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Is Business Risk Able to Moderate the Effect of Capital Intensity, Capital Structure, and Tax Loss Carryforward on the Effective Tax Rate?

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Abstract

Research Backgrounds: The relevance of explaining the aspects that determine tax management procedures in manufacturing businesses that are listed on the IDX is the driving force behind the requirement of doing this research. **Introduction/ Objectives:** The purpose of this research is to investigate the impact that factors like as capital intensity, ownership structure, and tax loss carryforward have on the effective tax rate, with business risk serving as a moderating element in the analysis. **Methods:** The research method that was utilized was quantitative, and it had a positivistic approach. The PLS-SEM analytic methodology was utilized. The sample was comprised of 23 manufacturing businesses that were selected using the process of purposive sampling. These companies were listed on the IDX and were in the staples retailing and beverage sub-sector. **Results:** According to the findings, the effective tax rate is significantly impacted by company risk, ownership structure, and tax loss carryforward. On the other hand, capital intensity and moderating effect 3 do not have any impact on the effective tax rate. When it comes to tax planning, it may be advantageous for businesses to take into account the ownership structure and the risk of the firm. On the other hand, tax authorities may need to pay attention to businesses that use the tax loss carryforward in order to maximize their tax management. **Conclusion:** These findings offer valuable insights for practitioners and policymakers engaged in the formulation of more efficacious tax policies. Companies may wish to consider business risk and ownership structure in their tax planning, while tax authorities may be well advised to devote greater attention to firms that utilize tax loss carryforwards to optimize tax management.

Keywords: Capital Intensity; Effective Tax Rate; Moderation Business Risk; Ownership Structure; Tax Loss Carry Forward

JEL Classification: M40; M41.

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INTRODUCTION

With a relatively big population and an abundance of natural resources, Indonesia is a country that is still in the process of development. In addition to this, the strategic geographical position of the organization confers a distinct advantage onto it. That both domestic and international businesses are establishing a presence in Indonesia is not something that should come as a surprise. Such circumstances may prove to be beneficial for the government in terms of the money that is received from taxing at the state level. The

government has introduced tax incentives, including a cut in the corporation tax rate, in order to boost economic growth. This is one of the measures that has been taken. This was originally created in Article 17, Paragraph (1), Letter B of Law No. 36 of 2008, which specified that the tax rate for domestic corporate taxpayers and permanent business entities was 28%. This was the first time that this was established officially. For the goal of simplifying taxes, the government subsequently changed the company tax rate in Law No. 36 of 2008, article 17, paragraph (2a), bringing it down to 25% beginning with the 2010 tax year. This change was made in accordance with Government Regulation Number 46 of 2013, which was intended to simplify taxes. The expansion of the capital market, which acts as a source of finance for firms, is another component of the measures that are being made to encourage economic growth (Wardhana et al., 2024). For the sake of accomplishing this aim, the government provides tax advantages to domestic corporate taxpayers, with a special emphasis on public firms. This is controlled by Article 17 paragraph 2b of Law No. 36 of 2008, which was passed in 2008. Because public firms that are listed on the Indonesian Stock Exchange and have a share ownership of forty percent are eligible for a reduction of five percent in the tax rate, the effective tax rate for these companies is twenty percent. According to Wardhana et al. (2022), the modifications made to the effective tax rate have resulted in the creation of chances for businesses to avoid paying taxes. This has led to the development of tax management methods that aim to minimize tax payments while still adhering to the legal mandates.

There is a conflict of interest between the government and the corporations, according to the agency theory that was developed by Jensen and colleagues in 1976. On the one hand, the government wants businesses to pay high taxes, while businesses, on the other hand, want to pay as little tax as possible since it will cut into their earnings. Taxes are viewed as a burden by businesses because they reduce the amount of net profits they generate. Tax planning refers to the process by which corporations, which are considered to be taxpayers, will look for ways to lower the amount of taxes they owe. According to Ivanda et al. (2024), tax planning is the initial stage of tax management. During this stage, tax rules are compiled and analysed in order to provide the business with the ability to select the most effective methods for reducing its tax burden. The primary objective of tax planning is to reduce the amount of taxes that are owed. In order to decrease, postpone, or even eliminate their tax bills, businesses are expected to implement aggressive tax planning tactics, according to Rego, S. O. and Wilson (2011). This demonstrates that firms are hesitant to pay taxes because they do not get an immediate return on their investment in the form of tax revenue. According to Puti and Lautania (2016), the laws allow for the use of tax planning tactics with the intention of lowering the total amount of taxes that are owed. Companies would push their management to priorities things relating to taxes in order to lower the amount of tax obligations they are responsible for paying. When it comes to tax planning, it is normal practice for businesses to participate in activities that help them lawfully decrease their tax payments. However, there is also the possibility of doing so in an illegal manner, such as through tax evasion, which, according to Alkausar et al.'s research from 2020, entails the use of illegal means in order to cut or eliminate taxes.

