



## Inventory Management Practices of Small-Scale Pharmacies in the Selected Towns in Cavite: A Marketing Perspective

Venice Lara L. Soliveres<sup>1\*</sup>, Aidio Hererra<sup>2</sup>, Alyannah Kathlyn Cedillo<sup>3</sup>  
<sup>1,2,3</sup> Cavite State University-CCAT Campus, Philippines

Received : February 23, 2024

Revised : May 10, 2024

Accepted : May 22, 2024

Online : May 31, 2024

### Abstract

Effective inventory management is crucial for pharmacies because it guarantees the consistent availability of pharmaceutical products and minimizes the risk of stockouts or overstock situations, thereby enhancing customer satisfaction. This study aimed to determine the inventory management practices of small-scale pharmacies in selected towns in Cavite, Philippines. The researchers employed descriptive research and a purposive sampling technique. This study used 50 legally registered small-scale pharmacies. The findings revealed that most of the participants were under sole proprietorship with one to nine employees and estimated assets of P3,000,000 and below and have been in operation for one to three years and ten years and above. Furthermore, the predominant inventory management practice in terms of sourcing is Economic Order Quantity (EOQ). Fast Moving, Slow Moving, Non-Moving (FSN) Analysis, and First Expiry, First Out (FEFO) are common storage methods. Moreover, First Expiry, First Out (FEFO) is frequently utilized in selling. This study may provide related, timely information, analysis, and results that may serve as a foundation for the business to grasp on what to continue, enhance, and implement in their inventory management practice, which might also contribute to the efficient and effective movement of products and to cater to the needs of the customers. Thus, the researchers recommended modifying the existing inventory management practices employed in sourcing, storing, and selling. This adaptation aims to effectively monitor and control the movement of inventories from the moment of acquisition to the moment of transaction.

**Keywords:** *Inventory Management Practices; Selling; Small-Scale Pharmacies; Sourcing; Storing*

### INTRODUCTION

Inventory management is a fundamental part of the organization's health. Regardless of the size of the enterprise, using some of the prevalent inventory management practices can assist in getting control over the supply and general enterprise management of the business (Mendoza et al., 2023). The distinction between making a profit and a loss is having proper inventory assessments, which help track sales and evaluate success while enhancing business performance (Saleem & Ullah, 2023). Moreover, inventory management is the systematic process of a business sourcing, storing, and selling goods. According to an article from Michigan State University (2022), sourcing enables businesses to operate effectively and efficiently by ensuring that all necessary items are acquired and readily available. Additionally, as stated in an article by Stephen (2022), storing involves placing items in the best storage location. When carried out correctly, the storage procedure completely utilizes the available space and boosts labor productivity.

Furthermore, shipments of medical supplies and drugs may include a variety of small, valuable, and frequently restricted products, many of which have a short shelf life. Therefore, safe storage is necessary (Humanitarian Library, 2019). Aside from sourcing and storing, inventory management also deals with selling, in which businesses offer the inventory they have stored in exchange for money. Businesses with an efficient inventory management system can precisely predict the amount of inventory needed (Murray, 2020). Henceforth, these three variables assist in maximizing profits to help businesses grow and utilize them to ensure that they meet the needs of all of their customers with sufficient goods at the right time and at the desired levels to avoid overstocking and understocking, which could result in financial loss for the business (Hayes, 2023).

### Copyright Holder:

© Soliveres et al. (2024)

Corresponding author's email: soliveresvenice@gmail.com

### This Article is Licensed Under:



Moreover, [Sophia \(2019\)](#) stated that knowing when to restock inventory, what specific item to restock, and how much to restock is crucial in the decision-making process of every retailer. Effective and systematic inventory management positively affects a company's financial performance as it reduces the organization's expenditures. Hence, it is detrimental once a business fails to effectively manage its inventory, as it is more likely to experience conflicts.

In the pharmaceutical industry, a pharmacy is a retail business that plays a significant role in the community. It provides financial development and health care goods for people who require medications to treat their medical conditions ([Malik, 2021](#)). However, the pandemic posed several challenges for the pharmaceutical industry in the Philippines, particularly with shortages in medical supplies and goods necessary to respond to the crisis ([Cruz-Abrenica et al., 2020](#)). According to [Shukar et al. \(2021\)](#), the availability of pharmaceutical products will be crucial in the post-pandemic period, as when a country begins to recover from an outbreak, an unpredictable increase in demand may occur. The demand for essential medicines is likely to increase as people become more health conscious and the government prioritizes the purchase of essential medicines to protect citizens and prevent illness. Hence, due to sudden changes in demand for medicines and medicinal supplies, pharmacies have a hard time managing their inventories ([Karamshetty et al., 2020](#)). According to [Cegedim Healthcare Solution \(2022\)](#) and [Alenia \(2020\)](#), pharmacy is one of the industries most likely to encounter challenges in inventory management. They are faced with complex circumstances while handling and managing various medications, and they frequently deal with stock shortages and stock piling-related problems. Overstocking leads to financial loss due to unsold products. In line with this, expiration of medicines, consumption of physical space, and increased holding costs occur. Poor inventory management and inefficient use of financial resources have a greater influence on the operations of small- and medium-sized businesses. They may significantly result in a firm's losses without considering the marketing dimensions of inventory management practices. Thus, the researchers aimed to determine the respective profiles of enterprises and their respective inventory management practices in terms of sourcing, storing, and selling considerably; this study also determined the extent of utilization of these inventory practices and, finally, the crafting of marketing insights relevant to improved inventory management.

