

Analysis of Trade Goods Inventory Valuation at Tb. Rizky Mandiri Door

Kamila Fitriani¹, Uus Mohammad Darul Fadli^{1*}, Ery Rosmawati¹

¹ Management Study Program, Faculty of Economics and Business
Universitas Buana Perjuangan Karawang, Jln. HS Ronggowaluyo Telukjambe Timur,
Karawang, 41361, INDONESIA

*Corresponding Author: uus.fadli@ubpkarawang.ac.id

DOI: <https://doi.org/10.30880/rmtb.2024.05.01.131>

Article Info

Received: 31 March 2024

Accepted: 30 April 2024

Available online: 30 June 2024

Keywords

Recording of Merchandise Inventory,
FIFO, LIFO.

Abstract

Trade inventory is a collection of goods the company sells to customers. The main source of company income is inventory. This study aimed to know the recording and valuation of trade goods inventory and how the inventory method compares with the FIFO and the LIFO methods. This research is quantitative descriptive research. This research place is located at TB. Pintu Rizky Mandiri Tanjungmekar, West Karawang District. The informants in this study were shop owners. Primary data was collected from observation, interviews, and documentation, and secondary data was obtained through books, previous research, online media, and libraries. The results showed that valuing trade goods inventory using the FIFO method is more efficient than using the LIFO method because the FIFO method results in a low cost of goods sold compared to using the LIFO method.

1. Introduction

Based on data from the Directorate General of Small, Medium, and Miscellaneous Industries (Dirjen IKMA) of the Ministry of Industry, the *real estate* sector and companies using industrial construction in 2022 grew by 2.78% and 2.81%, respectively. *Year on Year (YoY) percentage* (Malau, 2023). According to Jordy Salim, founder and CO-Founder and Chief Executive Officer of Tokban to KONTAN, Tokban focuses on the *business-to-business (BtoB) segment*, one of which is the construction industry. Based on his records, the number of construction vendors, including construction companies in Indonesia, is currently large, reaching 175,000 (Anisah, 2022).

In September 2022, the Central Statistics Agency (BPS) National General Trade Price Index (IHPB) increased by 0.86%. The IHPB development in September 2022 experienced an increase of 1.27% compared to the previous month; the price increase was triggered by the price of raw materials such as diesel, sand, stone, building foundations, cement, and split stone can be seen in Figure 1 below.

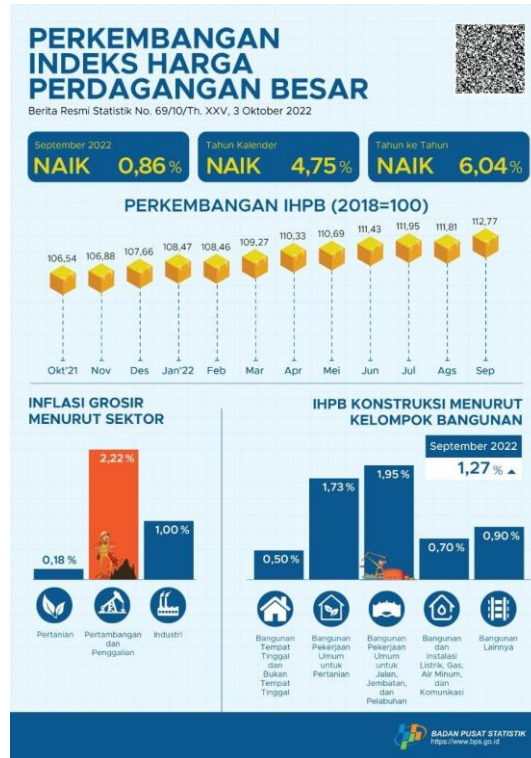


Fig. 1 Price Index for Wholesale Trade (IHPB)
Source: Central Bureau of Statistics

Trading companies, defined by Soemohadiwidjojo (2017: 10), order physical goods from distributors and trade directly with trading parties. Company products strive to create profits from each of these activities to survive and increase its business (Tamodia, 2013). In carrying out inventory activities, the result is often a shortage, damage, and loss. Trading companies are very integrated with the availability of goods in the warehouse to protect sales operations. Obstacles arising in goods that often occur in inventory can create discrepancies in inventory recording, which generally occur when goods are damaged or recording is not appropriate (Sangadah & Muntiah, 2021). Inventories owned by companies usually have different values. To achieve this goal, calculations are required to determine the final value of the inventory. According to Hery (2014) in Minggo & Respati (2021), there are several methods for calculating stock, namely, the average method, the FIFO (*First In First Out*) method, and the LIFO (*Last In First Out*) method.

Inventory in the company must be effective and efficient to avoid the consequences of excessive purchases. Hoarding can lead to increased storage costs and decreased product quality due to large purchases. Accumulating inventory can result in increased storage costs and reduced quality of goods. According to Suad & Pudjiastuti (2015: 145) in Timbu (2022), abundant inventory will create significant flexibility for the company, but will also impact large expenses. Meanwhile, a small inventory will cut costs but can interfere with smooth production or sales.

One of the problems faced by the company is the non-optimality in recording and valuing the inventory of trade goods that have been sold. This can result in uncertainty in determining the actual amount of inventory available and sold to customers. TB. Pintu Rizky Mandiri does not record the amount of trade goods and only makes estimates. Errors occur when sending goods to the warehouse, errors occur in the placement of goods due to employee carelessness. To reduce the risk of discrepancies, loss, and damage, this can be caused by a lack of control over the inventory of trade goods (Situmorang & Herlambang, 2024).

To prevent loss of goods, a clear check and system is needed to ensure the inventory of trade goods, because building material stores are at risk of damage due to goods accumulating in the warehouse. The calculation of inventory value will refer to inventory sold because companies with this type of inventory will usually sell inventory that enters the warehouse early. The merchandise inventory recording system carried out by TB. Pintu Rizky Mandiri uses a periodic system with the FIFO method. Records made at TB. Pintu Rizky Mandiri uses a periodic recording system. Recording is done every month at TB. Rizky Mandiri Door.