According to Salsabila and Kurnia (2023), businesses may take advantage of loopholes in tax legislation in order to satisfy their tax duties or participate in transactions exclusively for the goal of avoiding paying taxes. This is a legal strategy that may be used to dodge tax obligations. At PT, the phenomena that was noticed. In the year 2015, Indofood Sukses

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Makmur Tbk. was investigated for possible involvement in a tax evasion case that involved a total amount of Rp. 1.3 billion. PT was the one who presented the problem. In order to broaden its scope of activities, Indofood founded a new company and transferred the assets, liabilities, and operations of its noodle division to PT. Indofood CBP Sukses Makmur. This included the transfer of instant noodles and a seasoning facility. The business increased its activities in order to lower the amount of taxes it was required to pay. On the other hand, in spite of this increase, the Directorate General of Taxes decided that PT. However, Indofood was still obligated to pay the Rp. 1.3 billion in taxes that were owing to the government. The problem develops when businesses make an effort to lessen their tax responsibilities, which leads to disparities between the tax burden that is computed in compliance with the law and the figures that are reported in their financial accounts. According to Suandy (2019), a significant number of businesses continue to violate their tax duties by engaging in tax avoidance and evasion for the purpose of lowering the amount of tax that they are obligated to pay.

Another example of tax avoidance in Indonesia involves a company in the health services sector affiliated with a company in Singapore, PT Rajawali Nusantara Indonesia (PT.RNI). PT RNI is suspected of carrying out tax avoidance, despite having a lot of activities in Indonesia, including in Jakarta, Solo, Semarang, and Surabaya. The common method is for companies or individuals to enter a country's territory for purposes other than work, like tourism. PT RNI is an example of this. What makes this case interesting is the variety of methods used, from administrative tricks to activities designed to avoid tax obligations. As a business, PT RNI is registered as a limited liability company, but in terms of capital, the company relies on debt from affiliates. This means the owner in Singapore provides a loan to RNI in Indonesia. Instead of investing capital, the owner gives it as debt, and when the debt is repaid, the interest is treated as a dividend by the owner in Singapore. By treating the capital as debt, which reduces taxes, the company can essentially avoid its obligations. This is especially true if its financial report shows significant losses. In PT RNI's 2014 financial report, the company recorded debt at Rp 20.4 billion, while its turnover was just Rp 2.178 billion. The same report also showed a loss of Rp 26.12 billion. From a financial report perspective, this no longer makes sense. (Kompas.com) The company's effective tax rate is often used as a reference by decision makers and stakeholders to make policies in the company and draw conclusions about the company's tax system (Desai & Dharmapala, 2007). The tax rate in the tax law is a fixed tax rate, while the effective tax rate is the amount of tax paid by the company relative to gross profit. The effective tax rate shows the proportion or percentage of the tax burden borne by the company against profit before tax. This is interesting because every company that has a gross turnover or sales of more than IDR 50 billion is subject to the same tax rate, which is 25% of the company's taxable income. However, when compared to profit before tax/accounting profit, the company will show a different percentage for each company. Thus, the effective tax rate can be used to measure effective tax planning because the effective tax rate measures the amount of tax borne by the company against profit before tax/accounting profit so that the company can find out the performance of its tax management (Neuman et al., 2013).

Based on the definition provided by Firmansyah and Bahri (2022), capital intensity refers to the degree to which a business's operations are financed or funded, as well as the manner in which the firm invests in fixed assets and inventories. The findings of a study conducted by Rinaldi and colleagues (2023) suggest that the effective tax rate is negatively

