Merchandise inventory

ACT101 (Section -9)

Prepared to

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Letter of Transmittal

Date: 4th September, 2023

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Subject: Term paper on Merchandise inventory.

Dear Ma'am,

First and foremost, we are thankful to Almighty Allah by his grace we are able to complete our Term Paper. It gives us immense pleasure in submitting to you the report on "Merchandise inventory" which contains detailed information about both systems.

While preparing the report, we closely focused on the topic & tried to assimilate and provide the most complete information available. We believe that it will provide you a clear scenario of the topic, what is merchandise inventory, its use, what is perpetual inventory and periodic inventory, which one is better etc.

We thank you for allowing us to do a term paper on merchandise inventory. This will definitely give us an experience which we can use in our professional life. We will be always available for any further queries and to answer any questions on this report.

Sincerely,

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Acknowledgement

We want to give our heartiest thanks to our respected faculty; Rehnuma Hoque Moutushi, Senior Lecturer of the Department of Business Administration, East West University, for giving us the opportunity to work on this term paper. It would have been impossible for us to finish this paper without her support and the guideline she gave us. We prepared our term paper on 'Merchandise inventory'. We are overwhelmed in all humbleness and gratefulness to acknowledge our depth to all those who have helped us to put these ideas, well above the level of simplicity and into something concrete.

Declaration

We hereby declare that the term paper entitled "Merchandise inventory'' is done by us only. We are also declaring that the report is avoid of plagiarism.

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Executive Summary

This term paper is about Merchandise inventory. These are the two inventory systems out of which one is needed to monitor the stock data of a company's inventory. It is important for an organization because its helps keep track of a company's inventory record. The perpetual Inventory System keeps track of inventory data automatically and continuously. The periodic Inventory System keeps track of the revenue only and determines the inventory data in the end of a period through a physical count.

Introduction

The accounting of goods, components, and raw materials that a business maintains on hand before using them in manufacturing or selling them is known as inventory. Inventory refers to all stock at various stages of production and is a current asset in accounting terms. Retailers and producers may keep on selling and producing goods by maintaining stock. By displaying the price of the materials that are expected to be on hand at any given time, the merchandise inventory systems offer close control. The two popular inventory management systems utilized by organizations are the subject of our discussion. The perpetual inventory system and periodic inventory system are these. The periodic inventory system conducts sporadic physical counts to gauge inventory levels and the cost of products.

Origin of the report

This report was given to us as a part of the partial requirements of the course known as "Financial Accounting" (ACT101) of Bachelors of Business Administration program of East West University. Our course instructor Rehnuma Haque Moutushi (Senior lecturer) has assigned us this report as a part of the course. Ma'am has authorized the task of writing this report on a group basis.

Objective of the Study

This study includes a lot of practical knowledge and experience that will help us in our professional life. After completing this degree, we will go to serve or start any company or institution. So, this kind of experiences that we need we got that kind of experience from this study.

1. To understand the two inventory systems.

2. How these systems work.

3. Difference between perpetual and periodic inventory system.

4. Why these systems are important for inventory data management.

Scope of the Study

Companies must use an inventory data management system to keep track of the inventory stock. These systems help a company to keep an eye on their inventory stock, sale details every year. This requirement is independent of the nature of the company's activities. It is also very useful to prevent misplacement of products and theft.

Methods of Collecting the Data

1. Identification of both inventory systems.

2. Research and observation.

3. Analysis of the information.

4. Put all together to prepare the report.

Merchandise Inventory System

Merchandise inventory, often simply referred to as "inventory," is the collection of goods, products, or items that a company holds for the purpose of resale in its regular course of business. These items are typically purchased or produced by the company with the intention of selling them to customers at a profit.

Inventory can encompass a wide range of items, depending on the nature of the business. For example:

Retail Stores: Inventory for a retail store includes the various products it offers for sale, such as clothing, electronics, home goods, and more.

Wholesalers: Wholesalers hold inventory that they purchase from manufacturers and sell to retailers in bulk.

Manufacturers: Manufacturing companies maintain inventory of raw materials, work-in progress goods, and finished products that are ready for distribution.

