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Research Article

Leverage Ratio, Capital Intensity, and Inventory Turnover: Their Influence on the Effective Tax Rate of Textile and Garment Manufacturing Companies (2017–2023)

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Abstract: This study aims to evaluate the impact of debt ratios, capital intensity, and inventory turnover on effective tax rates (ETR) in manufacturing companies in the textile and garment sectors listed on the Indonesia Stock Exchange (IDX) during the 2017–2023 period. The background of this research stems from the urgency of fiscal efficiency to enhance the competitiveness of Indonesia's textile industry, which faces significant challenges from global economic pressures, fluctuating export demands, and increasing production costs. These external factors have pushed companies to seek strategic ways to manage their tax burden without violating prevailing regulations. The research adopts a quantitative approach, employing the Common Effect Model (CEM) in panel data regression, with data derived from 112 firm-year observations across 16 companies selected based on specific criteria. This approach is chosen for its effectiveness in analyzing the influence of multiple variables over time while controlling for company-specific characteristics. The empirical findings reveal that leverage, or debt ratio, does not significantly affect the ETR, suggesting that the use of debt as a tax shield is not effectively utilized or is neutralized by other factors such as regulatory constraints or conservative financial policies. In contrast, capital intensity—measured by the proportion of fixed assets—has a significant negative impact on ETR. This indicates that companies with higher investments in fixed assets can reduce their taxable income through depreciation expenses, making capital intensity a valuable tax planning tool. Meanwhile, inventory turnover shows a significant positive relationship with ETR. Although high inventory turnover generally indicates operational efficiency and strong sales performance, it may also lead to higher taxable income, thus increasing the overall tax burden. This paradox underlines the complexity of aligning operational efficiency with fiscal efficiency in practice.

Keywords: *effective tax rate; leverage; capital intensity; inventory turnover*

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1. Introduction

The manufacturing industry is a vital sector in driving Indonesia's economic growth, where the export value of the textile and garment sub-sector has an important role in the absorption of labor and non-oil and gas exports as presented in the chart below.

Figure 1. Comparison of Textile and Garment Exports in Indonesia and Global in 2013-2023

Source : IFG (2025)

Figure 1. shows a comparison of Indonesia's textile and garment exports with global demand in US Dollar value from 2013 to 2023. Although global demand tends to increase (seen from the scale of billions of US dollars), Indonesia's exports (on the scale of millions of US dollars) appear to be more volatile and not fully in line with global market growth, especially in the 2020-2021 period which experienced a significant decline. This reflects the impact of the COVID-19 pandemic disrupting supply and demand chains, as well as the pressures of exchange rate fluctuations and increasingly fierce global competition. In this regard, fiscal efficiency efforts—such as effective tax burden management—are crucial to reduce operational costs, increase competitiveness, and ensure business continuity in the midst of economic uncertainty. With this strategy, Indonesia's textile and garment industry can be more resilient to challenges while taking advantage of growing global demand growth opportunities.

One of the indicators to assess a company's tax burden is the Effective Tax Rate (ETR), which is the ratio between income tax and profit before tax, which reflects the amount of tax contribution actually paid by the company. The difference between nominal tax rates and ETRs often indicates tax planning efforts, which can be legal or aggressive. Several financial variables are often associated with ETR variations, such as leverage, capital intensity, and inventory turnover. Leverage, which reflects the proportion of debt in the capital structure, affects ETR through a reduction in the tax burden on loan interest (interest tax shield). A study conducted by Darsani & Sukartha (2021) shows that the higher the leverage, the lower the ETR incurred by the company due to the reduction in taxable income.

Capital intensity, which is measured by the proportion of fixed assets to total assets, can also affect ETR. Companies with a high level of capital intensity tend to have a greater opportunity to reduce taxes through depreciation expenses. Research conducted by Mariana et al. (2021) found that capital intensity has a negative influence on ETR because the depreciation of fixed assets can reduce a company's taxable profit, thereby reducing the amount of tax payable. Meanwhile, inventory turnover shows the company's efficiency in managing its inventory. Companies with high turnover inventory are usually more efficient and tend to generate more stable profits. Nevertheless, its impact on ETR is still debated in the literature. Research by Mariani (2024) revealed that inventory turnover does not have a significant effect on ETR because it is not directly related to tax recognition or avoidance policies.

