

# The Impact of Earnings Management, Leverage, and Profitability on Tax Avoidance in Mining Sector Companies

Diah Intan Syahfitri<sup>1)\*</sup>, Novida Halleine Putri<sup>2)</sup>

<sup>1)2)</sup>*Sumbawa University of Technology  
Sumbawa, West Nusa Tenggara, Indonesia*

<sup>1)</sup>*diah.intan.syahfitri@uts.ac.id*

<sup>2)</sup>*novida.halleine.putri@uts.ac.id*

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## Abstract

Taxes help the country develop in education, health, industry, and more. Since taxes are a major source of state revenue, the government prioritizes tax payment. Industrial taxpayers should follow appropriate norms and correct accounting principles to avoid violating government or country tax legislation. This research aims to study and assess the influence of profitability, leverage and earnings management on tax avoidance in mining companies listed on the Indonesia Stock Exchange (BEI). The focus of this research is on the group of companies in the mining sector listed on the BEI during the period 2019 to 2023. A saturated sampling technique, or often referred to as a census, is used in this research, where all 62 companies in the population are included as samples for a continuous period of 5 years. , resulting in a total of 310 observations. The results of hypothesis testing show that the earnings management, leverage and profitability variables together have a significant influence on tax avoidance. Earnings management, leverage, and profitability each have a large and positive impact on tax avoidance practices. This research is aimed at providing valuable insights and a complete understanding of tax evasion, with the aim of assisting stakeholders, including the government, in making the right decisions and formulating effective tax control laws.

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## I. INTRODUCTION

When talking about the economic and social development of a nation, taxes are an inseparable component, including in Indonesia. Based on the basic principle that every individual and corporate organization is obliged to pay monetary contributions to the government budget, the concept of taxation was born from this principle [1]. It is not only a moral or legal obligation to contribute, but also a means of redistributing money to promote social justice and economic growth. Under the supervision of the Ministry of Finance, the Directorate General of Taxes is responsible for tax administration in Indonesia. This department manages taxes. Various public needs such as infrastructure, education, health, and programs to improve community welfare through industrial growth, are financed using money collected from taxes. Taxes play a significant role in government efforts to maintain economic stability, manage inflation, and stimulate domestic and foreign investment. This is because taxes guarantee the availability of critical infrastructure and a favorable business climate [2].

[3] Tax avoidance practices by companies can have a significant impact on state revenues. The results of research related to earnings management, leverage and profitability on tax avoidance in mining sector companies listed on IDX from 2019 to 2023 show incidents that cannot be ignored. Findings showing a positive correlation between earnings management, leverage and profitability and tax avoidance in mining companies emphasize the challenges faced in encouraging tax compliance in this sector. This practice not only reduces tax revenues that could be used for overall development, but also raises questions about fairness and corporate social obligations. The increasing tendency of mining companies to adopt tax avoidance strategies indicates an urgent need for stricter supervision and regulation from the government and relevant regulatory agencies to ensure that all entities, especially those with a high profit profile, make a fair and significant contribution to the economy through taxes. Along with this, the need for transparency and corporate social responsibility is increasingly becoming a public concern, encouraging dialogue between stakeholders to create a more sustainable and fair business environment.

\* Corresponding author

The administration of taxes must be carried out with a concentration on accountability and public transparency. [4] It is essential for the tax system to adhere to precise accounting principles and establish regulations that are transparent in order to discourage tax avoidance and tax evasion. It is of the utmost importance that these standards be applied in a manner that is both transparent and uniform to all taxpayers, which are comprised of both individuals and companies. Furthermore, it is of the utmost importance for the government to continue the process of enacting tax reforms in order to guarantee that the current tax system is capable of efficiently adapting to changes in the commercial and economic aspects of the economy. The government of Indonesia has implemented and is continuing to implement a number of measures, including the expansion of the taxpayer database, the streamlining of the tax process, and the incorporation of information technology into the administration of taxes [5]. Increased compliance with tax regulations on the part of both individuals and corporations would directly lead to an increase in the amount of money collected by the state. By increasing the amount of money collected in taxes, the state is able to acquire greater resources that it may use towards sustainable development, which in turn directly improves the quality of life of the people. Therefore, the necessary foundations for advancing national success are the awareness and proactive engagement of all sections of society in meeting their tax responsibilities. This is the most important factor in fostering national progress.

[6] The subjects of tax evasion and profitability are frequently the focal points of substantial interest in the field of economic and financial studies. This highlights the fact that when it comes to making judgements regarding tax evasion, profitability, which can be quantified using metrics such as Return on Assets (ROA) or Return on Equity (ROE), is often considered to be the most essential element. [7] The larger the success of a firm, the greater the motive to reduce the amount of tax burden in order to maximize the amount of net profit that is available to shareholders. This is due to the fact that lower tax rates can result in bigger profits after taxes, which have a direct impact on the valuation of a firm among investors and the stock market. There are many different kinds of taxes and significant state requirements that are imposed on members of the mining business. Additional royalties, income taxes, land and building taxes, and other types of royalties are included in this category. In spite of the fact that it is responsible for paying taxes and making financial commitments to the government, the mining industry is a significant contributor to economies. Nevertheless, due to the intricate nature of the business and the extensive scope of its operations, the industry is a significant participant in talks over tax avoidance.

