

## **The Influence of Capital Intensity, Inventory Intensity and Institutional Ownership on Tax Avoidance With Company Size as Moderation**

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### **ABSTRACT**

*This research aims to examine the influence of capital intensity, inventory intensity, and institutional ownership on tax avoidance with company size as a moderating variable. This research used a sample of 13 manufacturing companies in the primary consumer goods sector listed on the Indonesia Stock Exchange (BEI) during the period 2018 to 2023. Data were analyzed using multiple linear regression and Moderated Regression Analysis (MRA) with the help of the STATA 17 application. The results of the study showed that intensity capital has a negative effect on tax avoidance, while institutional ownership has no effect on tax avoidance. However, inventory intensity does not show a significant influence on tax avoidance. Company size is able to moderate the influence of capital intensity on tax avoidance, but weakens the influence of inventory intensity and institutional ownership on tax avoidance. These findings provide important implications for companies in understanding the factors that influence tax avoidance strategies. Apart from that, this research can be a reference for the Directorate General of Taxes to increase the effectiveness of tax policies in the manufacturing sector.*

**Keywords:** *Tax Avoidance; Capital Intensity; Inventory Intensity; Institutional Ownership; Company Size*

### **ABSTRAK**

Penelitian ini bertujuan untuk menguji pengaruh intensitas modal, intensitas persediaan, dan kepemilikan institusional terhadap *tax avoidance* dengan ukuran perusahaan sebagai variabel moderasi. Penelitian ini menggunakan sampel 13 perusahaan manufaktur sektor barang konsumsi primer yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2018 hingga 2023. Data dianalisis menggunakan regresi linier berganda dan Moderated Regression Analysis (MRA) dengan bantuan aplikasi STATA 17. Hasil penelitian menunjukkan bahwa intensitas modal berpengaruh negatif terhadap *tax avoidance*, sedangkan kepemilikan institusional memiliki tidak berpengaruh terhadap *tax avoidance*. Namun, intensitas persediaan tidak menunjukkan pengaruh signifikan terhadap *tax avoidance*. Ukuran perusahaan mampu memoderasi pengaruh intensitas modal terhadap *tax avoidance*, tetapi memperlemah pengaruh intensitas persediaan dan kepemilikan institusional terhadap *tax avoidance*. Temuan ini memberikan implikasi penting bagi perusahaan dalam memahami faktor-faktor yang memengaruhi strategi penghindaran pajak.

Selain itu, penelitian ini dapat menjadi acuan bagi Direktorat Jenderal Pajak untuk meningkatkan efektivitas kebijakan perpajakan di sektor manufaktur.

**Kata Kunci:** *Tax Avoidance*; *Intensitas Modal*; *Intensitas Persediaan*; *Kepemilikan Institusional*; *Ukuran Perusahaan*

## 1. BACKGROUND

Infrastructure development is one of the Indonesian government's goals in developing the country. Development carried out by the government certainly requires large costs, so the State Revenue and Expenditure Budget needs to be redesigned to support the government's budget needs. In Indonesia, tax revenue is a citizen's obligation as a form of participation in developing the homeland. This will be useful as a source of funding for the country's economy (Widagdo, Kalbuana, & Yanti 2020).

Indonesia is a country whose income is highly dependent on the tax sector. It can be said that taxes are the country's main source of capital in carrying out national development. The role of taxes in state revenues is very important, as evidenced by the fact that state revenues are completely dominated by the tax sector. The following is information on the presentation of tax revenues to state APBN revenues for the last five years (Ministry of Finance of the Republic of Indonesia 2020).

Income and achievements in 2017-2023 are as follows. In 2017 the total APBN target was IDR 1,283.57 trillion, while the actual revenue was IDR 1,151.03 trillion with an achievement of 89.67%. In 2018, the APBN target was IDR 1,424.00 trillion, while actual revenue was IDR 1,424.00 trillion with an achievement of 92.38%. In 2019, the APBN target was IDR 1,557.56 trillion, while actual revenue was IDR 1,332.68 trillion with an achievement of 85.56%. In 2020 the total APBN target was IDR 1,198.82 trillion, while the realized income was IDR 1,069.98 trillion with an achievement of 89.25% and in 2021 the total APBN target was IDR 2,0345 trillion, while the realized income was IDR 1,069. 98 trillion with an achievement of 99.83%. In 2022, the APBN target size is IDR 1,229.60 trillion, while the actual revenue is IDR 1,716.8 trillion with an achievement of 106.3%. In 2023, the APBN target size is IDR 1,718.0 trillion, while actual revenue is IDR 1,869.2 trillion with an achievement of 108.8 trillion (Ministry of Finance 2024). Three factors cause the realization of tax revenue to not meet the tax revenue target. First, taxpayer compliance is very low. Second, there is a leak in tax revenues, especially from tax refunds. Lastly, the taxpayer base is small. This has an impact on reducing APBN spending, resulting in the inability to realize programs that should be implemented by the state (Safitri & Oktris 2023).