E-commerce Businesses: Online retailers hold inventory of products they sell through their websites, warehouses, and fulfillment centers.

Restaurants: Restaurants maintain inventory of food ingredients and supplies required for preparing dishes.

Automotive Dealerships: Car dealerships have an inventory of vehicles available for sale.

Perpetual Inventory System

The Perpetual Inventory System is a comprehensive method utilized by businesses to maintain real-time and accurate records of their inventory levels. This system involves a continuous and automatic tracking of inventory inflows and outflows through the use of technology and accounting software. By doing so, companies can meticulously monitor stock levels, make informed purchasing decisions, and ensure a consistent alignment between recorded and actual stock quantities.

Advantages of Perpetual Inventory System

Current situation of inventory: Here we can keep track of inventory balances continuously, so that the system may provide information on the current level of inventory for each item and also purchases, returns are immediately recorded in the inventory account

Financial control: As we know the perpetual inventory system is a steadfast or constantly updating inventory system, so here with a constant update and check on inventory status, inventory holding costs and stock provisions can be significantly controlled and minimized.

Forecasting: Every business needs to forecast accurately to maintain their inventory, manage costs and need to make sure matching of supply and demand. Perpetual inventory system provides organizations appropriate information so that they may be all forecasting goals are executed.

Real-time Visibility: One of the chief advantages of the Perpetual Inventory System is the immediate access to inventory data. Businesses can promptly ascertain the quantities of available products, facilitating timely reorder decisions and preventing stock outs.

Enhanced Accuracy: With each transaction being promptly recorded, this system diminishes the likelihood of errors in inventory management. Discrepancies between recorded and actual stock are promptly identified, enabling swift corrective actions.

Informed Decision-making: The perpetual tracking of inventory enables businesses to extract valuable insights about their sales patterns, demand trends, and stock movement. Such data aids in making informed choices regarding pricing, marketing strategies, and stock replenishment.

Disadvantages of Perpetual Inventory System

Resource Intensive: Implementing and maintaining a Perpetual Inventory System requires the deployment of technology, including specialized software and hardware. This initial investment and ongoing maintenance can be financially demanding for smaller businesses.

Complexity and Training: Training employees to proficiently operate the system can be time-consuming, particularly for those with limited technological expertise. The intricate nature of the system might result in errors if not used correctly.

Vulnerability to Technical Glitches: Relying heavily on technology renders the system susceptible to technical glitches, software malfunctions, or network outages. Such disruptions can hinder the accurate recording of inventory transactions and compromise the integrity of data.

Example (Perpetual Inventory System)

A perpetual inventory system is a program that continuously estimates your inventory based on your electronic records, not a physical inventory. This system starts with the baseline from a physical count and updates based on purchases made in and shipments made out.

Businesses like super marts and grocery stores use this system. They use bar codes and optical scanners to keep a daily running record of every box of chips to every jar of sauce that it buys and sells. Here, the company determines the cost of goods sold each time a sale occurs using this inventory system.

Periodic Inventory System

In a periodic inventory system, the business does not maintain a real-time record of each item's quantity on hand. Instead, it counts its entire inventory periodically (such as monthly, quarterly, or annually) to determine the ending inventory value. The process is given below-

Determining Beginning Inventory: At first, companies have to determine their current asset, how much do they currently have is the beginning inventory for a company.

Determining Purchases: The company have to enter all new purchases into a temporary purchases account.

Counting the inventory: It involves simply going to the storage facility and counting all the goods after selling.

The cost of goods sold is then calculated by the formula:

Cost of Goods Sold = Beginning Inventory + New purchases - Ending Inventory

Companies perform the periodic inventory count at the end of one accounting period. The figures for the ending inventory are then used for the next accounting period in the beginning.

Advantages of Periodic Inventory System

Simplicity: Periodic inventory system is simpler to set up and manage compared to a perpetual inventory system. There's no need for constant tracking of inventory changes, which can save time and resources.