These towns were selected due to the paced growth of enterprises and increased market activities; thereby, undertaking this study may provide related, timely information, analysis, and results that may serve as a foundation for small-scale pharmacy stores and their allied enterprises, enabling them to gain ideas and make references to grasp operations, marketing, and implement in their inventory management practices, which might also contribute to the efficient and effective movement of products.

## LITERATURE REVIEW

### Status Quo of the Pharmaceutical Industry of the Philippines

Micro, small, and medium-sized businesses (MSMEs) are vital to global economic systems. However, [Mendoza and Tadeo \(2023\)](#) stated that maintaining economic integration as the status quo was not practicable. Instead, safety nets should be developed, intensified, and promoted through internal policies. The Philippines is the second largest population country in the ASEAN region and the 13th most populous nation. With a rising population and an economy expanding quickly, the Philippine pharmaceutical industry is on an upward trajectory. According to data science company IQVIA statistics, the pharmaceutical business is valued at 176 billion pesos. With an average growth rate of 8.3%, the market is increasing quicker than the nation's overall production. The market comprises 72% of ethical medications, which are expanding at a 6.2% annual pace, and the remaining 28% of over-the-counter drugs, which are rising at a double-digit

rate of 12.9%. The study reveals that the generics category, mainly branded generics, is responsible for a significant portion of the pharmaceutical market share, which indicates that Filipinos are now interested in generics. Business registration in the pharmaceutical industry offers significant and growing profit possibilities in the Philippines, including the province of Cavite. Manufacturing pharmaceuticals is one of the top 22% of the 240 sectors in the Philippines (KPMG, 2019).

### **Role of Small-Scale Pharmacies**

Small pharmacies in the Philippines, also known as boutiques, dispense medications, pharmaceutical products, and dental products directly to the public (Reyes & Tabuga, 2020). Similarly, in Malaysia, community pharmacies serve as essential healthcare facilities, offering a wide range of products and services such as consultation and health advice (Chan & Tan, 2016). These small firms have limited access to external financing because of their limited size and shorter operating history (Zariyawati & Pui-san, 2016). With a workforce of 1-9 or 10-49 employees and assets ranging from P3,000,000 to P15,000,000 (Mendoza et al., 2023), they play a crucial role in providing affordable and high-quality medications to low-income communities (Lamba et al., 2021). During the COVID-19 pandemic, community pharmacy teams played a vital role in providing public access to and knowledge about drugs. However, increased workload demands led to increased prescription volume, hours, and employee numbers, leading to an expansion of influenza vaccination programs. A research study was produced to illustrate how community pharmacies can assist with public health vaccination programs, maintain vital services during pandemics, and seize opportunities for sustainable public health service responsibilities. The study emphasizes the need for decision makers to support community pharmacies' essential public health role and offer suggestions to maximize their role both now and in the future (Maidment et al., 2021).

### **Inventory Management and its Importance**

Pharmacies are vital for providing medicines and pharmaceutical goods to communities, contributing to equal health systems. Effective inventory management is crucial for financial and operational success, increasing profitability, and providing a competitive advantage. Inventory management is the systematic process that involves sourcing, storing, and selling a specific item, which is technically a segment of a general marketing strategy concerning process and product. It refers to developing and managing essential medicine's availability so that the customer's needs for a specific medicine are effectively met and the costs associated with overstock or understock are minimized (Jobira et al., 2021; Secretario & Naval, 2021). In line with this, Alam et al. (2023) stated that most firms tend to neglect the importance of managing their inventory effectively, thus accumulating excessive inventory over a period of time. Moreover, due to their inability to effectively control the flow of inventory, firms may face detrimental consequences, including financial crises, waste, and losses. Therefore, prioritizing inventory management is essential for a firm's stability and profitability. Furthermore, Gebisa (2023) highlighted inventory management practices' substantial direct and indirect impact on firm performance. Improved inventory management correlates with enhanced firm performance; the greater the effectiveness of inventory management practices, the better the firm's performance.

In addition, the core of the pharmaceutical supply chain is inventory control. The goals of health institutions cannot be achieved without beneficial action (Jobira et al., 2022). Moreover, Kefale and Shebo (2019) revealed that inadequate inventory management in pharmacies affects the availability of essential drugs, with an overall availability of 76.3%. AlRuthia et al. (2023) also mentioned the effect of improper inventory management on the availability of medicine supplies. A questionnaire-based cross-sectional study was employed to investigate the factors that contribute to the shortage of medicinal supplies, and it was revealed that poor demand forecasting

and unpredictable demand changes are the causes of disruption in pharmaceutical supply. Consequently, firms must change their procurement and purchasing practices to mitigate frequent shortages of essential medicines. Furthermore, it boosts an organization's performance and ensures consistency in providing high-quality service. In the study by [Parilla et al. \(2022\)](#), there is a strong correlation between inventory management monitoring and the provision of service quality.

In addition, [Hannah et al. \(2020\)](#) conducted a cross-sectional study on 20 supermarkets in Osogbo, Osun State, revealing that effective inventory management significantly impacts organizational development, profitability, and sales turnover. Meanwhile, [Ordas \(2018\)](#) found a strong correlation between purchasing, storing, and selling practices in inventory management practices in Naga City. The study found that purchasing had the highest usage, followed by selling, while storage had the least. The findings suggest that sound inventory management is crucial for hardware stores to improve business performance and profitability, supporting previous research that integrating inventory management directly impacts an organization's performance. [Atnafu et al. \(2018\)](#) found that better inventory management improves company performance and competitiveness in micro and small enterprises (MSEs). The study recommends providing training and resources to enhance MSEs' inventory management practices.