[8] The inclination to reduce the tax burden through a variety of methods can have a considerable impact on the amount of money that the state receives from this industrial sector. Consequently, this presents difficulties for policymakers and regulators in terms of guaranteeing tax compliance while simultaneously maintaining an environment that is favorable to investment. There may be loopholes in the tax rules or possible tax evasion techniques if there are discrepancies between substantial economic profits and lower than projected tax contributions. It is necessary to do additional study and engage in further discussion regarding the relationship between profitability and tax avoidance, particularly in the mining industry, in order to establish policies that are more effective and equitable. Reforming taxes, increasing the level of monitoring, and increasing the transparency of firm policies and activities are all potential initiatives that may be taken. In order to have a just and sustainable economic system, it is essential to make certain that all entities, irrespective of the level of profitability they demonstrate, fulfil their tax commitments. In the context of tax decision making, [9] The environmental implications of the mining industry, is also important. This is because businesses can be incentivized to adopt more environmentally friendly and sustainable practices through the use of tax exemptions or incentives.

[10] Specific companies endeavor to minimize their tax obligations by implementing a range of strategies aimed at tax evasion. Although these techniques are within the bounds of legality, they often venture into a realm of ethical ambiguity. Some of the tactics that fall under this category include utilizing transfer pricing agreements, maximizing the devaluation of assets, and capitalizing on differences in tax treatment among different countries. [11] Profitability influences tax evasion from an economic standpoint. Businesses strive to maintain a consistent cash flow and ensure the ongoing operation of their activities. This is particularly accurate in industries that necessitate a substantial capital investment and entail a considerable level of risk, such as the mining sector. Due to the possible detrimental effects on a company's reputation and legal obligations, it is crucial to consistently evaluate aggressive tax evasion strategies [12]. However, it is crucial to remember that not all strategies for reducing taxes are detrimental or unlawful. Almost every nation, including Indonesia, offers financial incentives or reliefs to investors in order to encourage investment in specific industries, such as mining. Hence, it is crucial to assess the correlation between tax evasion and profitability under the present legal, economic, and tax policy framework.

In Indonesia, the mining sector has often been at the center of discussions on tax evasion due to its reliance on debt or leverage as a financing source, a practice closely linked to the financial structuring within the industry. [13] Leverage plays a crucial role in affecting both the capital structure and the financial performance of mining companies. A highly leveraged company can benefit from lowered tax obligations because interest expenses on debt

can be deducted legally from pre-tax income, thereby reducing corporate income tax liabilities. The practice of leveraging is common in the mining sector because of the significant upfront financial investment required for exploration and development activities. These activities necessitate large-scale capital, and debt financing is a suitable method for securing the needed resources. The interest payments on such financial instruments are considered tax-deductible expenses, which means that they can legally minimize the amount of taxable income [4]. Consequently, high leverage may boost an organization's post-tax cash flow, but it simultaneously stirs debate regarding the ethical use of such financial strategies.

Concerns, on the other hand, come when leverage is utilized in an excessive manner. Despite the fact that it is legal, it is frequently seen to be a step on the thin line between tax planning and possible tax evasion. [14] The excessive use of leverage with the primary objective of lowering tax payments through interest deductions could be termed aggressive tax avoidance. This is because the leverage is used to reduce paying taxes. For the purpose of avoiding straying into the domain of unethical tax methods, this approach requires careful supervision and complete openness. Constant attempts have been made by the Indonesian government to refine its taxation rules in order to collect a fair share of taxes, particularly from the wealthy extractive industries. This is because the Indonesian government is well aware of the potential implications of aggressive tax planning. The purpose of the tax system is to enable the collection of tax revenues that are both equitable and substantial from the activities of corporations without discouraging investment in essential industries such as mining. By continuously reviewing and updating the regulations around interest deductions as a form of tax relief, the goal is to prevent excessive exploitation from major firms, which might dramatically reduce the amount of money collected in taxes by the state.

Maintaining a delicate equilibrium is required in order to safeguard the financial interests of the state while simultaneously fostering ethical corporate practices [1]. The erosion of the tax base and the shifting of profits are two issues that have been addressed by recent regulatory reforms, greater financial surveillance, and improved reporting requirements. Taking these procedures helps to ensure that corporations are transparent and have adequate governance, both of which are essential for the upkeep of a tax system that is equitable. The objective is to strike a balance, ensuring that mining companies have sufficient access to capital for their growth and operational needs, while also contributing their rightful share of taxes to the state's coffers, reflecting their actual fiscal capacity and economic activities within the nation. This will ensure that the balance is achieved.