Cost-Effectiveness: Here, companies only need to count their inventory at a regular interval. This process is much cheaper than running a sophisticated computer system that always monitors the inventories. As businesses using periodic inventory systems don't need sophisticated inventory tracking software or systems, it can reduce the need for specialized training and maintenance.

Flexible for Low-Volume Businesses: Businesses with relatively low inventory turnover might find periodic inventory systems sufficient to manage their inventory control needs.

Disadvantages of Periodic Inventory System

The periodic inventory system is simpler and less expensive to maintain compared to a perpetual inventory system. It involves less frequent tracking of inventory levels and transactions, which can be beneficial for small businesses with limited resources. However, it may not provide real-time accuracy of inventory levels and might lead to discrepancies between recorded and actual stock quantities.

Example (Periodic Inventory System)

Business types using the periodic inventory system include companies that sell relatively few inventory units each month such as art galleries and car dealerships. Then suppose you order several different items from a supplier if your company buys 10 different items from the same supplier, you can place one order for all 10 items rather than 10 individual orders, one for each item.

Calculation of Cost of Goods Sold:

- Inventory balance on January 1, 2018: $600,000
- Purchases made during the year 2018: $1,200,000
- Inventory balance on December 31, 2018: $500,000

Cost of goods sold (COGS) = Beginning inventory + Purchases – Closing inventory

= $600,000 + $1,200,000 – $500,000

= $1,300,000

Perpetual Inventory System is better than Periodic Inventory System (Explained)

The perpetual inventory system offers several advantages over the periodic inventory system. **Firstly**, it provides real-time tracking of inventory levels, helping businesses to have accurate and up-to-date information about their stock at any given moment. This accuracy minimizes the chances of stock outs and overstocking.

Secondly, the perpetual system allows for better detection of theft, shrinkage, and discrepancies between recorded and actual stock quantities, as any discrepancies are immediately apparent.

Furthermore, the perpetual inventory system enables businesses to have better control over high-demand or high-value items by closely monitoring their movement and availability.

Overall, the perpetual inventory system provides more accurate, timely, and detailed information, leading to improved inventory management, reduced costs, and better customer satisfaction compared to the periodic inventory system.

How to recognize if it's Perpetual Inventory System or Periodic Inventory System

The major difference between Perpetual and Periodic inventory system is that the Perpetual Inventory System maintains a continual record of every single transaction that has ever made right from the start and keeps track of them. Whereas, the Periodic Inventory System only records the revenue while selling but computes and records the transaction details only at the end of the period.

So, if you go to a company's inventory database and see that it is constantly being updated after every sell that means the company is using Perpetual Inventory System. And, if you see that the company's inventory database is not being updated after every sell, rather all purchases are being debited in a purchase account that is how you will know the company is using the Periodic Inventory System.

Why do companies use Perpetual Inventory System (Explained)

A Perpetual Inventory system is an inventory management way that keeps the record of stock sold and received in real-time by using an inventory management system that automatically keeps the record. This system record changes in the inventory database whenever any transaction is made. For its continuous tracking, it gives an accurate amount of stock levels anytime. As this method is time convenient, lacks complexity, shows accurate records of the inventory and avoids any type of delay, most companies with high and frequent sales volume and multiple retail outlets like grocery stores, super marts (Shwapno, Agora, Prince Bazar, UniMart etc.), Pharmacies (Lazz Pharma) use this inventory system. The technological aspect of the perpetual inventory system has many advantages that frequently attracts businesses with high sales. Advantages like the ability to more easily identify inventory-related errors.

The difference between Perpetual and Periodic Inventory System

Perpetual Inventory System and Periodic Inventory System are two different methods that businesses use to track their inventory levels and manage their stock. Here's a breakdown of the differences between the two systems:

Perpetual Inventory System:

Real-time Tracking: In a perpetual inventory system, inventory levels are continuously updated in real-time. This means that every time a purchase or sale is made, the inventory records are immediately updated to reflect the change.

Technology Dependence: Perpetual systems heavily rely on technology such as barcode scanners, RFID, and software to track inventory movement accurately and in real-time.