The difference in perception between companies and the government in viewing taxes means that company management will act to reduce its tax burden to obtain maximum profits. Company management will look for loopholes in the applicable tax regulations to avoid taxes to save the company's finances. From a business perspective, taxes have the effect of reducing the profits earned by a company in the current period. The amount of tax will motivate a business entity to reduce the

tax that must be remitted to the state. Efforts to minimize tax payments are called tax avoidance (Prayitno, D., Tarmidi, D., & Oktris 2023).

Based on the description of the background of the problem, the purpose in this research to study and analyze the influence of capital intensity, inventory intensity, and institutional ownership on tax avoidance. Apart from that, this research is also to study and analyze the moderating role of company size in the influence of capital intensity, inventory intensity, institutional ownership on tax avoidance.

Research contribution this research is expected to provide knowledge for all students majoring in accounting so that they have an understanding of tax avoidance, to add to the literature on knowledge in the field of taxation studies, especially for researchers who want to research further about tax avoidance and to develop and apply the scientific theories learned during lectures.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Tax is an attempt to take advantage of loopholes in tax law to reduce the amount of money paid by taxpayers but does not violate the law (Abdullah 2019). According to (Sinaga & Malau 2021) Tax avoidance or what we more often call tax avoidance is an activity carried out to seek profit by exploiting or avoiding taxes that are still within the framework of tax regulations in the Indonesian tax system.. Capital intensity is an investment activity carried out by a company related to investment in fixed assets (Jusman & Nosita 2020). Apart from that, capital intensity is also a factor that influences tax avoidance strategies (Kasim & Saad 2019). Large companies often use accounting procedures to reduce profits to pay more taxes. Capital intensity is a form of financial decision taken by company management to increase profitability. This capital intensity reflects how much capital the company needs and that capital (Rahmadani et al. 2022).

Inventory intensity relates to how much a company invests in inventory. The more inventory a company has, the more maintenance costs it will have, which can reduce profits and reduce the tax burden. This is in line with research by (Dwiyanti & Jati 2019). Storage costs will reduce company profits so that the taxes paid by the company will decrease, which shows that inventory intensity has a positive effect on tax avoidance. On this basis, it is suspected that inventory intensity influences tax avoidance. This is in line with research conducted by (Dwiyanti & Jati 2019), (Syamsuddin & Suryarini 2020), and (Anggriantari & Purwantini 2020) which shows that inventory intensity has a positive effect on tax avoidance, and (Nasution & Mulyani 2020) which shows that inventory intensity hurts tax avoidance.

Institutional ownership can influence tax avoidance that can be carried out by a company. According to Hery (2017), Institutional Ownership is the proportion of shareholders owned by institutional owners such as insurance, banks, investment companies and other Institutional Owners. Share ownership represents a source of power that can be used to support or oppose management. Institutional investors have an interest in the decision-making process, so they will encourage management to comply with government regulations and comply with taxes. Institutional ownership has the power to give authority to management to carry out

its field of work by the provisions taken based on the company's financial policy (Aprilia & Riharjo 2022).

Company size is a measure that classifies companies in various ways, including total assets, parent size, sales and market value (Kusumawardana & Haryanto 2019). According to UU Nomor 20 Tahun (2008) there are 4 categories of company size, including micro-businesses, small businesses, medium businesses and large-scale businesses. Total assets and total annual sales of a company are the basis for classifying company size. The size of the company can also be classified in various ways, including total assets, log size, share market value and others. According to (Sang Ayu Made Riska Vidyasari, Mendra, & Saitri 2021) company size shows the size of the company which can be seen from the level of sales, number of workers or number of assets owned by the company.

