

An Assessment of Inventory Management Practices and Their Influence on the Business Performance of Small Retail Enterprises

**Dr. Jomar Valonda Villena¹, Atty. Emmanuel M Serna²,
Dr. Jerome L Dizon³, Mr. Francis Allan Bernales⁴**

^{1,2}Program Chair/Assistant Professor IV, School of Business and Accountancy, NU Philippines

³Associate Professor I, School of Business and Accountancy, NU Philippines

⁴Dean, School of Business and Accountancy, NU Philippines

Abstract

This study was conducted to determine the inventory management practices and evaluate the business performance of small retail enterprises located in Baliwag, Bulacan. Specifically, this study focuses on assessing the inventory management practices of the respondents in terms of ordering, receiving, storing, warehousing, recording, and dispatching. In addition, this study also measures the business performance of the respondents based on their profitability ratios and liquidity ratios. This study used the descriptive method of research (quantitative) using the twenty-seven (27) small retail enterprises situated in Baliwag, Bulacan, as the target respondents. Specifically, these small retail enterprises are engaged in selling RTW. The researcher coordinated with the Municipality of Baliwag – Business Processing and Licensing Office (BPLO) to identify the small retail enterprises engaged in RTW. The target respondents must be operating for at least two years and registered in the Department of Trade and Industry and Bureau of Internal Revenue. The questionnaire used in gathering the data consists of statement items related to inventory management practices in order, receiving, storing, warehousing, recording, and dispatching. Moreover, to determine the respondents' business performance, the researcher sought permission from the owners of small retail enterprises to access their financial statements to assess profitability and liquidity ratios. Based on the analysis of data, it showed that the inventory management practices and business performance in terms of profitability, liquidity and activity ratios are not statistically significant, however, the relationship of the two variables can be directly or indirectly proportional to each other. Findings revealed the Small Retail Enterprises in Baliwag, Bulacan moderately practiced the inventory management practices such as Ordering, Receiving, Storing, and Warehousing while recording and dispatching process is slightly practiced. Based on the data presented they are simply relying on common sense to determine the quantity of inventory to order. It also revealed that using an equation to determine the quantity to be ordered and implementing real-time inventory system are not practiced at all. Furthermore, it was concluded that majority of the respondents affirm that amidst global pandemic they can generally earn profit after settling all the expenses evidenced by profitability ratios. However, two of them experienced a net loss that could be an indication that there is a room for improvement and betterment in terms of assessing the operational expenses. Moreover, the all respondents can generally meet their short-terms obligations and majority of them can stay in the business operations for a period of 8 months or more using their defensive assets

verified by the computed liquidity ratios. Lastly, the respondent's activity ratios (inventory turnover and age of inventory) show longer period to sell their inventory. If the inventory turnover ratio is low, it can mean that there could be a decline in the popularity of the products or weak sales performance. Thus, the higher the inventory turnover, the better, since high inventory turnover typically means a company is selling goods quickly.

Lastly, it can be concluded that the inventory management practices of small retail enterprises evaluated against inventory control procedures and activities is moderately complied and some areas are low in terms of segregation of duties, annual inventory count, recording of business transactions in the general ledger, failure to submit of the BIR Inventory list every year which entails penalty in accordance with RMC No.57-2017 Annex A. Overall, the study concluded that inventory management practices are moderately applied which will be a tool in improving the business operations which will help a higher/better standing of financial ratios of Small Retail Enterprises in Baliwag, Bulacan.

Keywords: Inventory Management Practices; Small Retail Enterprises; Business Performance; Profitability Ratios; Liquidity Ratios; Activity Ratios

1. Introduction

Small businesses are the backbone of the Philippine economy. As defined in Securities and Exchange Commission (SEC) Memorandum Circular No. 5 series of 2018 "Adoption of Philippine Financial Reporting Standard for Small Entities", defined that small entities or business are those having a total asset or liabilities between 3 million to 100 million. Inventory is one of the line items that must be presented in the company's financial statement and in accounting parlance it is treated as an asset or resources that will sell in within the normal operating cycle. As defined by Investopedia, inventory represents one of the most critical assets of a business because it represents one of the primary sources of its income and earnings. Therefore, inventory management practices must be adapted and maintained in every organization. According to Juneja (2018), Controlling and managing a lean inventory is an essential aspect of effective inventory management. It also entails keeping track of what goes in and out of the stockroom and reconciling stock balances. The word "stock" is another term for inventory.

Inventory is the lifeblood of retail businesses and industries. Inventory management is a system that incorporates ordering, receiving, storing, warehousing, recording, and dispatching is a critical factor in the success or failure of a retail business because it directly impacts the company's efficiency. Effective inventory management strategies must be utilized, and it can boost a company's profit margins.

Part of good inventory management requires periodic physical counting and a system that covers the movement of the stocks. Above all, businesses must be fully compliant of all the policies and standards set by the government agencies or acceptable giving bodies in the field of business.

Hence, this study aims to determine and assess the inventory management practices against the internal control policies and measuring the financial position in terms of profitability, liquidity and activity ratios of selected small retail enterprises within Baliwag, Bulacan.

Effective inventory management can be considered the cornerstone of a successful retailing business. With a strategic plan in place that optimizes the process of overseeing and managing inventory, including real-time data of inventory conditions and levels, retail enterprises can achieve inventory management benefits that include fulfillment of an accurate order, more effective inventory planning and ordering, and ultimately, increased customer satisfaction.

In managing inventory, there are several issues to consider. Thus, there are five fundamental issues concerning inventory which the researcher intends to solve: 1. High cost of inventory. The more inventory that a retail enterprise has, the more money it will have to spend on labor to manage it, storage space, and, in some cases, insurance to protect it from loss or injury. 2. Consistent stockouts. Poor inventory management is the root cause of most stockouts. If the retail enterprise does not have real-time access to reliable inventory data, it will struggle because it will not be able to satisfy its customers. 3. Low rate of inventory turnover. When the retail enterprise has excessive inventory, it is generally not selling enough to prevent inventory buildup. This is not a good situation as businesses need to turn over inventory efficiently to maintain reasonably high profit margins and to avoid the costs and other disadvantages that come with high levels of inventory. 4. High amount of obsolete inventory. If a retail enterprise shows poor forecasting and purchasing, over-projected demand, and/or buying too much of the wrong products, may cause excess inventory. Obsolete stock is bad news for profitability. Items with little demand are often forced to be sold at a discount or, in the worst-case scenario, written off entirely. 5. High amount of working capital. Cashflow is the lifeblood of all businesses. Small retail enterprises, in particular, will struggle to pay workers, pay loans, and even remain in business if they don't have good cashflow. Unfortunately, excess stock is a major culprit for sucking up working capital. If cash is invested in stock items sat in a warehouse that have very little, or volatile demand, then it is being wasted on assets that are not going to generate revenue soon.