Accuracy: Perpetual systems tend to provide more accurate and up-to-date information about inventory levels, making it easier to manage reordering, prevent stock outs, and reduce overstocking.

Costly: Implementing and maintaining a perpetual inventory system can be more expensive due to the technology and labor involved in real-time tracking.

Continuous Insight: The business has a constant overview of its inventory levels, helping with decision-making and planning.

Periodic Inventory System:

Accuracy Challenges: Since the inventory records are only updated periodically, there can be discrepancies between recorded inventory levels and actual inventory on hand, especially if there are theft, damage, or errors during the period.

Cost-Effective: Periodic systems are generally more cost-effective to implement and maintain, as they require fewer resources and technology.

Limited Insight: The business has less visibility into real-time inventory levels, which can make accurate decision-making and reordering more challenging.

In essence, the primary distinction between the two systems lies in the frequency of inventory updates. Perpetual inventory systems provide real-time tracking and accuracy, making them suitable for businesses with high sales volume or perishable goods. On the other hand, periodic inventory systems are simpler and less costly but offer less precise information, making them suitable for businesses with lower sales volume and less critical inventory management needs.

Process of doing Periodic Inventory System

Under Periodic inventory system, inventory account is not updated for each purchase and each sale. All purchases are debited to purchases account. At the end of the period, the total in purchases account is added to the beginning balance of the inventory to calculate the cost of goods available for sale. The ending inventory is determined at the end of the period by a physical count and subtracted from the cost of goods available for sale to compute the cost of goods sold.

The general formula to compute cost of goods sold under periodic inventory system is:

Cost of goods sold (COGS) = (Beginning inventory + Purchases) – Closing inventory

For Example,

Beginning inventory: 200 units at $12 = $2,400

Purchases made during the period: 1800 units at $12 = $21,600

Sales made during the period: 1200 units at $24 = $28,800

Ending inventory: 800 units at $12 = $9,600

Cost of Goods Sold = (21,600 + 2,400) – 9,600

= 14,400

Purchase	21,600
Accounts Payable	21,600
Accounts Receivable	28,800
Sales	28,800
Inventory (Ending)	9,600
Cost of Goods Sold	14,400
Purchases	21,600
Inventory (Beginning)	2,400

Calculation and Process of doing Perpetual Inventory Entry

Under perpetual Inventory System, the company or organization selling goods uses the combination of following accounts.

Name	Account Type
Cash	Current asset
Accounts Receivable	Current asset
Merchandise Inventory	Current asset
Sales Revenue	Revenue
Sales Discounts	Revenue
Sales Returns and Allowances	Revenue
Cost of Goods Sold	Expense
Delivery Expense	Expense

Now this is the list of the seller. Now when it comes to the buyer's, they need only three accounts. They are Cash, Inventory and Accounts payable.

Using these, merchandise journals are made following the perpetual inventory method.

Recording Sales: Whenever a sale is incurred, two types of balance are made in the journal. One is to record the sale and one to record the cost of the sold merchandise. The sale can be on cash or on account. For example;

***May 04:** Orpa sold $30,000 of merchandise with credit terms of 2/10, n30 and shipping terms FOB Destination. The original cost to Smith was $18,000.

So the journal will be; Accounts receivable Dr. $30000, Sales Revenue Cr. $30000

Cost of goods sold Dr. $18000, Merchandise Inventory Cr. $18000

Shipping on Sales: Shipping terms means who's responsible for the shipping of goods. FOB Destination means the seller is responsible for paying shipping and the buyer would not need to pay or record anything for shipping. FOB Shipping Point means the buyer is responsible for shipping and must pay and record for shipping.

*Orpa sold $30,000 of merchandise with credit terms of 2/10, n30 and shipping terms FOB Destination. The original cost to Smith was $18,000.

In this transaction, the shipping term FOB destination has been used. So, it is the seller responsibility. The seller will record any shipping costs in the Delivery Expense account as a debit. We will credit cash or accounts payable, depending on if we paid it or not.

Sales Returns and Allowances: A sales return is merchandise returned by a buyer. A sales allowance is a deduction from the original invoiced sales price granted when the customer keeps the merchandise but is dissatisfied for any number of reasons, including inferior quality, damage, or deterioration in transit.