impacted by the level of capital intensity. Based on this, it can be deduced that businesses that possess a greater amount of fixed assets typically have a smaller tax burden, and vice versa. On the other hand, Cahyo and Napisah (2023) report a conclusion that is paradoxical, demonstrating that businesses that have a greater amount of fixed assets are subject to a greater tax burden. This is in line with the agency hypothesis that was developed by Jensen et al. (1976), which implies that managers can use the depreciation of a firm's fixed assets to lower the amount of tax burden that the company is subject to. The interests of corporate owners, who often place a higher priority on the expansion of their assets over the long term, are not aligned with this, which might increase the likelihood of conflicts of interest occurring. Specifically with regard to the management of fixed assets and the optimization of taxes, the agency theory proposes that the connection between the owner (principal) and the manager (agent) is not always completely matched (Jensen et al., 1976). This is especially true in situations when the principle is the owner of the business. Capital intensity does not appear to have a major impact on the effective tax rate, according to the findings of other research, such as that which was carried out by Syamsuddin and Suryarini (2019) and Firdaus and Poerwati (2022). The owners and managers of the company have different goals, which leads to different research outputs. This disparity may be linked to the ownership and management of the company. Therefore, the link between capital intensity and the effective tax rate can be influenced by variables that are internal to the firm, such as management tactics and tax management objectives.

There is a possibility that the ownership structure of the firm will have an effect on the effective tax rate. According to Nordiansyah et al. (2022), when ownership is vested in management entities, there is a tendency to adopt tactics that aim to reduce the company's tax liabilities over an extended period of time. This is a hypothesis that has been increasingly prevalent in recent years. The incentive to manipulate earnings (such as increasing profits or decreasing tax burdens) is decreased when managerial ownership is larger (Jian et al., 2012). In situations like these, managers are more likely to strive to maximise the value of the firm. On the other hand, when institutional investors are the owners of the company, the effect on tax payments may emerge in a different way. According to Zainuddin and Anfas (2021), institutional shareholders often push corporations to follow a more tax-aggressive approach, with the objective of maximizing earnings and cash flows after taxes has been taken into account. It is possible for managers to feel pressured to make decisions that would boost short-term profitability when there is such a strong emphasis placed on short-term success. Because it exposes the underlying conflict of interest between institutional owners, who prioritise short-term gains, and managers, who are frequently more concerned with the company's long-term stability (Badertscher et al., 2013), agency theory provides a framework for understanding this dynamic. This is because it highlights the inherent conflict of interest between the latter. According to Ma'ruf and Murwaningsari (2022), this mismatch is one of the factors that leads to the observed diversity in the manner in which the ownership structure effects the effective tax rate of the firm.

When it comes to the effective tax rate (ETR), it is feasible that fiscal loss compensation might have an effect on the rate. Typically, the effective tax rate (ETR) is a measure of the fixed disparity that exists between the earnings that have been reported (book profits) and the profits that have been realised by the government. According to the findings of S. Dyreng et al. (2018), there is a positive correlation between the ETR and the amount of earnings, as well as the fiscal loss compensation. Every business is vulnerable to a variety

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of dangers, the extent of which is mostly determined by the calibre of the leadership that the firm possesses during its existence. One of the most important factors that determines the overall risk profile of a company is the capacity of its executives to make rational decisions that are in line with the strategic goals of the organization. In this sense, the activities of corporate executives can considerably impact the amount to which the firm may engage in tax evasion (S. D. Dyreng et al., 2010). Managers are considered to be agents within the framework of agency theory (Jensen et al., 1976), and they are tasked with the job of supervising the management of the resources that are owned by the organization. These kinds of actions frequently include the use of fiscal loss compensation, which assists to reduce the estimated tax rate (ETR). This has the potential to result in shareholders having a more favorable assessment of the company's financial performance. According to Karundeng et al. (2022), this finding is in line with the idea that managers want to lower their tax liabilities in order to increase their net income. On the other hand, if managers take a position that is unduly aggressive with regard to tax evasion, there is a possibility that they may come into dispute with the government or regulators, which may have negative repercussions for the long-term interests of shareholders. Individuals who hold leadership positions in bigger firms can be classified as either risk-taking or risk-averse, according to Low (2006). There is a correlation between individuals who are willing to take risks and those who are willing to take risks, especially those linked to tax evasion. Consequently, people who are more risk-taking are likely to have a higher effect on tax evasion tactics than those who are more careful to avoid potential consequences.