Several other studies have given mixed results. Prabowo & Sahlan (2021) and Safitri & Muid (2020) in their research on manufacturing companies on the IDX found that leverage and capital intensity have a negative effect on ETR, while inventory turnover is not significant. Research by Suryani and Fitriani (2021) strengthens these results by adding that leverage is consistently a tool for managing tax burdens. On the other hand, research by Putra & Kirana (2023) shows that only capital intensity has a significant effect on ETR in the consumer goods industry sector. A study by Dewi (2018) also shows that capital structure (leverage) and long-term investment (capital intensity) are important factors in a company's tax planning strategy. However, inventory turnover tends to have more effect on operational efficiency than fiscal policy. Therefore, it is important to conduct specific tests on the manufacturing sector such as textiles and garments that have their own characteristics.

Companies engaged in textile and garment manufacturing in Indonesia have unique operational characteristics compared to other sectors, such as seasonal fluctuations in demand, dependence on imported materials, and production cost pressures. These characteristics can lead to variations in capital structure, fixed asset investment, and inventory management, ultimately affecting ETRs. Based on the background and inconsistency of previous findings, this study aims to analyze the influence of leverage ratio, capital intensity, and inventory turnover on ETR specifically in manufacturing companies in the textile and garment sector.

2. Literature Review

2.1. Textile and Garment Sector Manufacturing Companies

The textile and garment manufacturing sector plays an important role in the structure of Indonesia's national economy. The sector's prominence lies not only in its ability to create added value through an integrated production chain from upstream to downstream, but also in its contribution to non-oil and gas exports and the provision of jobs. According to data

from the Ministry of Industry in 2022, this industry absorbs more than 3 million workers and accounts for more than 6% of Indonesia's total non-oil and gas exports. The production chain includes various processes such as spinning, weaving, dyeing, confectionery, to the distribution of textile and apparel products. With the existence of this industry in many regions in Indonesia, the textile and garment sector is an important foundation in maintaining socio-economic stability through job creation and increasing regional income.

Nevertheless, while the sector's growth potential is substantial, there are a number of significant structural challenges. Global competition from countries such as Vietnam, Bangladesh, and China makes Indonesian companies have to face high price pressures and increasing demand for product quality. In addition, fluctuations in the price of raw materials such as cotton and synthetic fibers, as well as dependence on the import of auxiliary materials, are external factors that disrupt production stability. Not only that, the low level of adoption of modern technology and automation in several companies also hinders the improvement of product efficiency and competitiveness. In this context, companies are required to not only focus on the production aspect, but also manage the financial aspects more strategically, including in terms of tax burden management.

Tax burden management strategies are an important concern for manufacturing companies in facing cost pressures and maintaining operational efficiency. One of the indicators that reflects the effectiveness of a company's tax strategy is Effective Tax Rate (ETR). ETR provides an overview of how much of a company's tax burden is borne compared to its profit before tax. In an effort to control ETR, companies generally utilize capital structure policies (leverage ratio), efficiency in the use of fixed assets (capital intensity), and inventory turnover effectiveness. Tax management through the influence of these variables is one of the approaches used by companies to improve fiscal efficiency and strengthen their financial position.

2.2. Effective Tax Rate (ETR)

Effective Tax Rate (ETR) is an indicator used to measure the proportion of income tax burden paid by a company compared to profit before tax.

$$ETR = \frac{Income\ Tax\ Expense}{Earnings\ Before\ Tax} \quad (1)$$

In practice, the value of ETR often differs from the official tax rate due to various tax policies and strategies implemented by the company. This difference can reflect the existence of legal tax planning activities, or even an indication of aggressive tax avoidance. The lower the ETR value compared to the applicable tax rate, the more likely it is that companies will take advantage of regulatory loopholes to minimize the tax burden. Due to its quantitative nature and can be measured directly from financial statements, ETR is one of the commonly used indicators in accounting and tax management research to evaluate the level of tax compliance of an entity.

