The Determinants of Accounting Inventory Valuation Methods: Does Firm Size Matter?

Muhammad Rafenza Ramadhan[1]
Kholilah[2]
[1,2]Faculty of Economics, Maulana Malik Ibrahim State Islamic University, Indonesia
**Correspondences*: rafenza.15@gmail.com

ABSTRACT

The inventory valuation method has significant implications for financial statements and managerial decision-making. This study evaluates the influence of inventory intensity, variability, current ratio, and leverage on selecting an inventory valuation method with firm size as moderation. The research object includes all companies listed on the Indonesia Stock Exchange for 2020-2023. The sample in this study was obtained using the purposive sampling method, with the final samples are 303 companies with a total of 1,212 observation data. The collected data were analyzed using logistic regression and moderation regression analysis for hypothesis testing. The results show that variability, current ratio, and leverage have a negative effect on the selection of inventory valuation methods. Meanwhile, inventory intensity does not affect the selection of inventory valuation methods. Furthermore, firm size strengthens the influence of inventory intensity and variability on the selection of inventory valuation methods. This study shows that selecting the correct inventory valuation method can be a company's strategy for optimizing inventory management.

Keywords: Inventory Valuation Method; Inventory Intensity; Variability; Current Ratio; Leverage; Firm Size

e-ISSN 2302-8556

Vol. 34 No. 11
Denpasar, 30 November 2024
Hal. 2783-2799

DOI:
10.24843/EJA.2024.v34.i11.p05

PENGUTIPAN:
Ramadhan, M. R., & Kholilah. (2024). The Determinants of Accounting Inventory Valuation Methods: Does Firm Size Matter. *E-Jurnal Akuntansi*, 34(11), 2783-2799

RIWAYAT ARTIKEL:
Artikel Masuk:
25 Oktober 2024
Artikel Diterima:
27 November 2024

Determinan Metode Penilaian Persediaan: Apakah Ukuran Perusahaan Penting?

ABSTRAK

Metode penilaian persediaan memiliki implikasi yang signifikan bagi laporan keuangan dan pengambilan keputusan manajerial. Penelitian ini bertujuan mengevaluasi pengaruh intensitas persediaan, variabilitas, current ratio, dan leverage terhadap pemilihan metode penilaian persediaan dengan firm size sebagai moderasi. Objek penelitian adalah seluruh perusahaan yang terdaftar di BEI periode 2020-2023. Hasil purposive sampling adalah 303 perusahaan dengan jumlah data observasi 1.212. Data yang terkumpul dianalisis dengan regresi logistik dan analisis regresi moderasi untuk pengujian hipotesis. Hasil penelitian menunjukkan bahwa variabilitas, current ratio, dan leverage berpengaruh negatif terhadap pemilihan metode penilaian persediaan. Sedangkan, intensitas persediaan tidak berpengaruh terhadap pemilihan metode penilaian persediaan. Lebih lanjut, firm size memperkuat pengaruh intensitas persediaan dan variabilitas terhadap pemilihan metode penilaian persediaan. Pemilihan metode penilaian persediaan yang tepat dapat menjadi strategi perusahaan dalam mengoptimalkan pengelolaan persediaan.

Kata Kunci: *Metode Penilaian Persediaan; Intensitas Persediaan; Variabilitas; Current Ratio; Leverage; Firm Size*

INTRODUCTION

Inventory management in a company includes various policies and controls that aim to monitor and regulate inventory levels optimally, including determining inventory periodicity for restocking and order quantities (Tadayonrad & Ndiaye, 2023; Yahya & Syavaat, 2021). Inventory plays an essential role in supporting the company's smooth operation (Fitri & Firzatullah, 2020) and serving as a buffer between production and fluctuating demand (Chakrabarty & Wang, 2021). The problem that the company's inventory department often needs is accuracy in inventory management, which causes overstocking or stockout (Mascle & Gosse, 2014). Oversupply can result in high storage costs and potential deterioration in the quality of goods, while understocking can hamper the production process and result in the company's inability to meet market demand promptly (Rachmawati & Lentari, 2022). Inaccurate inventory management leads to a decrease in profit, impacting the company's performance (Ahmed et al., 2021; Al-homaidi et al., 2018). The company's management can determine the inventory valuation method according to applicable rules (Risandi, 2020).

Indonesian Financial Accounting Standards (PSAK) 202 is the latest numbering of the inventory standard, effective on January 1, 2024, but this study still uses the old numbering, namely PSAK 14, which is related to inventory. PSAK 14, revised in 2014 concerning inventory, explains that inventory accounting valuation methods consist of first in, first out (FIFO) and average methods (Kartinah & Kuncara, 2021; Kartikahadi et al., 2019). This regulation is in line with Indonesia's tax guidelines regulated in Article 10 Paragraph 6 of Law Number 36 of 2008 concerning Income Tax, which allows using FIFO and average valuation methods (Febriansyah et al., 2020; Fitri & Firzatullah, 2020). Research on comparisons between FIFO or average methods is still rarely conducted (Yahya & Syavaat, 2021), even though the selection of FIFO or average valuation methods can describe the characteristics of increasing and decreasing company income (Rejeki, 2023).

Increasing income is shown in the FIFO inventory valuation method, which has a high profit level due to the company's higher final inventory value, lower cost of goods sold, and higher company profit (Maulida & Kurniawan, 2023; Minggo et al., 2021; Teplická & Seňová, 2020). Meanwhile, decreasing income is described in the average method that produces low profits due to the low value of the company's final inventory and the high cost of goods sold (Indriyani & Riharjo, 2018). Every company can choose the FIFO inventory valuation method to show high profits on the financial statements. Furthermore, companies can use the average inventory valuation method to minimize profits so that political expenses related to income tax can be minimized (Rejeki, 2023; Yahya & Syavaat, 2021). Management should wisely consider using inventory valuation methods to efficiently manage inventory and achieve the company's goals (Salman et al., 2023; Sangadah & Kusmuriyanto, 2014).

This study is a development of the research of Yahya & Syavaat (2021) with three main differences, namely the addition of independent variables, the addition of moderation variables, and the expansion of the research sample. This study added two independent variables: inventory intensity and variability (Febriansyah et al., 2020; Mirandani et al., 2019). Inventory intensity describes how quickly a

company sells and replaces inventory in a given period, directly describing the efficiency of a company's management in managing its inventory. Furthermore, inventory variability describes the company's operations and the variation of the company's final inventory value, reflecting the inventory accounting method and the movement of inventory.