The utilization of leverage to mitigate financial risks and the fulfilment of the mining company's corporate obligation to pay taxes are two aspects that mining companies need to strike a balance between. Utilizing debt in a strategic manner is crucial; nevertheless, it must be in accordance with the ethics of the organization and comply with the legislation governing taxes [15]. In order to reduce the risk of any potential long-term financial and reputational consequences, this action is taken. [16] It is of the utmost importance to apply leverage for the purpose of tax planning objectives in a manner that is both transparent and ethical. This is because it is important to take into consideration both the immediate financial rewards and the long-term commitment of the corporation to the national economy. Because of this, the mining industry has the potential to make a significant contribution to the development of the nation while simultaneously meeting its obligations to pay taxes. Mining companies can improve their profitability and successfully manage their finances by utilizing leverage, which can act as a beneficial instrument for effective financial management. In spite of this, the utilization of it must to be carried out with prudence and accountability, taking into consideration the implications it has on the tax responsibilities and the image of the corporation. In order to ensure the mining industry in Indonesia will continue to be profitable over the long term, it is essential to find a way to maximize financial efficiency while also conforming to tax requirements.

Earnings management is a common practice in the Indonesian mining industry, which is strongly linked to concerns such as taxation and financial structuring. [17] The inclusion of earnings management in the repertoire of financial strategies employed by these firms, in addition to factors such as profitability and leverage. Earnings management is the intentional alteration of financial statements in order to achieve certain goals, such as increasing executive pay, meeting market expectations, or affecting credit ratings. This strategy can, in different situations, come very near to or get intertwined with practices aimed at avoiding taxes. Tax avoidance refers to the strategic utilization of legal frameworks and loopholes to reduce tax obligations, which is different from tax evasion [18]. In industries such as mining, where commodity prices exhibit significant fluctuations, the management of earnings can serve two main objectives: portraying a more advantageous financial standing to the market and minimizing taxable income. The high level of volatility can result in substantial variations in recorded earnings, thereby affecting financial statements and thus changing tax liabilities.

For instance, commodity price changes can drastically affect the profitability of a mining operation, prompting companies to adjust financial reporting to smooth out earnings. This is often done to maintain investor and creditor confidence by presenting a stable financial outlook. [19] Companies might resort to changing the way sales and profits are reported, employing practices such as overvaluing inventory or using different methods of recognizing

revenue and expenses. Furthermore, to control their reported profitability and subsequently impact their tax burden, companies might opt for more aggressive depreciation methods. For example, accelerating depreciation can reduce taxable income in the short term by increasing expenses on paper, thereby lowering pre-tax profits but without necessarily affecting cash flow. This method of earnings management directly affects the tax base of the company by reducing the amount of profit reported, thus lowering the taxes owed.

Not only do these behaviors have an effect on financial statements and tax payments, but they also have the potential to undermine the authenticity and transparency of financial reporting. This gives rise to concerns over the trustworthiness and dependability of the financial disclosures made by mining businesses, which are of concern to prospective investors and other stakeholders [20]. In the event that earnings are regularly managed to fulfill short-term targets, this may result in long-term financial instability or the concealment of operational inefficiencies, both of which may have an impact on the valuation of the firm and the decisions about investments. Regulatory authorities in Indonesia and throughout the world have been increasing the stringency of their financial reporting standards and tax legislation in response to the complexity of the situation. Continuous improvements and stronger enforcement of International Financial Reporting Standards (IFRS) and local GAAP (Generally Accepted Accounting Principles) are being made with the intention of minimizing the amount of room for manipulative earnings management. In addition, the Indonesian Tax Authority is becoming more attentive regarding aggressive tax planning and evasion strategies, with the goal of ensuring that businesses pay their proportionate amount of taxes.

[21] The difficulty continues to be considerable because mining businesses work in an environment that is both highly complicated and unpredictable. This calls for a comprehensive grasp of both the legislation governing taxes and the reporting of financial information. Companies are required to maneuver through these while simultaneously maintaining compliance and upholding ethical financial practices. This is not only essential for the companies' reputations, but also for the entire integrity of the financial markets and tax systems. Increased corporate governance and a robust internal control system are required as a result of this. These measures are necessary to guarantee that the financial statements accurately reflect the financial health of the companies, free from the effect of aggressive earnings management. In order to preserve not only legal compliance but also investor trust and market stability, it will be essential to maintain transparency with stakeholders, in addition to adhering to ethical norms and rules.

A decrease in the amount of earnings that are reported for a particular quarter may be the consequence of earnings management methods such as postponing sales or increasing expenses. This has a positive side effect for the company in the form of tax savings [22]. This is due to the fact that decreased profits translate into fewer tax liabilities. To put it another way, management may employ earnings management strategies as a strategy to convince tax authorities to reduce the amount of taxes they are required to pay their employees. Nevertheless, it is essential to exercise appropriate control over the connection between earnings management and tax evasion through adequate management. There are hazards to a company's reputation and legal ramifications if it is seen that the company is unduly active in controlling its earnings. This is especially true if the truth and integrity of the company's financial reports are called into question. If it is determined by the authorities that earnings management has been utilized to encourage tax evasion, then the authorities may conduct tax audits and impose severe fines [23]. Poor profits management can, over time, destroy the trust of tax authorities and investors, as well as distort the market's impression of the company's true worth and the potential it has for the future. As a consequence of this, it is of the utmost importance that Indonesian mining companies ensure that their accounting and tax methods adhere to applicable regulations while also maintaining the integrity and openness of their financial reporting.