In Indonesia, ETR has an increasing relevance as tax reform and fiscal supervision system are strengthened. The government through the Directorate General of Taxes (DGT) is working to improve the audit system with a risk-based approach, where indicators such as ETR are used to identify companies with a high risk of non-compliance. Research by Panda and Nanda (2020) shows that ETR can be used as a measurement tool to detect potential tax avoidance in various strategic sectors, including the manufacturing sector that has complex operational and financial characteristics. Thus, a deep understanding of ETR can assist regulators in designing more adaptive and data-driven tax policies, while improving the effectiveness of fiscal supervision of corporate tax reporting.

For companies and investors, ETRs also have an important role in strategic decision-making and risk assessment. For management, ETR is a reflection of the effectiveness of tax burden management strategies and efficiency in utilizing available fiscal incentives or policies. Meanwhile, for investors, ETR can be used as an indicator of transparency and good corporate governance, because the value of ETR that is too low or inconsistent can raise suspicion of aggressive tax avoidance practices. Therefore, understanding the factors that affect ETR, such as leverage, capital intensity, and inventory turnover, is crucial in analyzing a company's financial performance and tax compliance as a whole. With the integration of ETRs into performance appraisal and oversight systems, both internal management and external regulators can be more responsive in identifying and addressing emerging tax risks.

2.3. Leverage

Leverage refers to the use of borrowed funds (debt) to finance a company's assets in the hope of generating higher profits that the Debt to Equity Ratio (DER) uses.

$$DER = \frac{Total\ Liabilities}{Total\ Equity} \quad (2)$$

The DER ratio shows the proportion of a company's funding derived from debt compared to its own capital. The higher the DER, the greater the level of the company's dependence on external financing. In the context of financial management, the use of debt has two sides: on the one hand it can increase profitability due to the profit-multiplier effect, but on the other hand it increases financial risk if it is not balanced with adequate repayability.

Leverage has direct relevance to the Effective Tax Rate (ETR) because debt interest is a deductible expense from taxable profits (tax deductible). A study by Firmansyah et al. (2021) revealed that companies that have high debt levels typically experience lower ETRs because interest expenses reduce taxes payable. The management can use the capital structure strategy as a tax planning tool to reduce the tax burden. On the other hand, excessively high leverage can attract the attention of tax authorities and increase audit risk, so companies tend to limit their tax aggressiveness.

In the context of manufacturing companies in the textile and garment sector, leverage is a strategic factor due to the characteristics of this sector which is capital-intensive and susceptible to fluctuations in operational costs. Therefore, the analysis of the relationship between DER and ETR becomes important to understand how a company's financing structure impacts fiscal efficiency.

H1: "Leverage Ratio Has a Significant Effect on the Effective Tax Rate in Textile and Garment Manufacturing Companies"

2.4. Capital Intensity

Capital Intensity refers to the level of use of fixed assets or productive assets in the company's operational activities. The larger the investment allocation in fixed assets, the higher the level of capital intensity owned by the company. The commonly used measure to describe the level of capital intensity is the Capital Intensity Ratio (CIR), with the following formula:

$$CIR = \frac{Total\ Asset}{Sales} \quad (3)$$

This ratio indicates how many assets a company needs to generate a single unit of sales. The manufacturing industry, including textiles and garments, is generally a capital-intensive sector because it relies on machinery, factories, and production facilities on a large scale. Thus, the CIR ratio is important in assessing the efficiency of asset use and the company's operational strategy.

Capital intensity is also closely related to tax expenses, because companies that have a large amount of fixed assets have the potential to obtain fiscal benefits through depreciation expenses, which are tax deductible. According to a study by Darsani & Sukartha (2021), companies with high capital intensity tend to have a lower Effective Tax Rate (ETR) because the depreciation of fixed assets can reduce taxable profits. The same thing was also expressed by Feni. (2024), which states that the intensity of fixed assets provides a gap for management to carry out legitimate tax planning. In addition, research by Apridila et al. (2021) found a negative relationship between CIR and ETR in manufacturing companies in Indonesia, showing that investment in fixed assets is often used as a means of fiscal efficiency.

In the context of manufacturing companies in the textile and garment sector, capital intensity is an integral aspect of business models and cost structures. Textile companies need advanced machines for spinning, dyeing, and confectionery, which has an impact on the high value of fixed assets. So the higher the CIR, the greater the opportunity to reduce the tax burden through depreciation and other tax efficiencies.