In point of fact, as was demonstrated by the discussion that came before it, this research is riddled with gaps. Institutional ownership has been shown to have a negative and considerable influence on the effective tax rate, as demonstrated by the research carried out by Ma'ruf and Murwaningsari (2022) and Rinaldi et al. (2023). On the other hand, Zainuddin and Anfas (2021) found that institutional ownership did not have any impact on tax evasion. Furthermore, Rinaldi et al. (2023) shown that fiscal loss compensation has a significant and detrimental impact on tax evasion when it is applied. According to Karundeng et al. (2022), on the other hand, fiscal loss compensation does not have a major influence on tax aggression. Furthermore, Rinaldi et al. (2023) and Zainuddin & Anfas (2021) indicated that capital intensity has a considerable negative affect on the effective tax rate. This was proved by the data presented in both of these studies. However, this is not confirmed by the findings of Firmansyah and Bahri (2022), who argued that the effective tax rate is not affected by the capital intensity of an organization.

It is possible that the introduction of a moderating element, such as business risk, may assist to either enhance or decrease the correlations between these factors. This would clear up any confusion that may have arisen. According to the findings of this research conducted by Jalan et al. (2016), business risk serves as a moderating variable that has the potential to either significantly increase or significantly decrease the influence of capital intensity, ownership structure, and fiscal loss compensation on the effective tax rate. According to Alnajjar (2015), business risk comprises a variety of variables that have an impact on the stability and financial success of a firm. These risks include things like swings in the market, competition, and regulatory uncertainty. This study has the potential to give a more in-depth understanding of the effect that both internal and external variables have on tax decisions (Drake et al., 2019). This is because it takes into account the risk that businesses face. According to Guenther et al. (2013), in the case that the level of business risk is increased,

it is probable that businesses may seek more aggressive tax avoidance tactics with the intention of minimizing their tax burden and protecting their profits. On the other hand, when the economic situation is more stable, businesses could be less likely to take on the risks that are involved with aggressive tax evasion tactics. There is a correlation between the variations in company risk and the personality of the CEO, with a higher degree of corporate risk suggesting a stronger tendency to take risks. Consequently, in order to reduce the amount of tax liability that the firm is responsible for, these executives are more likely to take on higher risks. In contrast, lower levels of business risk are indicative of a greater aversion to risk on the part of the leadership, and hence, a reduced likelihood of engaging in risky tax evasion practice. This finding is consistent with the findings that Safii and Sahara (2024) came to, which said that tax evasion is influenced by the risk that corporations face.

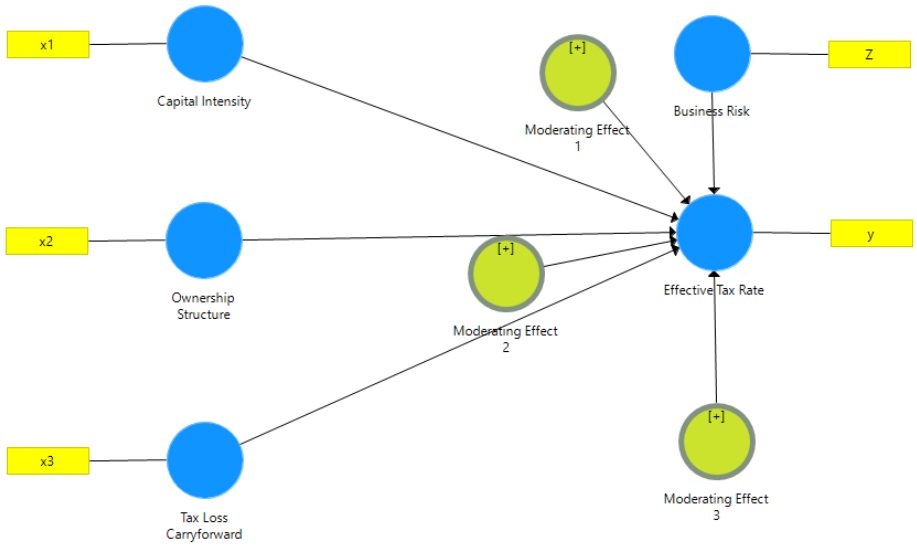

Figure 1. Conceptual Framework

METHOD

In this study, a quantitative approach will be utilized, and the philosophical principles that underpin positivism will serve as the foundation. A quantitative approach is utilized as the study methodology, with the primary focus being placed on the examination of numerical data that has been processed through the application of statistical techniques (Arikunto, 2019). When seen through the lens of business risk as a moderating variable, the purpose of the study approach is to investigate the influence that capital intensity, ownership structure, and fiscal loss compensation have on the effective tax rate. A total of 145 manufacturing enterprises that are listed on the IDX are included in the population that is the subject of the study. The sample was comprised of 23 manufacturing businesses that were selected using the process of purposive sampling. These companies were listed on the IDX and were in the staples retailing and beverage sub-sector. Using the Indonesia Stock Exchange (IDX) website (www.idx.co.id), the data were obtained from financial reports and reports from independent auditors. These reports were obtained from the IDX from where the data were obtained. PLS-SEM is the technique of analysis that is utilized, and it consists of two models: an outer model that is a measurement model, and an inner model that is a structural model. Validity is evaluated in the measurement model by means of convergent validity and