Small businesses are the backbone of the Philippine economy. Small companies, by legal definition, are privately held entities run by a small number of people with a low volume of revenue. They need little money, and there is always a market for every product or service we may think of in this densely populated archipelago.

But what constitutes effective inventory management? According to Juneja (2018), Controlling and managing a lean inventory is an essential aspect of effective inventory management. It also entails keeping track of what goes in and out of the stockroom and reconciling stock balances. The word “stock” is another term for inventory. As defined by Investopedia, Inventory represents one of the most critical assets of a business because it represents one of the primary sources of its income and earnings.

Inventory is the lifeblood of retail businesses and industries. Inventory management is a critical factor in the success or failure of a retail business because it directly impacts the company's efficiency. Inventory management is a system that incorporates data, transportation, material handling, warehousing, supply control, and inventory protection.

Therefore, the researcher looks forward to helping the retail industry in Baliwag, Bulacan in terms of managing their inventory to be more effective and efficient using the acceptable inventory management practices.

Theoretical Framework of the Study

This study is grounded in regulatory, accounting, and management theories that collectively explain the financial reporting, inventory management, and internal control practices of small entities in the Philippines.

Regulatory and Financial Reporting Framework

The study is primarily anchored in Securities and Exchange Commission (SEC) Memorandum Circular No. 5, which mandates the adoption of Philippine Financial Reporting Standards (PFRS). Under this circular, small entities are defined as those meeting all of the following criteria: (1) total assets or liabilities ranging from ₱3,000,000 to ₱100,000,000; (2) not required to file financial statements for public

accountability; (3) not in the process of issuing financial instruments in a public market; and (4) not holding secondary licenses from regulatory agencies.

Complementing this, Bureau of Internal Revenue (BIR) Revenue Memorandum Circular (RMC) No. 49-2020 requires that entities with annual gross revenues exceeding ₱3,000,000 must submit audited financial statements signed by an independent Certified Public Accountant. Firms below this threshold are exempt from audit requirements. This regulatory distinction highlights the varying levels of accountability and reporting rigor, which directly affect internal control structures and financial reporting practices.

Together, these regulatory frameworks establish the compliance environment within which small entities operate and provide the foundation for assessing their accounting and inventory management practices.

Economic Order Quantity (EOQ) Theory

The study further adopts the Economic Order Quantity (EOQ) model, originally developed by Ford W. Harris (1913), as a core inventory management theory. EOQ determines the optimal order size that minimizes the total cost of inventory, including ordering, holding, and shortage costs.

The EOQ model assumes stable demand, constant ordering costs, and uniform holding costs. Within this framework, efficient inventory management is achieved by balancing ordering frequency with storage costs. The theoretical relevance of EOQ to this study lies in its ability to explain how businesses optimize inventory levels to avoid overstocking during low demand and stockouts during high demand periods.

For small entities, especially those with limited financial and operational resources, EOQ provides a systematic approach to inventory control that enhances cost efficiency and operational stability.

Segregation of Duties (SOD) Theory in Internal Control Systems

Another key theoretical underpinning of this study is the Segregation of Duties (SOD) principle, a fundamental concept in internal control systems. SOD posits that no single individual should have control over all aspects of a financial transaction. Instead, responsibilities should be divided among multiple individuals to reduce the risk of fraud, errors, and misuse of assets.

The three critical functions that must be separated are: Custody of assets, Record-keeping and Authorization of transactions. This framework is particularly relevant in procurement and inventory cycles, where duties such as purchase order creation, approval, receipt of goods, recording of transactions, and payment authorization must be assigned to different personnel.

However, in small organizations, implementing full segregation can be challenging due to limited staffing. This constraint introduces potential control risks, making it necessary for such entities to adopt compensating controls, such as increased supervision and periodic audits.

Internal Control Theory in Inventory Management

The study is also guided by Internal Control Theory, which emphasizes the establishment of policies and procedures to ensure: Safeguarding of assets, Accuracy and reliability of financial records, Efficiency of operations, and Compliance with laws and regulations. In the context of inventory management, effective internal controls include: Authorization procedures for purchase requisitions and orders, Matching of purchase orders, receiving reports, and supplier invoices (three-way matching), Reconciliation of inventory records with the general ledger, and Implementation of tracking systems such as barcoding or inventory software. These controls are essential in preventing theft, minimizing losses, and ensuring accurate financial reporting.

Audit and Assurance Theory: PSA 501

The study incorporates Philippine Standard on Auditing (PSA) 501, which provides guidance on obtaining audit evidence for inventory. It emphasizes the importance of auditors' participation in physical inventory

counts to: Evaluate management procedures, Observe counting processes, Inspect inventory items, and Perform test counts. This theory reinforces the reliability of inventory data and highlights the role of external verification in strengthening financial reporting integrity.

Inventory Monitoring and Compliance Framework

The requirement for submission of the BIR Inventory List (RMC No. 57-2017) further strengthens the theoretical basis of this study. The inventory list serves as an annual compliance tool that details inventory quantities and values as of the financial year-end, submitted before January 30.

This requirement aligns with financial accountability and transparency principles by ensuring that reported inventory balances are supported by physical and documentary evidence.

Statement of the Problem

- This study seeks to describe the inventory management practices of small retail enterprises in terms of ordering, receiving, storing, warehousing, recording, and dispatching.
- This study aims to determine the business performance of small retail enterprises as measured by profitability ratios (net profit margin, return on assets, and return on equity), liquidity ratios (current ratio, acid-test ratio, and defensive interval ratio), and activity ratios (inventory turnover and age of inventory).
- This study intends to evaluate the relationship between inventory management practices and the business performance of small retail enterprises in terms of their association and predictive influence.

2.0 MATERIAL AND METHODS

Inventory Management Practices

The success of any business organization relies on the inventory management practices an entity has developed to manage its accounts. Inventory management practices (IMP) denote various business practices to ensure that their inventory records are kept at optimum levels to deliver maximum service levels at minimum costs. Milner (2015), defined inventory management as “process of directing and administering the holding, moving and converting of raw materials through value adding processes to deliver finished products to the customer”. In addition, as per Lwika et al., (2013) the fundamental objectives of all businesses are the maximization of profits and survival of the firm, systematic and that being the case, performance indicator have been showed to rely on the level of inventory management practices.