In the Indonesian mining industry, there have been studies that have investigated the dynamics between profitability, leverage, and earnings management. However, there is a lack of information regarding how these factors specifically affect tax avoidance in mining companies that are listed on the IDX between the years 2019 and 2023, which is a period of five years. A gap in the existing body of research is what this study intends to fill. In order to examine this link, it is required to conduct additional study that is more recent. This is especially true when considering the shifting regulatory and economic situations that are occurring all over the world, which include the pandemic of influenza. This study aims to accomplish three things: first, an in-depth analysis of the manner in which tax avoidance strategies are influenced by profitability; second, an evaluation of the influence that leverage has on tax avoidance tendencies; and third, an investigation into the function that profits management plays in this context. In addition to bringing the academic literature up to date, the purpose of this research is to provide a better comprehension of it. In addition to this, it will be of assistance to policymakers and practitioners in the mining industry in the process of establishing strategic solutions to deal with the altering tax rules and financial challenges.

II. METHODS

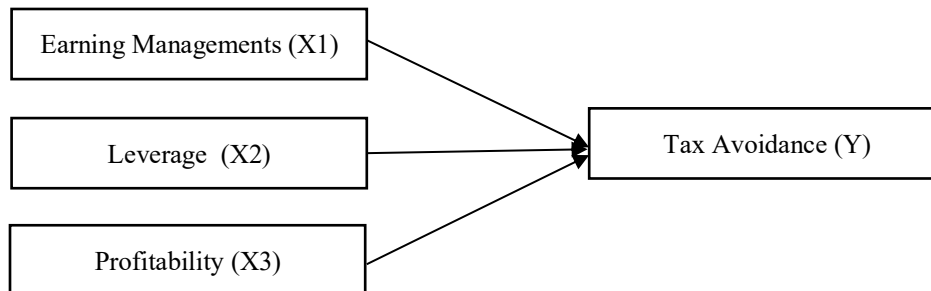
This research makes use of a quantitative research methodology that takes an associative approach through its methodology. Quantitative research is a method of conducting research that places an emphasis on facts that can be verified and quantified, and it does so in the form of numerical values. Following this, the data is analyzed through the application of statistical methods in order to arrive at definitive conclusions [24]. All mining businesses that are publicly traded on the Indonesia Stock Exchange (IDX) between the years 2019 and 2023 are included in the study's population. Please refer to the sample criteria table that is provided below for further information:

**Table 1. Sample Criteria**

Criteria	Description
Data source	Obtained from the Indonesia Stock Exchange (IDX) website - <a href="http://www.idx.co.id">www.idx.co.id</a>
Research Period	2019-2023
Business Sector	Coal mining, Oil and gas mining, Metal and other mineral mining, and Stone mining
Number of Registered Companies	62 mining companies listed on IDX by 2023
Data Type	Secondary data includes independent auditor reports and audited financial reports from companies listed on IDX
Total Data Observed	310 data points
Sample Representation	The sample is representative of the entire population during the 5 years of research

Source: Processed data, 2024

The purpose of this sample criteria table is to present a clear picture of the parameters of research that was conducted on mining businesses that were listed on the Indonesia Stock Exchange between the years 2019 and 2023. The research was conducted using secondary data collected from financial reports and independent auditor reports. The data was acquired from the website [www.idx.co.id](http://www.idx.co.id). The data study employed descriptive statistics and panel data regression using Eviews Version 15 for Windows. as for more details, the following framework model is presented in this study:



**Figure 1. Theoretical Framework**

The study model presented above includes the following independent variables: (X1) Earnings Management, (X2) Leverage, and (X3) Profitability. The dependent variable in this model is (Y) Tax Avoidance. The purpose of this study is to investigate the influence that earnings management, leverage, and profitability have on tax avoidance in mining industry businesses that are listed on the Indonesia Stock Exchange (IDX) for the period of 2019–2023. Earnings management, which may be defined as a purposeful endeavor by management to affect financial statements in order to accomplish particular targets, has been proven to be a strategy for minimizing the tax burden in prior research. This is because earnings management is also known as earnings manipulation. A company's leverage can be determined by calculating the debt-to-equity ratio, which indicates the percentage of debt that is utilized for the company's operations. The use of high leverage might provide businesses with an incentive to avoid paying taxes in order to increase their profits. Similarly, profitability, which may be evaluated through the utilization of Return on Assets (ROA) or profit margin, demonstrates the degree to which businesses are able to effectively create profits from their assets. Companies may be more motivated to minimize their tax burden in order to further raise their net profits if they have a higher level of profitability of their operations. Therefore, in order to have a better understanding of the dynamics of tax avoidance in the mining sector that is listed on IDX, this research

incorporates these three significantly relevant factors. According on the framework described above, the following hypothesis was developed:

Hypothesis 1 (H1) : Earnings management has a positive and significant effect on tax avoidance in mining sector companies on IDX.