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discriminant validity, with a rule of thumb (>0.5 or >0.7) helping to determine the level of validity. The composite reliability and Cronbach's alpha (both greater than 0.6 and greater than 0.7) are used to evaluate dependability (Ghozali., 2018). The structural model incorporates hypothesis testing to ascertain the significance of the relationships between variables (t-statistic greater than 1.64 or greater than 1.96, p-value less than 0.01; less than 0.05; less than 0.10). Additionally, the moderation effect is examined by analyzing the R-square and effect size (0.02, 0.15, 0.35) to determine the degree of moderation. (Sugiyono., 2019).

RESULTS AND CONCLUSIONS

Based on the descriptive statistical data, it can be observed that the Business Risk variable exhibits a mean value of 0.000, a median value of 0.083, a minimum range of -6.506 to a maximum of 6.854, and a standard deviation of 1.000. These values show that there is a significant degree of variance in risk amongst different organizations. According to the Capital Intensity metric, the proportion of fixed assets in the corporate structure has a mean value of 0.000 and a median value of 0.011. The smallest value is -1.980, and the greatest value is 1.839. The standard deviation is 1.000, and the range of values is that. This suggests that the data are distributed in a somewhat equal manner.

The Effective Tax Rate (ETR) has a range that extends from -9.027 to 3.505 with a standard deviation of 1.000. The average ETR is 0.000, and the median ETR is 0.169. The difference between the two is significant. This suggests that there is a significant degree of diversity in the effective tax rates of firms, which may be a reflection of disparities in tax evasion methods or fiscal policies employed by governments. There is no difference between the mean and median values for Ownership Structure, which is a measure of the share ownership composition. Both of these values are equal to zero. The lowest possible value is -1.194, and the highest possible value is 1.529. It is also true that the standard deviation is equal to one. This suggests that there are businesses that have varying degrees of institutional or management ownership based on their ownership structure. In the meanwhile, the median value of tax loss carryforward is -0.611, while the mean value of tax loss carryforward is 0.000. With a standard deviation of 1.000, the least value is -0.611, and the largest value is 1.637. The standard deviation is also an average. These numbers illustrate that there are significant variations in the amount to which businesses are able to carry forward tax losses. In conclusion, the data exhibit a significant amount of heterogeneity across all variables, which indicates that there are noteworthy variations across firms in terms of business risk, capital intensity, tax policy, ownership structure, and the utilization of tax loss compensation.