According to previous research conducted by Pah *et al.* (2023), the results showed that the use of the FIFO method total stock at the end of the period affects the cost of goods sold, where the cost of goods sold is the smallest and gross profit and net profit are the largest compared to using the LIFO and *AVERAGE* methods which result in a larger ending inventory value so that the cost of goods sold is greater which then makes the resulting

profit smaller. Previous research belonging to Pratiwi & Heriyanto (2020) the results showed that the final inventory value of the *First In First Out* (FIFO) method is superior compared to the *Last In First Out* (LIFO) method and the *Average* method, the *First In First Out* (FIFO) method will provide a lower cost of goods sold than the *Average* method. Therefore, the results of the analysis and discussion show that the company would be more suitable if it applied the *First In First Out* (FIFO) method rather than the *Last In First Out* (LIFO) method or the *Average* method. Previous research belonging to Aprilia *et al.* (2020) the results of the study concluded that the calculations that have been carried out use the three methods, namely FIFO, LIFO, and *Average*. Each method has its advantages and disadvantages, therefore UKM Megah Sandal can choose the inventory calculation that will be used.

The purpose of doing this research is to analyze the system of recording the valuation of trade goods inventory and how the inventory method compares using FIFO and LIFO to determine the cost of goods sold, by making a comparison of calculations using both inventory methods.

2. Literature Review

2.1 Inventory Management

Inventory management is one part of operational management and production management. In businessdictionary.com, it is stated that inventory management is an activity to be able to maintain the optimum amount of goods that are already owned. Overall, this production process is a dynamic process, especially in the movement of goods. Therefore, good management of these goods will be needed so that they cannot interfere with the production process. This management will be referred to as inventory management. So the definition of inventory management is the process of managing inventory or stock of goods owned by a factory, company or organization, to be used, used or distributed (Kustiningsih & Farhan, 2022).

2.2 Inventory

According to Hidayah and Mustoffa (2018: 14) in Sangadah & Muntiah (2021) inventory is a commodity that will be used or consumed in the production of products for sale, or assets of a business that are intended for sale as part of normal business operations.

Warren *et al.* (2016) in Lucky Mahesa Yahya *et al.* (2023) state that inventory is trade goods that are stored and can be traded in company activities and can be used in the production process but also used in certain purposes. According to Ahyadi (2017) in Yahya *et al.* (2023) inventories are materials or goods stored as raw materials or finished goods that will later be used for certain purposes, for example for use in the manufacturing or assembly process, for marketing or resale. So, the inventory owned by the company can be used in the production process or sold during daily business operations. Inventory is very important in manufacturing and trading, and problems with inventory can disrupt the entire business operation. Therefore, maintaining good inventory is essential to the company's operations.

2.3 First In First Out (FIFO)

According to Warren *et al.* (2017: 346) in Suharti & Fong (2018) the FIFO (*First In First Out*) method is a method in which the costs allocated to the calculation of results are the first costs received. This method is also called MP2KP or FIFO, FIFO is the most commonly used method. This method uses assumptions about goods that have been purchased first and will be sold or used first so that the remaining goods will be purchased or produced to complete the inventory. According to Eddy Herjanto (2010: 263) in Pratiwi *et al.* (2020) explains that the procedure for calculating inventory using the *First In, First Out* (FIFO) method is as follows:

Table 1 Procedure FIFO

Beginning inventory	Rp. Xxx
Purchase	Rp. xxx +
Available for sale	<u>Rp. Xxx</u>
Sales	<u>Rp. xxx -</u>
Ending inventory	Rp. Xxx

2.4 Last In First Out (LIFO)

The LIFO (*Last In, First Out*) method assumes that the unit of goods purchased will be delivered first, not the physical goods, but the cost (Rondonuwu, *et al.*, 2016). Inventory can be calculated using the *Last In First Out* (LIFO) method can be used to calculate stock. According to Warren *et al.* (2017: 346) in Suharti & Fong (2018), the LIFO method assumes that the last stock purchased will be sold early, so the final inventory purchased is

issued at the beginning. According to Eddy Herjanto (2010: 263) in Pratiwi *et al.* (2020):

Table 2 Procedure LIFO

Beginning inventory	Rp. Xxx
Purchase	Rp. xxx +
Available for sale	Rp. Xxx
Sales	Rp. xxx -
Ending inventory	Rp. Xxx

2.5 Periodic Inventory Recording System

According to Warren *et al.* (2017: 282) in Suharti & Fong (2018) inventory records in a periodic inventory system do not display the number of goods available for sale at any given time. In contrast to physical inventory, a list of items on hand is made at the end of the accounting period. The physical method, also known as the periodic method, requires an inventory count at the time of preparing the financial statements. This stock count is needed to determine the total stock and calculate its cost. The periodic system is a record of the amount of inventory that is not carried out continuously but is physically counted at a specified point in time. The amount of inventory is recorded at the end of each period, for example the end of the month or the end of the year by calculating the physical amount of inventory available at the end of the period (stock-taking).

2.6 Perpetual Inventory Recording System

According to Warren *et al.* (2017: 282) in Suharti & Fong (2018) In a perpetual inventory system, every purchase and sale of goods is recorded in the inventory account and the corresponding ledger. Thus, the quantity of goods available for sale and the quantity sold are reported in the inventory records on a perpetual basis. In a perpetual inventory system, every purchase and sale of goods is recorded in the inventory account and the corresponding ledger. Thus, the quantity of goods available for sale and the quantity sold are reported in the inventory records continuously. The difference between the periodic and perpetual recording systems lies in the ending inventory in the statement of financial position and cost of goods sold in the income statement. Inventory must be physically counted to determine the amount of ending inventory first before the calculation of cost of goods sold can be made (Arif & Wijayanti, 2022).

2.7 Cost of Goods Sold

The cost of goods sold is an important part of a company's financial statements and an important factor in calculating production costs. The entire cost incurred to obtain the goods sold or the price obtained from the goods sold can also be called the cost of goods sold. According to Basuki Darsono's book "Economics Students Specialization in Social Sciences for SMA / MA Class XII Students," COGS is the sum of the initial balance of inventory and the cost of goods purchased minus the amount of ending inventory during a certain period (Sheykal, 2023).

Inventory can also be subject to errors in accounting for its inventory; this will also lead to a high cost of goods sold, making the gross profit and net profit presented in the income statement erroneous. The formula for the cost of goods sold (Hery, 2011 in Pah *et al.*, 2023). $\text{Beginning Inventory} + \text{Cost of Goods Purchased} - \text{Ending Inventory} = \text{Cost of Goods Sold}$ Formula for gross profit. (Hery, 2011 in Pah *et al.*, 2023). $\text{Net Sales} - \text{Cost of Goods Sold} = \text{Gross Profit}$. (Soemarso 2009: 388 in Kristiani & Puspita 2017) The form of calculating the cost of goods sold is as follows.