Ordering Inventory

In her research study conducted, Garcia (2016) explains the importance of having ordering policy. She initially points out that An ordering policy is the set of constraints and rules, defined contractually or otherwise, that govern the process of defining and updating the forecasted order quantity (OQ) that the retailer shares with a supplier. Each period, a planner receives a demand forecast vector consisting of the forecast quantities for each period over the forecast time horizon. The period could be weekly, monthly or quarterly depending on the product. To this demand forecast, the planner incorporates knowledge of existing inventory, the previous period's forecasted OQ vector and ordering policy rules. The result is an updated forecasted OQ vector that describes the forecasted purchase quantities, period by period, to the supplier. The general findings of her study showed that ordering policies that incorporate a minimum, long term base, are effective at improving inventory position and reducing OQ variability. This suggests an opportunity to rethink traditional contractual restrictions in updating OQ forecasts. Intuitively, a higher minimum base is better for reducing OQ variability and a lower one improves inventory position. More

flexibility is preferred for both policies with and without a long term base. This introduces another opportunity for suppliers to look at alternate ways of sharing the risk of capacity planning and component procurement with their clients, moving away from minimum purchase commitments.

Other researchers evaluated the significant contributions of proper procurement or ordering in meeting the demand of the consumers. Lundu et al. (2015) surveyed supermarkets in Kisumu City, Kenya, to examine the effect of building an excellent rapport with suppliers, using a team-based procurement approach, and incorporating digital technology in procurement; strong support from the top management in the procurement process. The result of the survey showed that the involvement of everyone in the procurement decision increases profit over time. Therefore, proper and on-time procurement positively affects the business.

Likewise, Karanja and Kiarie (2015) conducted a study to examine the impact of procurement practices on organization performance. The result showed that e-procurement positively affects an organization's performance and digital or automated procurement practices helps achieve organizational performance; proper inventory management in the private sector leads to improved organizational performance.

Receiving Inventory Management

According to Indira P (2018), defined “inventory controls refers to all aspects of managing a company’s inventories purchasing, shipping, receiving, tracking, warehousing and storage, turnover and reordering”.

According to Indira P (2018) “inventory controls refer to all aspects of managing a company’s inventories purchasing, shipping, receiving, tracking, warehousing and storage, turnover and reordering”. Tracking the received items and supplies is vital to properly account the inventory of an entity. “Receiving inventory is one small—but very important—task in the inventory management function. This involves receiving shipments from suppliers and entering the items into the company’s accounting or business software application.” (Vitez, 2017). Therefore, accurately tracking the received goods from the moment it arrives to granary to the time they are dispatched to the purchaser would be a great practice to properly account records and to create a fast, safe, and systematized process of managing received inventory.

Storing Management Practices

According to Gikingo (2018) “Stores’ roots go back to the creation of granaries to store food, which was historically available for purchase during times of famine. As European explorers began to create shipping-trade routes with other nations, stores grew in importance for the storage of products and commodities from afar.” In addition, he added that storing is a system of materials management in an organization. Thus, storage and inventory control processes consist of actions related to holding material and the methods of monitoring transactions as it moves through a fulfillment or distribution center (Vitasek, 2021). Moreover, Vitasek (2021) highlighted that best-practice businesses have established storage systems to achieve the goals of the current and planned mix of storage types. Hence, proper development of storage systems would stream line all materials management functions effectively.

Warehousing Inventory Management Practices

Warehousing is a system of storing goods in between the period they are manufactured and the time they are transported to the consumer. Lopienski (2018) defined warehouse management as the tactical routine of operations in a warehouse to improve, promote, and ensure operational quality and excellence. Hence, warehouse management is a factor to company’s efficiency.

With the onset of the technology and the emergence of new demands in warehouse management, companies must develop a well-rounded warehouse management system. In consonance with this, the

development of Warehouse Management System (WCS) should be established to allow the fulfillment and replacement of the manually centered approach and batch-generated reports with a more accurate means of tracking records including products. According to Cronin (2015) as cited by Nicholas J. Cross (2019), "Linking WMS software with automated equipment controlled by a warehouse control system (WCS) further increases efficiencies; the combination of these two technologies into one advanced warehouse operating system has provided the closest means of providing real-time activities within a warehouse"

Recording Inventory

Thibodeaux (2019) illustrated that companies often depend on inventory to operate or fill client orders. Inventory is a major company asset that helps a company with tasks such as planning and staying within budget. Thus companies should see keeping accurate inventory records as a major management tool that has multiple benefits. When accurate inventory records are kept, business owners have data that tells you whether you can take on client requests or particular projects with the inventory on hand.

Thibodeaux (2019) also identifies at least two benefits of proper recording of inventory: 1. Improved Customer Service. Good inventory records mean that when customers call or write with inventory-related questions, you can find the answer quickly. A fast response time usually means the customer gets a better impression of the company. When you know exactly what inventory you have and where it is stored, you can retrieve it promptly and fill customer orders efficiently. The ability to deal with inquiries and fill orders quickly means the company is able to serve more customers and move more inventory through the company, resulting in higher profit. If customers have to wait for responses or products, they may cancel orders and go to other companies. 2. Expense Control and Savings. Failure to maintain accurate inventory records sometimes means that a company cannot send out an item until it is close to a deadline. Companies that have to send items out at the last minute might have to pay extra to expedite shipping. Doing this for one or two customers might not be a huge deal, but it translates into significant losses for companies that work with dozens or even hundreds of customers every day.

Furthermore, sometimes companies end up ordering new inventory to meet client demands, only to find the original stock later and realize the new order wasn't necessary. Replacing goods in this way is costly, especially if the company cannot sell the initial inventory and ends up with "extra." Inventory tracking thus is a strategy for expense control. Other researchers also evaluated the importance of recording inventory. Reph& Milner (2015) mention "inventory is the stock of any item held in an organization". An accurate and proper recording system strengthens the internal control to ensure optimal quality inventory while providing the best to end-consumers. "In records management, an inventory is a descriptive listing of each record series or system, together with an indication of the location and other pertinent data" (National Archives, 2019). According to toppr.com, recording the physical quantities of stock and its valuation is called the inventor recording system. As the name implies, the Inventory Record System is concerned with keeping track of physical counting and the total monetary valuation of inventories traded and in hand. It guarantees that the business enterprise's records are up to date. It assists you in recording goods as they arrive at the warehouse or go down and when they are issued for sale. It ensures that the business enterprise's records are up to date.