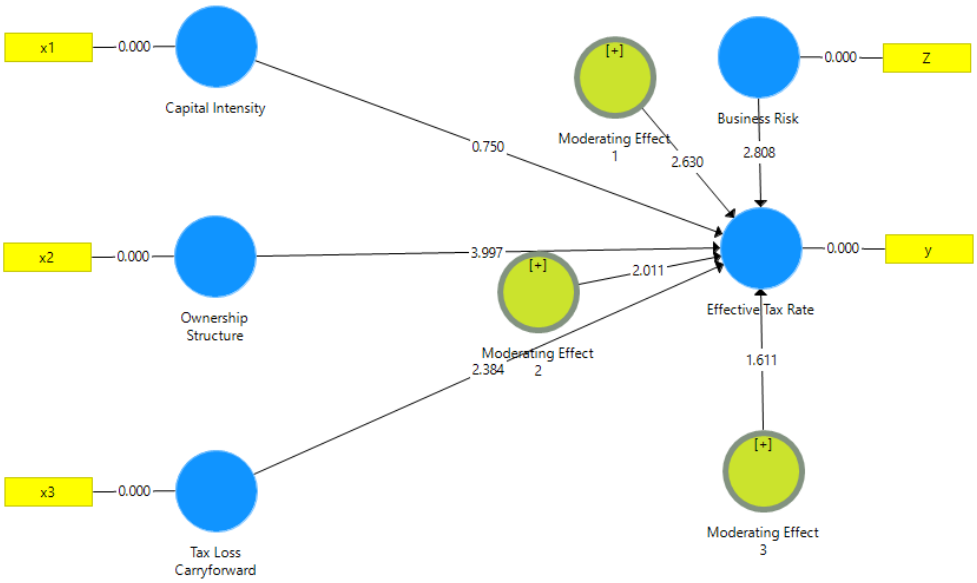

Figure 2. Bootstrapping Test
Source: SEM processing, 2024

The diagram depicts the interrelationships between capital intensity (x1), ownership structure (x2), and tax loss carryforward (x3) with the effective tax rate (y), with business risk (z) acting as a moderating variable. The diagram illustrates the complex interactions between the proportion of fixed assets (capital intensity), ownership composition, and the ability to carry forward tax losses on the effective tax rate. Business risk moderates these relationships, with higher risk potentially leading companies to adopt more aggressive tax avoidance strategies, while lower risk may encourage more conservative approaches. This highlights the intricate relationships between these variables in determining corporate tax behavior.

Table 1. Path Coefficient Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Business Risk -> Effective Tax Rate	0.916	1.106	0.326	2,808	0.005
Capital Intensity -> Effective Tax Rate	-0.119	-0.097	0.159	0.750	0.454
Moderating Effect 1 -> Effective Tax Rate	0.899	0.861	0.342	2,630	0.009
Moderating Effect 2 -> Effective Tax Rate	-0.817	-0.633	0.406	2.011	0.045
Moderating Effect 3 -> Effective Tax Rate	-0.729	-0.595	0.452	1,611	0.108
Ownership Structure -> Effective Tax Rate	0.289	0.253	0.072	3.997	0.000
Tax Loss Carryforward -> Effective Tax Rate	0.276	0.194	0.116	2.384	0.018

Source: SEM processing, 24

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According to the statistical findings, with a coefficient of 0.916, T-Statistics of 2.808, and P-Values of 0.005, the link between Business Risk and Effective Tax Rate has a positive and substantial effect. This is supported by the fact that the T-Statistics value is more than or equal to 1.96, and the P-Values value is less than or equal to 0.05. A coefficient of -0.119, T-Statistics of 0.750, and P-Values of 0.454 indicate that the association between Capital Intensity and Effective Tax Rate is not significant. This is the case despite the fact that the coefficient is negative. There is a considerable strengthening of the association between Capital Intensity and Effective Tax Rate as a result of business risk moderation, with a coefficient of 0.899, T-Statistics of 2.630, and P-Values of 0.009 (Moderating Effect 1). On the other hand, business risk moderation weakens the relationship between Ownership Structure and Effective Tax Rate, with a coefficient of -0.817, T-Statistics of 2.011, and P-Values of 0.045 (Moderating Effect 2), but does not significantly moderate the relationship between Tax Loss Carryforward and Effective Tax Rate, with a coefficient of -0.729, T-Statistics of 1.611, and P-Values of 0.108 (Moderating Effect 3). A coefficient of 0.289, T-Statistics of 3.997, and P-Values of 0.000 indicate that the relationship between Ownership Structure and Effective Tax Rate is significant. Similarly, the relationship between Tax Loss Carryforward and Effective Tax Rate is also significant, with a coefficient of 0.276, T-Statistics of 2.384, and P-Values of 0.018. Both of these relationships are significant.

Table 2. Determinant Coefficient Test

	R Square	**R Square Adjusted**
Effective Tax Rate	0.742	0.731

Source: SEM processing, 24

Using the independent and moderating factors in the model helps one to explain 74.2% of the variation in the Effective Tax Rate with the R Square value of 0.742. The Adjusted R Square value of 0.731 shows, however, that, given the amount of variables in the model, these factors really contribute 73.1% to the variation in the Effective Tax Rate. The little variation between the R Square and Adjusted R Square values points to a decent performance of this model in non-overfitting explanation of the relationships between variables.