This study adds firm size as a moderation variable. Large companies have more stable conditions with better management support, resources, and capabilities. Adequate ability will affect management's decisions (Meilia & Rahmatika, 2020), including decision-making of the accounting methods used. In addition, previous research has influenced the influence of different firm sizes on inventory valuation. Different results on the impact of firm size on the selection of inventory valuation methods can serve as moderation variables that strengthen or weaken the impact of each independent variable on the selection of inventory valuation methods—expanding the research sample from the manufacturing sector to all company sectors listed on the Indonesia Stock Exchange to improve the ability to generalize findings (Wicaksono et al., 2024).

This study empirically proves that inventory intensity, variability, current ratio, leverage, and firm size can influence companies choosing inventory valuation methods in all sectors listed on the Indonesia Stock Exchange for 2020-2023. The results of this research can help develop insights, information, and knowledge about the factors that affect the selection of inventory valuation methods and are expected to be used as input for companies in choosing inventory valuation methods.

Positive accounting theory states that companies do not have to use the same accounting procedures as others (Watts & Zimmerman, 1990). Instead, companies are free to choose any of the available procedures to maximize the company's value and reduce contract costs. Positive accounting theory says that managers have greater freedom to perform what is referred to as opportunistic actions (Utari et al., 2023). This opportunistic action occurs when a company chooses a profitable accounting policy and prioritizes client satisfaction.

Positive accounting theory explains that the accounting procedures of each entity do not have to be the same as those of other entities (Watts & Zimmerman, 1990). Each entity is given the freedom to choose accounting policies that are profitable and maximize company satisfaction. Management efficiency in managing inventory can be seen from a company's inventory intensity level (Gebisa, 2023). Inventory intensity explains how quickly a company sells and replaces inventory in a given period. When the company's inventory value is high, inventory management prefers the average method because it can produce a low final inventory value so that its inventory intensity level is high (Rejeki, 2023). This statement makes the company's inventory management performance look good.

On the contrary, the FIFO method causes the company's final inventory value to be high, resulting in low inventory intensity (Pamungkas & Izzaty, 2024). Previous research revealed that the level of inventory intensity of a company has a significant influence on the selection of inventory valuation methods (Febriansyah et al., 2020; Pamungkas & Izzaty, 2024). Different results are shown by research conducted by Sangadah & Kusmuriyanto (2014), which states that

inventory intensity does not significantly influence the selection of inventory valuation methods.

H_1: The lower the inventory intensity, the higher the tendency of companies to choose the average inventory valuation method.

Inventory variability is one of the variables that describes opportunistic motivation. In positive accounting theory, opportunistic actions free companies to choose profitable accounting methods and maximize company satisfaction (Watts & Zimmerman, 1990). Appropriate inventory accounting techniques and methods will affect the final value of inventory (Narulfita & Siswanto, 2020). Inventory variability describes the company's operations and variations in the company's final inventory value which reflects inventory accounting methods and movements (Febriansyah et al., 2020). The greater the level of inventory variability, the higher the variation in the final inventory value, so companies will prefer to use the FIFO method (Sangadah & Kusmuriyanto, 2014). Meanwhile, the average method produces a low level of inventory variability. Research by Ayem & Harjanta (2018), Erawati & Ramadhani (2023), Mirandani et al. (2019) and Suzan & Ichsan (2021) revealed that the level of inventory variability affects the selection of a company's inventory valuation method. The results of this study contradict research conducted by Febriansyah et al. (2020) and Oktapiani & Suarantalla (2024), which explained that the level of inventory variability does not influence the selection of a company's inventory valuation method.

H_2: The lower the inventory variability, the higher the tendency of companies to choose the average inventory valuation method.

Positive accounting theory allows company owners to determine profitable accounting methods and maximize company satisfaction (opportunistic behavior) (Watts & Zimmerman, 1990). Company inventory is a current asset used to calculate the current ratio (Rachman et al., 2023). The current ratio measures a company's ability to pay short-term liabilities using current assets (Hasanuddin et al., 2021; Rosilawati & Nawirah, 2024). Companies with a high current ratio tend to use the average method that can generate small profits so that the company can save taxes (Meilia & Rahmatika, 2020). Meanwhile, the FIFO method is usually used by companies with a low current ratio because it can increase profits so that the company's performance looks good (Erawati & Ramadhani, 2023). Research by Dewi et al. 2019 and Erawati & Ramadhani (2023) shows that a company's current ratio level influences the selection of inventory valuation methods. This result differs from research conducted by Meilia & Rahmatika (2020) and Yahya & Syavaat (2021), which revealed that a company's current ratio does not significantly influence the selection of inventory valuation methods (Mirandani et al., 2019).

H_3: The lower the current ratio, the higher the tendency of companies to choose the average inventory valuation method.

Positive accounting theory provides a broad scope for an entity to choose and use profitable accounting policies and maximize company satisfaction (Watts & Zimmerman, 1990). Leverage shows the company's ability to use assets and equity to meet the company's obligations (Aditia & Kustinah, 2023). This ratio can predict the potential for third-party funding in the form of debt compared to the company's capabilities (Sondakh et al., 2021). Investors understand the company's

leverage as the company's ability to refund investors to avoid violating the contractual agreement. Companies with high leverage levels use the FIFO method to increase corporate profits and avoid debt contract violations (Fitri & Firzatullah, 2020). It is different from the average method used by companies when the leverage level is low because it can reduce the company's profits so that it can save tax expenses (Political Cost). Research by Fitri & Firzatullah (2020) and Pamungkas & Izzaty (2024) reveals that leverage significantly affects the selection of inventory valuation methods. However, this result differs from research conducted by Putra & Sari (2020) and Yahya & Syavaat (2021), which shows that the level of leverage only partially influences the selection of inventory valuation methods.