H2: "Capital Intensity Has a Significant Effect on the Effective Tax Rate in Textile and Garment Manufacturing Companies"

2.5. Inventory Turnover

Inventory Turnover (ITO) is a financial ratio used to measure how efficiently a company manages its inventory in a given period.

$$ITO = \frac{Cost\ of\ Goods\ Sold\ (COGS)}{Average\ Inventories} \quad (4)$$

This ratio shows how often inventory is converted into sales in a period. The higher the ITO value, the faster the inventory rotation, which reflects the efficiency of operational management and production cost control. In the textile and garment manufacturing industry oriented towards mass production and high volume, ITO is a key indicator to assess the smooth production activities and the effectiveness of working capital use.

In the context of taxation, Inventory Turnover plays a role in determining the amount of profit before tax, which directly affects the Effective Tax Rate (ETR). Companies with high ITO generally have a good level of operational efficiency, so they are able to reduce the burden of production costs and increase profitability. However, increased efficiency can also have an impact on increasing taxable profits, thus affecting the size of ETR. A study by Gita et al. (2021) shows that a high inventory turnover is directly proportional to an increase in ETR, as the profits generated are relatively larger. Meanwhile, companies with efficient inventory management are actually better able to manage taxes through optimal recognition of cost of goods sold and other costs. In the textile and garment industry, inventory management efficiency is a major challenge due to the rapidly changing types of raw materials, product models, and fashion cycles. Therefore, the ITO ratio plays a role not only in operational management, but also in tax planning.

H3: "Inventory Turnover Has a Significant Effect on the Effective Tax Rate in Textile and Garment Manufacturing Companies"

Based on the development of the above hypothesis, the research framework was obtained including the following:

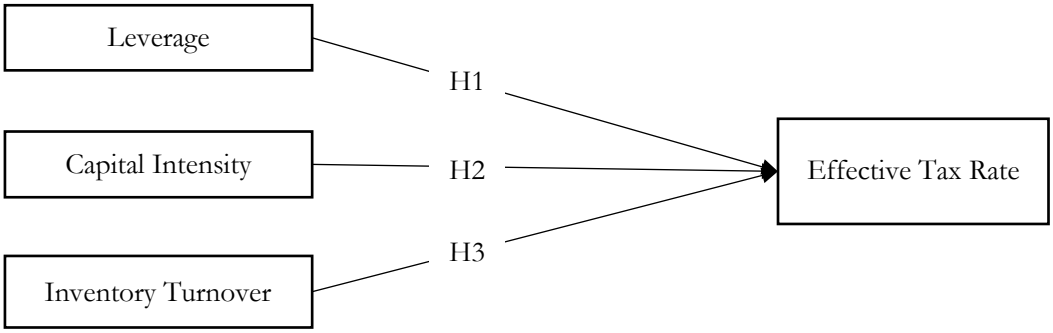

Figure 2. Research Framework

3. Research Methodology

This study adopts a quantitative-descriptive approach with the aim of describing the phenomenon that is studied systematically and measurably based on numerical data. This approach allows researchers to elucidate the relationships between variables with the support of strong statistical data. In this context, the data obtained is not only described descriptively, but also analyzed inferentially to find out the significant patterns and influences between free and bound variables. The quantitative approach also allows the results of the research to be tested for validity and reliability more objectively using statistical software.

The main analysis technique used in this study is panel data regression, which is a method that combines cross-section data from several companies and time series data from the period 2017 to 2023. The use of panel data provides a significant advantage over ordinary regression models because it is able to observe the dynamics of changes between time while controlling variations between individual units (companies) that may be heterogeneous. In other words, this model allows researchers to obtain more efficient and unbiased parameter estimates, as well as being able to capture fixed and random effects that may appear during the observation period.

In terms of sample selection, this study uses purposive sampling techniques, which are non-probability methods that are based on certain considerations and criteria relevant to the purpose of the study. This criterion is structured so that only companies that have

characteristics according to the research topic involved in the analysis, for example, companies that have complete financial data for the period 2017–2023, are actively listed on the exchange, and have the information needed for the measurement of research variables. With this approach, researchers can ensure that the data collected is of sufficient quality to be analyzed, so that it can produce accurate and relevant findings in answering research questions. The sample selection criteria are shown in the following table.