The Capital Intensity variable shows a coefficient of -0.119 with a T-Statistic of 0.750 and P-Values of 0.454. Since T-Statistics <1.96 and P-Values > 0.05, this relationship is not significant. In other words, the proportion of fixed assets in the company's asset structure does not have a significant effect on the effective tax rate. This result suggests that the company's decision to invest in fixed assets does not directly influence the tax burden it bears. In terms of Agency Theory (Jensen et al., 1976), this result can be interpreted as companies not necessarily relying on capital intensity as a tool for managing their tax burden. Agility Theory emphasizes the importance of balanced resource management, including both fixed and current assets, to maintain operational flexibility. Relying too heavily on fixed assets can reduce a company’s ability to adapt to market or regulatory changes, including tax policies. While large investments in fixed assets may offer tax depreciation benefits that reduce taxable income, this study’s results indicate that such benefits are not significant enough to affect the overall effective tax rate. Other factors, like income structure, profit levels, or tax policies, may have a more dominant influence on a company’s tax burden than capital intensity alone. Consequently, companies should consider a more comprehensive tax strategy rather than focusing solely on capital intensity. These findings align with studies by

(Firmansyah & Bahri, 2022), which show that capital intensity has no effect on the effective tax rate, but differ from (Rinaldi et al., 2023), which found a significant negative effect.

The Ownership Structure variable has a coefficient of 0.289 with a T-Statistic of 3.997 and P-Values of 0.000. Since T-Statistics > 1.96 and P-Values < 0.05, this relationship is significant, meaning that the ownership structure has a positive influence on the effective tax rate. These results suggest that strong ownership structures, such as institutional or managerial ownership, play a crucial role in ensuring effective corporate tax compliance. In terms of Agency Theory (Jensen et al., 1976), a solid ownership structure reflects a balance between control and responsibility in managing a company. Institutional or managerial ownership often involves tighter oversight of financial policies, including tax planning. This encourages companies to adopt tax strategies that not only comply with regulations but also support long-term sustainability. Additionally, strong ownership can increase transparency and accountability, minimizing the risk of aggressive tax avoidance practices. Therefore, companies managed by owners who are more actively involved in decision-making tend to adopt a more strategic approach to their tax obligations. This not only ensures compliance with tax regulations but also helps build a good corporate reputation with stakeholders. As a result, a solid ownership structure is key to fostering effective tax management. These findings do not align with (Ma'ruf & Murwaningsari, 2022) and (Rinaldi et al., 2023), who showed that institutional ownership significantly affects the effective tax rate, and contrast with (Zainuddin & Anfas, 2021), who stated that institutional ownership has no effect on tax avoidance.

The Tax Loss Carryforward variable has a coefficient of 0.276 with a T-Statistic of 2.384 and P-Values of 0.018. Since T-Statistics > 1.96 and P-Values < 0.05, this relationship is significant, meaning that fiscal loss compensation positively affects the level of effective tax. This indicates that companies utilizing tax loss carryforwards are better at managing their tax liabilities. From the perspective of Agency Theory (Jensen et al., 1976), fiscal loss compensation can be viewed as a form of smart fiscal risk management. Proper management of tax loss carryforwards allows companies to reduce tax burdens in profitable years by utilizing losses from previous periods. Companies that manage fiscal loss compensation effectively can optimize their tax liabilities, increasing overall financial efficiency. This involvement in tax planning strategies demonstrates a deep understanding of tax regulations and potential savings. Additionally, using fiscal losses as a tool for tax management reflects the company's commitment to long-term fiscal risk management, which can improve financial stability. Therefore, fiscal loss compensation serves not only as a tax-saving mechanism but also as part of a broader strategy to enhance the company's fiscal performance. These findings align with (Rinaldi et al., 2023), which showed that fiscal loss compensation has a significant negative effect on tax avoidance, but contrast with (Karundeng et al., 2022), who found no significant effect on tax aggressiveness.

The results of the analysis show that Business Risk has a coefficient of 0.916 with T-Statistics of 2.808 and P-Values of 0.005. Since T-Statistics > 1.96 and P-Values < 0.05, this relationship is significant, indicating that the higher the business risk faced by a company, the greater the positive influence on the effective tax rate. This could occur because companies with high business risk often experience fluctuations in financial performance, influencing their tax strategies to meet fiscal obligations. High business risk encourages companies to be more cautious in tax planning to mitigate potential losses from economic or market uncertainties. In the Theory of Resilience (Alnajjar, 2015), high business risk is

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viewed as a challenge in managing various company resources. The theory suggests that companies need strong managerial capabilities to maintain operational sustainability amid external pressures, including complex business risks (Safii & Sahara, 2024). Therefore, companies with high risk are likely to adopt more aggressive tax strategies to ensure financial stability. The theory also emphasizes the importance of flexibility in decision-making to navigate business risks. This flexibility allows companies to adjust their cost structures, including tax costs, to stay competitive. Furthermore, high business risk drives companies to focus on operational efficiency and transparency, which can enhance tax compliance and reduce future fiscal uncertainty (Guenther et al., 2013). As such, high business risk motivates companies to optimize strategies that support effective tax rates as part of their efforts to maintain business sustainability (Safii & Sahara, 2024).