H_4: The lower the leverage, the higher the tendency of companies to choose the average inventory valuation method

The existence of a significant influence between inventory intensity and the selection of inventory valuation methods can be seen in research conducted by (Febriansyah et al., 2020; Pamungkas & Izzaty, 2024; Rioni, 2020). Firm size measures a company's total assets related to inventory intensity. The firm size level will impact the company's inventory intensity. High inventory intensity indicates management's ability to manage inventory well. Management skills in large companies are better than those in small companies. Opportunistic motivation and supported by their expertise, management in large companies will choose the average method to reduce political costs in the form of taxes because the average method produces smaller profits than the FIFO method (Rejeki, 2023; Sangadah & Kusmuriyanto, 2014). This means that the size of a company can affects the selection of inventory valuation methods. This is supported by research conducted by Narulfita & Siswanto (2020) and Rahmi et al. (2018), who said that company size significantly affects the selection of inventory valuation methods.

H_5: Firm size strengthens the relationship of company intensity to the selection of inventory valuation method

Research by Ayem & Harjanta (2018) and Mirandani et al. (2019) shows that company variability positively influences the selection of inventory valuation methods. This means a high percentage of inventory variability can affect management when choosing inventory valuation methods. Opportunistic motivation encourages companies to choose inventory valuation methods that benefit the company. Companies with a high variability value are more likely to use the FIFO method, which can increase profits. However, on the contrary, companies with low variability values prefer to use the average method. This can be attributed to the fact that many large companies use the average method to reduce profits to do tax savings, which is more common in large companies (Mirandani et al., 2019). Thus, the size of a company in making decisions related to inventory valuation methods has a significant influence. Research conducted by Ayem & Harjanta (2018), Mirandani et al. (2019) and Narulfita & Siswanto (2020) stated that company size has a positive influence on the selection of inventory valuation methods.

H_6: Firm size strengthens the relationship of company variability to the selection of inventory valuation methods

The current ratio significantly influences the selection of inventory valuation methods (Erawati & Ramadhani, 2023; Rahmi et al., 2018). Large

companies can better meet short-term debts so that their performance is maintained. This impacts the high value of the current ratio, thus increasing the opportunity to generate profits. Based on positive accounting theory, large companies tend to choose the average method in inventory valuation that can generate small and stable profits for tax savings (Sangadah & Kusmuriyanto, 2014). This means that the company's size can affect the selection of inventory valuation methods. Research by Ayem & Harjanta (2018) and Narulfita & Siswanto (2020) supports this because firm size has a significant influence on the selection of inventory valuation methods.

H_7: Firm size strengthens the relationship between the current ratio and the selection of inventory valuation methods

Leverage shows the company's ability to use assets and equity to meet the company's obligations (Markonah et al., 2020; Yahya & Syavaat, 2021). Opportunistic motivation encourages companies with high leverage levels to use the FIFO method to increase corporate profits and avoid debt contract violations (Fitri & Firzatullah, 2020). It is different from the average method used by companies when the leverage level is low because it can reduce the company's profits so that it can save tax expenses (Political Cost). Research by Indriyani & Riharjo (2018) and Pamungkas & Izzaty (2024) said that leverage significantly influences the selection of inventory valuation methods. Large companies with low leverage values tend to use the average method to reduce the company's profit to achieve tax savings. Thus, the size of a company can influence management when choosing an inventory valuation method. This is supported by the research of Ayem & Harjanta (2018), Mirandani et al. (2019) and Narulfita & Siswanto (2020), stating that the size of a company can affects the selection of a company's valuation method.

H_8: Firm size strengthens the leverage relationship to the selection of inventory valuation methods

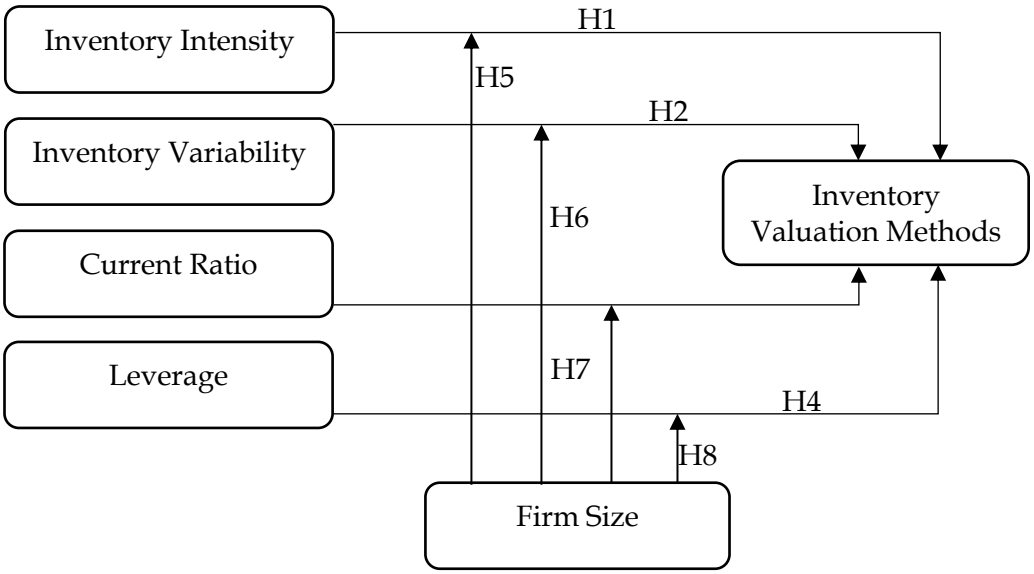

Figure 1. Research Model

Source: Research Data, 2024

RESEARCH METHOD

This study is quantitative research with the type of exploratory research because it aims to test the influence of independent variables and moderation on dependent variables. This research was conducted on companies listed on the IDX in 2020-2023. Purposive sampling is used with the criteria, the company has inventory in the financial statements, companies use the average inventory valuation or FIFO method, and complete data are available for the variables used.

Table 1. Sample Selection Result

No	Sample Criteria	Total
1.	Companies listed on the Indonesia Stock Exchange	927
2.	Incomplete data are available for the variables used in this study	(624)
Number of company samples		303
Year of research		4
Data Observations		1.212

Source: Research Data, 2024

The total number of listed companies in 2020 was 927; of this number, only 710 conducted Initial Public Offerings (IPOs) before 2020. Among the 710 companies that use the Average or FIFO valuation method, there are 303 companies, of which 265 use the average method and 38 companies use the FIFO method. The remaining companies changed the method from average to FIFO or vice versa, and some data was not available for the research variables in the company's financial statements. Therefore, the sample size in this study is 303, with a total of 1,212 observation data. The operational definitions of each variable in the study are presented in table 2.

