances of each organisation, the complicated and varied nature of the link between these variables and tax avoidance aggressiveness may change. In order to reconsider tax avoidance aggressiveness in Indonesian context of mining businesses, this paper refers to a number of events that occur in this industry. Furthermore, previous research in different countries shows that the company's ownership structure is an important

factor that influences management's attitude in determining tax avoidance actions (Claessens et al., 2000). Various previous studies linking share ownership structure with tax avoidance have been conducted with varying research results; among others, they have been conducted in Jordan (AL-Rashdan, 2022; Alkurdi and Mardini, 2020), Tunisia (Gaaya et al., 2017), Germany (Brune et al., 2019), France (Dakhli, 2022), Iran (Eskandar and Ebrahimi, 2020; Ghalerodkhani et al., 2018), the United States (Khurana and Moser, 2010), China (Richardson et al., 2016), and Indonesia (Fauzan et al., 2021; Hanafi and Harto, 2014; Marzuki and Al-Amin, 2021; Rakayana et al., 2021).

The size of the concentration of institutional ownership will affect tax policy (Khurana and Moser, 2010). The greater the concentration of short-term institutional shareholders, the greater the risk of tax avoidance, but the greater the concentration of long-term shareholder ownership, the further the reduction of tax avoidance. This shows that the presence of institutional shareholders in the company will have a different influence on tax avoidance aggressiveness depending on the investment period's intention and the specific objectives of the institutional shareholders.

In addition, the effect of institutional ownership on tax avoidance also varies between active and passive institutional owners (Eskandar and Ebrahimi, 2020). Active institutional owners have a positive influence on tax avoidance, which means that companies with active institutional owners are more likely to carry out tax avoidance strategies. On the other hand, passive institutional owners have a negative influence on tax avoidance, which indicates that companies with passive institutional owners are less likely to engage in tax avoidance.

Moreover, executive management has an important role as a corporate strategy designer, especially when it comes to taxes and saving tax payments (Jihene and Moez, 2019). Dyreng et al. (2010) stated that executive management has a major influence on how much tax avoidance the company does. Executives, as part of management, are the determinants of decision-making in the company and will make choices that maximise the value of their compensation (Hanafi and Harto, 2014).

Furthermore, Ohnuma (2014) states that executive compensation plays a key role in corporate practice by motivating managers through the incentives they receive to carry out decision-making in accordance with business strategy. Various studies examining the effect of executive compensation on tax avoidance have been conducted in various countries with different results, including in Turkey (Jihene and Moez, 2019), Indonesia (Amri, 2017; Ardillah and Prasetyo, 2021; Hanafi and Harto, 2014; Julianta and Simanjuntak, 2023), Japan (Ohnuma, 2014) and China (Wang and Yao, 2021). Executive compensation allows them to adopt behaviour that is in line with the interests of shareholders, namely an increase in firm value.

Therefore, in protecting related parties from fraudulent and opportunistic manager actions, it is necessary to add one of the most effective other governance mechanisms, namely the quality audit process (Jihene and Moez, 2019). According to Kanagaretnam et al. (2016) if the audit is of high quality, managers are less motivated to engage in corporate tax avoidance because they will bear adverse consequences if the tax authorities detect it.

This research was conducted on the mining companies in Indonesia for the period 2018-2022. In addition, the phenomena that occur in the Indonesian context and the inconsistencies that occur in previous studies have driven the need to conduct this research, although there have been many studies on aggressive tax practices. The various studies attribute various driving factors to the practice of tax avoidance, with mixed results. This study was conducted to re-examine ownership structures and executive compensation on aggressive tax practices in the context of developing countries.

Furthermore, research on the relationship between tax aggressiveness, the shareholding structure, and executive compensation has not been sufficiently studied in the accounting literature, although the relationship seems to be related due to their dependence on the profit earned by the company. This research is needed encourage executives not to engage in tax avoidance. In addition, this research is also a consideration for investors not to make speculative choices that depend on the evaluation of corporate governance perspectives that do not affect the organisation's ability to carry out aggressive tax practices. This is because tax avoidance is considered a risky practice and is highly dependent on the decisions of shareholders and management, as well as their orientation and motivation behind the decision.

This study contributes to the tax avoidance literature for two reasons. First, the study attempts to determine the nature of the relationship between ownership structures, executive compensation, and tax aggressiveness in the context of a developing country, Indonesia, and specifically in mining and plantation sector companies. Second, the capital market in Indonesia does not protect the interests of minority shareholders well. This is because Indonesia has a shareholding structure that is concentrated in a group of companies or families. Therefore, the authors think it would be appropriate to re-examine the effectiveness of these governance mechanisms on tax aggressiveness and, in particular, test the moderating effect of the quality audit process in the relationship between ownership structure and executive compensation on tax aggressiveness. This study has policy implications for policymakers in relation to the design of future tax systems to reduce the likelihood of aggressive tax practices.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. The Influence of Ownership Structures on Tax Aggressiveness

A firm's and family's shareholding structure may play a role in tax avoidance aggressiveness. For this reason, research on this subject has attracted the interest of several recent studies. Recent research has studied its determinants such as shareholding structure, size, leverage, performance, societal trust, and corporate governance (AL-Rashdan, 2022; Dyreng et al., 2010; Gaaya et al., 2017; Jihene

and Moez, 2019; Kanagaretnam et al., 2013; Kanagaretnam et al., 2016; Kartadjumena, 2021; Ohnuma, 2014; Röttger et al., 2019).