Dispatching Inventory

JMV Education (2018) identified the importance of dispatch operation. Dispatch is the activity performed when the goods have to be delivered to the customer(s). As dispatch is a critical activity as it is the customer facing aspect of the warehouse and therefore it must operate efficiently to ensure that all goods

are dispatched on time. For every business, brand name holds a major part in market share as well as belief among customers. Why customers choose a particular brand only because they believe in their good services and satisfaction. Once a business receives good reviews, then the customer became valuable and company forced to give commitment over honor. The business continues to provide better new services to retain the customers and acquire new customers. Therefore, it can be noted that better dispatch is the backbone of any good business among all aspects.

Inventory Management Improvement

Even though inventory management is not new, not every organization uses it to reduce inventory costs. The aim of inventory management is to figure out how much to order and when to order it. Objective: To keep enough inventory to meet customer demand. Purpose: To determine the amount of inventory to keep in stock – how much to order and when to order. The task of the research takes place within the company, which deals with assembling of microchips from raw materials and selling them to customers. (Dayra, 2015). In supply chain management, inventory management is a difficult problem to solve. Companies need inventories in warehouses to meet consumer demand; however, these inventories have holding costs, which are a frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfil the demand, avoiding overstocks. It is proposed to use inventory management in order to decrease stock levels and to apply an agent system for automation of inventory management processes. (Dayra, 2015) For several years, inventory management systems have been a source of concern for businesses. Firms are looking for sources of long-term competitiveness for their business operations, and inventory management systems are one of them. The goal of inventory management is to hold inventories at lowest possible cost and to ensure uninterrupted supplies for the ongoing operations (Kasim et al., 2015).

Research Design

This study used a descriptive method of research (quantitative), defined by Best and Kahn (2005) as a study concerned with conditions or relationships that exist, opinions that are held, processes that are going on, evident effects, or trends that are developing. It is primarily concerned with the present, with the present, although it often considers past events and influences as they relate to current conditions. It also deals with the relationships between variables, the testing of hypotheses, and the development of generalizations, principles, or theories with universal validity. The main goal of this quantitative type of research is to describe the data and characteristics of the inventory management practices of small retail enterprises located in Bulacan in terms of ordering, receiving, storing, warehousing, recording, and to dispatch. The idea behind this type of research is to study frequencies, averages, and other statistical calculations. This type of research is mainly done when researcher wants to gain a better understanding of the specific topic. Consequently, the gathering of quantitative data was done through the use of survey-questionnaires. Through this, the data were utilized in describing the inventory management practices of the respondents and their business performance.

Research Locale and Sampling Procedure

The target respondents of this study were twenty-seven (27) small retail enterprises situated at Baliwag, Bulacan which are engaged in selling RTW. The researcher coordinated with the Municipality of Baliwag – Business Processing and Licensing Office (BPLO) to identify the small retail enterprises engaged in RTW. The target respondents must be operating for at least 2 years and registered in Department of Trade and Industry and Bureau of Internal Revenue. Based on the data given by the Municipality of Baliwag – Business Processing and Licensing Office (BPLO), there are 245 registered retail businesses as of January

20, 2021. Out of 245 registered retail business, 27 of them are engaged in RTW. The respondents of the study are engaged in RTW, operating for more than 2 years, and located at Baliwag, Bulacan.

Research Instrument

The collection of data involved the use of: (a) the survey questionnaire, and (b) financial statements. The questionnaire is intended to determine the inventory management practices which was adapted and modified from the Doctoral dissertation entitled *Assessing the Inventory Management Practices* by Otchere, A (2016). The questionnaire consists of statement items related to the practices of inventory management in the areas of ordering, receiving, storing, warehousing, recording, and dispatching.

Data Gathering, Screening and Reliability

The researcher conducted the survey face to face by distributing the questionnaire to the target respondents, while answering the researcher explain it in layman’s term and draw a question to expound their responses. After getting the approval of the panelist to conduct data gathering, the researcher started on collecting the data last August 16, 2021 up to September 16, 2021. Moreover, in order to determine the business performance of the respondents, the researcher sought permission from the respondents to access their financial statements in order to determine profitability, liquidity ratios and activity ratios. Prior to data gathering, the researcher conducted a short-interview in order to assess the availability of the financial statements. Therefore, while conducting the distribution of survey the respondents provides the financial statement in the year 2020 in comparison with 2019.

Data Management and Analysis

Survey-questionnaires were collected and the data to be obtained were tabulated, tallied, and analyzed. After collecting all the needed data in the study, it was presented in tabular form using the frequency distribution. Bivariate analysis is one of the simplest forms of quantitative analysis. It involves the analysis of two variables, for the purpose of determining the empirical relationship between them.

The researcher made use of the Likert Scale Techniques in computing the frequency responses of the small retail enterprises with regards to the implementation of their inventory management practices. The *mean median and mode* responses were interpreted using the following scale:

| Scale Value | Interpretation | COSO Framework - Assessment |
|-------------|------------------------|-----------------------------|
| 4 | Highly Practiced | Highly Complied |
| 3 | Moderately Practiced | Moderately Complied |
| 2 | Slightly Practiced | Slightly Complied |
| 1 | Never Practiced at All | Not Complied |

Finally, the financial statements accessed from the respondents were used to evaluate their business performance based on:

| Ratio Analysis | Analysis | Interpretation |
|-------------------|----------------------------|---|
| Net Profit Margin | Net Profit / Total Revenue | It measures how successful a company has been at the business of marking a profit on each peso sales. A positive net profit margin is considered good and acceptable, more so, a negative ratio is treated as bad. |