Table 2. Variable Operational Definition

Variable	Definition	Indicators
Inventory Valuation Method (PERS)	PSAK 14 regulates the valuation methods used: Average and FIFO (Yahya & Syavaat, 2021).	1 = If using the average method 0 = If using the FIFO method (Fitri & Firzatullah, 2020)
Inventory Intensity (IP)	Inventory intensity indicates a company's ability to sell inventory over time (Putri & Cahyaningdyah, 2024).	$\text{IP} = \frac{Cost\ of\ Goods\ Sold}{(Begin\ Inventory + End\ Inventory)/2}$ (Novita Sari et al., 2022)
Inventory Variability (VP)	Variation in the final inventory value at the company (Sangadah & Kusmuriyanto, 2014).	$VP = \frac{Standard\ Deviation\ of\ Inventory}{Average\ Inventory}$ (Suzan & Ichsan, 2021)
Current Ratio (CR)	The company's ability to meet short-term debt (Karim et al., 2023)	$Current\ Ratio = \frac{Current\ Asset}{Current\ Liabilities}$ (Putri & Cahyaningdyah, 2024)
Leverage (LE)	A ratio that measures the proportion of long-term debt to a company's equity (Yahya & Syavaat, 2021)	$LTD/E = \frac{Non - Current\ Liabilities}{\text{Total Equity}}$ (Fitri & Firzatullah, 2020)
Firm Size (FS)	Company Size Classification (Prabandari & Kholilah, 2024)	$Firm\ Size = Ln\ (Total\ Assets)$ (Abdullah et al., 2023)

Source: Research Data, 2024

This study uses logistic regression analysis because the dependent variable is dummy (Kholilah et al., 2024). This study uses several tests, namely descriptive statistical test, overall model test, determination coefficient, hypothesis test, and test for moderated regression analysis. The analysis was carried out with the help of Eviews13. The following is the regression equation used in this study:

$$\text{Ln}\ \frac{\text{PERS}}{\text{1-PERS}} = \alpha + \beta 1\text{IP}1 + \beta 2\text{VP}2 + \beta 3\text{CR}3 + \beta 4\text{LE}4 + e \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Information:

$\text{Ln}\,\frac{\text{PERS}}{1-\text{PERS}}$ = The probability of the company choosing the inventory valuation method is worth 1 if the company has the average method and 0 if it chooses the FIFO method
α = Constant
β1 – β4 = Regression coefficients
IP = Inventory Intensity
VP = Inventory Variability
CR = Current Ratio
LE = Leverage
e = Error

The equations of moderated regression analysis in this research are as follows:

$$\text{Ln}\ \frac{\text{PERS}}{\text{1-PERS}} = \alpha + \beta 1\text{IP}1 + \beta 2\text{VP}2 + \beta 3\text{CR}3 + \beta 4\text{LE}4 + \beta 5{*}\text{FS} + \beta 6\text{IP}1{*}\text{FS} + \beta 7\text{VP}2{*}\text{FS} + \beta 8\text{CR}3{*}\text{FS} + \beta 9\text{LE}4{*}\text{FS} + e \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Information:

$\text{Ln}\,\frac{\text{PERS}}{1-\text{PERS}}$ = The probability of the company choosing the inventory valuation method is worth 1 if the company has the average method and 0 if it chooses the FIFO method
α = Constant
β1 – β4 = Regression coefficients
IP = Inventory intensity
VP = Inventory variability
CR = Current ratio
LE = Leverage
FS = Firm size
IP*FS = Interaction between inventory intensity and firm size
VP*FS = Interaction between inventory variability and firm size
CR*FS = Interaction between current ratio and firm size
LE*FS = Interaction between leverage and firm size
e = Error

RESULT AND DISCUSSION

The data used in this study were analyzed by first converting them into natural logarithms (LN) (Dabbous et al., 2023; Sun et al., 2024). This transformation is carried out to reduce heteroscedasticity, make the data distribution close to normal, and increase the linearity of the relationship between the analyzed

variables. This process is essential for more accurate and reliable results, especially in regression analysis.

Table 3. Descriptive statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev.	Obs.
PERS	0.874	1.000	1.000	0.000	0.331	1,212
IP	16.039	4.637	2,432.693	0.020	100.609	1,212
VP	0.501	0.207	128.257	0.002	4.784	1,212
CR	3.293	1.667	20.864	0.001	10.290	1,212
LE	0.582	0.216	94.237	0.000	2.940	1,212
FS	28.329	28.242	33.730	22.879	1.694	1,212

Source: Research Data, 2024

Table 3 presents descriptive statistics in calculating the mean, median, maximum, minimum, and standard deviation of variables used in this study. A value of 1 for the average method and 0 for the FIFO method is used to measure the choice of average technique for inventories which are dummy variables. This causes the minimum and maximum values of this variable to be between 0 and 1. The average value of this variable is 0.874. While the standard deviation of this variable is 0.331 which is smaller than the average value so it does not show fluctuations between the minimum and maximum values.

The inventory intensity variable has a minimum value of 0.020 and a maximum value of 2,432.693 which is calculated from the comparison of the cost of goods sold with the average value of inventory. The average value of the inventory intensity variable is 16.039 which states that the inventory intensity has a long range between the minimum and maximum values because the standard deviation is higher than the average value of 100.609.

The variable of inventory variability has a range with a minimum value of 0.002 and a maximum value of 128.257 with an average value of 0.501. This shows that the standard deviation value of the inventory and the average of the inventory has a considerable range. The inventory variability has a standard deviation value of 4.784. Inventories have varying values because the standard deviation value is higher than the average value.

The current ratio variable measured by comparing current debt and current assets has a minimum value of 0.001 and a maximum value of 20.864. The average value of the current ratio variable is 3.293, indicating that between 2020 and 2023 the number of current assets owned by the company has increased. The standard deviation of the current ratio variable is 10.290. This provides information that the difference between the minimum and maximum current ratio values is quite far because the standard value deviation is larger than the average value.

The long-term debt-to-equity ratio that measures the leverage variable has a minimum value of 0.000 and a maximum value of 94.237 with an average value of 0.582. This shows that between 2020 and 2023 the amount of long-term debt held by the company as a percentage of total equity has decreased. The leverage variable has a standard deviation value of 2.940. The leverage has a variation in value because the average indigo is lower than the standard deviation.