Hypothesis 2 (H2) : Leverage has a positive and significant impact on tax avoidance in mining sector companies on IDX.

Hypothesis 3 (H3) : Profitability has a positive and significant effect on tax avoidance in mining sector companies on IDX

### III. RESULTS

#### 1. Descriptive Statistical Analysis

[25] Descriptive statistical analysis is utilized in order to determine the features of the data. These characteristics include the highest value, the lowest value, the average value (mean), and the standard deviation value. Tax evasion, profitability, leverage, and profits management are the variables that were utilized in the compilation of descriptive statistics for this particular study. Avoidance of paying taxes is the dependent variable that was utilized in this study. Earnings management, leverage, and profitability are the independent variables that are considered in this analysis. The following is a list of descriptive statistics associated with the data that was analyzed and derived from the financial statements for the period of 2019 to 2023.

**Table 2. Descriptive Statistical Analysis**

	Y	X1	X2	X3
Mean	0.361176	0.828723	0.735112	0.154215
Maximum	6.221467	28.89213	129.7512	1.672286
Minimum	-3.221785	-2.32341	-214.2832	-0.817254
Std. Dev.	0.782238	1.876239	22.72265	0.141256

Source: Processed data, 2024

Based on Table 2 above, it can be seen that the average value of tax avoidance is 0,361176, with a standard deviation of 0,782238. The average value of earnings management is 0,828723, with a standard deviation of 1,876239. Furthermore, the average value of leverage is 0,735112, with a standard deviation of 22,72265. Then, the average value of earnings management is 0,154215, with a standard deviation of 0,141256.

#### a) Estimation Model Comparison between Common Effect Model (CEM) and Fixed Effect Model (FEM) using Chow Test

Before moving on to a discussion about the application of the Chow Test in regression analysis, it is essential to provide an explanation of the context and the reason for which this statistical test is utilized. In order to assess whether or not there are significant differences in the intercepts and slopes of distinct groups within a dataset, the Chow Test is performed. This test can be used to establish whether or not separate regressions for each group would be more beneficial than a single regression. In the context of econometric modeling, this test is an essential component in the process of selecting between the Composite Effects Model (CEM) and the Fixed Effects Model (FEM) for the purpose of estimating the regression model.

H0: The CEM model is superior to the FEM model

H1: The FEM model is superior to the CEM model

In order to provide further information, the following are the outcomes of the Chow test conducted using Eviews Version 15 for Windows:

**Table 3. Results of the Chow Test**

Redundant Fixed Effects Tests			
Pool: DPANEL			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.782223	(61,527)	0.0113
Cross-section Chi-square	81.822361	61	0.0071

Source: Processed data, 2024

Based on the guidelines for making decisions regarding the hypothesis, which are presented in the following manner:

The null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted if the chi-square probability value of the cross-section is less than 0.05. This indicates that the null hypothesis is not supported. When the chi-square probability value for the cross-section is greater than or equal to 0.05, the null hypothesis (H0) is accepted, and the alternative hypothesis (H1) is rejected [26]. This is because the null hypothesis is the more likely of the two. Table 3 presents the results of the Chow test, which indicate that the probability value is 0.0071. The estimate model that is utilized is the fixed effect model (FEM), which is utilized due to the fact that the probability value is 0.0071, which is less than 0.05.

- b) Determining the Estimation Model between Fixed Effect Model (FEM) and Random Effect Model (REM) using the Hausman Test.

The Fixed Effects Model (FEM) and the Random Effects Model (REM) are the two fundamental regression models that researchers frequently have to choose between when conducting panel regression analysis. This type of study involves the incorporation of both temporal and cross-subject dimensions, such as time and business characteristics. [24] The primary distinction between the two resides in the assumptions that are made concerning the link between various independent variables and the effects that are not observed in panel data. For the purpose of selecting between FEM and REM, the Hausman test is a statistical approach that is utilized. The purpose of this test is to investigate the null hypothesis, which states that the estimates of the REM are consistent. This implies that the individual-specific effects are not connected with the factors that are independent. In the event that the null hypothesis is rejected (often at a significance level of 0.05 or lower), it is anticipated that the fixed effects will be correlated with the independent variables. As a result, the FEM model is the one that is most suitable for conducting panel regression analysis.

A chi-square value, also known as the Hausman statistic, and a probability value, often known as the p-value, are typically going to be provided by the results of the Hausman test when it is carried out with EViews Version 15. A judgment can be made based on the p-value, which is as follows:

If the p-value < 0.05, reject the null hypothesis and select the Fixed Effects Model (FEM).

If the p-value ≥ 0.05, fail to reject the null hypothesis and the Random Effects Model (REM) can be used.