[Dewi et al. \(2019\)](#) underscored the significance of efficient drug inventory planning in healthcare, highlighting the effectiveness of economic order quantity (EOQ), minimum-maximum stock level (MMSL), and traditional consumption-based methods in controlling drug shortages. [Mukwakungu et al. \(2019\)](#) found Just-In-Time (JIT) inventory systems beneficial for manufacturing firms, recommending their adoption for improved inventory management and supply chain management. Implementing JIT inventory management practices in sourcing offers numerous benefits, such as reduced costs, increased efficiency, improved quality control, and enhanced customer satisfaction ([Jenkins, 2022](#); [Balkhi et al., 2022](#)). Considerably, a study evaluated the effectiveness of a fast-moving drug plan following a reorder point (ROP) intervention at a private hospital in Bandung. The study used the turnover ratio (TOR) to assess stock volume, cost of goods sold, and daily drug use. Results showed that the ROP intervention improved the effectiveness of a rapid pharmacological plan, with lower inventory values and higher TOR values ([Nur et al., 2019](#)). A study evaluating the effectiveness of the Reorder Point (ROP) intervention at a local pharmacy found that it improved the effectiveness of a fast-moving medication regimen, leading to lower inventory values and higher turnover ratios, ultimately reducing drug expenditures ([Saini, 2021](#)). A different approach to managing inventories also included the Vendor Managed Inventory (VMI). According to [Sabila et al. \(2018\)](#), Vendor Managed Inventory (VMI) is a method for managing inventories that allows suppliers to access retailer-level sales data and product inventories. VMI uses rule-based reasoning to monitor inventory status and support accurate adjustments. Studies have shown that VMI can limit retail item build-up by 30% and ensure 70% availability. The Last-In, First-Out (LIFO) inventory valuation method balances current expenditures with income, whereas the First-In-First-Out (FIFO) method keeps the newest inventory on hand and the oldest disposed of. FIFO is used for items with short shelf-life and FEFO for quickly spoilable items. Inventory recording and dissemination are essential for accurate inventory management, especially in the medical field ([Muller, 2019](#); [Budiawan et al., 2019](#)). The Last In, First Out (LIFO) principle is a strategy that minimizes obsolescence in perishable inventory management. This approach benefits society and the economy by maximizing freshness and reducing food waste. However, most mathematical models optimize systems only for a short period, failing to address recurring inventory patterns. The Last In, First Out (LIFO) principle is a strategy that minimizes obsolescence in perishable inventory management ([Ching et al., 2019](#)).

## RESEARCH METHOD

The study used descriptive research to evaluate and interpret quantitative data, emphasizing respondents' business profiles and inventory management practices. This descriptive-quantitative research design facilitates the collection of quantifiable data, allowing the researchers to statistically evaluate the population sample and properly grasp the study objectives. The study focused on utilizing 50 small-scale pharmacies in selected areas of Cavite, and the researchers employed a purposive sampling technique to select the participants for the study. This study used primary and secondary data, including validated survey questionnaires and online academic articles, to gather data and support the research findings. A self-made questionnaire was used to collect data on the respondents' demographic profiles, inventory management practices, and extent of implementation. The study used the Lawshe Validation Instrument and Cronbach Alpha for reliability dimensions. *Ergo*, LCV (0.63), and alpha values (0.86) were found to be statistically valid and reliable.

## FINDINGS AND DISCUSSION

### Business profile of the participants

Table 1 presents the business profile of the respondents in terms of the type of business organization, number of employees, size of assets, and length of operation. Among the respondents, 44% were classified as sole proprietors, whereas 4% were categorized as cooperatives. Hence, it implies that single owners operated the majority of businesses in selected locales in Cavite. This conforms to the study of [Ordas et al. \(2018\)](#) and [Ahmad and Zabiri \(2018\)](#), which revealed that most retail enterprises are sole proprietorships. Thus, it was determined that a sole proprietorship is the most common type of business organization. Moreover, it showed that 90% of the businesses have less than 10 employees, and 10% have between 10 and 49 employees. The results imply that most participants have fewer employees and can be classified as microenterprises. According to the Philippine Statistics Authority (PSA) (2022), microenterprises are categorized as enterprises with one to nine employees. Moreover, it follows the total number of enterprises operating in the Philippines, the majority of which are microenterprises ([Ordas et al., 2018](#)). Considerably, it indicates that 60% of the respondents have business assets of Php 3,000,000 and below, while 40% have assets ranging from Php 3,000,001 to Php 15,000,000. Hence, it implies that the majority of businesses in selected locales in Cavite have assets of Php 3,000,000 and below. This is consistent with the research conducted by [Secretario and Naval \(2021\)](#), which indicated that a significant percentage of retail enterprises have smaller asset sizes. Hence, it was determined that among the participants, assets of Php 3,000,000 and below are the most common. Specifically, 32% were represented by businesses that have been operating for 1 to 3 years and businesses that have been in operation for 10 years or more. On the other hand, 6% corresponds to businesses with less than one year of operation. Collectively, this indicates the diversity in the operational longevity of businesses ranging from established enterprises to those in their early stages of development. This information aligns with research conducted by [Ordas et al. \(2018\)](#) and [Ahmad and Zabiri \(2018\)](#), which found that businesses with varying lengths of operation were present in the retail sector.