| | | |
|--------------------------|---|---|
| Return on Assets | $\text{Net Profit} / \text{Average Assets}$ | In general, the higher the ROA, the more efficient the company is at generating profits. As a rule of thumb, a positive return on assets is considered good and acceptable, more so, a negative ratio is treated as bad. |
| Return on Equity | $\text{Net Profit} / \text{Average Equity}$ | As a rule of thumb, a positive return on equity is considered good and acceptable, more so, a negative ratio is treated as bad. |
| Current Ratio | $\text{Current Assets} / \text{Current Liability}$ | A good current ratio is between 1.2 to 2, which means that the business has 2 times more current assets than liabilities to covers its debts. A current ratio below 1 means that the company doesn't have enough liquid assets to cover its short-term liabilities. |
| Quick Ratio | $\text{Quick Assets} / \text{Current Liability}$ | Generally, a ratio of 1:1 is acceptable. If the quick assets ratio is higher by 1, it means that the retail industry is more liquid. |
| Defensive Interval Ratio | $\text{Defensive Assets} / \text{Average Daily Expenditures}$ | The ability of the company to survive on liquid assets signals towards a strong company, which doesn't need external support to run its operations. Hence a longer DIR is considered good. |
| Inventory Turnover | $\text{Cost of Goods Sold} / \text{Average Inventory}$ | The higher the inventory turnover ratio, the better. When the ratio is high, it means that you're able to sell goods quickly. The ideal inventory turnover ratio will be between 5 and 10 times, meaning the company will sell and restock inventory roughly every one to two months. |
| Age of Inventory | $365 / \text{Inventory Turnover}$ | Indicating the liquidity of the inventory, the figure represents how many days a company's current stock of inventory will last. Generally, a lower age of inventory is preferred as it indicates a shorter duration to clear off the inventory. |

Results, Discussion and Detailed Interpretation of Findings

1. Inventory Management Practices of Small Retail Enterprises

The results indicate that small retail enterprises implement inventory management practices across ordering, receiving, storing, warehousing, recording, and dispatching, but these practices are generally

informal, experience-based, and inconsistently applied. Evidence from the qualitative and quantitative findings shows that most businesses follow regular ordering intervals (commonly monthly) without relying on formal demand forecasting systems, leading to excessive inventory accumulation. In terms of receiving, enterprises perform basic inspection procedures; however, there is limited emphasis on systematic verification and documentation. Storing and warehousing practices are present but lack optimization, particularly in terms of space utilization and inventory flow management. More importantly, recording practices are weak, as many respondents rely on manual systems with limited reconciliation between physical counts and recorded balances. This contributes to inventory inaccuracies and inefficiencies. Furthermore, dispatching practices are operational but not strategically optimized, which may affect the timeliness of inventory movement. These combined weaknesses contribute to overstocking, slow-moving inventory, and prolonged holding periods, as reflected in the activity ratios. The findings suggest that inventory management practices among small retail enterprises are largely reactive rather than strategic. Businesses prioritize maintaining stock availability over optimizing inventory levels, resulting in excessive inventory accumulation. This situation reflects a lack of integration between inventory functions (ordering, storing, and distribution), which limits operational efficiency. These findings are consistent with Chopra and Meindl (2019), who emphasized that effective inventory management requires integration across supply chain activities. Similarly, Heizer, Render, and Munson (2020) argue that poor inventory tracking and lack of forecasting lead to inefficiencies such as overstocking and stock obsolescence. Moreover, Stevenson (2018) highlighted that small enterprises often rely on informal inventory systems, which limits their ability to optimize stock control and operational performance.

2. Business Performance of Small Retail Enterprises

2.1 Profitability Ratios

The results show that most enterprises achieved positive profitability, as reflected in ROA and ROE values. For instance, ROA values in 2019 ranged from 18.62% to 33.86%, but declined in 2020 to 7.32%–18.17%, indicating a significant decrease in profitability across all business categories. Similarly, ROE declined from 23.10%–39.83% in 2019 to 9.05%–21.66% in 2020, reflecting reduced returns to equity holders. These declines were accompanied by negative percentage changes, particularly among enterprises operating for 1–5 years and 16 years and above, indicating that both new and mature businesses are vulnerable to financial downturns. The decline in profitability ratios suggests that businesses are experiencing reduced efficiency in generating income from both assets and equity. The primary factor identified is the decline in sales while operating expenses remained relatively stable, leading to reduced net income. Although most firms remain profitable, the downward trend signals financial instability, indicating that businesses are not effectively adjusting their cost structures in response to market changes. According to Gitman (2020), profitability ratios are directly influenced by revenue generation and cost management. Pandey (2019) also emphasized that declining sales without cost adjustments significantly reduces profit margins, while Brigham and Houston (2021) noted that ROE declines when firms experience reduced earnings despite stable capital levels.

2.2 Liquidity Ratios

The results reveal that all enterprises maintain strong liquidity positions. The current ratio ranged from approximately 4.14 to 6.01, indicating that firms can cover their liabilities 4 to 5 times using current assets. Similarly, the acid-test ratio exceeded 1 across all respondents, confirming their ability to meet short-term obligations without relying on inventory. The defensive interval ratio (DIR) further shows that firms can

sustain operations for 177 to 373 days using only liquid assets, equivalent to approximately 6 to 12 months of operational capacity. These findings indicate excellent liquidity and financial resilience, suggesting that businesses can comfortably meet short-term obligations. However, such high liquidity levels may also indicate inefficient resource utilization, as excessive funds are tied up in inventory and other current assets. This suggests a conservative financial approach where businesses prioritize safety over efficiency. According to Atrill and McLaney (2018), excessively high liquidity ratios may indicate underutilized resources. Similarly, Brigham and Houston (2021) argued that while strong liquidity reduces financial risk, it may also signal inefficient working capital management.

2.3 Activity Ratios

The results reveal significant inefficiencies in inventory utilization. The inventory turnover ratio ranged from only 0.69 to 1.31, indicating that inventory is sold only once or less than once per year, which is considerably low for retail operations. Additionally, the age of inventory ranged from 405 to 637 days, far exceeding the recommended levels, indicating that goods remain unsold for long periods. These findings clearly indicate overstocking and slow-moving inventory, which negatively affects cash flow and operational efficiency. The long holding period increases storage costs and exposes businesses to risks such as obsolescence and spoilage. The inefficiencies are directly linked to poor inventory practices, particularly lack of demand forecasting and reliance on routine ordering schedules. Heizer et al. (2020) stated that low inventory turnover is a strong indicator of overstocking and weak demand. Similarly, Wild (2017) emphasized that a high age of inventory reduces overall efficiency and increases operational costs.

3. Relationship Between Inventory Management Practices and Business Performance

The correlation analysis reveals that the relationship between inventory management practices and business performance is generally low and statistically non-significant across all dimensions.

3.1 Profitability

Inventory management practices show a positive but weak relationship with profitability, with very low correlation coefficients (e.g., values close to 0.03–0.26). Although better inventory practices may contribute to improved profitability, their current implementation is insufficient to produce strong financial impact.