The variable size of the company is determined by the total assets of the company which has a minimum value of 22.879 and a maximum value of 33.370.

The average value of the company size is 28.329 which shows that from 2020 to 2023 companies in Indonesia experienced an increase in total assets. The standard deviation value of the firm size variable is 1.694 which is smaller than the average value, so there is a slight range between the minimum and maximum values. After knowing the description of the sample studied, the researcher tested the feasibility of the model in this study using the Hosmer and Lemeshow tests, the results of which are shown in Table 3 below:

Table 4. Hosmer dan Lemeshow Test

H-L Statistic	12.876	Prob. Chi-Sq (8)	0.116

Source: Research Data, 2024

In the Hosmer and Lemeshow Test, a Statistical H-L value of 12.876 and a significance value of 0.1162 were obtained, both higher than the threshold of 0.05. The results show that the regression model can explain the observation data so researchers can conduct subsequent tests.

Table 5. Regression analysis results

Variable	Model 1			Model 2		
	B	z-stat	Prob	B	z-stat	Prob
Constant	1.276			11,526		
IP	-0.133	-1.798	0.072	-6.073	-4.703	0.000*
VP	-0.662	-5.881	0.000*	-1.044	-5.935	0.000*
CR	-1.445	-10.408	0.000*	-1.823	-10.203	0.000*
LE	-0.730	-8.852	0.000*	-0.785	-8.595	0.000*
IP*FS				0.217	4.600	0.000*
VP*FS				0.011	3.399	0.000*
CR*FS				-0.006	-3.424	0.000*
LE*FS				-0.000	-1.169	0.242
R-squared	0.237			0.270		

Source: Research Data, 2024

The determination coefficient test examines the independent variable can explain the dependent variable. The results of this test are determined by examining the values of McFadden R-squared shown in Table 4. McFadden's R-squared value is 0.237. This figure shows that inventory intensity, inventory variability, current ratio, and leverage have the ability of 23.738% to explain the variable of the option of choosing the inventory valuation method.

Based on Table 5, the first hypothesis is rejected because the inventory intensity has a significance value of 0.072 and a coefficient of -1.798. This result shows that the inventory intensity variable does not impact whether the company chooses the average inventory method. Therefore, it can be determined that companies need to consider the level of inventory intensity when deciding to use the average method in assessing inventory. These findings are consistent with the research Putri & Cahyaningdyah (2024), which shows that inventory intensity does not impact companies when choosing inventory valuation methods. The findings will remain the same, not significant despite variations in the measurement of inventory intensity variables between this study and previous studies. This statement is so because the company's revenue will remain stable if it chooses the FIFO method when there are no fluctuations in the price of goods. These results contradict the research Novita Sari et al. (2022) and Pamungkas &

Izzaty (2024), proving that inventory intensity influences companies when choosing the average method for inventory.

The statistical test results in Table 5 explain that the second hypothesis is accepted because the inventory variability has a probability value of 0.000, where the value is less than 0.05, with a negative directional regression coefficient of -5.881. This shows that inventory variability impacts companies' average inventory valuation method choice. The degree of inventory variability in each period provides information to management in choosing the average inventory method. These findings are confirmed by research Ayem & Harjanta (2018), Mirandani et al. (2019), Novita Sari et al. (2022) and Sangadah & Kusmuriyanto (2014), which found that variations in the final value of inventory influence the company's decision to assess inventory using the average method. The low final value of inventory when using the average method can help management reduce the tax burden because the company will also generate low-profit variation. This is contrary to research Febriansyah et al. (2020), which reveals that companies need to consider the value of inventory variability when choosing the average method for assessing inventory.

The results of the third hypothesis test were accepted because of the significance value 0.000 with a negative directional regression coefficient value of -10.408. This shows that the company's current ratio negatively influences its choice of the average method to assess inventory. These results align with research Erawati & Ramadhani (2023) and Rahmi et al. (2018), proving that the current ratio level influences companies choosing the average method. The company needs to keep the value of its inventory stable using the average method. This result is necessary to maintain the company's current ratio and make it manageable. These findings contradict research Putri & Cahyaningdyah (2024) and Yahya & Syavaat (2021) that produces below the company does not need the current ratio level when determining the average inventory valuation method to assess inventory.

Leverage obtained a significance value 0.000 with a negative directional regression coefficient of -8.852. These results show that leverage negatively influences the selection of inventory valuation methods. Therefore, companies use leverage when choosing the average method of valuing the company's inventory. Consistent results are shown by research Fitri & Firzatullah (2020) and Pamungkas & Izzaty (2024), which shows that the level of leverage influences companies in choosing the average method to assess inventory. A company's low debt level provides information to management that the company can maintain profit stability by using the average method that can generate low profits. The low-profit value allows companies to save on tax costs that will be incurred. These findings are in line with research Ayem & Harjanta (2018) and Yahya & Syavaat (2021), which shows that leverage in companies has no impact on companies' choice of the average inventory valuation method.

Based on Table 5, the firm size moderation test results show a significance value of 0.000 less than 0.05, so it can be concluded that H5 is accepted. These results show firm size can increase the influence of inventory intensity variables on the tendency to choose the average inventory valuation method by a positive coefficient value of 0.217. Large company inventory volumes and complex management systems affect the management in carrying out corporate accounting

practices. The influence of inventory intensity and the potential to assess inventory using the average method increases along with the increase in firm size of the company. These results align with research conducted by Rahmi et al. (2018) and Yahya & Syavaat (2021), which shows how firm size affects the tendency to use the average method in assessing a company's inventory. A high number of inventory sales in a company also indicates a high level of inventory intensity. This will make the company's profits more significant and make large companies prefer the average method, which provides a more even distribution of costs from changes in purchased goods or raw materials purchased gradually. This is so that the company can reduce the tax costs that will be incurred.