**Table 1.** Business Profile of the Participants

Category	Frequency	Percentage
<b>TYPE OF BUSINESS ORGANIZATION</b>		
Sole Proprietorship	22	44.00
Partnership	11	22.00
Corporation	15	30.00
Cooperative	2	4.00

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
<b>NUMBER OF STAFF</b>		
1-9 employees	45	90.00
10-49 members	5	10.00
<b>ASSET SIZE</b>		
Php 3,000,000 and below	30	60.00
Php 3,000,001 to Php 15,000,000	20	40.00
<b>LENGTH OF THE OPERATION</b>		
1 year and below	3	6.00
4-6 years	16	32.00
1-3 years	7	14.00
7-9 years	8	16.00
10 years and above	16	32.00

### Inventory management practices

Table 2 provides an overview of the inventory management practices of small-scale pharmacies in terms of sourcing. Considerably, 22.81% attributed to using EOQ as the primary inventory management method. This high frequency suggests that a substantial portion of participants favor cost-efficient inventory management to minimize holding and ordering costs through the EOQ model. On the other hand, 8.77 percent were associated with VMI, signifying a comparatively lower adoption of this approach. The results indicate that EOQ is the most common inventory management practice among businesses in Cavite's selected locales. This information aligns with the study of [Secretario and Naval \(2021\)](#) and [Dewi et al. \(2019\)](#), which suggests that EOQ is the most used and effective inventory management method that results in greater operational performance by reducing the costs associated with keeping inventory and placing orders. It is highly effective in managing stagnation and shortages of drugs and leads to an increased return on investment.

**Table 2.** Inventory Management Practices in Terms of Sourcing

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
EOQ (Economic Order Quantity)	26	22.81
POQ (Periodic Order Quantity)	19	16.67
FOQ (Fixed Order Quantity)	12	10.53
JIT (Just-in-Time)	14	12.28
VMI (Vendor Managed Inventory)	10	8.77
ROP (Re-Order Point)	22	19.30
Lot for Lot	11	9.65
<b>TOTAL</b>	<b>114</b>	<b>100.00</b>

Table 3 shows the inventory management practices of small-scale pharmacies in terms of storing. It reveals that among the indicators, both FSN (Fast Moving, Slow Moving, and Non-Moving) and FEFO (First Expiry, First Out) have 23% or 15.44% of responses. Considerably, others received a significant response of 1% or 0.67%, which includes "complete stock twice a year." The results show that FSN and FEFO are retailers' most commonly used practices and could help them effectively and efficiently utilize their space and boost labor productivity. As affirmed by [Gizaw and Jemal \(2021\)](#) and [Budiawan et al. \(2019\)](#), the practice of categorizing inventory into Fast Moving, Slow Moving, and Non-Moving items and First Expiry, First Out helps organizations effectively manage their stocks. These practices can optimize inventory management, reduce waste, and ensure that supplies are used efficiently without excessive inventory.

**Table 3.** Inventory Management Practices in Terms of Storing

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
ABC Analysis	13	8.72
VED Analysis (Vital, Essential, and Desirable)	12	8.05
VEN Analysis (Vital, Essential, and Non-essential)	11	7.38
FSN Analysis (Fast Moving, Slow Moving, and Non-moving)	23	15.44
Cycle Counting	21	14.09
Perpetual Inventory	9	6.04
Safety Stock	12	8.05
FEFO (First Expiry, First Out)	23	15.44
LIFO (Last In, First Out)	5	3.36
FIFO (First In, First Out)	19	12.75
Others	1	0.67
<b>TOTAL</b>	<b>149</b>	<b>100.0</b>

Table 4 demonstrates the inventory management practices of small-scale pharmacies in terms of selling. It was found that 51.90% of the responses employed FEFO. While LIFO has 3.80 % the result conveys that adapting the FEFO method could assist small-scale pharmacies in facilitating the efficient and effective flow of health care products and fulfilling consumer needs. This conforms to the study of [Sukasih et al. \(2019\)](#) and [Secretario and Naval \(2021\)](#) that it is a preferred practice for managing inventory when dispersing supplies. It is a highly effective strategy for improving sustainability by avoiding instances of deadstock, thereby reducing costs. The key benefit is that businesses guarantee the consistent quality of their products and provide their consumers with more assurance.

**Table 4.** Inventory Management Practices in Terms of Selling

<b>CATEGORY</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
FIFO (First In, First Out)	27	34.18
LIFO (Last In, First Out)	3	3.80
FEFO (First Expiry, First Out)	41	51.90
Consignment Inventory	8	10.13
<b>TOTAL</b>	<b>79</b>	<b>100.00</b>

Table 5 exhibits the mean and descriptive values of the extent of inventory management practices. It shows that the selling variable got a mean value of 4.48, followed by the storing variable with 4.40, both rated Absolutely. On the other hand, sourcing has the lowest mean value among the three variables, at 4.08, with a descriptive value of Considerably. The results indicate that inventory management practices in selling and storing were applied following the corresponding responses of the participants. This parallels [Ordas et al. \(2018\)](#) regarding the extent of utilization for selling. Their study yielded a relatively favorable rating, implying that the majority of retail stores employ a wide range of selling-related practices.