3.2 Liquidity

The relationship between inventory practices and liquidity ratios is negative, indicating that increasing inventory levels reduces liquidity. This confirms the trade-off between inventory and liquidity, where maintaining high inventory reduces available cash resources.

3.3 Activity Ratios

The relationship between inventory practices and activity ratios is weak, with the exception of receiving practices in 2020, which showed a moderate relationship with inventory turnover and age of inventory. This suggests that improving specific practices, particularly receiving and monitoring, can enhance inventory efficiency, although overall implementation remains inconsistent.

Overall Discussion and Interpretation

The results indicate that while inventory management practices are present, their impact on business performance remains limited due to weak implementation and lack of integration.

- Profitability is influenced more by external factors (sales and expenses) than inventory alone
- Liquidity is strong but inefficiently managed due to excess inventory

- Activity performance is poor, reflecting operational inefficiencies
- Relationships are weak, indicating that inventory practices are not fully optimized

Conclusion

Based on the results of the study, it can be concluded that small retail enterprises in Baliwag, Bulacan moderately implement inventory management practices, particularly in ordering, receiving, storing, and warehousing. However, key areas such as recording and dispatching are only slightly practiced, indicating weaknesses in documentation, monitoring, and control systems. Most enterprises rely on experience and common sense in managing inventory rather than adopting systematic or data-driven approaches, such as the use of inventory models and real-time tracking systems. These limitations contribute to inefficiencies, including inventory inaccuracies and overstocking.

In terms of internal control, the study concludes that small retail enterprises exhibit gaps in essential control procedures, including limited segregation of duties due to minimal staffing, inadequate conduct of inventory counts and reconciliation, weak recording of transactions in the general ledger, and non-compliance with regulatory requirements such as the submission of inventory reports. These deficiencies hinder the effectiveness of inventory management practices and expose businesses to risks related to inaccuracies, losses, and inefficiencies.

With regard to business performance, the findings indicate that most enterprises are financially viable, as evidenced by their ability to generate profits and maintain sufficient liquidity. Profitability ratios show that the majority of respondents can earn income after covering operational expenses, although there is a noticeable decline in profitability, suggesting vulnerability to decreasing sales and the inability to control costs effectively. While most firms remain profitable, some experienced losses, indicating the need for improved financial management strategies.

In addition, liquidity ratios reveal that all enterprises maintain strong short-term financial positions, as they are capable of meeting their obligations using current and liquid assets. The defensive interval ratio further confirms that businesses can sustain operations for several months, generally around eight months or more, even without additional income. While this reflects financial stability, it also suggests that resources may be excessively tied up in current assets, particularly inventory.

However, in terms of operational efficiency, the study concludes that small retail enterprises experience poor inventory performance, as reflected in low inventory turnover and high age of inventory. These findings indicate slow movement of goods, prolonged holding periods, and overstocking, which negatively affect cash flow and increase holding costs. The reliance on routine ordering practices without proper demand forecasting contributes significantly to these inefficiencies.

Finally, the study concludes that the relationship between inventory management practices and business performance is generally weak and statistically non-significant across profitability, liquidity, and activity ratios. Although some positive relationships exist, particularly with profitability and activity measures, their effect remains minimal due to inconsistent implementation of inventory practices. Furthermore, the negative relationship observed with liquidity confirms the trade-off between maintaining inventory levels and preserving cash resources.

Overall, the study concludes that while inventory management practices are present and have the potential to improve business performance, their current level of implementation among small retail enterprises is insufficient and not fully optimized. Strengthening these practices through systematic approaches,

improved internal controls, and the adoption of appropriate inventory systems is essential to enhance operational efficiency, financial stability, and overall business performance.

Recommendations

Enhance Inventory Management Practices

Small retail enterprises should strengthen and institutionalize inventory management practices by regularly reviewing, updating, and aligning them with business needs and industry standards to improve performance outcomes.

Improve Recording and Dispatching Systems

Enterprises should focus on improving weak areas such as recording and dispatching by implementing proper documentation systems, assigning responsibilities, and ensuring segregation of duties. Accurate recording will enhance decision-making and financial reporting.

Adopt Scientific Inventory Control Methods

Businesses are encouraged to adopt quantitative tools such as the Economic Order Quantity (EOQ) model and demand forecasting techniques to determine optimal order quantities, minimize costs, and avoid overstocking and stockouts.

Implement Inventory Monitoring Systems

To improve tracking and control, enterprises may utilize simple technology solutions, such as Microsoft Excel-based systems or computerized inventory systems, depending on available resources.

Conduct Regular Inventory Counts and Analysis

Periodic inventory counts and reconciliation processes should be conducted to ensure accuracy and reliability of inventory records, particularly in improving activity ratios such as inventory turnover and age of inventory.

Ensure Compliance with Regulatory Requirements

Enterprises should comply with government regulations, particularly BIR requirements on inventory reporting, to avoid penalties and ensure transparency in operations.

Optimize Inventory and Liquidity Balance

Businesses should manage inventory levels effectively to avoid excessive stockholding, thereby maintaining a balance between liquidity and operational efficiency.

Future Research Directions

Further studies should be conducted with a larger sample size and broader scope to validate the findings and explore additional factors affecting inventory management practices and business performance.

6. Declarations

6.1. Ethical considerations

This study was conducted in full compliance with internationally recognized ethical standards for research involving human participants. Ethical clearance was granted by the National University Philippines (NU Baliwag) Ethics Review Committee, Philippines, under Protocol No. NU-BALIWAG-ERC-2024-008. All research procedures adhered to the ethical principles outlined in the Declaration of Helsinki.

Participation in the study was entirely voluntary. Prior to data collection, all micro-entrepreneur participants were provided with clear and comprehensive information regarding the objectives of the research, the nature of their participation, and their rights as respondents. Written informed consent was obtained from each participant before the conduct of interviews, surveys, and document validation.

Participants were informed of their right to refuse to answer any question or to withdraw from the study at any time without any form of penalty or consequence.

Confidentiality and anonymity were strictly observed throughout the research process. Pseudonyms were assigned to all participants, and no identifying personal or business information was disclosed in the presentation of findings. All collected data, including audio recordings, transcripts, and documentary materials, were securely stored in password-protected files accessible only to the researchers. The data were used exclusively for academic and scholarly purposes.

6.2. Use of artificial intelligence (AI)

The authors declare that the generative artificial intelligence (AI) tool was used solely for language editing, organization, and grammatical refinement of the manuscript. The use of AI did not influence the scientific content, research design, data collection, data analysis, interpretation of findings, or conclusions of the study. Full responsibility for the integrity and accuracy of the work remains with the authors.