The firm size moderation test results used to moderate the relationship between inventory variability and the tendency to choose the average inventory valuation method showed a strengthening influence with a significance of 0.000 out of 0.05; thus, H6 was acceptable. These results show that firm size can increase the influence of inventory variability variables on the tendency to choose inventory valuation methods. This is seen from the positive directional regression coefficient value, which has a value of 0.011. The variation in the final value of the inventory of a large company in each period can affect the company's accounting policy to be used. The increasing influence of inventory variability on the selection of the average valuation method in companies is in line with the increase in firm size of the company. This consistent result is shown by research Ayem & Harjanta (2018) and Mirandani et al. (2019), which proves that firm size impacts choosing an average valuation method for inventory. When the company has a high variation in the final value of inventory, the company also has a significant profit. Hence, the company's management tends to reduce profits by using the average valuation method for inventory. This will provide the company with a stable inventory value and lower the political costs that the company will incur.

The result of moderation of the current ratio variable is that it has a significance value of 0.000, less than 0.05. This shows how the firm size of a company can reduces the impact of the current ratio variable on the possibility of choosing an average valuation method for inventory because the value of the regression coefficient is negative at -3.424. The coefficient results prove that the firm size characteristic can reduce the impact of the current ratio variable on the likelihood that a company will choose the average valuation method for inventory. The company's ability to maintain the level of financial ratios can influence the company's decision to determine the accounting method to be used in the company's operations. The influence of the current ratio and the potential for companies to evaluate inventory using the average method increases along with the decrease in firm size. These results align with research conducted by Ayem & Harjanta (2018) and Yahya & Syavaat (2021), which shows how firm size affects companies in choosing an average valuation method for inventory. Management can use the company's current ratio to determine the inventory valuation. The high value of the current ratio makes companies use the average method for inventory, which will produce stability in the inventory value so that it remains neither too high nor too low. This will make the company's profit manageable and reduce the tax costs incurred.

The firm size moderation test results, which are used to moderate whether there is a relationship between leverage and the likelihood that companies choose the average inventory method, show a weakening of the influence with a significance value of 0.242 more than 0.05. Therefore, the eight hypotheses of this study are rejected. This result means that research Yahya & Syavaat (2021) cannot prove that firm size can affect the leverage variable as a consideration factor in choosing the average inventory valuation method. On the contrary, it can only be assumed that firm size affects the possibility of choosing the average method for valuing inventory. In other words, management's decision to use an average approach to leveraged inventory will only sometimes be affected by firm size.

CONCLUSION

Based on the test results, variability, current ratio, and leverage have a negative effect on the selection of inventory valuation methods in companies listed on the Indonesia Stock Exchange in 2020-2023, while the results of inventory intensity testing do not influence the selection of inventory valuation methods. Furthermore, firm size strengthens the relationship between inventory intensity and variability in the selection of inventory valuation methods. In contrast, firm size does not strengthen the relationship between current ratio and leverage in selecting accounting valuation methods. The implications of this study show that selecting the proper inventory valuation method can be a company's strategy for optimizing inventory management. However, this study has limitations, such as data limited to a specific period and the potential for unobserved external variables. Further recommendations for the following research include opportunistic motivation and information asymmetry in selecting inventory valuation methods. Opportunistic motivation is important to observe because accounting policies depend on management motivation according to bonus policies based on the company's profits. Information asymmetry can be used as one of the determinants of inventory valuation selection to show the company's true value.

REFERENCE

Abdullah, M., Gulzar, I., Chaudhary, A., Tabash, M. I., Rashid, U., Naaz, I., & Ali, A. (2023). Dynamics of speed of leverage adjustment and financial distress in the Indian steel industry. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(4), 100152. https://doi.org/10.1016/j.joitmc.2023.100152

Aditia, I., & Kustinah, S. (2023). The Effect of Capital Structure, Investment Decision and Working Capital Turn Over on Profitability. *Accounting and Finance Studies*, *3*(3), 157–169. https://doi.org/10.47153/afs33.6902023

Ahmed, E. R., Alabdullah, T. T. Y., Ardhani, L., & Putri, E. (2021). The Inventory Control System's Weaknesses Based on the Accounting Postgraduate Students' Perspectives. *Jabe (Journal of Accounting and Business Education)*, *5*(2), 1. https://doi.org/10.26675/jabe.v5i2.19312

Al-homaidi, E. A., Dabwan, A. S., & Ahmad, D. A. (2018). Valuation of Inventory Methods in the Industrial Companies in Yemen. *International Journal for Scientific Research & Development*, *6*(04), 591–597. http://ijsrd.com/articles/IJSRDV6I40574.pdf

Ayem, S., & Harjanta, A. P. P. (2018). Pengaruh Ukuran Perusahaan, Variabilitas Persediaan, Kepemilikan Manajerial, Financial Leverage dan Laba Sebelum Pajak Terhadap Pemilihan Metode Akuntansi Persediaan. *Jurnal Akuntansi Dewantara*, *2*(1), 83–95. https://doi.org/10.29230/ad.v2i1.2578

Chakrabarty, S., & Wang, L. (Lucas). (2021). Sensitivity about inventory leanness. *Journal of Manufacturing Technology Management*, *32*(2), 376–399. https://doi.org/10.1108/JMTM-12-2019-0422

Dabbous, A., Barakat, K. A., & Kraus, S. (2023). The impact of digitalization on entrepreneurial activity and sustainable competitiveness: A panel data analysis. *Technology in Society*, *73*(February). https://doi.org/10.1016/j.techsoc.2023.102224

Dewi, N. L. P. A., Endiana, I. D. M., & Arizona, I. P. E. (2019). Pengaruh Rasio Likuiditas, Rasio Leverage dan Rasio Profitabilitas Terhadap Financial Distress Pada Perusahaan Manufaktur. *Journal of Chemical Information and Modeling*, *53*(November), 1689–1699.