The first moderation effect, which assesses the influence of business risk on the relationship between capital intensity and effective tax rate, yielded a coefficient of 0.899 with T-statistics of 2.630 and P-values of 0.009. As the T-statistic is greater than 1.96 and the p-value is less than 0.05, the relationship is significant. This indicates that the moderating effect of business risk strengthens the positive influence of capital intensity on the effective tax rate. This demonstrates that, in circumstances characterized by elevated business risk, the influence of capital intensity on tax outcomes becomes more pronounced, as postulated by Rinaldi et al. (2023). In the context of the theory of instability, this moderating effect can be understood as the company's adaptive response to uncertainty. In the context of elevated business risk, firms may employ a greater proportion of fixed assets (capital intensity) in financial management, including tax strategies. (Rinaldi et al., 2023) posit that an increase in capital intensity during periods of elevated business risk can be viewed as a strategy to stabilize financial resources and optimize the tax structure. This is because fixed assets can reduce tax obligations through depreciation. Consequently, the moderating effect of business risk underscores the potential for firms with substantial fixed assets and elevated business risk to adopt a more proactive approach to tax management.

Moderating Effect 2 -> Effective Tax Rate The second moderation effect, that involves Business Risk in the relationship between Ownership Structure an' effective tax rate, shows a coefficient o' -0.817 wi' T-Statistics o' 2.011 an' P-Values o' 0.045. As T-Statistics > 1.96 an' P-Values < 0.05, the relationship be significant, meaning that business risk weakens the positive influence o' Ownership Structure on the effective tax rate. This suggests that in high business risk conditions, the ownership structure has less impact on tax management, as noted by (Ma'ruf & Murwaningsari, 2022). From the perspective o' Agency Theory (Jensen et al., 1976), when companies face high business risks, a strong ownership structure may not work so well for tax planning. Although institutional or managerial owners can provide stronger tax management, they face greater external pressures like market changes, which can disrupt their decisions. When business risk is high, companies may prioritize survivability or risk minimization over tax optimization. Therefore, the influence of ownership structure on taxes is more evident in stable conditions, whereas in uncertain times, tax planning may become less of a priority. (Safii & Sahara, 2024).

Moderating Effect 3 -> Effective Tax Rate The third moderation effect, the analysis of the relationship between tax loss carryforward and the effective tax rate, with consideration of business risk, indicates a coefficient of -0.729 with T-statistics of 1.611 and P-values of 0.108. Given that the T-statistic is less than 1.96 and the p-value is greater than 0.05, it can be concluded that the relationship is not statistically significant. This implies that business

risk does not have a notable impact on the relationship between fiscal loss compensation and the effective tax rate. (Karundeng et al., 2022) have pointed out that tax strategies related to fiscal losses don't depend on business risk levels. In accordance with the tenets of Resilience Theory, which emphasizes the stewardship of resources and the capacity of firms to withstand external risks, it can be posited that firms may still utilize fiscal loss compensation in an optimal manner, irrespective of the inherent business risk. (Karundeng et al., 2022) posits that the decision to utilize tax losses carryforward is primarily influenced by tax regulations and the firm's intrinsic financial structure, rather than external risks. Consequently, it is not business risk that informs decisions regarding fiscal loss compensation; rather, it is the firm's internal circumstances.

CONCLUSION

In conclusion, the variables "Business Risk," "Moderating Effect 1," "Moderating Effect 2," "Ownership Structure," and "Tax Loss Carryforward" were found to have a significant effect on the effective tax rate. Conversely, the variables "Capital Intensity" and "Moderating Effect 3" were determined to have no significant effect on the effective tax rate. Further research is recommended to investigate additional external factors that may influence the relationship between these variables, such as changes in tax regulations or macroeconomic conditions. The present study is limited by the use of samples drawn from a restricted set of Indonesian companies operating within a specific sector. Consequently, the findings may not be fully generalizable to other sectors. Further research could extend the range of sectors under investigation or employ a more diverse array of analytical techniques to examine the interrelationships between these variables. These findings offer valuable insights for practitioners and policymakers engaged in the formulation of more efficacious tax policies. Companies may wish to consider business risk and ownership structure in their tax planning, while tax authorities may be well advised to devote greater attention to firms that utilize tax loss carryforwards to optimize tax management.

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