Table 3 Procedure COGS

Beginning merchandise inventory	Rp. Xxx
Net Purchase	Rp. xxx +
Available for sale	Rp. Xxx
Ending merchandise inventory	Rp. xxx -
Cost of goods sold	Rp. Xxx

3. Framework of Thought

TB. Pintu Rizky Mandiri is a retail business that operates in the field of sales in construction materials and building supplies, and building stores that sell building materials, power tools, and iron. Many building stores use the periodic method of recording inventory because it is practical and economical. The periodic method is simpler to apply compared to the perpetual method, building stores have many kinds of goods with large

volumes that would be very complicated and time consuming if using the perpetual method, with the periodic method the store owner is more focused on sales and customers than having to constantly monitor and record inventory. The periodic method can help in more effective stock management and cost efficiency. The various quantities of types of inventory, categories, and brands of products sold by a company, the need for an inventory valuation method to be more efficient. If the method is appropriate, it will assist management in recording and valuing inventory and making provisions to prevent shortages or excess goods and always complement customer needs. The figure below illustrates the framework of this study.

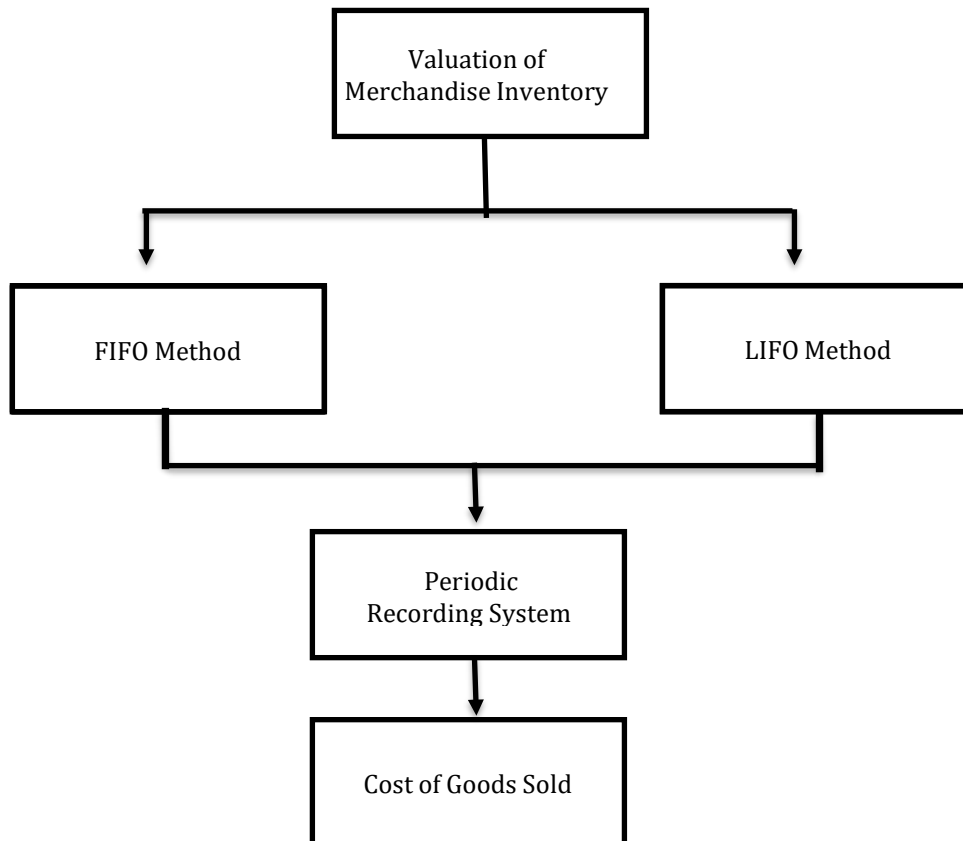


Fig. 2 Thinking Framework

4. Research Methods

This research uses data analysis techniques, namely quantitative descriptive research with a comparative study design. This research was conducted at TB. Pintu Rizky Mandiri, with the research time from November to December 2023, with the respondent being the owner of TB. Pintu Rizky Mandiri. This research uses primary and secondary data sources. Primary data is collected through field studies, direct interviews, and documentation with shop owners (Pranata & Rosmawati, 2023). Primary data is in the form of information obtained directly from the company regarding data and research objects related to inventory, while secondary data is obtained through books, previous research, and libraries, reports generated by companies such as financial reports and other documents related to research (Suharti & Fong, 2018). The information obtained is related to data on the entry and exit of goods, purchases of goods, and sales data for the period September to December 2023. In this study, researchers will analyze and compare the calculation results of finished goods inventory using the two inventory calculation methods, namely the FIFO and LIFO methods Aprilia *et al.* (2020).

5. Results and Discussion

5.1 Company Profile

This research was conducted at TB. Pintu Rizky Mandiri in Karawang which was established in 2014, is located in Tanjungmekar, West Karawang District, Karawang, West Java. With the owner named Mrs. Iis Rahini together with her husband, this business started with Mrs. Iis Rahini and her husband only selling 1 type of trade item, namely sand for buildings over time this building shop business has grown until now, because the city of Karawang currently has many buildings and housing making it an increasing business opportunity for

building shops. TB. Pintu Rizky Mandiri has 5 employees, including 1 person taking care of recording inventory from ordering to sales, 1 driver, and 3 other people as transporters of goods that have been purchased by consumers and then sent to consumers, while Mrs. Iis Rahini and her husband are directly in charge of serving consumers.



Fig. 3 Rizky Mandiri Door Building Shop

5.2 Data Analysis

Below is Table 4 initial inventory data for September 2023, table 5 purchase data for the period September to December 2023, table 6 sales data, and Table 7 final inventory data.