Capital intensity is the amount of investment made by a company in the form of fixed assets. Large assets will have large depreciation costs and result in reduced company profits, so the tax burden will also decrease. Therefore, the high intensity of a company's fixed assets will increase profit avoidance practices. Research conducted by (Dwiyanti & Jati 2019; Nugraha & Mulyani 2019; (Wulandari, Marispah, & Widiastuti 2020) states that capital intensity has a positive effect on tax avoidance.

H1: Capital intensity influences tax avoidance.

In agency theory, managers (agents) will try to minimize additional burdens due to large amounts of inventory so as not to reduce company profits. On the other hand, managers will maximize the additional costs they are forced to bear. Previous research conducted by Anindyka, Pratomo, & Kurnia (2018) found that inventory intensity has a negative influence on tax avoidance. Furthermore, research conducted by (Dwiyanti & Jati 2019) shows that inventory intensity affects tax avoidance. Where the higher the inventory intensity of a company, the higher the company's tax avoidance.

H2 : Inventory intensity influences tax avoidance.

Research on the Effect of Institutional Ownership on Tax Avoidance. The level of institutional ownership in a company has a significant influence on the level of control. When institutional investors have more control, there is less chance of fraudulent behavior by management, such as corporate tax avoidance. Studies by (Noviyani & Muid 2019) and (Afrika 2021) found that Institutional Ownership harms tax avoidance.

H3: Institutional ownership influences tax avoidance.

Company size is whether the company is large or small, reflected in the total assets it owns (Putra & Jati 2018). The larger the size of the company, the greater the intensity of capital and assets it owns, this provides an opportunity for companies to minimize the tax burden that must be paid (Utomo & Fitria 2021). In positive accounting theory, there is the political cost hypothesis which predicts that large companies will choose accounting policies that tend to reduce profits by

deferring reported profits from the current period to the future period to minimize the political costs that must be borne (Adnyani, N. K. A., & Astika 2019).

H4: Company size moderates the effect of capital intensity on tax avoidance.

The faster the inventory turnover, the faster the company's investment in inventory turns into cash (Putra & Jati 2018). Companies whose inventory turnover is hampered result in a buildup of inventory so the risk of goods being damaged or lost is higher and can result in companies avoiding taxes (Nugraha 2020). The larger the company, the higher the inventory turnover used for production. The higher the production, the higher the cost of goods sold, causing profits to decrease, which means the tax paid will also be smaller. Based on research conducted by Puspita & Hermanto (2022), company size can moderate inventory turnover in tax avoidance.

H5 : Company size moderates the effect of inventory intensity on tax avoidance.

The bigger a company is, the more likely it is to have good management and resources in running the company and try to comply with existing regulations, especially in paying taxes, the less likely the company is to avoid tax. This is because the bigger the company, the greater the government's attention to auditing tax payments made by the company. Therefore, institutions will strengthen supervision over the performance of their managers to comply with applicable tax regulations.

H6: Company size moderates the effect of institutional ownership on tax avoidance.

### 3. METHOD RESEARCH

**Population and Sample** This research targets manufacturing companies in the primary consumer goods sector listed on the IDX from 2018 to 2023. Using purposive sampling, 13 companies were selected based on data availability and relevance.

According to Jamei (2017) tax avoidance is a legitimate tax deduction on every basis of profit accounting before paying tax. According to Sinaga & Malau (2021), Tax avoidance or what we more often call tax avoidance is an activity carried out to seek profit by exploiting or avoiding taxes that are still within the framework of tax regulations in the Indonesian tax system. The formula used in this research was adopted by Jamei (2017) and Tarmidi, Alfia, & Umar (2022) as follows:

$$TA = STR - ETR$$

According to Sinaga & Malau (2021), Capital Intensity is a funding activity carried out on an ongoing basis by a company whose funding is in the form of fixed assets or capital intensity. The capital intensity ratio refers to how much a company's ability to use its fixed assets. The formula used in this adopted research by (Syamsuddin & Suryarini 2020) is:

$$CAP = (Total\ Net\ Assets)/(Total\ Assets) \times 100\%$$

Inventory Intensity can be used by companies as a tool to measure the company's level of efficiency between goods sold and existing inventory in the company (Adelia 2021). According to Anindyka et al. (2018) to measure inventory intensity using the following formula:

$$INV = (\text{Total Inventory})/(\text{Total Assets})$$

Institutional Ownership refers to the ownership of company shares by institutions that can play an important role in supervising, disciplining, and influencing managers, thereby forcing management to avoid selfish behavior. Therefore, it can be concluded that a high percentage of institutional share ownership will strengthen company management's compliance with tax regulations, and Institutional Ownership can reduce tax avoidance efforts made by company management (Darsani & Sukartha 2021) to measure inventory intensity namely by using the following formula:

$$KI = (\text{Number of Institutional Shares})/(\text{Number of Circulating Shares}).$$

Company size is a description of the size of a company in nominal terms which is measured by the size of the total assets or wealth owned by a company. Company size can be interpreted as a scale where the size of a company can be classified in various ways, including expressed in total assets, market value, etc. (Antari & Merkusiwati 2022) uses the natural logarithm or Ln (Total Assets) in assessing company size. In this research, the logarithm Ln (Total Assets) is used to assess company size.

$$\text{Company Size (Size)} = \text{Total Assets}$$

#### 4. RESULT AND DISCUSSION

The dependent variable tax avoidance (TAX) has an average value of 0.4226 or 42.26% with a standard deviation of 0.2526 or 25.26%. The highest tax avoidance value was obtained from Campina Ice Cream Industry Tbk (CAMP), namely 1.6111 or 161.11% in 2023, while the lowest tax avoidance value was obtained from Campina Ice Cream Industry Tbk (CAMP), namely -0.6431 or -64.31% in 2018 and 2020.

The proxied independent variable capital intensity (IM) has an average value of 1.2394 or 123.94% with a standard deviation of 0.7476 or 74.76%. The highest capital intensity (IM) value was obtained from Delta Djakarta, namely 3.8234 or 382.34% in 2019, while the lowest capital intensity (IM) value was obtained from Tri Banyan Tirta Tbk (ALTO), namely 0.2796 or 27.96% in 2023.

The independent variable inventory intensity (IP) which is proxied using inventory intensity (IP) has an average value of 0.1422 or 14.22% with a standard deviation of 0.7166 or 71.66%. The highest inventory intensity (IP) value was obtained from PT. Mulia Boga Rasa (KEJU), namely 0.3991 or 39.91% in 2019, while the lowest inventory intensity (IP) value was obtained from Tiga Pilar Sejahtera Food Tbk (AISA), namely 0.3718 or 37.18% in 2019.

The independent variable institutional ownership (KI) is proxied with an average value of 0.6925 or 69.25% with a standard deviation of 0.7626 or 76.26%. The highest institutional ownership (KI) value was obtained from Campina Ice Cream Industry Tbk (CAMP), namely 6.9079 or 690.79% in 2023, while the lowest institutional ownership (KI) value was obtained from Campina Ice Cream Industry Tbk (CAMP) , namely 0.0048 or 0.48% in 2019 and 2020.

The moderating variable company size (UP) is proxied by an average of 28.8169 or 2,881.69% with a standard deviation of 1.7617 or 176.175. The highest company size (UP) value was obtained from Indofood Sukses Makmur Tbk (INDF), namely 32.8599 or 3,285.99% in 2023, while the lowest company size (UP) value was obtained from Mulia Boga Rasa (KEJU) in 2019, namely 27,008 or 2,700.8%.

Table 1. Statistic Descriptive

Variable	Obs	Mean	Std. dev.	Min	Max
TAV	78	.0422636	.2526021	-.6431797	1.611.171
CAP	78	1.239.406	.7476912	.2796801	3.823.423
INV	78	.1422733	.0716625	.0371872	.399163
INS	78	.6925051	.7626664	.0004846	6.907.921
SIZE	78	2.881.696	1.761.734	2.700.828	3.285.992

Source: Stata Processed Data, 2024

The selection of the panel model was carried out to find out the best panel regression model, there were three tests carried out, namely the Chow test with the results of finding the Fixed Effect Model (FEM) more precisely, the Hausman test with the results of finding the Fixed Effect Model (FEM), the last was the LM test with the results discovered the Fixed Effect Model (FEM). From these three tests, it was concluded that the model that will be used in this research is the Fixed Effect Model (FEM).