**Table 3. Hausman Test Results**

Correlated Random Effects - Hausman Test			
Pool: DPANEL			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.112632	4	<b>0.1162</b>

Source: Processed data, 2024

Expanding on the explanation concerning the application of the Random Effects Model (REM) based on the probability value of 0.1162 obtained from the Hausman test findings, it's essential to explore the implications and methodologies linked with this choice. When the probability value from the Hausman test surpasses the 0.05 threshold, it suggests that the null hypothesis which posits no systematic difference between the coefficients produced by the fixed effects and random effects models cannot be rejected. As a result, the analysis leans towards the adoption of the Random Effects Model (REM) owing to its efficiency under such circumstances.

[27] In the context of applying the REM, the undertaking of conventional assumption tests becomes less critical. This perspective derives from the capability of the REM to employ the Generalized Least Square (GLS) estimation technique. The GLS technique is distinguished by its approach to dealing with potential issues in the data, such as cross-section correlation among observations and time series autocorrelation. These issues, if not addressed, can substantially compromise the integrity and accuracy of the econometric analysis. The adoption of the GLS estimation under the REM framework enhances the model's ability to generate estimators with the Best Linear Unbiased Estimator (BLUE) properties. The BLUE qualities assure that, among all the class of linear and unbiased estimators, the GLS estimators have the smallest variance, thus maximizing efficiency. This is particularly relevant when confronting violations of homoscedasticity (constant variance across observations) and autocorrelation (correlation of

a variable with itself across time) assumptions. By addressing these potential data anomalies, the GLS technique ensures a more accurate and reliable analysis.

[28] The effectiveness of the GLS approach in overcoming challenges related to heteroscedasticity and autocorrelation is rooted in its capacity to adjust weights to different observations, correcting for variability and dependencies that could skew results. This adaptability makes the GLS method especially suited for econometric models where the random effects approach is deemed appropriate, further substantiating the choice of REM when the Hausman test's p-value is above the conventional significance level. In summary, the decision to employ the Random Effects Model facilitated by the Hausman test result allows for a refined analysis through the generalized Least Square estimation technique. This methodology adeptly handles prevalent econometric issues, ensuring the production of estimators that not only meet the coveted BLUE criteria but also enhance the overall robustness and accuracy of the econometric examination.

## 2. Hypothesis Testing

The analysis will involve examining the coefficient of determination, conducting the simultaneous effect test (F test), and performing the partial effect test (t test) in hypothesis testing. Table 4 displays the statistical values for the coefficient of determination, F test, and t test.

**Table 4. Statistical values of the Coefficient of Determination, F Test, and t Test (Random Effect Model)**

Dependent Variable: Y?  
**Method: Pooled EGLS (Cross-section random effects)**  
 Date: 12/05/24 Time: 19:12  
 Sample: 2019 2023  
 Included observations: 13  
 Cross-sections included: 46  
 Total pool (unbalanced) observations: 310  
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1?	0.713577	0.395445	3.942573	0.0005
X2?	0.262843	0.169656	3.820111	0.0006
X3?	0.355826	0.323927	2.584413	0.0012
C	-0.488820	0.346786	0.657314	0.3346

R-squared	0.309751	Mean dependent var	0.212984
<b>Adjusted R-squared</b>	<b>0.592137</b>	S.D. dependent var	0.729820
S.E. of regression	0.721793	Sum squared resid	296.1281
F-statistic	13.21996	Durbin-Watson stat	2.761972
<b>Prob(F-statistic)</b>	<b>0.000000</b>		

Source: Processed data, 2024

Based on the findings of the investigation shown in Table 4, the following discussion can be derived:

### a) Coefficient of Determination Analysis

To further elaborate on the value of the coefficient of determination (Adjusted R-squared) of 0.592 obtained from the analysis using Eviews 15, it's essential to understand what this statistic implies in the context of the model used to investigate the relationship between earnings management, leverage, and profitability and their impact on tax avoidance. An Adjusted R-squared value of 0.592 means that approximately 59.2% of the variability in tax avoidance among the firms analyzed can be explained by the combined variations in earnings management, leverage, and profitability. This significant percentage highlights the strong influence these variables have on the practice of minimizing tax liabilities legally. It illustrates a clear relationship, where these financial strategies and conditions collectively have a substantial effect on the ability of firms to navigate and potentially reduce their tax burdens.

However, an Adjusted R-squared value of 0.592 also indicates that there are other factors contributing to tax avoidance that are not included in this specific model. These unaccounted factors constitute about 40.8% of the variability in tax avoidance. This remainder suggests that while the model is robust in explaining a large portion of tax avoidance behavior using the selected variables,



there are still other influences or external conditions impacting tax avoidance strategies that weren't captured. These could include factors like changes in tax legislation, corporate culture regarding tax compliance, industry-specific tax provisions, the geographical location of business operations, international tax treaties, or even shifts in corporate strategy that were not accounted in the current analysis. Understanding both the explained and unexplained parts of the model is crucial for a comprehensive analysis, suggesting directions for future research to include additional variables or explore other potential influences on tax avoidance to enhance the predictive power of the model further. This observation underscores the complex nature of tax avoidance and the multifaceted strategies firms may engage in, influenced by a wide array of operational, regulatory, and environmental factors.