Table 1. Sampling Criteria

Sample Selection Criteria	Sum
Total Population of Manufacturing Companies on the IDX	195
Companies in the textile and garment sector	21
Companies listed on the IDX before 2017	17
Companies with complete financial statements (2017–2023)	16
Research year (7 years: 2017–2023)	7
Total Observations (16 companies × 7 years)	**112**

The data source used in this study is secondary data obtained through the company's annual financial statements downloaded from the official website of the Indonesia Stock Exchange (www.idx.co.id) and the official website of each company. The data collected includes information on total debt, total equity, total assets, sales, cost of goods sold (COGS), average inventory, current tax expense, and profit before tax. The analysis of the relationship between variables was carried out using panel data regression with the CEM, FEM, and REM approaches, as well as the selection of the best models through the Chow, Hausman, and LM tests. Data processing used EViews 12 to test significance, regression coefficient, and determination value (R^2).

4. Results And Discussion

4.1. Model Selection

In panel data analysis, the selection of the right model is essential to produce accurate and valid estimates.

Table 2. Model Selection

Testing	Prob.
Chow	0.8337
Hausman	0.8691
Lagrange Multiplier	0.1967

Source : Data processed by EViews (2025)

The results of the model testing in this study show that the Common Effect Model (CEM) approach is the most appropriate model to be used in panel data regression analysis. The first test conducted was the Chow Test, which yielded a probability value of 0.8337 (> 0.05). This value indicates that there is no significant difference between the CEM and FEM models, so there is no urgency to use FEM. Thus, CEM is considered representative enough to describe the relationship between variables in this study at an early stage.

Next, the Hausman Test was performed to compare FEM and REM, which resulted in a probability of 0.8691 (> 0.05). The results of this study indicate that REM does not show any significant advantages when compared to FEM, and thus REM is considered more efficient in this context. However, to ascertain whether REM is better than CEM, a Lagrange Multiplier (LM) Test is used. This test showed a probability value of 0.1967 (> 0.05), which means that there is no significant difference between REM and CEM. Therefore, because there is no significant advantage of FEM or REM, the most suitable and efficient model in explaining the relationship between variables in this study is the Common Effect Model (CEM). This decision is based on the principle of parsimony, which is to choose the simplest model but still be able to explain the phenomenon well.

Dependent Variable: ETR
Method: Panel Least Squares
Date: 05/11/25 Time: 15:10
Sample: 2017 2023
Periods included: 7
Cross-sections included: 16
Total panel (balanced) observations: 112

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.157351	0.084503	1.862078	0.0653
CIR	-0.005900	0.002655	-2.222160	0.0284
ITO	0.066013	0.011303	5.840055	0.0000
LEV	6.21E-05	0.000208	0.298746	0.7657

Root MSE	0.705415	R-squared	0.283252
Mean dependent var	0.371268	Adjusted R-squared	0.263343
S.D. dependent var	0.836969	S.E. of regression	0.718360
Akaike info criterion	2.211369	Sum squared resid	55.73243
Schwarz criterion	2.308458	Log likelihood	-119.8367
Hannan-Quinn criter.	2.250761	F-statistic	14.22688
Durbin-Watson stat	2.203209	Prob(F-statistic)	0.000000

Source : Data processed by EViews (2025)

Figure 3. Common Effect Model (CEM) Data Regression Output Results

Based on the output results presented in figure 3, the Common Effect Model (CEM) Panel Data Regression Equation estimate is obtained as follows:

$$ETR = 0{,}157 - 0{,}006CIR + 0{,}066ITO + 0{,}00006LEV$$

Information:
ETR : *Effective Tax Rate*
CIR : Capital Intensity Ratio
ITO : Inventory Tunover
LEV : Leverage

Based on the above regression equation estimation, it is obtained:

1. The Intercept constant of 0.157 indicates that if Capital Intensity (CIR), Inventory Turnover (ITO), and Leverage (LEV) are zero, then the Effective Tax Rate (ETR) is estimated to be 15.7%. This becomes the baseline of effective tax burden when there is no influence from independent variables.
2. Capital Intensity (CIR) has a coefficient of -0.006, which means that every increase of 1 unit of CIR (Total Assets/Sales) will decrease the ETR by 0.6 percentage points. This shows that companies with relatively high fixed assets are able to reduce the tax burden through depreciation or tax incentives on fixed asset investments.
3. Inventory Turnover (ITO) has a positive influence with a coefficient of 0.066, which indicates that any increase in inventory turnover efficiency by 1 unit can increase the ETR by 6.6 percentage points. This can be interpreted that the more efficient the inventory management, the greater the potential for profits to be recorded and taxed.
4. Leverage (LEV) has a very small coefficient of 0.00006, which shows a positive but very weak influence on ETR. This suggests that an increase in the debt-to-equity ratio has only a minimal effect on changes in the effective tax burden, and contradicts the traditional theory that leverage can suppress ETR through a tax deduction on loan interest.