The accounting method will be different for a sales return and a sales allowance. In sales allowance, the accounts receivable and the sales account of the customer's side will be reduced while the Cost of Goods Sold and inventory account of the Inventory side will increase. The inventory is returned to the seller which means we need to add it back to inventory and remove the expense since it is no longer sold.

Let's go for an example. Assume that a company grants a $ 400 allowance to a customer for damage resulting from improperly packed merchandise. The customer hasn't yet paid the account. So, the journal will be;

Sales returns and allowances	Dr.	$400
Accounts Receivable	Cr.	$400

This is to record the sales allowances granted to the customer.

If the customer has already paid the account, the credit is to Cash instead of Accounts Receivable. If the customer took a 2% discount when paying the account, the entry for the refund would be;

Sales returns and allowances	Dr.	$400
Sales discount (400*2%)	Cr.	$8
Cash (400-8)	Cr.	$392

So, now let's have a look what happens if someone returns a sold product. When a product is returned for any reason, two types of entries are required in the journal. One for the sales side and one for the inventory side.

Assume that a customer returns $300 of goods sold on account. The goods cost the seller $200. If payment has not yet been received, the required entry is:

Sales returns and allowances	Dr.	$300
Accounts Receivable	Cr.	$300

This one is to record customer return on credit sale.

Merchandise Inventory	Dr.	$200
Cost of Goods Sold	Cr.	$200

This is to record the receipt of returned merchandise.

Receiving Payments from Customers: Normally when a company receives payment from their customer, it's usually added to journal using the Cash Dr. and Accounts Receivable Cr. accounts. But if the customer comes with a discount term on the payment, the contra-revenue account known as Sales Discount comes into play.

Here the sales discount will be debit as its, cash debit and accounts receivable credit.

Debited Accounts of Perpetual Inventory System

In perpetual Inventory System, accounts are debited and credited based on the increase and decrease of money. Some becomes debit if the money increases and becomes credit if money decreases. In the below, one can easily know which ones are debit when which condition.

Name	Account Type	Increases	Decreases
Cash	Current asset	Debit	Credit
Accounts Receivable	Current asset	Debit	Credit
Merchandise Inventory	Current asset	Debit	Credit
Sales Revenue	Revenue	Credit	Debit
Sales Discounts	Revenue	Debit	Credit
Sales Returns and Allowances	Revenue	Debit	Credit
Cost of Goods Sold	Expense	Debit	Credit
Delivery Expense	Expense	Debit	Credit

Findings

While doing our research about the Inventory management systems, we found lots of data that are described in the body part of the paper. The data we found was about the;

- Perpetual and Periodic Inventory Systems (What they are)
- The Advantages and Disadvantages of both systems
- Why Perpetual is better than Periodic
- How to recognize an entry if it's perpetual or periodic
- The reason of using these inventory systems
- The difference between the two systems
- The process of doing both inventory systems
- Debited accounts of perpetual inventory systems

Recommendation

Recommendation: In contrast to the periodic inventory system, which uses specialized, automated software and is only focused on physical counting, the perpetual inventory system involves additional record-keeping. A business can have inventory spread across multiple physical locations while still maintaining a centralized inventory management system thanks to perpetual inventory systems, which give the owner of the business a record of every item's detailed sale transaction, including where, when, and for what price. The perpetual inventory system is therefore more advantageous than the periodic inventory system, yet small enterprises may find the periodic inventory system to be more effective because they can get by with just a cash register and basic accounting procedures.

Conclusion

All of the aforementioned information indicates that periodic inventory systems are preferable for companies with modest sales volumes because it is challenging to manually collect correct inventory data. It should be kept in mind, though, that if there isn't a physical inventory count done, it could also be difficult to get data on prices and items sold.

The use of a perpetual system, on the other hand, can more easily provide precise information on inventories. A better technique to keep an eye on companies is via accurate inventory tracking.

Accordingly, larger companies with significant sales volumes are best suited for the perpetual inventory system.

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