Reference List

1. Atrill, P., & McLaney, E. (2018). *Accounting and finance for non-specialists* (11th ed.). Pearson.
2. Brigham, E. F., & Houston, J. F. (2021). *Fundamentals of financial management* (15th ed.). Cengage Learning.
3. Capkun, V., Hameri, A.-P., & Weiss, L. A. (2009). On the relationship between inventory and financial performance. *International Journal of Operations & Production Management*, 29(8), 789–806. <https://doi.org/10.1108/01443570910977698>
4. Chen, H., Frank, M. Z., & Wu, O. Q. (2005). What actually happened to the inventories of American companies between 1981 and 2000? *Management Science*, 51(7), 1015–1031. <https://doi.org/10.1287/mnsc.1050.0368>
5. Chopra, S., & Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson.
6. Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). Pearson.
7. Committee of Sponsoring Organizations of the Treadway Commission (COSO). (2013). *Internal control—Integrated framework*.
8. Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30(3–4), 573–588. <https://doi.org/10.1111/1468-5957.00008>
9. Eroglu, C., & Hofer, C. (2011). Lean, leaner, too lean? The inventory-performance link revisited. *Journal of Operations Management*, 29(4), 356–369. <https://doi.org/10.1016/j.jom.2010.05.002>
10. Gill, A., Biger, N., & Mathur, N. (2010). The relationship between working capital management and profitability. *Business and Economics Journal*, 2010(1), 1–9.
11. Gitman, L. J. (2020). *Principles of managerial finance* (15th ed.). Pearson.
12. Heizer, J., Render, B., & Munson, C. (2020). *Operations management: Sustainability and supply chain management* (13th ed.). Pearson.
13. Jose, M. L., Lancaster, C., & Stevens, J. L. (1996). Corporate returns and cash conversion cycles. *Journal of Economics and Finance*, 20(1), 33–46. <https://doi.org/10.1007/BF02920497>
14. Pandey, I. M. (2019). *Financial management* (11th ed.). Vikas Publishing.
15. Raheman, A., & Nasr, M. (2007). Working capital management and profitability – Case of Pakistani firms. *International Review of Business Research Papers*, 3(1), 279–300.
16. Ross, S. A., Westerfield, R., & Jaffe, J. (2019). *Corporate finance* (12th ed.). McGraw-Hill.

17. Shin, H. H., & Soenen, L. (1998). Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, 8(2), 37–45.
18. Silver, E. A., Pyke, D. F., & Thomas, D. J. (2017). *Inventory and production management in supply chains* (4th ed.). CRC Press.
19. Stevenson, W. J. (2018). *Operations management* (13th ed.). McGraw-Hill.
20. Wild, J. J. (2017). *Financial accounting: Information for decisions* (9th ed.). McGraw-Hill.