b) Simultaneous Significance Test (F Test)

The value of the probability, as measured by the F-statistics, is 0.000000, which is lower than 0.05. It can be deduced from this that the tax avoidance variable is significantly influenced by all of the independent components, including earnings management, leverage, and profitability.

c) Panel Data Regression Equation and Partial Effect Significance Test (t-test)

The panel data regression equation can be produced by using the following formula, which is based on Table 4 above:  $Y = -0,49 + 0,71X1 + 0,26X2 + 0,36X3 + e$

- 1) The regression coefficient for earnings management is 0.71, which indicates that there is a positive association between the two variables, as shown in Table 4. In terms of significance, the value of the probability is 0.0005, which is lower than the threshold of 0.05. At the same time, the value of the t-statistic, which is 3.9425, is higher than the value of the t-table, which is 1.978. It is possible to state that earnings management affects tax evasion in a positive and significant way. This is something that can be taken into consideration.
- 2) As shown in Table 4, the regression coefficient for leverage is 0.26, and the probability value is 0.0006, which is lower than the significance threshold of 0.05. This indicates that the significance level is not met. Consequently, the value of the t-statistic, which is 3.8201, is higher than the value of the t-table, which is 1.978. It is possible to draw the conclusion that the use of leverage has a positive and significant influence on the conduct of tax evasion schemes.
- 3) In accordance with the data shown in Table 4, the regression coefficient for profitability is 0.36, and the probability value is 0.0012. These probabilities are lower than the level of significance, which is set at 0.05. At the same time, the value of the t-statistic, which is 2.5844, is higher than the value of the t-table, which is 1.978. There is a direct and significant relationship between the level of profitability and the amount of tax evasion that occurs.

### 3. Research Discussion

Drawing from the findings of the data analysis conducted in the preceding paragraph, the subsequent discourse can be articulated in the context of this investigation:

- a) The findings of the data analysis carried out with the Eviews 15 software program provide compelling evidence that earnings management has a positive and considerable influence on tax evasion, hence providing conclusive support for the first hypothesis (H1). It may be deduced from this that businesses that engage in altering their financial results in order to articulate earnings management are more likely to pursue higher degrees of tax avoidance. Companies are able to reduce their tax responsibilities by reducing the amount of profits that they declare, which is of direct value to the company because it results in an increase in the amount of net income that is distributed to shareholders. When it comes to concerns concerning taxes, the stakes are particularly high for mining businesses because they operate within a sector that is characterized by big capital investments and substantial profit margins. As a result of the increased scrutiny that these businesses are subjected to by the tax authorities, it is imperative that strategies be developed to reduce the amount of taxes that are paid. When it comes to effectively managing a company's tax responsibilities, earnings management emerges as a sophisticated strategy that may be utilized as part of the armory of business methods. The results of this study are similar with the findings of previous studies, which have repeatedly demonstrated a connection between earnings management and tax avoidance through their findings. [22] There is a correlational interaction that suggests that businesses that manipulate their profits story are also more likely to participate in taxavoiding activities. [23] These thoughts were correct. The findings highlighted the fact that the

conscious act of earnings management creates opportunities for tax evasion strategies. The interaction between earnings management and tax avoidance requires a sophisticated understanding of the two behaviors in respect to the prevalent tax standards and the interpretation of financial statements. This is necessary in order to comprehend the interplay between these two practices. In order to visualize this dynamic in a practical manner, one must first study empirical data. Taking this into consideration, controlling for earnings management becomes an essential component of both responsible corporate governance and responsible financial management. It is essential to maintain the integrity of financial markets and ensure that tax systems are fair and equitable. This can be accomplished through increased openness and more stringent compliance with regulatory requirements. In light of the fact that the study substantiates the connection between earnings management and tax avoidance, it highlights the importance of a diligent regulatory framework that stifles opportunities for manipulation while still allowing businesses to flourish financially. It is crucial to strike a cautious balance within this framework in order to provide businesses with the required room for lawful financial planning without entering the realm of unethical tax methods.