Table 4 Initial Inventory Data for September 2023

No.	Item Name	Unit	Unit	Price/Unit (Rp)	Amount (Rp)
1	Three Wheels 40 Kg Cement	30	Sack	57.000	1.710.000
2	Avitex wall paint 5kg	4	Cans	130.000	520.000
3	Sand	28	Cubic	225.000	6.300.000
4	Hebel Brick size 10	2	Cubic	440.000	880.000
5	Iron Uk 8	20	Stem	37.000	740.000
Total		84			10.150.000

Table 5 Purchase Data for the Period September-December 2023

No.	Item Name	Unit	Unit	Price/Unit (Rp)	Amount (Rp)
1	Three Wheels 40 Kg Cement	2400	Sack	57.000	136.800.000
2	Avitex wall paint 5kg	380	Cans	130.000	49.400.000
3	Sand	576	Cubic	225.000	129.600.000
4	Hebel Brick size 10	208	Cubic	440.000	91.520.000
5	Iron Uk 8	2000	Stem	37.000	74.000.000
Total		3.804			481.320.000

Table 6 Goods Sales Data

No.	Item Name	Unit	Unit	Price/Unit (Rp)	Amount (Rp)
1	Three Wheels 40 Kg Cement	2403	Sack	60.000	144.180.000
2	Avitex wall paint 5kg	381	Cans	140.000	53.340.000
3	Sand	577	Cubic	230.000	132.710.000
4	Hebel Brick size 10	208	Cubic	500.000	104.000.000
5	Iron Uk 8	1.996	Stem	50.000	99.800.000
Total		3.804			534.030.000

Table 7 Ending Inventory Data

No.	Item Name	Unit	Unit	Amount (Rp)
1	Three Wheels 40 Kg Cement	27	Sack	1.539.000
2	Avitex wall paint 5kg	3	Cans	390.000
3	Sand	27	Cubic	6.075.000
4	Hebel Brick size 10	2	Cubic	880.000
5	Iron Uk 8	24	Stem	888.000
Total		84		9.772.000

5.3 Results

Valuation of trade goods inventory using the FIFO method and the LIFO method used in conducting the inventory recording system. In this method, it is assumed that the first item to enter the storage warehouse is the number of items that will be sold first. This is intended to prevent the stock of old and damaged goods if left too long in the storage warehouse. Because TB. Pintu Rizky Mandiri has too much inventory, therefore researchers only obtained 5 types of goods including, among others, three-wheel cement 40 kg, avitex wall paint 5 kg, sand, hebel brick size 10, and iron size 8. The reason for choosing five types of goods is because these items are widely purchased at the store. Below are the merchandise inventory records of the five samples:

Table 8 Periodic FIFO Inventory Card Three Wheel Cement 40 kg (Unit Per-Sack) Period September 1-December 31, 2023

Month /2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep	Beginning Inventory						30	57.00	1.710.00
Sept	480	57.00	27.360.000					0	0
		0		485	57.0	27.645.000	25	57.00	1.425.00
					00			0	0
Oct	480	57.00	27.360.000				505	57.00	28.785.0
		0						0	00
				477	57.0	27.189.000	28	57.00	1.596.00
					00			0	0
Nov	480	57.00	27.360.000				508	57.00	28.956.0
		0						0	00
				488	57.0	27.816.000	20	57.00	1.140.00
					00			0	0
Dec	960	57.00	54.720.000				980	57.00	55.860.0
		0						0	00
				800	57.0	45.600.000	180	57.00	10.260.0
					00			0	00
				153	57.0	8.721.000	27	57.00	1.539.00
					00			0	0

Total	2.400	136.800.000	2403	136.971.000	27	57.000	1.539.000
		Purchase		Cost of Goods Sold			Ending Inventory

Calculation of cost of goods sold in September-December 2023 for 40kg Tiga Roda Cement inventory with aperiodic system if using the FIFO method, namely:

Beginning inventory Sept 1, 2023	Rp. 1.710.000
Purchase during September-December 2023	Rp. <u>136.800.000</u> +
Available-for-sale Inventory	Rp. 138.510.000
Ending Inventory December 31, 2023	Rp. <u>1.539.000</u> -
Cost of Goods Sold	Rp. 136,971,000

Calculation of Gross Profit using the periodic system with the FIFO method in September-December 2023, namely:

Sales	Rp. 144.180.000
Cost of Goods Sold	Rp. <u>136.971.000</u> -
Gross Profit	Rp. 7.209.000

Table 9 Periodic FIFO Inventory Card of Avitex 5 kg Wall Paint (Cans) Period September 1-December 31, 2023

Month/ 2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep			Beginning Inventory				4	130.000	520.000
Sep	95	130.000	12.350.000				99	130.000	12.870.000
				93	130.000	12.090.000	6	130.000	780.000
Oct	95	130.000	12.350.000				101	130.000	13.130.000
				96	130.000	12.480.000	5	130.000	650.000
Nov	95	130.000	12.350.000				100	130.000	13.000.000
				97	130.000	12.610.000	3	130.000	390.000
Dec	95	130.000	12.350.000				98	130.000	12.740.000
				95	130.000	12.350.000	3	130.000	390.000
Total	380		49.400.000	381		49.530.000	3	130.000	390.000
			0			0		00	
		Purchase				Cost of Goods Sold			Ending Inventory

Calculation of cost of goods sold in September-December 2023 for avitex 5kg wall paint inventory with a periodic system if using the FIFO method, namely:

Beginning inventory Sept 1, 2023	Rp. 520.000
Purchase during September-December 2023	Rp. <u>49.400.000</u> +
Available-for-sale Inventory	Rp. 49.920.000
Ending Inventory December 31, 2023	Rp. <u>390.000</u> -
Cost of Goods Sold	Rp. 49.530.000

Calculation of Gross Profit using the periodic system with the FIFO method in September-December 2023, namely:

Sales	Rp. 53.340.000
Cost of Goods Sold	Rp. <u>49.530.000</u> -
Gross Profit	Rp. 3.810.000

Table 10 Periodic FIFO Inventory Card of Sand (Cubic) Period September 1 December 31, 2023

Month /2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep	Beginning Inventory						28	225.0	6.300.000
Sep	144	225.0	32.400.000				172	225.0	38.700.000
		00		145	225.000	32.625.000	27	225.000	6.075.000
Oct	144	225.0	32.400.000				171	225.0	38.475.000
		00		147	225.000	33.075.000	24	225.000	5.400.000
Nov	144	225.0	32.400.000				168	225.0	37.800.000
		00		140	225.000	31.500.000	28	225.000	6.300.000
Dec	144	225.0	32.400.000				172	225.0	38.700.000
		00		145	225.000	32.625.000	27	225.000	6.075.000
Total	576		129.600.000	577		129.825.000	27	225.000	6.075.000
	Purchase			Cost of Goods Sold			Ending Inventory		