This research uses ownership structure proxied by institutional and family ownership. Financial institutions such as insurance companies, banks, pension funds, and investment companies are examples of institutions that own shares in a company (Siregar and Utama, 2008). A large proportion of share ownership by an institution will generally focus on long-term investment in a company. The size of the concentration of institutional ownership can affect tax policy (Khurana and Moser, 2010). The growth of share ownership by institutional investors may encourage corporate tax avoidance. This statement is reinforced by Richardson et al. (2016) who found that, to a lesser extent, an increase in ownership concentration in private companies listed in China has a positive influence on tax avoidance as a result of the entrenchment effect. The findings of Richardson et al. (2016) indicate the abuse of power by controlling shareholders who have strong control rights for personal interests rather than the interests of non-controlling shareholders.

The relationship between institutional ownership and corporate tax aggressiveness is shown, where a larger proportion of institutional ownership usually has a more aggressive tax policy (Jiang et al., 2021; Khurana and Moser, 2010). Corporate tax avoidance is positively correlated with the percentage of shares held by institutional investors. This indicates that they are more likely to take action to reduce their tax liabilities. However, according to Khurana and Moser (2010) the level of tax aggressiveness varies according to the investment time horizon of institutional owners. Larger short-term institutional ownership tends to be more tax aggressive, while higher levels of long-term institutional ownership tend to be less tax aggressive. Based on this, long-term institutional shareholders prevent aggressive tax behaviour while short-term institutional shareholders encourage it to maximise short-term firm value (Jiang et al., 2021). Similar research findings were produced by Alkurdi and Mardini (2020) in Jordan and Rakayana et al. (2021) in Indonesia, which show that government and foreign institutional ownership in each country have a positive effect on increasing the likelihood of adopting tax avoidance strategies.

Contrary research results were shown by Dakhli (2022) on 250 companies listed in France and Fauzan et al. (2021) on consumer goods companies in Indonesia who found that institutional ownership has a negative effect on tax avoidance. The greater the proportion of institutional ownership, the lower the likelihood that the company will avoid taxes. This happens because the institutional ownership structure and the level of supervision are closely related. The level of supervision is tighter when there is more institutional ownership, and conversely, the level of supervision is looser when there is less institutional ownership. This makes the company more vulnerable to fraudulent actions (Fauzan et al., 2021). However, the amount of tax that company has to pay increases proportionally with the amount of institutional ownership. This is due to the low possibility of companies carrying out tax avoidance strategies. Institutional owners can require management to concentrate on financial performance and ignore the possibility of selfishness based on their size and voting power.

Additionally, family ownership has a propensity to view tax avoidance as a dangerous action that should be avoided. Although it may result in lower tax payments to the government, the unfavourable effects of dealing with tax officials, coming under public scrutiny, and reputational damage are riskier (Brune et al., 2019). According to Chen et al. (2010), family enterprises have stronger ownership concentration, fewer diversification policies, longer-term goals, and larger reputational concerns. Families are also involved in management, which may influence their business decisions. Research by Gaaya et al. (2017), which discovered that family share ownership in 55 Tunisian listed firms between 2008 and 2013 had a positive effect on tax avoidance practices, demonstrates many things. This indicates that through collecting rent from tax-saving positions, the family assumes control over the interests of minorities. Rakayana et al. (2021) discovered that share ownership by family, institutions, managers, and the general public had no impact on tax evasion.

Hence, this research suggests that institutional and family shareholders in the Indonesian setting may be able to motivate management by using their influence to develop policies and strategies that have an effect on lowering corporate tax payments. The following will be a description of the first and second hypotheses:

H_1: Institutional ownership has a significant positive influence on tax aggressiveness.

H_2: Family ownership has a significant positive influence on tax aggressiveness.

2.2. The Influence of Executive Compensation on Tax Aggressiveness

Companies have long used executive compensation in the form of salaries, benefits, bonuses, and other forms of compensation to address governance issues, but this approach is often contentious. The relationship between executive compensation and tax avoidance can be related to executives' incentives and motivations to take actions that potentially reduce the company's tax burden.

Executives and shareholders generally have very different expectations of companies due to their diverse roles in society (Kanagaretnam et al., 2013). This suggests there is ambiguity in the relationship between executive compensation and corporate tax avoidance. The relationship between executive compensation and tax avoidance refers to a corporate practice in which corporate executives manipulate corporate tax policies to reduce tax liabilities and increase their personal compensation. This can be done through various strategies and tactics intended to reduce the amount of tax that must be paid by the company (Hanafi and Harto, 2014).