Table 2. Test Conclusion

No	Method	Testing	Results
1	Test <i>Chow</i>	FEM vs REM	FEM
2	Test <i>Hausman</i>	FEM vs CEM	FEM
3	Test <i>Langrange Multiplier</i>	CEM vs REM	CEM

Source: Processed Stata data output, 20244

Based on the model suitability test on research data, it is known that the best model is the Fixed Effect Model (FEM), so Ordinary Least Square (OLS) is used to estimate the influence of the independent variable on the dependent variable. Next, the classical assumption test was carried out to test the panel data using STATA. The classic assumption tests carried out on the Fixed Effect Model using the Ordinary Least Square (OLS) approach are the heteroscedasticity test and the multicollinearity test. Based on the results of the multicollinearity test, it is known that the VIF value is in the range 1.55 – 1.27, all of which are smaller than the value

10, so the research data passes the multicollinearity test. From the results of the heteroscedasticity test, the Prob>chi2 value is greater than the 0.05 significance level so it is said that heteroscedasticity does not occur.

Based on Table 3, the adj R<sup>2</sup> value is 0.0693, which means that variations in changes in the rise and fall of tax avoidance can be explained by capital intensity, inventory intensity and institutional ownership, which is only 6.93% (low), while the remaining 93.07% is explained by variables. Others were not examined in this study.

Based on Table 3, it is known that Capital Intensity has a probability value of 0.003, less than 0.05, so it can be concluded that Capital Intensity has a significant negative effect on the tax avoidance variable and hypothesis 1 is accepted. Inventory Intensity has a probability value of 0.506 exceeding 0.05 so it is concluded that Inventory Intensity has no significant effect on the tax avoidance variable and hypothesis 2 is rejected. Institutional ownership has a probability value of 0.473, exceeding 0.05, so it is concluded that institutional ownership has no significant effect on the tax avoidance variable and hypothesis 3 is rejected. Company size has a probability value of 0.003, less than 0.05, so it is concluded that company size moderates the effect of capital intensity on tax avoidance and hypothesis 4 is accepted. Company size has a probability value of 0.561 exceeding 0.05 so it is concluded that company size does not moderate inventory intensity on tax avoidance and hypothesis 5 is rejected. Company size has a probability value of 0.713 exceeding 0.05 so it is concluded that company size does not moderate institutional ownership of tax avoidance and hypothesis 6 is rejected.

Tabel 3. Main Hypotheses

Hipotesis	Koefisien	t-statistik	Probabilitas	Information
H1	-0.42896	-0.04	0.003	Accepted
H2	0.58259	0.67	0.506	Rejected
H3	-0.02939	-0.72	0.473	Rejected
H4	0.00337	2.17	0.033	Accepted
H5	0.01007	0.58	0.561	Rejected
H6	-0.00496	-0.37	0.713	Rejected
<i>Adjusted R<sup>2</sup></i>		0.0693		
Prob		0.1478		

Based on the results of the hypothesis test, shows that capital intensity has a significant negative effect on tax avoidance. This finding indicates that companies with a high level of capital intensity tend not to aggressively avoid taxes. In this context, capital intensity reflects significant investments in fixed assets, such as machinery, buildings, or equipment, which provide benefits in the form of depreciation. This depreciation reduces the tax burden naturally, so companies do not need to use other tax avoidance strategies.

Theoretically, this result is in line with the view in Agency Theory, where large companies with high capital investment tend to better maintain their reputation and



comply with tax regulations. A good reputation is important for maintaining relationships with stakeholders, including the government and the wider community. Therefore, these companies prefer a conservative approach to tax management to avoid reputational risks and legal sanctions.

These results are in line with previous research conducted by Urrahmah & Mukti (2021) which shows that capital intensity has a negative relationship with tax avoidance because fixed assets allow companies to get tax reductions through depreciation costs. However, these results are different from the research of Pattiasina et al. (2019) who found that capital intensity increases tax avoidance. These differences may be due to variations in research methods, industry context, or capital intensity measurement approaches.

Based on the results of the hypothesis test, shows that ownership intensity does not affect tax avoidance. Inventory intensity reflects the company's investment in inventory and does not directly influence management decisions to avoid taxes. In other words, a company's inventory level is not the main factor that determines a company's tax strategy.