Calculation of cost of goods sold in September-December 2023 for sand inventory with a periodic system if using the FIFO method, namely:

Beginning inventory Sept. 1, 2023	Rp.	6.300.000	
Purchase during September-December 2023	Rp.	<u>129.600.000</u>	+
Available-for-sale Inventory	Rp.	135.900.000	
Ending Inventory December 31, 2023	Rp.	<u>6.075.000</u>	-
Cost of Goods Sold	Rp.	129.825.000	

Calculation of Gross Profit using the periodic system with the FIFO method in September-December 2023, namely:

Sales	Rp.	132.710.000	
Cost of Goods Sold	Rp.	<u>129.825.000</u>	-
Gross Profit	Rp.	2.885.000	

Table 11 Periodic FIFO Inventory Card of Hebel Brick size 10 (Cubic) Period September 1-December 31, 2023

Month /2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep	Beginning Inventory						2	440.0	880.000
Sep	52	440.0	22.880.000				54	440.0	23.760.000
		00		50	440.000	22.000.000	4	440.000	1.760.000
Oct	52	440.0	22.880.000				56	440.0	24.640.000
		00		53	440.000	23.320.000	3	440.000	1.320.000
Nov	52	440.0	22.880.000				55	440.0	24.200.000
		00		53	440.000	23.320.000	2	440.000	880.000

Dec	52	440.00	22.880.000		54	440.00	23.760.000	
				52	440.000	22.880.000	880.000	
Total	208		91.520.000	208		91.520.000	880.000	
			Purchase				Cost of Goods Sold	Ending Inventory

Calculation of cost of goods sold in September-December 2023 for size 10 hebel brick inventory with a periodic system if using the FIFO method, namely:

Beginning inventory Sept 1, 2023	Rp.	880.000	
Purchase during September-December 2023	Rp.	<u>91.520.000</u>	+
Available-for-sale Inventory	Rp.	92.400.000	
Ending Inventory December 31, 2023	Rp.	<u>880.000</u>	-
Cost of Goods Sold	Rp.	91.520.000	

Calculation of Gross Profit using the periodic system with the FIFO method in September-December 2023, namely:

Sales	Rp.	104.000.000
Cost of Goods Sold	Rp.	<u>91.520.000</u>
Gross Profit	Rp.	12.480.000

Table 12 Periodic FIFO Inventory Card of Iron size 8 (Stem) Period September 1-December 31, 2023

Month/ 2023	Incoming (Purchase)			Exit (Sales)			Remaining			
	Unit	U/P	Amount	Amount	Unit	U/P	Unit	U/P	Amount	
01-Sep			Beginning Inventory					20	37.00	740.000
Sep	500	37.00	18.500.000					520	37.00	19.240.000
		0		499	37.000	18.463.000	21	37.00	0	777.000
Oct	500	37.00	18.500.000					521	37.00	19.277.000
		0		498	37.000	18.426.000	23	37.00	0	851.000
Nov	500	37.00	18.500.000					523	37.00	19.351.000
		0		498	37.000	18.426.000	25	37.00	0	925.000
Dec	500	37.00	18.500.000					525	37.00	19.425.000
		0		501	37.000	18.537.000	24	37.00	0	888.000
Total	2000		74.000.000	1.996		73.852.000	24	37.00	0	888.000
			Purchase				Cost of Goods Sold			Ending Inventory

Calculation of cost of goods sold in September-December 2023 for iron inventory size 8 with a periodic system if using the FIFO method, namely:

Beginning inventory Sept 1, 2023	Rp.	740.000
Purchase during September-December 2023	Rp.	<u>74.000.000</u>
Available-for-sale Inventory	Rp.	74.740.000
Ending Inventory December 31, 2023	Rp.	<u>888.000</u>
Cost of Goods Sold	Rp.	73.852.000

Calculation of Gross Profit using the periodic system with the FIFO method in September-December 2023, namely:

Sales	Rp.	99.800.000
Cost of Goods Sold	Rp.	<u>73.852.000</u> -
Gross Profit	Rp.	25.948.000

Table 13 Periodic LIFO Inventory Card of 40kg Three Wheel Cement (Sack) Period September 1 December 31, 2023

Month/ 2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep			Beginning Inventory				30	57.00	1.710.000
Sep	480	57.00 0	27.360.000						
				485	57.00 0	27.645.000	25	57.00 0	1.425.000
Oct	480	57.00 0	27.360.000						
				477	57.00 0	27.189.000	28	57.00 0	1.596.000
Nov	480	60.00 0	28.800.000						
				420	60.00 0	25.200.000	88	57.00 0	5.016.000
				60	60.00 0	3.600.000	28	57.00 0	1.596.000
Dec	960	57.00 0	54.720.000						
				961	57.00 0	54.777.000	27	57.00 0	1.539.000
Total	2.400		138.240.000	2403		138.411.000	270	57.000	1.539.000
	Purchase			Cost of Goods Sold			Ending Inventory		

Calculation of cost of goods sold in September-December 2023 for 40kg Three Wheel Cement inventory with a periodic system if using the LIFO method, namely:

Beginning inventory Sept 1, 2023	Rp.	1.710.000
Purchase during September-December 2023	Rp.	<u>138.240.000</u> +
Available-for-sale Inventory	Rp.	139.950.000
Ending Inventory December 31, 2023	Rp.	<u>1.539.000</u> -
Cost of Goods Sold	Rp.	138.411.000

Calculation of Gross Profit using the periodic system with the LIFO method in September-December 2023, namely:

Sales	Rp.	144.180.000
Cost of Goods Sold	Rp.	<u>138.411.000</u> -
Gross Profit	Rp.	5.769.000

Table 14 Periodic LIFO Inventory Card of Avitex 5 kg Wall Paint (Cans) Period September 1-December 31, 2023

Month /2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep			Beginning Inventory				4	130.00	520.000
Sept	95	130.00	12.350.000						
				93	130.00 0	12.090.000	6	130.00 0	780.000
Oct	95	130.00	12.350.000						
							101	130.00	13.130.000

				96	130.000	12.480.000	5	130.000	650.000
Nov	95	130.000	12.350.000				100	130.000	13.000.000
				90	130.000	11.700.000	10	130.000	1.300.000
				7	130.000	910.000	3	130.000	390.000
Dec	95	132.000	12.540.000				98	130.000	12.740.000
				95	132.000	12.540.000	3	130.000	390.000
Total	380		49.590.000	381		49.720.000	3	130.000	390.000
			Purchase	Cost of Goods Sold			Ending Inventory		