4.2. Hypothesis Testing

This test is based on a t-calculated value compared to the t-table of 1.982 at a significance level of 5% with a degree of freedom of 110, and is supported by a p-value.

Table 3. CEM Model Data Regression Hypothesis Hypothesis Testing

Hipotesis	t count	P-Value	Results
H1	0.29875	0.766	Rejected
H2	-2.2222	0.028	Accepted
H3	5.84005	0.000	Accepted

Based on the results of the CEM model panel data regression test, only H2 and H3 were accepted because they had a p< value of 0.05, while H1 was rejected because the p> value was 0.05. This shows that capital intensity and inventory turnover have a significant effect on ETR, while leverage does not. This finding implies that efficiency in inventory turnover actually increases taxable profits, thereby increasing the amount of tax that must be paid.

4.3. Coefficient of Determination (R^2)

The coefficient of determination (R^2) used in Adjusted R-squared because the model involves more than one independent variable, thus providing a more accurate measure than regular R-squared.

Table 4. Result Coefficient of Determination (R^2)

Adjusted R-squared	0.26334

The Adjusted R-squared value of 0.26334 in this model shows that the independent variables used, namely Leverage, Capital Intensity, and Inventory Turnover, are able to explain around 26.33% of the variation that occurred in the Effective Tax Rate (ETR) of manufacturing companies in the textile and garment sectors during the 2017–2023 period. This means that this regression model has a moderate level of compatibility, with the contribution of independent variables that are quite relevant in explaining the fluctuations in the company's effective tax burden. Although this figure is not high, it still provides important information that these three variables collectively have an influence on tax management practices in the industry studied.

However, there are still around 73.67% of ETR variations that cannot be explained by this model, which suggests that there are other factors beyond the variables of leverage, capital intensity, and inventory turnover that affect the amount of tax burden paid by the company. These factors can include managerial elements such as tax planning strategies, accounting policies, fiscal compliance, to external influences such as changes in tax regulations, government fiscal incentives, or macroeconomic dynamics. Therefore, these results are an indication that in order to gain a more comprehensive understanding of the determinants of ETR, it is necessary to expand the model by adding other variables that are more contextual and in-depth.

4.4. Discussion

4.4.1. The Effect of Leverage on the Effective Tax Rate

The results of the analysis of the first hypothesis indicate that the debt ratio does not have a significant influence on the Effective Tax Rate (ETR) on textile and garment manufacturing companies during the period 2017–2023 (t calculated = 0.29875; p-value = 0.766). These findings are not in line with conventional theories regarding capital structure which states that companies with high levels of leverage will tend to pay lower taxes because the interest burden on debt can be deducted from taxable profits. In the context of accounting management, leverage is typically used as part of a capital cost efficiency strategy, but in the textile and garment sectors, which tend to be labor-intensive and volatile, the effectiveness of leverage in tax management can be limited. This ineffectiveness may also be due to tax regulations that limit interest deductions or the character of industries that rely more on internal financing than long-term debt.

In strategic accounting management practices, the use of leverage must be balanced with liquidity risk control and conservative financing policies, especially in sectors facing fluctuations in global demand and production cost pressures. In addition, the magnitude of debt use in this sector is often not high enough to result in significant tax savings, or companies have established alternative tax planning strategies that are more effective. These results are in line with previous research that found that leverage is not always the main

determinant of ETR in the manufacturing sector (Mulya & Anggraeni, 2022; Firmansyah et al., 2021). As such, the managerial implication of these findings is the need for a thorough evaluation of the capital structure to ensure that leverage actually provides tangible fiscal and operational benefits.