That is, intensity reflects the extent to which a company allocates its assets to inventory of merchandise or raw materials. Based on Agency Theory, the costs of storing and maintaining inventory can reduce tax profits which ultimately reduces tax obligations. However, this influence may not be significant or systematic enough to influence corporate behavior in terms of tax avoidance.

These results are in line with previous research conducted by Sagatsah & Witono (2023) which found that inventory intensity had no significant effect on tax avoidance. These findings also suggest that inventory-related costs, such as storage and maintenance, tend to be considered normal operating costs rather than tax deduction strategies.

Based on the results of hypothesis testing, shows that institutional ownership does not affect tax avoidance. Institutional ownership reflects the supervision carried out by institutional shareholders. However, if the institution is not active or focuses on other aspects such as financial performance, then its influence on tax avoidance may not be significant (Felicya & Sutrisno 2020). This is by agency theory where institutional ownership is considered capable of mitigating conflicts of interest between management (agent) and capital owners (principal). With large institutional ownership, supervision of managerial activities, including tax management strategies, is expected to be more effective.

Based on statements Darsani & Sukartha (2021) and research Yuni, Ni Putu Ayu Indira & Setiawan (2019) succeeded in proving that institutional ownership does not have a significant effect on tax avoidance because institutions tend to be passive in supervision. Related to taxation. In contrast to research Eskandar & Ebrahimi (2020) found inconsistent results that have a positive effect on tax avoidance because active institutions often encourage aggressive tax strategies to increase corporate profits

Based on the results of hypothesis testing, shows that company size weakens the effect of capital intensity on tax avoidance. Company size is the size of the company as reflected in the total assets it owns. The larger the size of the company, the greater the intensity of capital and assets it has, this provides an opportunity for

the company to minimize the tax burden that must be paid. Companies that have a large number of fixed assets will cause the amount of tax paid to be lower.

The large size of a company means it has large fixed assets, this can provide an opportunity for the company to minimize the tax burden it has to pay. Fixed assets will experience depreciation which will become depreciation. These results are in line with research conducted by costs in the company's financial statements (Ayem, S., & Setyadi 2019). This means that the greater the depreciation costs, the lower the level of tax the company must pay.

This means that the greater the depreciation costs, the lower the level of tax the company must pay. Abd. Wahid Saputra, Memen Suwandi (2020) which has a significant impact on companies with a high level of capital intensity ratio showing a low effective tax rate, with a high effective tax rate. Low indicates the company is involved in tax avoidance. Research by Utomo & Fitria (2021) proves that company size moderates the effect of capital intensity on tax avoidance.

Based on the results of hypothesis testing, shows that company size does not moderate inventory intensity on tax avoidance. Inventory intensity reflects the extent to which a company invests its assets in the form of inventory. Costs related to inventory management such as storage and maintenance costs can reduce taxable profits thereby affecting the company's tax obligations (Dwiyanti & Jati 2019). However, this influence is not influenced by company size. This is to the view that the impact of inventory intensity on tax avoidance is more influenced by management policies related to inventory than by the scale of the company itself.

According to Jensen & C. (1976) in agency relationships, managers as agents act to optimize operational efficiency, including inventory management, to maximize the company's net profit. However, the results of this study show that in the context of tax avoidance, company scale does not play a significant moderating role, perhaps because it has a greater influence on other variables such as corporate tax policy and the level of institutional supervision.

These results are in line with research conducted by Suciarti, Suryani, & Kurnia (2020) & Rosandi (2022) company size does not moderate the effect of inventory intensity on tax avoidance due to inventory management efficiency. In contrast, Natalina (2023) found that inventory intensity has a significant direct relationship to tax avoidance but is not influenced by moderating variables such as company size.

Based on the results of hypothesis testing, shows that company size does not moderate institutional ownership on tax avoidance. This shows that the level of institutional ownership in a company is not influenced by the company's scale in influencing strategic decisions related to tax avoidance.

According to Jensen & C. (1976), institutional ownership can function as a monitoring mechanism that reduces conflict between management (agent) and shareholders (principal). Institutional ownership representing institutional investors such as banks, insurance companies and mutual funds plays a role in overseeing managerial policies, including corporate tax strategies (Darsani & Sukartha 2021). Thus, institutional ownership is estimated to have a significant influence on tax avoidance.