Calculation of cost of goods sold in September-December 2023 for avitex 5kg wall paint inventory with a periodic system if using the LIFO method, namely:

Beginning inventory Sept 1, 2023	Rp.	520.000	
Purchase during September-December 2023	<u>Rp.</u>	<u>49.590.000</u>	+
Available-for-sale Inventory	Rp.	50.110.000	
Ending Inventory December 31, 2023	<u>Rp.</u>	<u>390.000</u>	-
Cost of Goods Sold	Rp.	49.720.000	

Calculation of Gross Profit using the periodic system with the LIFO method in September-December 2023, namely:

Sales	Rp.	53.340.000	
Cost of Goods Sold	<u>Rp.</u>	<u>49.720.000</u>	-
Gross Profit	Rp.	3.620.000	

Table 15 Periodic LIFO Inventory Card of Sand (Cubic) Period September 1-December 31, 2023

Month/ 2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Unit	U/P	Amount	Unit	U/P	Amount
01-Sep			Beginning Inventory				28	225.000	6.300.000
Sep	144	225.000	32.400.000				172	225.000	38.700.000
				145	225.000	32.625.000	27	225.000	6.075.000
Oct	144	225.000	32.400.000				171	225.000	38.475.000
				147	225.000	33.075.000	24	225.000	5.400.000
Nov	144	225.000	32.400.000				168	225.000	37.800.000
				140	225.000	31.500.000	28	225.000	6.300.000
Dec	144	225.000	32.688.000				172	225.000	38.700.000
				145	225.000	32.915.000	27	227.000	6.129.000
Total	576		129.888.0	577		130.059.0	27	227.0	6.129.000

Calculation of Gross Profit using the periodic system with the LIFO method in September-December 2023, namely:

Sales	Rp.	104.000.000
Cost of Goods Sold	Rp.	<u>91.520.000</u> -
Gross Profit	Rp.	12.480.000

Table 17 Periodic LIFO Inventory Card of Iron size 8 (Stem) Period September 1-December 31, 2023

Month/ 2023	Incoming (Purchase)			Exit (Sales)			Remaining		
	Unit	U/P	Amount	Amount	Unit	U/P	Unit	U/P	Amount
01-Sep			Beginning Inventory			20	37.00		740.000
Sep	500	37.00	18.500.000			520	37.00		19.240.000
		0		499	37.000	18.463.000	21	37.00	777.000
Oct	500	37.00	18.500.000			521	37.00		19.277.000
		0		498	37.000	18.426.000	23	37.00	851.000
Nov	500	37.00	18.500.000			523	37.00		19.351.000
		0		498	37.000	18.426.000	25	37.00	925.000
Dec	500	37.00	18.500.000			525	37.00		19.425.000
		0		501	37.000	18.537.000	24	37.00	888.000
Total	2000		74.000.000	1.996		73.852.000	24	37.00	888.000
			0			0		0	
	Purchase			Cost of Goods Sold			Ending Inventory		

Calculation of cost of goods sold in September-December 2023 for iron inventory size 8 with a periodic system if using the LIFO method, namely:

Beginning inventory Sept 1, 2023	Rp.	740.000
Purchase during September-December 2023	Rp.	<u>74.000.000</u> +
Available-for-sale Inventory	Rp.	74.740.000
Ending Inventory December 31, 2023	Rp.	<u>888.000</u> -
Cost of Goods Sold	Rp.	73.852.000

Calculation of Gross Profit using the periodic system with the LIFO method in September-December 2023, namely:

Sales	Rp.	99.800.000
Cost of Goods Sold	Rp.	<u>73.852.000</u> -
Gross Profit	Rp.	25.948.000

5.4 Discussion

Based on the results of the FIFO and LIFO calculations using the periodic recording system above, the cost of goods sold using the FIFO method is lower when compared to the LIFO method. This research supports Sangadah & Muntiah's (2021) research that the FIFO method can provide an accurate estimate with a low cost per unit so that supermarkets can manage inventory efficiently using the FIFO method. The FIFO method is able to provide precise calculation results with a low cost of goods sold, compared to before that has not applied any method. By using the FIFO method, supermarkets can manage inventory properly, this can also minimize problems that occur such as the existence of returned goods where sales are in accordance with the date of the first purchase made and can also facilitate the warehouse section in managing with physical calculations, because the first item in is the first item out, the final inventory amount consists of the most recent purchase. This is especially true if inventory turnover is very fast. In addition, the advantage of the FIFO method is that the inventory value is displayed in the financial statements in a

relevant manner, and can generate greater profits even with a low cost of goods sold. The calculation data obtained from the periodic recording system with the application of the FIFO and LIFO methods have been compiled in Table 15 below:

Table 18 Comparison Results of Using FIFO and LIFO Methods

Item Name	FIFO		LIFO	
	HPP	Gross Profit	HPP	Gross Profit
Three Wheel Cement 40 kg	Rp. 136,971,000	Rp. 7,209,000	Rp.138,411,000	RP. 5,769,000
Avitex wall paint 5kg	Rp. 49,530,000	Rp. 3,810,000	Rp. 49,720,000	RP. 3,620,000
Sand	Rp. 129,825,000	Rp. 2,885,000	Rp.130,059,000	RP. 2,651,000
Hebel Brick size 10	Rp. 91,520,000	Rp.12,480,000	Rp. 91,520,000	RP.12,480,000
Iron size 8	Rp. 73,852,000	Rp.25,948,000	Rp. 73,852,000	RP.25,948,000

6. Conclusion

Through the results of the analysis and discussion that has been carried out, it can be concluded that TB. Pintu Rizky Mandiri if using the First In First Out (FIFO) method will provide a lower cost of goods sold compared to the Last In First Out (LIFO) method. This is due to the higher final inventory value generated using the FIFO Method when compared to the LIFO Method. It can be seen in table 15 shows the comparison results of the FIFO and LIFO methods. Therefore, applying the FIFO Method will generate greater profits compared to using the LIFO Method.

7. Implications

The implications of research on the valuation of trade goods inventory TB. Pintu Rizky Mandiri using the FIFO (First First Out) and LIFO (Last In First Out) methods, is expected to be useful for TB. Pintu Rizky Mandiri, because recording with this method is very suitable for making it easier to check the amount of trade goods available. This can also avoid damage to goods and reduce inaccuracies in calculating stock, as well as maintaining the quality of trade goods inventory.