**Table 5.** Extent of Inventory Management Practices Among Participants

<b>Category</b>	<b>Mean</b>	<b>Descriptive Value</b>
Sourcing	4.08	Considerably
Storing	4.40	Absolutely
Selling	4.48	Absolutely

### Insights into small-scale retail businesses

The following are marketing insights that could help develop small-scale retail businesses in terms of inventory management practices.

**Table 6.** Marketing Insights

Marketing Insights	To Whom It Is Addressed?	Rationale	Pathways
Implement the use of Economic Order Quantity (EOQ) in supply sourcing procedures.	Small-scale pharmacies and retailers of the same nature	This practice could assist businesses in determining the optimal order quantity by reducing inventory costs associated with the frequency of orders and averting the accumulation of excessive inventory while improving efficiency and profitability.	Retailers determine yearly product demand through transactions, customer demand, and industry data. They calculate costs for orders and product carrying, including transportation, holding, administrative, storage, insurance, and potential investments. The EOQ is determined using a formula, and the EOQ model is used to execute the order by placing products in the most efficient quantity.
Employ Fast, Slow, and Non-moving (FSN) techniques for supply-storing processes.	Small-scale pharmacies and retailers of the same nature	It can streamline their storage process, make better decisions about what supplies to store, and ensure that their inventory levels are always in sync with demand.	To effectively manage inventory, small-scale pharmacies and retailers must collect sales data from sales records, including item number, description, quantity sold, and date sold. Sales velocity is calculated by dividing the quantity sold by the period. Determining optimal stock levels per classification for efficient replenishment and management is crucial. Regular monitoring of inventory levels is essential for managing potential



Marketing Insights	To Whom It Is Addressed?	Rationale	Pathways
Utilize First Expiry, First Out (FEFO) method for dispensing and handling supplies.	Small-scale pharmacies and retailers of the same nature	The FEFO method is a sustainable storage method that ensures product quality and sustainability by dispensing the product first from storage. It prevents deadstock accumulation, costs associated with waste, and damage to brand reputation. It is widely used in the pharmaceutical industry to prevent outdated drugs from being ingested. Adopting this method for perishable goods is crucial for customer safety and well-being.	risks. To ensure successful product distribution, it is crucial to label and identify products from arrival to removal, document inventory accurately, and ensure proper storage and distribution. After implementing the FEFO approach, assess its effectiveness, make necessary modifications, and regularly evaluate and update expiration dates.
Participating in various seminars and training programs	Managers and inventory management personnel	It can enhance their skill, knowledge, and awareness of various inventory management practices that may provide valuable insights and enable them to make informed decisions regarding implementing specific practices that align with the specific business needs and current circumstances.	Managers should conduct internet research to find relevant seminars or workshops to effectively manage inventory. Preparing in advance and registering early ensures a seat at the event. Active participation in discussions and note-taking improves learning outcomes and provides valuable insights from diverse perspectives. Managers should then apply the knowledge and insights from the seminar to practical situations to fully understand its implications.
Update processes	Small-scale	Assessing and	Enterprises should

Marketing Insights	To Whom It Is Addressed?	Rationale	Pathways
	pharmacies and retailers of the same nature	revising the efficiency of business processes is vital for ensuring smooth and effective operations. It empowers businesses with the necessary information to identify areas that require enhancement and make informed decisions based on data regarding where to allocate business efforts, time, and resources for optimal outcomes. This will enable enterprises to accommodate evolving marketing conditions and remain in sync with consumer needs.	assess their current processes to improve inventory management and identify any shortcomings. This will help identify necessary modifications and create a comprehensive plan for their implementation.

## CONCLUSIONS

After data facilitation, processing, analyses, and discussions, and its relevance to marketing eloquence sensitive to inventory management practices due to business operationality and segmented but integrated and interconnectedness of marketing and inventory management, as purported by prevailing studies and marketing insights, the researchers conclude the following:

1. Single owners owned small-scale pharmacies in selected areas of Cavite with 1–9 employees and estimated assets of P3,000,000 and below. They have been in operation for 1–3 years and 10 years and above.
2. Inventory management practices implemented by small-scale pharmacies in terms of sourcing are economic order quantity, periodic order quantity, fixed order quantity, just-in-time, vendor-managed inventory, re-order point, and lot-for-lot. Among the indicators, economic order quantity is the most commonly employed practice of small-scale pharmacies in sourcing supplies. Additionally, the practices implemented by the small-scale pharmacies in terms of storing are fast-moving, slow-moving, non-moving, first expiry first out, cycle counting, first in first out, ABC analysis, VED analysis, safety stock, vendor analysis, perpetual inventory, last in first out, and complete stock twice a year. Among the various indicators, FSN analysis and FEFO are the predominant practices used by small-scale pharmacies in storing. Furthermore, the practices implemented by the small-scale pharmacies in terms of selling are first expiry first out, first in first out, consignment inventory, and last in first out. FEFO is the most predominant practice of small-scale pharmacies in selling.
3. Among the three variables, sourcing, storing, and selling, the selling and storing variables

employ the most comprehensive implementation of inventory management practices in business organizations with a descriptive value of “Absolutely”.