Dwi Kartinah, & Tommy Kuncara. (2021). Analysis Of The Application Of Recording Methods And Assessment Of Inventories In Accordance With Psak No. 14 At Andrew Smith Urban Lifestyle Supermall Karawaci. *International Journal of Science, Technology & Management*, *2*(4), 1399–1409. https://doi.org/10.46729/ijstm.v2i4.285

Erawati, T., & Ramadhani, D. (2023). Pengaruh Ukuran Perusahaan, Variabilitas Harga Pokok Penjualan, Likuiditas, dan Laba Sebelum Pajak Terhadap Pemilihan Metode Akuntansi Persediaan: Studi Empiris Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2016-2020. *Al-Kharaj : Jurnal Ekonomi, Keuangan & Bisnis Syariah*, *5*(3), 1436–1447. https://doi.org/10.47467/alkharaj.v5i3.2129

Febriansyah, E., Yulinda, A. T., & Rosalinda, L. (2020). Pengaruh Variabilitas Persediaan, Ukuran Perusahaan dan Intensitas Persediaan Terhadap Pemilihan Metode Penilaian Persediaan. *Ekombis Review*, *14*(14), 39–46. https://doi.org/https://doi.org/10.37676/ekombis.v8i1.930

Fitri, Y., & Firzatullah, F. (2020). Pengaruh Ukuran Perusahaan, Financial Leverage Dan Laba Sebelum Pajak Terhadap Pemilihan Metode Akuntansi Persediaan (Studi Empiris Pada Perusahaan Manfaktur Yang Terdaftar Di Bei Tahun 2015-2018). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi*, *5*(4), 516–525. https://doi.org/10.24815/jimeka.v5i4.16775

Gebisa, D. (2023). The Impact of Information Sharing and Inventory Management Practices on Firms' Performance in Supply Chain Practices. *Gadjah Mada International Journal of Business*, *25*(2), 199–225. https://doi.org/10.22146/gamaijb.69616

Hasanuddin, R., Darman, D., Taufan, M. Y., Salim, A., Muslim, M., Halim, A., & Kusuma, P. (2021). The Effect of Firm Size, Debt, Current Ratio, and Investment Opportunity Set on Earnings Quality : An Empirical Study in Indonesia. *Journal of Asian Finance, Economics and Business*, *8*(6), 179–188. https://doi.org/10.13106/jafeb.2021.vol8.no6.0179

Indriyani, N., & Riharjo, I. B. (2018). Faktor-Faktor Yang Mempengaruhi Pemilihan Metode Akuntansi Persediaan. *Jurnal Ilmu dan Riset Akuntansi*, *7*(6), 1–18.

Karim, A., Widyarti, E. T., & Santoso, A. (2023). Effect of current ratio, total asset turnover, and size on profitability: Evidence from Indonesia manufacturing companies. *Diponegoro International Journal of Business*, *6*(1), 57–63. https://doi.org/10.14710/dijb.6.1.2023.57-63

Kartikahadi, H., Sinaga, R. U., Leo, L., Syamsul, M., Siregear, S. V., & Wahyuni, E. T. (2019). *Akuntansi keuangan berdasarkan SAK berbasis IFRS (IAI)*. 978-979-9020-57–4.

Kholilah, K., Rahman, A. F., Atmini, S., & Ghofar, A. (2024). Opportunistic motivation on fair value accounting of investment properties: Does corporate governance matter in Indonesia? *Journal of Social Economics Research*, *11*(1), 73–85. https://doi.org/10.18488/35.v11i1.3611

Markonah, M., Salim, A., & Franciska, J. (2020). Effect of Profitability, Leverage, and Liquidity To the Firm Value. *Dinasti International Journal of Economics, Finance & Accounting*, *1*(1), 83–94. https://doi.org/10.38035/dijefa.v1i1.225

Mascle, C., & Gosse, J. (2014). Inventory management maximization based on sales forecast: Case study. *Production Planning and Control*, *25*(12), 1039–1057. https://doi.org/10.1080/09537287.2013.805343

Maulida, A. F. J., & Kurniawan, E. (2023). Analysis of the Effect of Liquidity, Inventory Variability on Profit Before Tax for FIFO & Average Inventory Accounting Methods. *Summa : Journal of Accounting and Tax*, *1*(1), 49–60. https://doi.org/10.61978/summa.v1i1.86

Meilia, W., & Rahmatika, D. N. (2020). Pengaruh Ukuran Perusahaan, Likuiditas, Leverage, dan Margin Laba Kotor terhadap Pemilihan Metode Penilaian Persediaan. *Permana : Jurnal Perpajakan, Manajemen, dan Akuntansi*, *12*(2), 215–232. https://doi.org/10.24905/permana.v12i2.113

Minggo, G., Tanaka, P., & Respati, H. (2021). Cost of Inventory Calculation Analysis Using The Fifo and Lifo Methods. *Journal of Business Management and Economic Research*, *5*(4), 109–120. https://doi.org/10.29226/TR1001.2021.270

Mirandani, N. K. D., Merawati, L. K., & Munidewi, I. . B. (2019). Pengaruh Ukuran Perusahaan, Variabilitas Persediaan, Financial Leverage, Laba Sebelum Pajak, Dan Variabilitas Harga Pokok Penjualan Terhadap Pemilihan Metode Akuntansi Persediaan. *Seminar Nasional INOBALI*, 1205–1213.

Narulfita, U., & Siswanto, E. H. (2020). Pengaruh Ukuran Perusahaan, Current Asset Dan Leverage Terhadap Pemilihan Metode Akuntansi Persediaan. *Indonesian Journal of Economics Application*, *2*(1), 61–67. http://ojs.itb-ad.ac.id/index.php/IJEA

Novita Sari, I., Agussalim, & yuli ayu putri, S. (2022). The Effect Of Inventory Intensity,Var Iability Of Inventory, And Financial Leverge To The Selection Of Valuation Method Of Inventory Accouthing In Manufacture Companies Listed On The Stock Exchange Of Bursa Efect Indonesia Period 2014-2018. *Pareso Jurnal*, *4*(1), 225–238.

Oktapiani, R., & Suarantalla, R. (2024). *Analisis Pengaruh Variabilitas Harga Pokok Penjualan, Rasio Lancar, Financial Leverage, Variabilitas Persediaan, Ukuran Perusahaan, Intensitas Persediaan Terhadap Pemilihan Metode Akuntansi Persediaan (Studi Pada Perusahaan Manufaktur Yang Terdaftar Di Bu*. *2*(9), 238–245.