Professional managers and shareholders may actually have the same expectations of the company through various wage incentives, which will help better manage the company (Marzuki and Al-Amin, 2021). On the one hand, well-paid managers will be more tax-aggressive than low-paid ones to increase firm value (Hanafi and Harto, 2014). Nevertheless, it is important to note that not all firms or executives engage in tax avoidance or use executive compensation as a means to that end. On the other hand, many companies also focus on proper

tax compliance and business ethics in their tax avoidance practices. Higher cash compensation for executives is associated with lower tax aggressiveness in Chinese firms (Huang et al., 2018). Overly aggressive tax avoidance can pose reputational risks and have negative impacts on a company's relationship with the government and the general public (Dakhli, 2022).

In contrast, when executives are subject to and comply with various salary incentives, tax avoidance can mask self-serving behaviour, which will result in double promotion or suppression of corporate tax avoidance behaviour by reducing the level of tax avoidance associated with managerial rent extraction (Wang and Yao, 2021). Desai and Dharmapala (2006) state that tax avoidance makes it easier for managers to earn rent and can even encourage more opportunistic behavior. Managers can take advantage of tax-saving techniques.

Research by Hanafi and Harto (2014), Kartadjumena (2021) and Ardillah and Prasetyo (2021) found that executive character has a positive influence on tax avoidance. If the executive character prefers to take risks, which is shown when the company's risk value increases, the company tends to take tax avoidance actions with a decreasing cash effective tax rate (CETR). In addition, executive compensation is effective in reducing corporate tax payments. In the same way, executives own company shares (Hanafi and Harto, 2014). This is because executives, as shareholders, will benefit from tax burden efficiency efforts. Likewise, the research results of Jihene and Moez (2019) in Tunisia have found that there is a significant positive relationship between CEO compensation and corporate tax avoidance. These results indicate that managers are willing to engage in risky activities in order to obtain additional compensation by taking advantage of tax-saving positions.

Therefore, this research predicts that well-paid managers in the Indonesian context will have identical expectations from shareholders to reap rewards from tax burden reduction efforts. In order to increase business value, managers ought to employ a variety of strategies and procedures to reduce the amount of taxes that the company must pay. Consequently, the following is the research hypothesis:

H_3: Executive compensation has a significant positive influence on tax aggressiveness.

2.3. The Moderating Effect of Audit Quality on the Relationship between Ownership Structures and Tax Aggressiveness

Previous research explains that high-quality auditors are interested in tax avoidance activities because their involvement in such practices damages their reputation and exposes them to litigation problems (Gaaya et al., 2017; Jihene and Moez, 2019). Therefore, quality auditors seek to detect these risky practices and mitigate them in order to maintain their reputation in the market. Ghalerodkhani et al. (2018) found that audit quality strengthens the effect of ownership structure on tax avoidance in companies listed on the Tehran stock exchange.

According to Gaaya et al. (2017) audit quality can limit institutional ownership incentives to engage in aggressive tax positions. Audit quality has a negative moderating effect on the relationship between institutional ownership and tax avoidance. Similar findings were produced by Marzuki and Al-Amin (2021) which showed that audit fees reduce the positive relationship between board share ownership and tax avoidance. In addition, they found that auditor independence is weakened by non-audit services, which has the effect of increasing tax avoidance. The results of this study also confirm agency theory, which explains the impact of the absence of market regulation, which results in managers and controlling holders being able to obtain personal benefits from control at the expense of other shareholders. To prevent this exploitation, companies need good governance practices, including monitoring non-audit services and incentivizing auditors' work.

Based on the aforementioned assertions, this study makes the assumption that competent auditors can restrain institutional and family shareholders' ability to take aggressive tax positions. As a result, the following hypotheses are presented:

H_4: Audit quality has a negative moderating effect on the relationship between institutional ownership and tax aggressiveness.

H_5: Audit quality has a negative moderating effect on the relationship between family ownership and tax aggressiveness.

2.4. The Moderating Effect of Audit Quality on the Relationship between Executive Compensation and Tax Aggressiveness

One of the most effective corporate governance mechanisms that protects businesses from management's opportunistic and dishonest activities is audit quality (Jihene and Moez, 2019). Audit quality promotes efficient corporate governance while protecting users from the opportunistic and fraudulent actions of managers. Armstrong et al. (2015) assert that managers can exploit the system and participate in tax avoidance activities in poor corporate governance scenarios. Therefore, a good governance system is needed in order to reduce the level of tax avoidance in the company (Kiesewetter and Manthey, 2017). In this situation, corporate governance acts to limit managerial power, especially with regard to tax planning. Gaaya et al. (2017) consider corporate governance a monitoring structure that allows for disciplining managers and reducing opportunistic behaviour, especially when it comes to tax avoidance.