Based on the findings and conclusions presented, the researchers provided the following recommendations: Small-scale pharmacies could create policies for managing inventories and seek out and adapt particular inventory management practices. In terms of sourcing, it was recommended to employ Economic Order Quantity (EOQ), which means businesses should ensure the ideal quantity of supplies is ordered for each batch to avoid placing orders too frequently or having too much inventory on hand. Under the storing practices, businesses should apply the fast-moving, slow-moving, and Non-Moving (FSN) method; retailers should store products that correspond with their rate of consumption to determine which products are regarded as active and which are not. The First Expiry, First Out (FEFO) method could also be utilized under storing and selling practices. Businesses should handle and dispense products based on what products will expire first to ensure that the products in storage with an early expiration date are consumed or sold first to minimize waste and maintain product quality. By implementing these inventory management practices, retailers could track and regulate the flow of inventories from the point of purchase to the point of sale and speed up the flow of goods.

It is also vital for small-scale pharmacies to strategically plan their operations for the long term, taking into consideration the various factors associated with selling and storing as they are highly employed in their business processes. This entails maximizing inventory turnover and maintaining a competitive advantage by considering factors such as seasonal fluctuations, market trends, and supplier connections. Additionally, the local business association may offer specialized seminars to enhance the understanding and implementation of inventory management techniques for small-scale pharmacy owners and their staff. Training programs targeting inventory management practices would enable pharmacy employees to optimize inventory control, minimize waste, and enhance operational efficiency. Small-scale pharmacies can enhance their marketing strategy by categorizing items according to inventory turnover rates and employing inventory-sensitive and promotional methods to attract customers. This will result in higher profitability and long-term viability for the business. Considering that industry-market conditions in the province of Cavite are progressing and magnifying pharmacy enterprises, these recommendations may serve as a pivotal segment of improvement and niche enterprise strategy.

### **LIMITATION & FURTHER RESEARCH**

For future researchers, this study can serve as a foundational reference to gain a deeper understanding of inventory management practices. They could conduct a deeper approach to the study, including other retail businesses, investigate the challenges they encountered, and explore the study with a broader sample.

Future researchers may examine the behavioral variables that this study yields and considerably test the theoretical-behavioral expectations of schematic inventory management practices. This would enable enterprises to determine the most appropriate practices to adopt for their business operations on an in-depth seven-fold business dynamic model. Considering that this study was limited to small-scale pharmacies only, future researchers could also conduct the study, including other related businesses, and explore the study with a broader sample size.

### **REFERENCES**

Ahmad, K., & Zabri, S. M. (2018). The mediating effect of knowledge of inventory management in the relationship between inventory management practices and performance: The case of micro retailing enterprises. *Journal of Business and Retail Management Research*, 12(2).

- <https://doi.org/10.24052/jbrmr/v12is02/tmeokoimitrbimpaptcomre>
- Alam, M. K., Thakur, O. A., & Islam, F. T. (2023). Inventory management systems of small and medium enterprises in Bangladesh. *Rajagiri Management Journal*, 18(1), 8–19. <https://doi.org/10.1108/ramj-09-2022-0145>
- Alenia, L., Caparas, H., Geronimo, C., Mendoza, C., & Ramos, I. M. (2020). Evaluation of different stock control models for a medium-scale pharmaceutical drug enterprise to reduce annual inventory related cost. *International Journal of Innovative Studies in Sciences and Engineering Technology (IJISSET)*. <https://ijisset.org/storage/Volume6/Issue3/IJISSET-060306.pdf>
- AlRuthia, Y., Almutiri, N. M., Almutairi, R. M., Almohammed, O. A., Alhamdan, H., El-Haddad, S. A., & Asiri, Y. A. (2023). Local causes of essential medicines shortages from the perspective of supply chain professionals in Saudi Arabia. *Saudi Pharmaceutical Journal*, 31(6), 948–954. <https://doi.org/10.1016/j.jsps.2023.04.019>
- Atnafu, D., & Balda, A. (2018). The impact of inventory management practice on firms' competitiveness and organizational performance: Empirical evidence from micro and small enterprises in Ethiopia. *Cogent Business & Management*, 5(1), 1503219. <https://doi.org/10.1080/23311975.2018.1503219>
- Balkhi, B., Alshahrani, A., & Khan, A. (2022). Just-in-time approach in healthcare inventory management: Does it really work? *Saudi Pharmaceutical Journal*. <https://doi.org/10.1016/j.jsps.2022.10.013>
- Budiawan, R., Simanjuntak, J., & Rosely, E. (2019). Inventory management application of drug using FIFO method. *Test Engineering and Management*, 83, 7785-7791. [https://www.researchgate.net/publication/338065504\\_Inventory\\_Management\\_Application\\_of\\_Drug\\_using\\_FIFO\\_Method](https://www.researchgate.net/publication/338065504_Inventory_Management_Application_of_Drug_using_FIFO_Method)
- Cegedim Healthcare Solutions. (2022, December 8). *Why is inventory management important in pharmacies?* Retrieved from <https://www.cegedim-healthcare.co.uk/blog/why-is-inventory-management-important-in-pharmacies>
- Chan, S. J., & Tan, C. L. (2016). A model linking store attributes, service quality, and customer experience: a study among community pharmacies. *International Journal of Economics & Management*, 10(2). [http://www.ijem.upm.edu.my/vol10no2/\(7\)-VOL\\_10\(2\)\\_Chan%20Suzy%20Jack\\_A%20Model%20Linking.....pdf](http://www.ijem.upm.edu.my/vol10no2/(7)-VOL_10(2)_Chan%20Suzy%20Jack_A%20Model%20Linking.....pdf)
- Ching, P. L., Mutuc, J. E., & Jose, J. A. (2019). Assessment of the quality and sustainability implications of FIFO and LIFO inventory policies through system dynamics. *Advances in Science, Technology and Engineering Systems*, 4(5), 69–81. <https://dx.doi.org/10.25046/aj040509>
- Cruz-Abrenica, M. S. E., Yu, R. L., Mendoza, C. (2020). *COVID-19 and pharmaceutical and medical industry supply chains*. Lexology. <https://www.lexology.com/library/detail.aspx?g=4201968e-ade1-4d17-b43c-f8713f8a2893>
- Dewi, E. K., Dahlui, M., Chalidyanto, D., & Rochmah, T. N. (2019). Achieving cost-efficient management of drug supply via economic order quantity and minimum-maximum stock level. *Expert Review of Pharmacoeconomics & Outcomes Research*, 20(3), 289-294. <https://doi.org/10.1080/14737167.2019.1633308>
- Gebisa, D. A. (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. <https://doi.org/10.22146/gamaijb.69616>
- Gizaw, T., & Jemal, A. (2021). How is information from ABC-VED-FNS Matrix analysis used to improve operational efficiency of pharmaceuticals inventory management? A Cross-Sectional Case Analysis. *Integrated Pharmacy Research and Practice*, 65-73.