Pamungkas, F. A., & Izzaty, K. N. (2024). Analisis Faktor-Faktor Yang Mempengaruhi Pemilihan Metode Penilaian Persediaan Pada Perusahaan Manufaktur Di Industri Produk Konsumsi. *Journal of Accounting anf Finance*, *3*(1), 17–27. https://doi.org/10.22219/jafin.xxxxxxxxx

Prabandari, A. R., & Kholilah, K. (2024). *Subsequent Measurement For Investment Property: Fair Value Model*. *14*(03), 667–684. https://doi.org/10.22219/jrak.v14i3.29608

Putra, I. D. W., & Sari, V. F. (2020). Pengaruh Financial Distress, Leverage, Dan Profitabilitas Terhadap Konservatisme Akuntansi. *Jurnal Eksplorasi Akuntansi*, *2*(4), 3500–3516. https://doi.org/10.24036/jea.v2i4.299

Putri, N., & Cahyaningdyah, P. (2024). *Pengaruh Intensitas Persediaan, Intensitas, Modal, Leverage, Rasio Lancar, dan Ukuran Perusahaan terhadap Penentuan Metode Penilaian Persediaan*. *13*(2), 212–226. https://doi.org/10.21831/nominal.v13i2.76668

Rachman, S., Karyatun, S., & Digdowiseiso, K. (2023). The Effect of Current Ratio, Debt to Equity Ratio, Debt to Asset Ratio, and Total Asset Turnover on The Financial Performance of Property and Real Estate Companies Listed in The Idx For The 20162020 Period. *Jurnal Syntax Admiration*, *4*(2), 361–377. https://doi.org/10.46799/jsa.v4i2.904

Rachmawati, N. L., & Lentari, M. (2022). Penerapan Metode Min-Max untuk Minimasi Stockout dan Overstock Persediaan Bahan Baku. *Jurnal INTECH Teknik Industri Universitas Serang Raya*, *8*(2), 143–148. https://doi.org/10.30656/intech.v8i2.4735

Rahmi, N., Malikah, A., & Junaidi, J. (2018). Analisis Faktoe-Faktor Yang Mempengaruhi Pemilihan Metode Akuntansi Persediaan (studi pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia). *E-JRA*, *07*(3), 86–96.

Rejeki, D. (2023). Pengaruh Ukuran Perusahaan, Margin Laba Kotor Dan Perputaran Persediaan Terhadap Pemilihan Metode Akuntansi Persediaan Pada Perusahaan Food and Beverage Yang Terdaftar Di Bursa Efek Indonesia Tahun 2017-2019. *Jurnal Akuntansi dan Bisnis Krisnadwipayana*, *10*(1), 1077–1089. https://doi.org/10.35137/jabk.v10i1.879

Rioni, Y. S. (2020). Faktor–Faktor Mempengaruhi Pemilihan Metode Penilaian Persediaan Pada Perusahaan Industri Di Bursa Efek Indonesia. *Jurnal Akuntansi Bisnis & Publik*, *11*(1), 1–10. http://jurnal.pancabudi.ac.id/index.php/akuntansibisnisdanpublik/article/view/951

Risandi, G. (2020). Analisis Faktor-Faktor Yang Mempengaruhi Pemilihan Metode Akuntansi Persediaan (Studi Empiris Pada Perusahaan Sektor Industri Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia Periode 2016-2018). *Profita: Komunikasi Ilmiah Akuntansi dan Perpajakan*, *01*(03), 74–81.

Rosilawati, L., & Nawirah, N. (2024). Sustainability Reporting : Moderating The Impact of Financial Performance on Stock Price. *Owner*, *8*(3), 2952–2967. https://doi.org/10.33395/owner.v8i3.2126

Salman, M., Akram, H., Hamza, M., & Rauf, N. (2023). *The Impact of Inventory Management on Financial Performance in the Pakistani Pharmaceutical Sector : A Multivariate Analysis Zarwish*. *5*, 97–122.

Sangadah, S., & Kusmuriyanto, K. (2014). *Analisis Pemilihan Metode Akuntansi Persediaan Pada Perusahaan Manufaktur*. *3*(4), 457–465.

Sondakh, J. J., Tulung, J. E., & Karamoy, H. (2021). The effect of third-party funds, credit risk, market risk, and operational risk on profitability in banking. *Journal of Governance and Regulation*, *10*(2), 179–185. https://doi.org/10.22495/jgrv10i2art15

Sun, Y., Usman, M., Radulescu, M., Pata, U. K., & Balsalobre-Lorente, D. (2024). New insights from the STIPART model on how environmental-related technologies, natural resources and the use of the renewable energy influence load capacity factor. *Gondwana Research*, *129*, 398–411. https://doi.org/https://doi.org/10.1016/j.gr.2023.05.018

Suzan, L., & Ichsan, I. (2021). Pengaruh Ukuran Perusahaan, Variabilitas Persediaan, Variabilitas Harga Pokok Penjualan, Dan Laba Sebelum Pajak Terhadap Metode Akuntansi Persediaan. *Jurnal Ilmiah MEA*, *5*(3), 2166–2182.

Tadayonrad, Y., & Ndiaye, A. B. (2023). A new key performance indicator model for demand forecasting in inventory management considering supply chain reliability and seasonality. *Supply Chain Analytics*, *3*(June), 100026. https://doi.org/10.1016/j.sca.2023.100026

Teplická, K., & Seňová, A. (2020). Invetory valuation methods and their impact on the company´s profit generation. *Acta Logistica*, *7*(3), 201–207. https://doi.org/10.22306/al.v7i3.178

Utari, C., Manalu, M. W., Lubis, N. R., & Muda, I. (2023). Approaches and critiques of Positive Accounting Theory (PAT) and Normative Accounting Theory (NAT) : a literature review. *Brazilian Journal of Development*, *9*(12), 31784–31799. https://doi.org/10.34117/bjdv9n12-082

Watts, R. L., & Zimmerman, J. L. (1990). Positive Accounting Theory: A Ten Year Perspective. *Review Literature And Arts Of The Americas*, *65*(1), 131–156. http://www.jstor.org/stable/247880

Wicaksono, A. P., Kusuma, H., Cahaya, F. R., Rosjidi, A. Al, Rahman, A., & Rahayu, I. (2024). Impact of institutional ownership on environmental disclosure in Indonesian companies. *Corporate Governance (Bingley)*, *24*(1), 139–154. https://doi.org/10.1108/CG-08-2022-0356

Yahya, A., & Syavaat, M. F. (2021). Pemilihan Metode Akuntansi Penilaian Inventori Dan Variabel Yang Mempengaruhinya. *Ultima Accounting Jurnal Ilmu Akuntansi*, *13*(2), 187–201. https://doi.org/10.31937/akuntansi.v13i2.2026