Acknowledgement

The authors would also like to thank the Universitas Buana Perjuangan Karawang for its support throughout the completion of this work.

Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Kamila Fitriani, Uus Mohammad Darul Fadli, Ery Rosmawati; **data collection:** Kamila Fitriani, Ery Rosmawati; **analysis and interpretation of results:** Kamila Fitriani, Uus Mohammad Darul Fadli, Ery Rosmawati; **draft manuscript preparation:** Kamila Fitriani, Ery Rosmawati. All authors reviewed the results and approved the final version of the manuscript.

References

- Aditama, R. A. (2020). *Pengantar Manajemen*. Keanjen: (1st ed.). AE Publishing. <https://books.google.co.id/books?id=9zfvDwAAQBAJ>
- Anisah, L. (2022, Mei 28). *Aksi Tokban Mengincar Pasar Kontraktor dan Toko Bangunan*. <https://peluangusaha.kontan.co.id/news/aksi-tokban-mengincar-pasar-kontraktor-dan-toko-bangunan>
- Anwar, M. (2019). *Dasar-Dasar Manajemen Keuangan Perusahaan*. Jakarta: (1st ed.). Prenada Media Group. <https://books.google.co.id/books?id=IDe2DwAAQBAJ>
- Aprilia, N. M., Baidlowi, H. I., & Dwihandoko, T. H. (2020). *Analisis Perhitungan Persediaan Dengan Metode FIFO, LIFO Dan Average Pada UKM Megah Sandal Mojokerto Tahun 2020*. Jurnal Fakultas Ekonomi. <http://repository.unim.ac.id/1956/9/ARTIKEL.pdf>

- Arif, M. F., & Wijayanti, N. A. (2022). *Akuntansi Keuangan Menengah 1* (Jatiningrum (ed.)). Penerbit Salemba. <https://books.google.co.id/books?id=MsPcEAAAQBAJ>
- BPS. (2022, Oktober 3). *Perkembangan Indeks Harga Perdagangan Besar*. <https://www.bps.go.id/id/pressrelease/2022/10/03/1901/pada-september-2022--indeks-harga-perdagangan-besar--ihpb--umum-nasional-naik-0-86-persen.html>
- Elvia, P, D., & Kristin, M. (2020). Analisis Pengendalian Internal Atas Persediaan Barang Dagang Pada Toko Bangunan Rajawali Steel. *Jurnal Buana Akuntansi*, 5(2), 13-25. <https://doi.org/10.36805/akuntansi.v5i2.1075>
- Erwin, D.A., Sri, H.M. (2020). *Manajemen Keuangan: Teori dan Praktek*. Scopindo Media Pustaka. https://www.google.co.id/books/edition/MANAJEMEN_KEUANGAN_TEORI_DAN_PRAKTEK/h2f-DwAAQBAJ?hl=id&gbpv=0
- Fadli, U., Ratu Khalida, L., Studi Manajemen, P., Ekonomi dan Bisnis, F., & Buana Perjuangan Karawang, U. (2023). Product Quality Positioning Analysis Of Nike, Adidas, Ortuseight, Specs And Mizuno Soccer Shoes. *Management Studies and Entrepreneurship Journal*, 4(5), 6347-6355. <http://journal.yrpiiku.com/index.php/msej>
- Firdausi, M. A., & Nurul, H. (2018). *Akuntansi Kuangan Menengah 1*. Calina Media.
- Hery. (2011). *Memahami Akuntansi Dasar*. Mitra Wacana Media.
- Hery. (2014). *Akuntansi Perpajakan*. PT. Grasindo.
- Khadijah, S. (2019). *Pencatatan Dan Penilaian Persediaan Barang Dagang Menggunakan Sak Emkm (Standar Akuntansi Keuangan Entitas Micro, Kecil, Dan Menengah) Pada Toko Bangunan Dua Mas Rilly Pelaihari*. <https://perpustakaan.akuntansipoliban.ac.id/uploads/attachment/CWk1Yx6rwzRq5haL8KONijQZ7c9P ySVvlseomDJTM24tAl3bfB.pdf>
- Kristiani, G. W., & Puspita, E. (2017). Perbandingan Penilaian Persediaan Metode Fifo Dan Metode Average Untuk Menentukan Harga Pokok Penjualan Pada Ud. Kasri Di Kabupaten Tulungagung. <https://proceeding.unpkediri.ac.id/index.php/senmea/article/view/551>
- Kustiningsih, N., & Farhan, A. (2022). *Manajemen Keuangan: Dasar-Dasar Pengelolaan Keuangan* (C. Globalcare (ed.)). CV Globalcare. <https://books.google.co.id/books?id=IH55EAAAQBAJ>
- Malau, B. S. L. (2023, Februari 6). *Pemulihan Pandemi Covid-19, Kebutuhan Bahan Bangunan di Sektor Properti dan Konstruksi Meningkat*. <https://wartakota.tribunnews.com/amp/2023/02/06/pemulihan-pandemi-covid-19-kebutuhan-bahan-bangunan-di-sektor-properti-dan-konstruksi-meningkat>
- Mentor, K. P. (2020). Analisis Penerapan Metode Fifo Dalam Penilaian Persediaan Bahan Baku Dan Penggunaan Metode Eoq Sebagai Alat Pengendalian Persediaan Bahan Baku Pada Pt Intera Indonesia Di Sidoarjo. *October 2019*. <http://repository.stiemahardhika.ac.id/1560/>
- Minggo, P, T, G., & 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>
- Mutmainah. (2021). Analisis Metode Pencatatan dan Penilaian Persediaan Barang Dagang Menurut Sak Etap Pada Tb. Oi Material. <http://eprints.poltektegal.ac.id/688/>
- Pah, V. C., Naikofi, G. M., Olivia, S. I., Costa, V. M. Da, Seuk, A. M., Tikneon, M. G. F., & Gaspar, G. C. . (2023). *Analisis Metode Pengelolaan Persediaan Dalam Meningkatkan Efisiensi Harga Pokok Penjualan Pada Perusahaan Dagang*. 2(8). <https://ejournal.warunayama.org/index.php/musytarineraca/article/view/1363>
- Paraswati, S. D., Morasa, J., & Gamaliel, H. (2021). Analisis Metode Pencatatan dan Penilaian Persediaan Barang Dagang Pada PT. Hasjrat Abadi Cabang Manado. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 9(1), 94-101. <https://ejournal.unsrat.ac.id/index.php/emba/article/view/31972>
- Pranata, R, M., Rosmawati, E., & Nurmalasari, S. (2023). Analisis Harga Pokok Produksi Kopi Pada Ekowisata Kopi Sangga Buana Karawang. *Univesitas Buana Perjuangan Karawang*, 295-301. <https://journal.ubpkarawang.ac.id/index.php/ProsidingKNPP/article/download/4918/3556>
- Pratiwi, N. Y. K., Lau, E. A., & Heriyanto. (2020). Analisis Penilaian Persediaan Beras Terhadap Perolehan Laba Pada PT . Indogrosir Samarinda. *Journal of Indonesian Science Economic Research*, 2(3), 18-25. <http://www.journalindonesia.org/index.php/JISER/article/view/25>
- Putri, L. D. (2020). Analisis pencatatan persediaan menggunakan metode pencatatan perpetual. *Tugas Akhir*.
- Putri, T. A., Hidayaty, D. E., & Rosmawati, E. (2023). Pengaruh Literasi Keuangan Terhadap Pengelolaan Keuangan pada Pelaku UMKM. *Fair Value : Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(9), 3495-3502. <http://journal.ikopin.ac.id/index.php/fairvalue/article/view/3021/2722>
- Ranita, C., Mulyadi, D., & Sandi, S. P. H. (2019). Analisis Perhitungan Persediaan Bahan Baku Just in Time Pada Pt Tamano Indonesia. *Mahasiswa*, 165-174. <https://journal.ubpkarawang.ac.id/mahasiswa/index.php/JMMA/article/view/194>
- Rondonuwu, G., Pangemanan, S. S., & Mawikere, L. M. (2016). Evaluasi Penerapan Metode Persediaan Berdasarkan Metode Fifo Pada Pt . Honda Tunas Dwipa Matra Manado Evaluation of Inventory Method