Recent accounting literature suggests that managers are less likely to engage in corporate tax avoidance if the audit is of high quality because they will experience negative repercussions if tax authorities discover aggressive attitudes towards taxes. Jihene and Moez (2019) found a negative relationship between CEO compensation and tax avoidance in well-audited companies. This supports the moderating effect of audit quality on the relationship between CEO compensation and tax avoidance.

In line with this study, professional auditors might restrict managerial incentives and their ability to execute tax avoidance policies and techniques. As a consequence, the following hypothesis is made:

H_6: Audit quality has a negative moderating effect on the relationship between executive compensation and tax aggressiveness.

3. MATERIALS AND METHODS

Based on a sample of 47 Indonesian mining and plantation companies listed on the Indonesia stock exchange from 2018 to 2022, the data consists of 233 observations from annual reports and financial statements. The information was acquired from the official websites of the companies concerned as well the Indonesia stock exchange (www.idx.co.id). The proxy for ownership structures is institutional and family ownership. Institutional ownership is measured by the proportion of ownership of company shares owned by institutions such as insurance companies, banks, and investment companies to the total number of outstanding shares. Whereas family ownership refers to a company that is owned and controlled by a single family or a small group of related individuals. Meanwhile, executive compensation is measured by the total salary of board members per year. Audit quality is proxied by the dummy variable of the big four auditors. In order to assess how aggressively a firm is preparing their taxes, the CETR has been utilised (Chen et al., 2010; Dyreng et al., 2010; Kartadjumena, 2021).

The research data are panel data, which are cross-sectional and time series data combined. As a result, panel data regression analysis techniques are used in the data analysis method. Panel data regression models can be estimated using one of three techniques: common effect, fixed effect, or random effect. The chow test, Hausman test, and Lagrange multiplier test are used in this research to choose the best model (Breusch and Pagan, 1980; Hausman, 1978; Park, 2011). Below is the regression equation for the data from this research panel:

$$CETR_{i.t} = \beta_0 + \beta_1 Inst_{i.t} + \beta_2 Fam_{i.t} + \beta_3 ExCom_{i.t} + \beta_4 Inst.Aud_{i.t} + \beta_5 Fam.Aud_{i.t} + \beta_6 ExCom.Aud_{i.t} + + \varepsilon_{i.t}$$

Where:

- β_0 = Beta (constant)
- $CETR_{i.t}$ = Cash effective tax rate for company *i* in period *t*
- $Inst_{i.t}$ = Institutional ownership for company *i* in period *t*
- $Fam_{i.t}$ = Family ownership for company *i* in period *t*
- $ExCom_{i.t}$ = Executive compensation for company *i* in period *t*
- $Inst.Aud_{i.t}$ = Moderation between institutional ownership and audit quality for company *i* in period *t*
- $Fam.Aud_{i.t}$ = Moderation between family ownership and audit quality for company *i* in period *t*
- $ExCom.Aud_{i.t}$ = Moderation between executive compensation and audit quality for company *i* in period *t*
- $\varepsilon_{i.t}$ = The error terms

4. RESULTS AND DISCUSSION

4.1. Statistic Descriptive

According to Table 1, this study consisted of 233 years of data from the company's annual reports and financial statements. The proportion of institutional ownership ranged from 0% to 92.4% on average for the mining and plantation companies in Indonesia. However, the institutional ownership average was 19.28% larger on average than the standard deviation. It indicates that the data was distributed evenly.

Additionally, family ownership proportion in Indonesian mining and plantation companies averages 19.02% from 2018 to 2022 (with a minimum of 0% and a maximum of 83.47%). The variation in the data was quite significant all over this time (standard deviation = 25.29% higher than the mean value). It means the data was clustered and not spread out across the year of observation. The average compensation for executives during the year under observation was Rp. 47.96 billion per year, with the minimum and largest amounts being Rp. 700 million per year and Rp. 709.7 billion per year, respectively. The standard deviation found for this time period exceeded the mean value (SD = Rp. 74.38 billion). This research also noticed that most Indonesian mining and plantations conducted the audit process by employing the big four audit firms.

4.2. Analysis Regression Panel Data

The Chow test or likelihood ratio test (F test) was utilised in this study to assess if the common (OLS) or fixed effect models would be appropriate. The results are shown in Table 2 below:

Table 2 shows that the P-value was higher than the chi-square and that both models were found to be insignificant ($P > 5\%$). It could be concluded that utilising the common effect model was appropriate for this research.

For independent variables, this study additionally performed a multicollinearity test (Table 3). Institutional ownership, family ownership, executive compensation, and audit quality all had corresponding variance inflation factor values of 2.02, 2.03, 1.13846, and 1.23. It can be concluded that there was no evidence of multicollinearity among independent variables.

Additionally, this study employed the Breusch-Pagan-Godfrey test to find the heteroscedasticity problem (Table 4). The test statistic has 225° of freedom and is distributed 7 times, according to the results. The probability value was higher than 0.05, indicating that the value was not significant. It suggests that this study had no issues with heteroscedasticity.