However, the results of this study show that this influence is not strengthened or weakened by company size. Company size, which is usually measured based on total assets or market value, is often considered an indicator of the financial strength and level of operational complexity of a company. However, this research shows that institutional owner monitoring mechanisms operate independently and do not depend on company scale.

The results of this research are in line with research conducted by Darsani & Sukartha (2021) and Eskandar & Ebrahimi (2020) which state that institutional ownership has a direct influence on tax avoidance but this influence is independent of moderating factors such as company size. This is different from research conducted by Taufik Hidayat (2022) which shows that institutional ownership can strengthen tax avoidance practices in companies of a certain size, but these results are not supported in the context of this research.

## 5. CONCLUSIONS & SUGGESTIONS

The results of the research stated previously can be concluded that:

1. Capital intensity has a negative effect on tax avoidance, which means that the greater the company's investment in fixed assets, the lower the company's tendency to avoid tax. This is caused by the effect of fixed asset depreciation which reduces taxable profit naturally.
2. Inventory intensity has no effect on tax avoidance, which shows that the amount of inventory owned by the company does not have a significant impact in determining tax avoidance strategies. Inventory storage and maintenance costs are considered normal operational expenses and not as a primary means of reducing the tax burden.
3. Institutional ownership has no effect on tax avoidance, which shows that the role of institutional investors in supervising management is not strong enough in controlling company tax policy. This may be due to the passive approach taken by institutional investors in managing corporate tax policy.
4. Company size can moderate the effect of capital intensity on tax avoidance, which shows that companies with larger assets tend to be more transparent in their tax reporting and have better tax compliance strategies.
5. Company size is not able to moderate the effect of inventory intensity on tax avoidance, which means that company scale does not have a significant role in strengthening or weakening the relationship between inventory intensity and tax avoidance strategies.
6. Company size is unable to moderate the influence of institutional ownership on tax avoidance, which shows that the effectiveness of institutional ownership in controlling corporate tax strategies does not depend on company size

Table 4. Chow Test

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Fixed-effects (within) regression				Number of obs		=	78
Group variable : firm				Number of groups		=	13
R-sq:	within	=	0.1537	Obs per group:	min	=	6
	between	=	0.4206		avg	=	6.0
	overall	=	0.0778		max	=	6
				F (4, 61)		=	2.77
corr (u_i, Xb) = -0.9833				Prob > F		=	0.0350
	tav	Coef.	Std. Err.	t	P>  t	[95% Conf. Interval]	
	cap	-.4289698	.1410453	-3.04	0.003	-.7110072	-.1469323
	inv	.5825993	.8717064	0.67	0.506	-1.160485	2.325.684
	ins	-.0293907	.04067	-0.72	0.473	-.1107154	.0519341
	size	.3573506	.1501605	2.38	0.020	.0570861	.6576151
	_cons	-.9786356	4.239.885	-2.31	0.024	-18.26453	-1.308182
sigma_u		.7720884					
sigma_e		.22582514					
rho		.92119361	(fraction of variance due to u_i)				
F test that all u_i=0:			F(12, 61) =		2.02	Prob > F = 0.0379	

Table 4. Hausman Test

## Hausman fixed random

	Coefficients			
	(b) fixed	(B) random	(b-B) Difference	sqrt (diag(V_b-V_B)) S.E.
cap	-.4289698	.1052467	-.5342164	.1343319
inv	.5825993	.0718944	.510705	.7259862
ins	-.0293907	-.011399	-.0179917	.0170403
size	.3573506	-.0263572	.3837078	.149172

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned}
 \text{chi2 (4)} &= (b-B)' [(V_b - V_B)^{-1}] (b-B) \\
 &= 17.41 \\
 \text{Prob}>\text{chi2} &= 0.0016
 \end{aligned}$$

Table 5. Langrage Multiplier Test

Breusch and Pagan Lagrangian multiplier test for random effects

$$\text{tav} [\text{firm}, t] = Xb + u[\text{firm}] + e [\text{firm}, t]$$

Estimated results :

	Var	sd = sqrt (Var)
tav	.0638097	.2526058
e	.050997	.2258251
u	0	0

Test: Var (u) = 0

chibar2 (01)	=	0.00
Prob > chibar2	=	10.000

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