- b) The second hypothesis (H2) of the study is supported by the findings of the analysis that was carried out using the Eviews 15 software suite. The discovery that leverage has a positive and visible affect on tax evasion is the result of this analysis. The results of this study shed light on the fact that companies that are saddled with a significant amount of debt have a tendency to engage in higher levels of tax avoidance when compared to their counterparts that have less leverage. By employing a systematic approach to the management of their reported earnings, these businesses are able to considerably lower the amount of taxes under their jurisdiction. Leverage is a technique that allows businesses to fund their operating needs through debt rather than stock. This provides them with the benefit of being able to deduct interest payments on this debt from their taxable income, which ultimately results in a reduction in their overall tax liability. In their foundational work from 1958, Modigliani and Miller established that the capital structure of a corporation does not effect the value of the company under perfect market conditions. Nevertheless, the incorporation of taxation into the equation exposes a particular advantage offered by the tax deductibility of interest. This advantage enables firms to reduce their tax exposure, which in turn effectively increases the value of the enterprise. [4] Companies that have comprehensive corporate governance frameworks are more likely to leverage their borrowing capacity in order to profit on the tax deductions that are made available by interest expenses [4]. The implementation of this strategic strategy creates an atmosphere that is favorable to the aggressive avoidance of taxes through careful tax planning. [6]. The investigation revealed that the attraction of the tax shield is a compelling motivator for businesses to increase the debt component within their capital structure. This preference for debt financing versus equity issuance is primarily motivated by the financial benefits associated with reducing taxable income through interest deductions. This choice is a strategic one. As a consequence of this tendency toward utilizing debt financing, there is a large increase in the number of efforts that are made to avoid paying greater tax payments. In a nutshell, the strategically significant role that debt plays in the process of business tax planning is highlighted by the positive correlation that exists between leverage and tax evasion. Companies that are skilled at navigating the complex terrain of financial structuring and tax legislation are able to successfully utilize the power of leverage to reduce their tax obligations, thereby improving their overall financial health and increasing the value of their shareholders. The intricate relationship that exists between debt management and tax planning serves to reinforce the significance of making well-informed decisions in the process of strengthening a company's financial resilience while also ensuring that it complies with its tax duties.
- c) The third hypothesis (H3) was accepted as a result of the data analysis that was carried out using the Eviews 15 software. The results of this analysis indicate that there is a significant and positive association between the profitability of a company and its participation in tax evasion tactics. Because the tax liability increases in tandem with the rise in profitability, businesses are compelled to investigate various tax avoidance strategies in order to safeguard their bottom line. The junction of high profitability and tax evasion operations suggests that it is a difficult issue for firms to sustain substantial net profit margins while also negotiating the intricate maze of tax regulations. The desire of a company to keep a greater portion of its profits, which can then be either re-invested in the company or paid to shareholders, is frequently the driving force behind the initiative to reduce the amount of tax burden associated with the company. [1] High-profit corporations have access to enormous financial resources, which enables them to devise and carry out sophisticated tax planning tactics. In order to lawfully decrease tax liability, these tactics frequently involve the procurement of tax professionals and the development of complete

strategies. [12] Businesses who are experiencing rising levels of profitability are consistently looking for ways to reduce their costs, which may include applying for tax reductions. As a consequence of this, the motivation to go on the path of tax avoidance develops in tandem with the financial performance of the company [11]. They found that profitable businesses are not only more driven, but they are also better prepared with the resources and possibilities essential to participate in strategic tax planning. These companies engage in a number of legal strategies that contribute to a more favorable net profit margin in order to achieve their goals of optimizing their tax structures and effectively minimizing their tax obligations. This increased profitability can then be utilized to deliver greater value to the company's owners, which is a core prerogative of a corporation. Nevertheless, despite the fact that tax evasion can be a financially prudent strategy from a legal standpoint, it poses a wide range of ethical and societal problems. What are the bigger picture implications of these activities with regard to the principles of tax morality and corporate social responsibility? It is not always the case that the public's ideals of justice and ethical behavior are in line with the legal permissibility of tax evasion tactics. Consequently, in order for businesses to succeed in capitalizing on profitability and the advantages it provides for tax planning, they must also take into consideration the potential threats to their reputations and make certain that their tactics are in accordance not only with the many legal standards but also with the ever-changing values of society.

#### IV. CONCLUSIONS

We have arrived at the following conclusions as a consequence of the findings of study and discussion concerning the influence of earnings management, leverage, and profitability on tax evasion in mining sector companies that are listed on the Indonesia Stock Exchange (IDX) between the years 2019 and 2023: To begin, the findings of the research indicate that there is a direct and statistically significant association between profit management and tax avoidance in mining businesses that are listed on IDX for the period of 2019-2023. This demonstrates that there is a positive association between business strategies that include earnings management and the likelihood of firms to avoid paying taxes. On the other hand, mining businesses that actively manage their revenues have a tendency to be more active in their search for ways to lower the amount of taxes they are required to pay. The second finding is that the findings of the research indicate that there is a substantial and positive association between leverage and tax avoidance in mining businesses that were listed on the IDX over the same time period. This demonstrates that there is a positive association between the amount of leverage or debt that is present in the financial structure of a company and the activities that are carried out by the company in order to avoid paying taxes. This occurrence takes place as a result of the fact that interest on financed debt can be deducted from the income of the company before tax calculations are carried out. As a result, the total amount of tax that the firm is required to pay is reduced. In conclusion, the findings of the research reveal that profitability has a favorable and significant impact on tax avoidance in mining businesses that are listed on IDX throughout the period of 2019-2023. This demonstrates that there is a positive association between the level of profitability of a corporation and the likelihood that they will participate in tax evasion methods. Many tax avoidance strategies, such as intricate tax planning, transferring assets in countries with lower tax rates, or making the most of tax benefits, are available to businesses that have a high level of profitability because they have higher financial means to apply these strategies.

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