The panel data regression equation model with common effect model is shown in Table 5:

$$CETR_{i.t} = 2.3824 - 1.9753 Insti_{.t\,-}\, 2.925 Fam_{i.t} + 3.26 ExCom_{i.t} + 2.2076 Inst.Aud_{i.t} + 3.1942 Fam.Aud_{i.t} + 3.4 ExCom.Aud_{i.t} + \varepsilon_{i.t}$$

According to Table 5, institutional ownership and family ownership both showed negative coefficients of -1.9753 and -2.925, respectively. Both variables' probabilities were 0.0413 and 0.016, respectively. It suggests that both institutional and family ownership have a significant negative impact on CETR. Hence, the first and second hypotheses were accepted. Moreover, executive compensation's coefficients had positive values of 3.26 with probability values of 0.7201, indicating that executive compensation had an insignificantly positive effect on CETR. The third hypothesis was rejected.

Additionally, Table 5 shows how the relationship between institutional ownership, or executive compensation, and tax aggressiveness moderates with the audit quality. This study found positive coefficients

Table 1: Statistic descriptive

Descriptions	Y	X_1Inst	X_2Fam	X_3ExCom	ZAud
Mean	0.731997	0.456479	0.190170	47960.95	0.519313
Median	0.288503	0.500012	0.063700	30566.34	1.000000
Maximum	30.06419	0.924000	0.834694	709770.6	1.000000
Minimum	0.000000	0.000000	0.000000	700.0000	0.000000
SD	2.354568	0.263736	0.252882	74384.03	0.500702
Skewness	9.614868	–0.231417	1.175578	4.872549	–0.077311
	Y	X_1Inst	X_2Fam	X_3ExCom	ZAud
Kurtosis	110.9168	2.038285	3.133580	34.63194	1.005977
Jarque-Bera	116653.5	11.05886	53.84031	10635.93	38.83368
Sum	170.5553	106.3597	44.30966	11174901	121.0000
Sum Square Deviation	1286.205	16.13716	14.83618	1.28E+12	58.16309
Observations	233	233	233	233	233

Table 2: Chow test

Redundant fixed effects tests			
Equation: untitled			
Test cross-section fixed effects			
Effects test	Statistic	D.f.	Prob.
Cross-section F	0.898093	(46,179)	0.6582
Cross-section Chi-square	48.384799	46	0.3769

Table 3: Multicollinearity test

Variance inflation factors			
Date: 08/28/23 Time: 09:05			
Sample: 1 233			
Included observations: 233			
Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.269725	11.46700	NA
X_1Inst	0.687800	8.118201	2.025173
X_2Fam	0.749970	3.183274	2.030199
X_3ExCom	4.81E–12	1.597292	1.126816
Z	0.115499	2.549984	1.225744

Vip: Variance inflation factors

Table 4: Heteroskedasticity test

Heteroskedasticity test: Breusch-Pagan-Godfrey			
F-statistic	1.079621	Prob. F (7,225)	0.3773
Obs*R-squared	7.571732	Prob. Chi-Square (7)	0.3719
Scaled explained SS	363.3583	Prob. Chi-Square (7)	0.0000

of 2.207 and 3.45 for audit quality moderation, respectively. The probability values for the two moderating variables were 0.2345 and 0.7134, respectively. There were signs that the relationship between institutional ownership or executive compensation and CETR was positively moderately insignificant by the audit quality. Hence, the fourth and sixth hypotheses were rejected. In contrast, with a coefficient of 3.194 and a probability value of 0.0427, the moderating effect of audit quality has a moderately positive effect on the negative relationship between family ownership and CETR. One can infer that the fifth hypothesis is accepted.

4.3. The Influence of Ownership Structure on Tax Aggressiveness

Using the proportion of institutional and family ownership as a proxy, this study discovered that the ownership structure of mining and plantation companies in Indonesia significantly lowers the CETR. This shows that a higher percentage of institutional and family ownership pushes businesses to implement more aggressive tax laws to lower their tax obligations. This finding is consistent with a number of earlier studies that look at how ownership structure and tax avoidance differ between countries (Alkurdi and Mardini, 2020; Jiang et al., 2021; Khurana and Moser, 2010; Rakayana et al., 2021; Richardson et al., 2016).