4.4.2. The Effect of Capital Intensity on the Effective Tax Rate

The results of the second hypothesis test show that capital intensity has a negative and significant influence on the Effective Tax Rate (ETR) in companies in the textile and garment sector, with a calculated t-value of -2.2222 and a p-value of 0.028. This means that the higher the capital intensity ratio —which is measured from total fixed assets to sales—the lower the effective tax burden borne by the company. These findings are in line with the tax theory that investments in fixed assets provide potential tax savings through fiscal depreciation mechanisms. This depreciation can significantly reduce taxable profits, without affecting the company's real cash flow. In practice, textile and garment companies that rely on large-scale production machinery and infrastructure tend to benefit fiscally from the depreciation of fixed assets, resulting in a lighter tax burden.

Furthermore, capital intensity is closely related to the asset management system within the framework of managerial accounting, including asset lifecycle control, return on assets (ROA) evaluation, and efficient production capacity planning. When a company increases its investment in fixed assets, accounting management can systematically and consistently manage depreciation expenses, which contributes to a reduction in taxable accounting profits. Thus, a fixed asset investment strategy not only serves to support long-term operational efficiency, but can also be utilized as a legitimate tax planning tool. This is reinforced by previous research which shows that the greater the value of capital intensity, the greater the company's opportunity to suppress ETR through the use of depreciation as a deduction of taxable profits (Saputri, 2024; Sopiani & Syarif, 2024). By making optimal use of the capital intensity structure, companies can reduce fiscal burdens while improving production efficiency. In an era of increasingly fierce global industrial competition, this strategy is important to maintain competitiveness and maintain business sustainability. Therefore, fixed asset management is not only seen as an operational necessity, but also as an important element in financial decision-making that has a direct impact on the company's tax efficiency. This combination of cost efficiency, asset optimization, and tax control is an important foundation in realizing effective and sustainable financial governance.

4.4.3. The Effect of Inventory Turnover on the Effective Tax Rate

The third hypothesis indicates that inventory turnover has a positive and significant impact on ETR in companies in the textile and garment sectors (t count = 5.84005; p-value = 0.000). This means that the higher the efficiency of inventory turnover, the higher the tax burden borne by the company. Although operationally a rapid turnover of inventory is considered an indicator of efficiency, in the context of taxation it actually reflects an increase in volume and profit margins, which leads to an increase in taxable profits. This indicates that companies that are able to manage inventory efficiently will face increased tax liabilities as accrual-based accounting records record higher revenues due to increased sales.

In accounting management, inventory turnover is closely related to production cost management, raw material purchase scheduling, and lean inventory strategy. Efficiency in inventory management allows for a reduction in storage costs, but the resulting increase in operating profit causes the value of ETR to increase as the tax base becomes larger. Studies by Putri & Susanto (2020) and Firmansyah et al. (2021) also found that high operational efficiency is often not balanced with tax avoidance strategies, thus contributing to higher ETRs. Therefore, companies should not only focus on the efficiency of inventory turnover, but also integrate it with fiscal planning and tax incentives for the industrial sector in order to maintain efficiency while managing tax burden optimally.

5. Conclusion

This study found that of the three independent variables analyzed, only capital intensity and inventory turnover had a significant effect on the Effective Tax Rate (ETR), while leverage did not show a significant influence. Capital intensity has a negative relationship with ETR, suggesting that the higher the proportion of fixed assets to sales, the lower the company's effective tax burden due to depreciation benefits. In contrast, inventory turnover has a significant positive relationship with ETR, suggesting that the operational efficiency of inventory management drives increased pre-tax profit and ultimately increases ETR.

These findings have important implications for the management of textile and garment companies. First, financial managers need to optimize investments in fixed assets as a legal strategy of tax planning to lower the ETR. Second, increasing operational efficiency through inventory turnover must be balanced with careful fiscal planning so as not to indirectly increase the tax burden. Third, the decision to fund through debt needs to be reviewed because leverage in this context is not effective as a fiscal efficiency tool, different from conventional theories of capital structure.

This research is limited to financial variables and specific time periods in the textile and garment sector. Further research is suggested to explore other variables such as intangibles, R&D intensity, or the influence of corporate governance on ETR to expand the scope of the model. In addition, comparative studies between industry sectors or cross-border analysis can also provide broader insights into contextual tax efficiency strategies. Mixed-method approaches or longitudinal studies can also enrich the results and validity of future research.

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