- <https://doi.org/10.2147/IPRP.S310716>
- Hannah, I., Onyi, B., Makinde, M., & Bunmi, C. (2020). Impacts of inventory management practices on organization performance. *International Journal of Academic Accounting*, 4(8), 95-105. <http://ijeais.org/wp-content/uploads/2020/8/IJAAFMR200813.pdf>
- Hayes, A. (2023, March 28). *Inventory management defined, plus methods and techniques*. Retrieved from <https://www.investopedia.com/terms/i/inventory-management.asp>
- Humanitarian Library. (2019). *Warehousing and inventory management*. Humanitarian Logistics Association. <https://www.humanitarianlibrary.org/sites/default/files/2019/05/LOG-WarehousingandInventoryManagement-130519-0911-13124.pdf>
- Jenkins, A. (2022). *Just-in-time inventory (JIT) explained: a guide*. Oracle NetSuite. <https://www.netsuite.com/portal/resource/articles/inventory-management/just-in-time-inventory.shtml>
- Jobira, T., Abuye, H., Jemal, A., & Gudeta, T. (2021). Evaluation of pharmaceuticals inventory management in selected health facilities of West Arsi Zone, Oromia, Ethiopia. *Integrated Pharmacy Research and Practice*, 1-11. <https://doi.org/10.2147/IPRP.S298660>
- Jobira, T., Abuye, H., Jemal, A., & Gudeta, T. (2022). Assessment of Knowledge, Practices, and Challenges of Pharmaceuticals Inventory Control Among Pharmacy Professionals Working in Selected Public Health Facilities of West Arsi Zone, Oromia, Ethiopia. *Health Services Insights*, 15, 11786329211066403. <https://doi.org/10.1177/117863292110664>
- Karamshetty, V., De Vries, H., Van Wassenhove, L. N., Dewilde, S., Minnaard, W., Ongarora, D. S., Abuga, K. O., & Yadav, P. (2020). An empirical analysis of demand-supply mismatches in private healthcare facilities in Nairobi county. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.3601808>
- Kefale, A. T., & Shebo, H. H. (2019). Availability of essential medicines and pharmaceutical inventory management practice at health centers of Adama town, Ethiopia. *BMC health services research*, 19, 1-7. <https://doi.org/10.1186/s12913-019-4087-0>
- KPMG (2019, February 11). *Philippines pharma: All set for continuous growth*. Retrieved from <https://kpmg.com>
- Lamba, G., Shroff, Z. C., Babar, Z. U. D., & Ghaffar, A. (2021). Drug shops for stronger health systems: learning from initiatives in six LMICs. *Journal of Pharmaceutical Policy and Practice*, 14(1), 1-16. <https://doi.org/10.1186/s40545-021-00374-z>
- Maidment, I., Young, E., MacPhee, M., Booth, A., Zaman, H., Breen, J., ... & Wong, G. (2021). Rapid realist review of the role of community pharmacy in the public health response to COVID-19. *BMJ open*, 11(6), e050043. <http://dx.doi.org/10.1136/bmjopen-2021-050043>
- Malik, P. (2023, August 4). *Importance of pharmacy in daily life*. Retrieved from <https://www.venkateshwaragroup.in/vgiblog/blog/importance-of-pharmacy-daily-life/>
- Mendoza, X. L., Bruno, L. Y., Maglaque, B. S., & Solis, J. N. (2023). Influence of the factors of business opportunities among micro and small enterprises in selected areas of Cavite. *Asian Journal of Management, Entrepreneurship and SocialScience*, 3(01), 136-155. <https://ajmesc.com/index.php/ajmesc/article/view/221>
- Mendoza, X. L. D., & Tadeo, B. (2023). Analysis of micro, small, medium enterprises: The cases of Singapore, Malaysia, Philippines, Thailand and Vietnam. *Journal of Management, Economics, and Industrial Organization*, 7(1), 1-15. <https://doi.org/http://doi.org/10.31039/jomeino.2023.7.1.1>
- Mendoza, X. L. D., Tadeo, J. B., Dacanay, J. M., Marla, A. N., & Vergara, C. A. B. (2023). Enterprise management strategies in agricultural fairtrade products. *Journal of Enterprise and Development (JED)*, 5(2), 172-187. <https://doi.org/10.20414/jed.v5i2.6837>