Table 5: Panel data regression

Method: Panel Least Squares				
Sample: 2018-2022				
Periods included: 5				
Cross-sections included: 47				
Total panel (unbalanced) observations: 233				
Variables	Coefficient	Std. Error	t-Statistic	Prob.
X_1Inst	–1.975330	1.008110	–1.959440	0.0413
X_2Fam	–2.924998	1.211909	–2.413546	0.0166
X3ExCom	3.26E–06	9.08E–06	–0.358808	0.7201
Z	–2.080446	1.266329	–1.642896	0.1018
X1Inst_Z	2.207641	1.851937	1.192071	0.2345
X2Fam_Z	3.194227	1.891633	1.688608	0.0427
X3ExCom_Z	3.45E–06	9.37E–06	0.367770	0.7134
C	2.382401	0.610120	3.904804	0.0001
R-squared	0.140953	Mean dependent var		0.731997
Adjusted R-squared	0.011116	S.D. dependent var		2.354568
S.E. of regression	2.341444	Akaike info criterion		4.573144
Sum squared resid	1233.531	Schwarz criterion		4.691635
Log likelihood	–524.7713	Hannan-Quinn criter		4.620925
F-statistic	1.372561	Durbin-Watson stat		2.037696
Prob (F-statistic)		0.021794		

Moreover, in Indonesian context, it signifies an abuse of power by powerfully positioned controlling owners (institutional or family) who prioritise their own interests over those of non-controlling shareholders. Hence, this study emphasises that "tunnelling" is the main type of agency cost resulting from the principal-principal conflict between majority shareholders and minority investors. With a concentrated ownership structure in the Indonesian context, the major shareholder has a dominant influence on company policies, and the conflict between the principal and agent is relatively less serious than the conflict between the principal and

principal. This research suggests that there is less incentive to expropriate minority shareholders in family-controlled ownership, and as a result, tax-aggressive practices in these businesses tend to be relatively more effective.

4.4. The Influence of Executive Compensation on Tax Aggressiveness

This research found that executive compensation had an insignificantly positive effect on CETR. It could be concluded that higher salary management had not significantly reduced tax aggressiveness in Indonesian mining and plantation companies. This means companies that pay higher salaries to their managers are not associated with less tax aggressiveness. High executive compensation is more related to the managers' professionalism and reputation in business management. This result indicates that managers are not willing to engage in risky activities by taking advantage of tax aggressiveness.

As suggested by Healy (1985), this study assumes that high compensation for executives will encourage managers to focus on short-term goals, such as cash salaries and bonus contracts, which are often tied to profits rather than explicitly to stock market returns as a long-term objective. This alignment of short-term objectives encourages managers to reduce tax aggressiveness.

4.5. The Moderating Effect of Audit Quality on the Relationship between Ownership Structures and Tax Aggressiveness

This research found a positive but insignificant moderating effect of audit quality on the negative relationship between institutional ownership and CETR. It means the high-quality audits by the big four audit firms could not restrict the intention of institutional ownership to engage in aggressive tax positions. However, different evidence has been shown by the role of high-quality auditors in the linkage between family ownership and tax aggressiveness. This research noticed the significant positive moderating effect of audit quality on the negative relationship between family ownership and CETR. This finding supports previous research from Gaaya et al. (2017) and Ghalerodkhani et al. (2018).

This research suggests that a high-quality of audit can restrain family shareholders' ability to take aggressive tax positions. It could happen to preserve the auditors' reputation in the market; quality auditors look for the potentially tax-aggressive practises and try to reduce them.

4.6. The Moderating Effect of Audit Quality on the Relationship between Executive Compensation and Tax Aggressiveness

This research found a positive but insignificant moderating effect of audit quality on the positive relationship between executive compensation and CETR. It suggests that professional auditors might restrict managerial incentives and their ability to execute tax-aggressive policies and techniques. This finding proved that when the audit is conducted effectively, managers are more reluctant to be involved in corporate tax avoidance since they are facing consequences if the tax authorities become aware of their aggressive tax-evasion behaviour.

Moreover, audit quality as a component of a strong governance system seeks to restrict managerial power, notably with regard to tax planning, as well as reduce tax-aggressive behaviours in the company. According to Gaaya et al. (2017), a high-quality audit is a mechanism for keeping an eye on management and allowing for the punishment of errant activity, particularly when it comes to tax-aggressive practices.

5. CONCLUSION

This research found that ownership structures proxied by institutional and family ownership have been demonstrated to be a significant element in the tax aggressiveness of Indonesian mining and plantation companies. It highlights that ownership structures can potentially be used to motivate management by taking advantage of their influence in creating policies and practices that reduce corporate tax payments.

Moreover, this study also noticed that the negative association between family ownership and the CETR is positively moderated by audit quality. A family shareholder's capacity to pursue aggressive tax positions can be constrained by competent auditors. However, the association between institutional ownership, executive compensation, and tax-aggressive behaviour could not be influenced by the audit quality.

These findings may help government policies that, especially in developing nations like Indonesia, aim to limit illicit finance flows and enhance societal welfare by raising taxes. This research on the Indonesian context may have significant consequences for policy in other developing nations with strong institutional and familial environments, concentrated ownership structures, high levels of corruption, a weak rule of law, and on-going vital social and political transformation.

This research suggests that minority shareholders appear to suffer when the founding family controls a company, especially if the company is a member of a corporate group. As a result, given that the majority of publicly traded companies are part of business groups; regulatory bodies might see our findings as signalling the need for increased oversight of these firms. Hence, the Indonesian financial services authority could issue regulations that require publicly listed firms to disclose this information on their annual reports.