- Based on Fifo Method At Pt . Honda Tunas. *Jurnal EMBA*, 4(4), 268–278. <https://ejournal.unsrat.ac.id/index.php/emba/article/view/13720>
- Sangadah, L., & Muntiah, N. S. (2021). Penerapan Perhitungan Persediaan Barang Dagang dengan Metode FIFO (Studi Kasus Pada Swalayan Surya Balong Ponorogo). *ASSET: Jurnal Manajemen Dan Bisnis*, 4(2), 10–12. <https://doi.org/10.24269/asset.v4i2.4313>
- Satrio Seputih Agung). *Jurnal Teknologi Dan Sistem Informasi (JTSI)*, 3(2), 55–62. <http://jim.teknokrat.ac.id/index.php/JTSI>
- Shavrelia Midu, A. (2019). *Analisis Metode Penilaian Persediaan Dengan Menggunakan Metode Average Pada Pt Tirta Investama Airmadidi*. <https://repository.polimdo.ac.id/id/eprint/2606>
- Sheykal, L. (2023, Desember 24). *Pengertian Harga Pokok Penjualan dan Cara Menghitung HPP*. <https://mediaindonesia.com/ekonomi/639828/pengertian-harga-pokok-penjualan-dan-cara-menghitung-hpp>
- Situmorang, B. A., & Herlambang, A. (2024). *Analisis Perhitungan Biaya Persediaan Bahan Kebutuhan Pokok Menggunakan Metode FIFO , LIFO , Average Di UKM*. 2(2). <http://kti.potensi-utama.ac.id/index.php/JTTI/article/view/1637>
- Soemohadiwidjojo, A. T. (2017). *Six Sigma Metode Pengukuran Kinerja Perusahaan Berbasis Statistik* (1st ed.). Raih Asa Sukses. <https://books.google.co.id/books?id=0hlmDwAAQBAJ>
- Suad, H., & Pudjiastuti, E. (2015). *Dasar-dasar Manajemen Keuangan*. Yogyakarta: (7th ed.). UPP STIM YKPN.
- Sugeng, B. (2017). *Manajemen Keuangan Fundamental*. Yogyakarta: (1st ed.). Deepublish. <https://books.google.co.id/books?id=TJvFDwAAQBAJ>
- Suharti, & Fong, R. (2018). Analisis Akuntansi Persediaan Barang Dagang pada Toko Cerose Home Pekanbaru. *Bilancia*, 2(2), 161–170. <https://www.ejournal.pelitaindonesia.ac.id/ojs32/index.php/BILANCIA/article/view/60>
- Supami, W. S., Ati, R. S., & Defia, N. (2018). Akuntansi Keuangan Dalam Perspektif IFRS Dan SAK-ETAP. Jakarta.
- Susanti, P., Wisnubroto, P., & Parwati, C. I. (2018). Analisis Persediaan Biaya Bahan Baku Dengan Menggunakan Metode Fifo, Lifo, Dan Average Cost Pada Produksi Majalah Djaka Lodang Pada Pt Muria Baru. *Jurnal REKAVASI*, 6(2), 91–99. <https://ejournal.akprind.ac.id/index.php/rekavasi/article/view/258/174>
- Tamodia, W. (2013). Evaluasi Penerapan Sistem Pengendalian Intern Untuk Persediaan Barang Dagangan Pada Pt. Laris Manis Utama Cabang Manado. *Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 1(3), 20–29. <https://ejournal.unsrat.ac.id/index.php/emba/article/view/1366>
- Timbu, N. L. (2022). *Analisis Metode Pencatatan Dan Penilaian Persediaan Barang Pada Toko Hana Jaya Di Tanjung Redeb*. <http://repository.umberau.ac.id/id/eprint/39/>
- Wijayanto, I., & parjito. (2022). Komparasi Metode FIFO Dan Moving Average Pada Sistem Informasi Akuntansi Persediaan Barang Dalam Menentukan Harga Pokok Penjualan (Studi Kasus Toko
- Yahya, L. M., Hasanah, A., Hutasuhut, N. N., & Firdaus, R. M. (2023). Pengaruh Jumlah Total Produksi dan Safety Stock Terhadap Pemenuhan Permintaan Pada UMKM Leven Coffe Roaster. *BUDGETING: Journal of Business, Management and Accounting*, 5(1), 2715–1913. <https://journal.ipm2kpe.or.id/index.php/BUDGETING/article/view/6673>