- Michigan State University. (2022). What is procurement management? Retrieved from <https://www.michiganstateuniversityonline.com/resources/supply-chain/what-is-procurement-management/>
- Mukwakungu, S. C., Mabasa, M. D., Mankazana, S., Mzileni, X., & Burakeye, S. A. (2019). The impact of just in time (JIT) in inventory management–perspectives from two case studies in a South African environment. *Proceedings of the International Conference on Industrial Engineering and Operations Management*. <https://ieomsociety.org/ieom2019/papers/330.pdf>
- Muller, M. (2019). *Essentials of inventory management*. United States of America: HarperCollins Leadership. Retrieved from [https://books.google.com.ph/books?hl=en&lr=&id=R\\_JWDwAAQBAJ&oi=fnd&pg=PP1&dq=Essentials+of+inventory+management+\(Third+Edition\)&ots=7zVIHhWz6x&sig=XiouhHdUDnap9zycGGgd-XkaTFQ&redir\\_esc=y#v=onepage&q=Essentials%20of%20inventory%20management%20\(Third%20Edition\)&f=false](https://books.google.com.ph/books?hl=en&lr=&id=R_JWDwAAQBAJ&oi=fnd&pg=PP1&dq=Essentials+of+inventory+management+(Third+Edition)&ots=7zVIHhWz6x&sig=XiouhHdUDnap9zycGGgd-XkaTFQ&redir_esc=y#v=onepage&q=Essentials%20of%20inventory%20management%20(Third%20Edition)&f=false)
- Murray, J. (2020, July 26). *What is inventory?* Retrieved from <https://www.thebalancemoney.com/sorting-out-inventory-why-its-important-for-your-business-4041326>
- Nur, A. K., Kautsar, A. P., Hilmi, I. L., & Abdulah, R. (2019). Efficiency Fast-Moving Drug Plan with Reorder Point Intervention at a Private Hospital in Bandung. *Pharmacology and Clinical Pharmacy Research*, 4(3), 61-66. <https://doi.org/10.15416/pcpr.v4i3.24924>
- Ordas, G. A., Armenta, J. Y., Jerusalem, E., & Ramores, M. (2018). The relationship of inventory management practices on the business performance of hardware stores in Naga City. <https://pdfcoffee.com/brem-final-pdf-free.html>
- Parilla, E., Evangelista, J., Aurelio, R., & Bullalayao, C. (2022). Inventory Management Practices and Service Delivery of Healthcare Facilities in Ilocos Norte Philippines. <https://doi.org/10.31098/lomr.v1i1.919>
- Reyes, C., & Tabuga, A. (2020). *A profile of the Philippine pharmaceutical industry*. Philippine Competition Commission. <https://www.phcc.gov.ph/wp-content/uploads/2020/06/PCC-Issues-Paper-2020-02-A-Profile-of-the-Philippine-Pharmaceutical-Industry.pdf>
- Sabila, A. D., Mustafid, M., & Suryono, S. (2018). Inventory Control System by Using Vendor Managed Inventory (VMI). In *E3S Web of Conferences* (Vol. 31, p. 11015). EDP Sciences. <https://doi.org/10.1051/e3sconf/20183111015>
- Saini, K. (2021). Reorder point intervention (ROP) for fast moving drugs at a local pharmacy. *World Journal of Pharmaceutical Research*. <https://doi.org/10.20959/wjpr202111-21326>
- Saleem, S. Z. E. B. B., & Ullah, A. (2023). The Pros and Cons of Inventory Control Strategies, and How Does it Affect the Company's Performance. *International Journal of Operations Management*, 3(1), 7–14. <https://doi.org/10.18775/ijom.2757-0509.2020.31.4001>
- Secretario, R., & Naval, G. (2021). Inventory management practices of micro, small, and medium grocery stores in Daet, Camarines Norte. *International Journal of Current Science Research and Review*, 04(11). <https://doi.org/10.47191/ijcsrr/v4-i11-06>
- Shukar, S., Zahoor, F., Hayat, K., Saeed, A., Gillani, A. H., Omer, S., ... & Yang, C. (2021). Drug shortage: causes, impact, and mitigation strategies. *Frontiers in pharmacology*, 12, 693426. <https://doi.org/10.3389/fphar.2021.693426>
- Sophia, N. (2019). Effect of inventory management practices on the operational performance of manufacturing firms: a case study of Mukwano group of companies. <https://ir.kiu.ac.ug/bitstream/20.500.12306/13303/1/Natabo%20Sophia.pdf>
- Stephen, N. (2022). *Warehousing and inventory management*. ResearchGate.

[https://www.researchgate.net/publication/360734122\\_warehousing\\_and\\_inventory\\_management](https://www.researchgate.net/publication/360734122_warehousing_and_inventory_management)

Sukasih, E., Apriyanto, G., & Firdiansjah, A. (2020). Drug Inventory Management in Financial Perspectives on Pharmacy Installations. *IOSR Journal of Business and Management (IOSRJB), 22(8)*, 54-61. doi: 10.9790/487x-2208035461

Zariyawati, M. A., & Pui-san, M. N. (2016). Working Capital Management Determinants. *Int. Journal of Economics and Management 10(2):365 - 377*.  
<https://openurl.ebsco.com/EPDB%3Agcd%3A3%3A10642291/detailv2?sid=ebsco%3Aplik%3Ascholar&id=ebsco%3Agcd%3A120973681&crl=c>