REFERENCES

Alkurdi, A., Mardini, G.H. (2020), The impact of ownership structure and the board of directors' composition on tax avoidance strategies: Empirical evidence from Jordan. Journal of Financial Reporting and Accounting, 18(4), 795-812.

AL-Rashdan, M.T. (2022), Verification of tax avoidance by audit quality and dimensions of ownership structure in jordanian manufacturing companies. Journal of Positive School Psychology, 6, 3374-3384.

Amri, M. (2017), Pengaruh kompensasi manajemen terhadap penghindaran pajak dengan moderasi diversifikasi gender direksi dan preferensi risiko eksekutif perusahaan di Indonesia. Jurnal ASET (Akuntansi Riset), 9(1), 1-14.

Ardillah, K., Prasetyo, C. (2021), Executive compensation, executive character, audit comitee, and audit quality on tax avoidance. Akuntabilitas: Jurnal Ilmu Akuntansi, 14(2), 169-186.

Armstrong, C.S., Blouin, J.L., Jagolinzer, A.D., Larcker, D.F. (2015), Corporate governance, incentives, and tax avoidance. Journal of Accounting and Economics, 60(1), 1-17.

Bimo, I.D., Prasetyo, C.Y., Susilandari, C.A. (2019), The effect of internal control on tax avoidance: The case of Indonesia. Journal of Economics and Development, 21(2), 131-143.

Breusch, T.S., Pagan, A.R. (1980), The Lagrange multiplier test and its applications to model specification in econometrics. The Review of Economic Studies, 47(1), 239-253.

Brune, A., Thomsen, M., Watrin, C. (2019), Family firm heterogeneity and tax avoidance: The role of the founder. Family Business Review, 32(3), 296-317.

Chen, S., Chen, X., Cheng, Q., Shevlin, T. (2010), Are family firms more tax aggressive than non-family firms? Journal of Financial Economics, 95(1), 41-61.

Claessens, S., Djankov, S., Lang, L.H. (2000), The separation of ownership and control in East Asian corporations. Journal of Financial Economics, 58(1), 81-112.

Dakhli, A. (2022), The impact of ownership structure on corporate tax avoidance with corporate social responsibility as mediating variable. Journal of Financial Crime, 29(3), 836-852.

Desai, M.A., Dharmapala, D. (2006), Corporate tax avoidance and high-powered incentives. Journal of Financial Economics, 79(1), 145-179.

Dyreng, S.D., Hanlon, M., Maydew, E.L. (2010), The effects of executives on corporate tax avoidance. The Accounting Review, 85(4), 1163-1189.

Eskandar, H., Ebrahimi, P. (2020), Tax avoidance and institutional ownership: Active vs. Passive ownership. International Journal of Finance and Managerial Accounting, 5(17), 95-106.

Fauzan, F., Arsanti, P.M.D., Fatchan, I.N. (2021), The effect of financial distress, good corporate governance, and institutional ownership on tax avoidance. Riset Akuntansi Dan Keuangan Indonesia, 6(2), 154-165.

Gaaya, S., Lakhal, N., Lakhal, F. (2017), Does family ownership reduce corporate tax avoidance? The moderating effect of audit quality. Managerial Auditing Journal, 32, 731-744.

Ghalerodkhani, M.Y., Akbariyan, M., Zolfaghari, M. (2018), The effect of independent audit quality on the relationship between ownership structure and tax avoidance on the listed companies in Tehran stock exchange. Amazonia Investiga, 7(12), 54-61.

Ginting, S. (2016), Pengaruh corporate governance dan kompensasi rugi fiskal terhadap penghindaran pajak dengan ukuran perusahaan sebagai variabel moderating. Jurnal Wira Ekonomi Mikroskil, 6(2), 165-176.

Hanafi, U., Harto, P. (2014), Analisis pengaruh kompensasi eksekutif, kepemilikan saham eksekutif dan preferensi risiko eksekutif terhadap penghindaran pajak perusahaan. Diponegoro Journal of Accounting, 3(2), 1162-1172.

Hausman, J.A. (1978), Specification tests in econometrics. Econometrica: Journal of the Econometric Society, 46, 1251-1271.

Healy, P.M. (1985), The effect of bonus schemes on accounting decisions. Journal of Accounting and Economics, 7(1-3), 85-107.

Himawan, A. (2017), Fitra: Setiap Tahun, Penghindaran Pajak Capai Rp110 Triliun. Available from: https://www.suara.com/bisnis/2017/11/30/190456/fitra-setiap-tahun-penghindaran-pajak-capai-rp110-triliun

Hohmann, M. (2021), Ownership Structure and Tax Avoidance: An Empirical Analysis of Listed Indonesian Mining Companies. University of Twente, Student Theses.

Huang, W., Ying, T., Shen, Y. (2018), Executive cash compensation and tax aggressiveness of Chinese firms. Review of Quantitative Finance and Accounting, 51, 1151-1180.

Indonesia, P. (2018), Mining in Indonesia: Investment and Taxation Guide. Jakarta: PwC Indonesia.

Jiang, Y., Zheng, H., Wang, R. (2021), The effect of institutional ownership on listed companies' tax avoidance strategies. Applied Economics, 53(8), 880-896.

Jihene, F., Moez, D. (2019), The moderating effect of audit quality on CEO compensation and tax avoidance: Evidence from Tunisian context. International Journal of Economics and Financial Issues, 9(1), 131.

Julianta, J., Simanjuntak, B.H. (2023), Management compensation, financial distress, accounting conservatism, sales growth on tax avoidance with audit quality as moderating variable. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 6(1), 322-333.

Kanagaretnam, K., Lee, J., Lim, C.Y., Lobo, G.J. (2013), Societal Trust and Corporate Tax Avoidance. York University, Working Paper.

Kanagaretnam, K., Lee, J., Lim, C.Y., Lobo, G.J. (2016), Relation between auditor quality and tax aggressiveness: Implications of cross-country institutional differences. AUDITING: A Journal of Practice & Theory, 35(4), 105-135.

Kartadjumena, E. (2021), Do the executive characters and leverage can affect tax avoidance? Evidence from Indonesia mining and coal listed companies. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(11), 1418-1425.

Khurana, I.K., Moser, W.J. (2010), Institutional Ownership and Tax Aggressiveness. Financial Accounting and Reporting Section (FARS) Paper.

Kiesewetter, D., Manthey, J. (2017), The Relationship between Corporate Governance and Tax Avoidance-evidence from Germany Using a Regression Discontinuity Design. Arqus Discussion Paper No 218. Berlin: Arbeitskreis Quantitative Steuerlehre (arqus), p1-16.

Landry, S., Deslandes, M., Fortin, A. (2013), Tax aggressiveness, corporate social responsibility, and ownership structure. Journal of Accounting, Ethics and Public Policy, 14(3), 611-645.

Marzuki, M.M., Al-Amin, M.S.M. (2021), The effect of audit fees, audit quality and board ownership on tax aggressiveness: Evidence from Thailand. Asian Review of Accounting, 29, 617-636.

OECD. (2020), Revenue Statistics in Asian and Pacific Economies 2020. France: OECD.

Ohnuma, H. (2014), Does executive compensation reflect equity risk incentives and corporate tax avoidance? A Japanese perspective. Corporate Ownership and Control, 11(2), 60-71.

Park, H.M. (2011), Practical Guides to Panel Data Modeling: A Step-by-step analysis Using Stata. In: Public Management and Policy Analysis Program, Graduate School of International Relations, International University of Japan. p.1-52.

Rakayana, W., Sudarma, M., Rosidi, R. (2021), The structure of company ownership and tax avoidance in Indonesia. International Research Journal of Management, IT and Social Sciences, 8(3), 296-305.

Richardson, G., Wang, B., Zhang, X. (2016), Ownership structure and corporate tax avoidance: Evidence from publicly listed private firms in China. Journal of Contemporary Accounting and Economics, 12(2), 141-158.

Röttger, P., Spee, K., Wobst, J. (2019), The effect of chief financial officers' expert power on tax avoidance-empirical evidence from Germany. Management, 9(1), 8-22.

Setiawati, R.A., Ammar, M. (2022), Analisis determinan tax avoidance perusahaan sektor pertambangan di Indonesia. Jurnal Manajemen Dan Inovasi (MANOVA), 5(2), 92-105.

Siagian, N. (2024), The role of economic policies to adopt renewable energy and digital technology on business decisions and HR management in the Indonesian mining sector. International Journal of Energy Economics and Policy, 14(2), 632-641.

Siregar, S.V., Utama, S. (2008), Type of earnings management and the

effect of ownership structure, firm size, and corporate-governance practices: Evidence from Indonesia. The International Journal of Accounting, 43(1), 1-27.

Tansuria, B.I., Nelwan, M.L. (2022), Level of firm ownership and tax planning practices: Evidence from Indonesia. Open Journal of Accounting, 11(2), 126-148.

Wahyuningrum, I.F.S., Agustina, L., Jati, K.W., Amal, M.I., Sriningsih, S. (2024), A slight look environmental disclosure score trends during Covid-19 outbreak: What's driver the environmental disclosure in indonesian mining and manufacturing companies. International Journal of Energy Economics and Policy, 14(2), 160-171.

Wang, Y., Yao, J. (2021), Impact of executive compensation incentives on corporate tax avoidance. Modern Economy, 12(12), 1817-1834.

Yuliawati. (2019). Avaialble from: https://katadata.co.id/yuliawati/indepth/5e9a554f7b34d/gelombang-penghindaran-pajak-dalam-pusaran-batu-bara