Figures

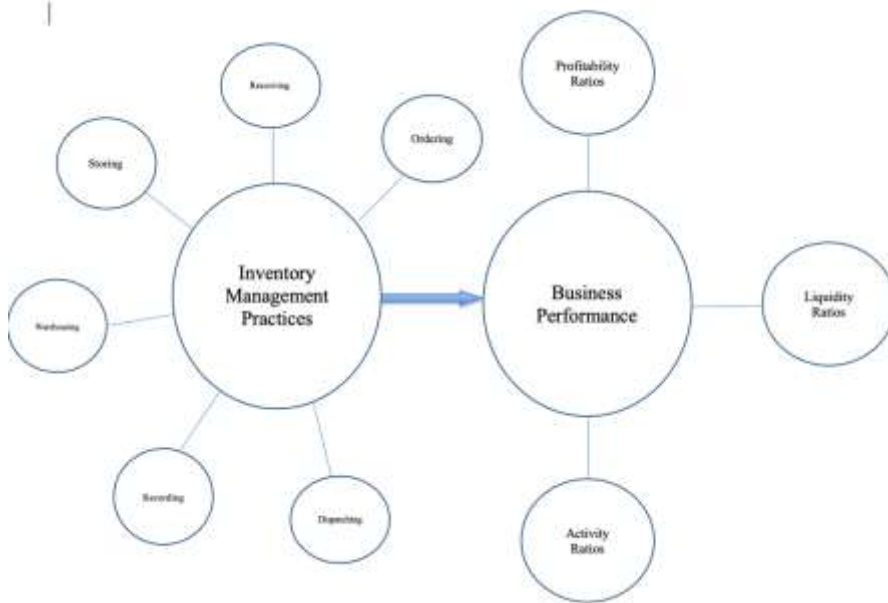


Figure 1 Conceptual Framework of the Study

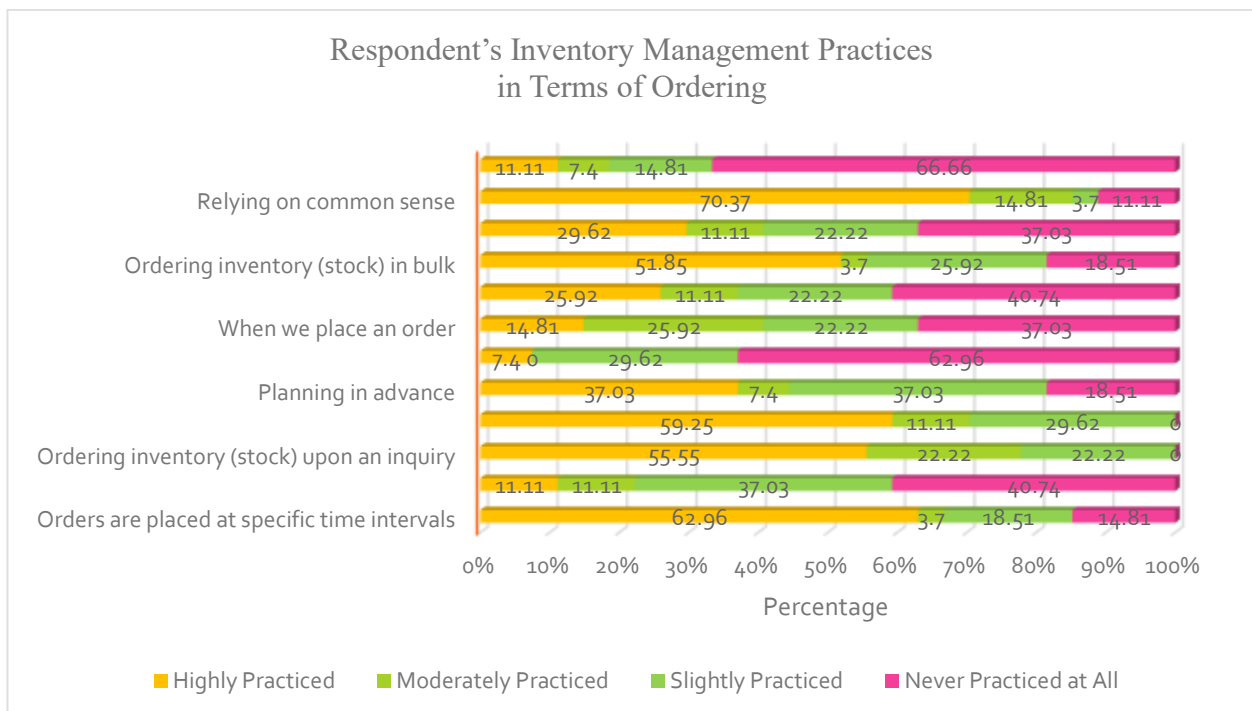


Figure 2 Respondent's Inventory Management Practices in Terms of Ordering

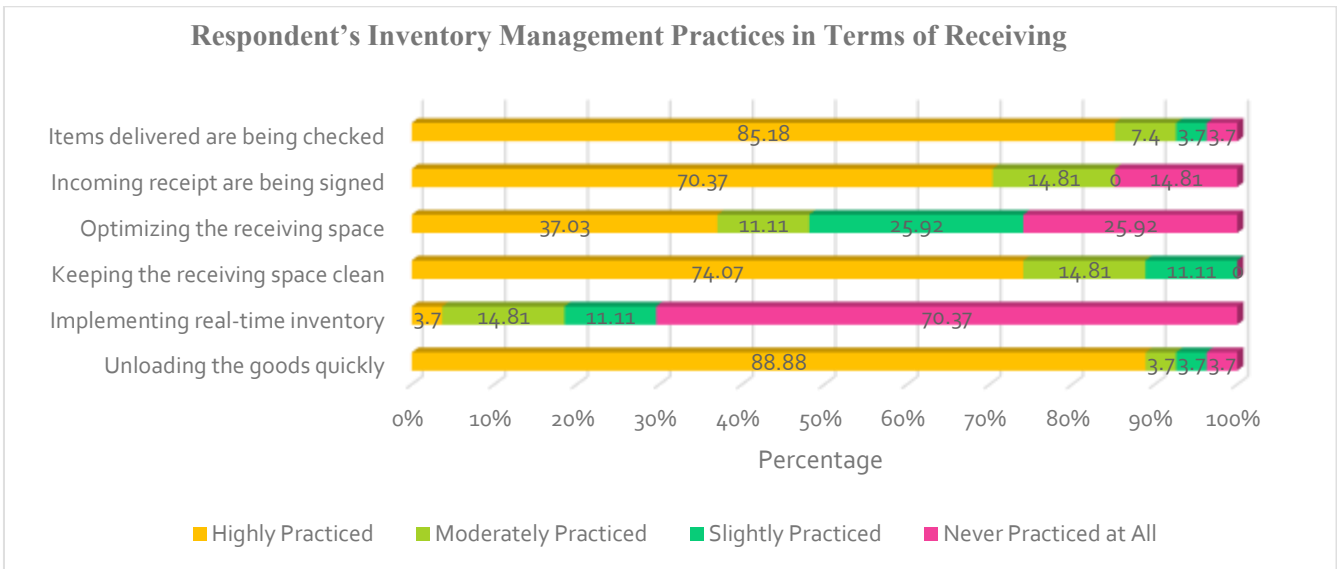


Figure 3 Respondent's Inventory Management Practices in Terms of Receiving

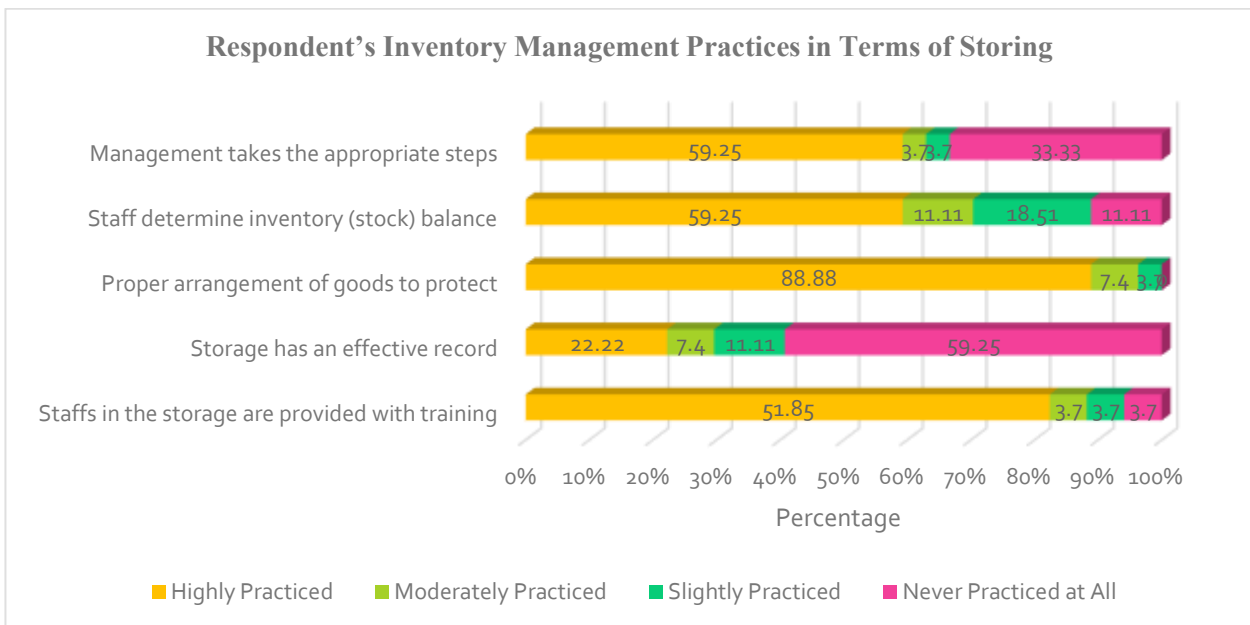


Figure 4 Respondent's Inventory Management Practices in Terms of Storing

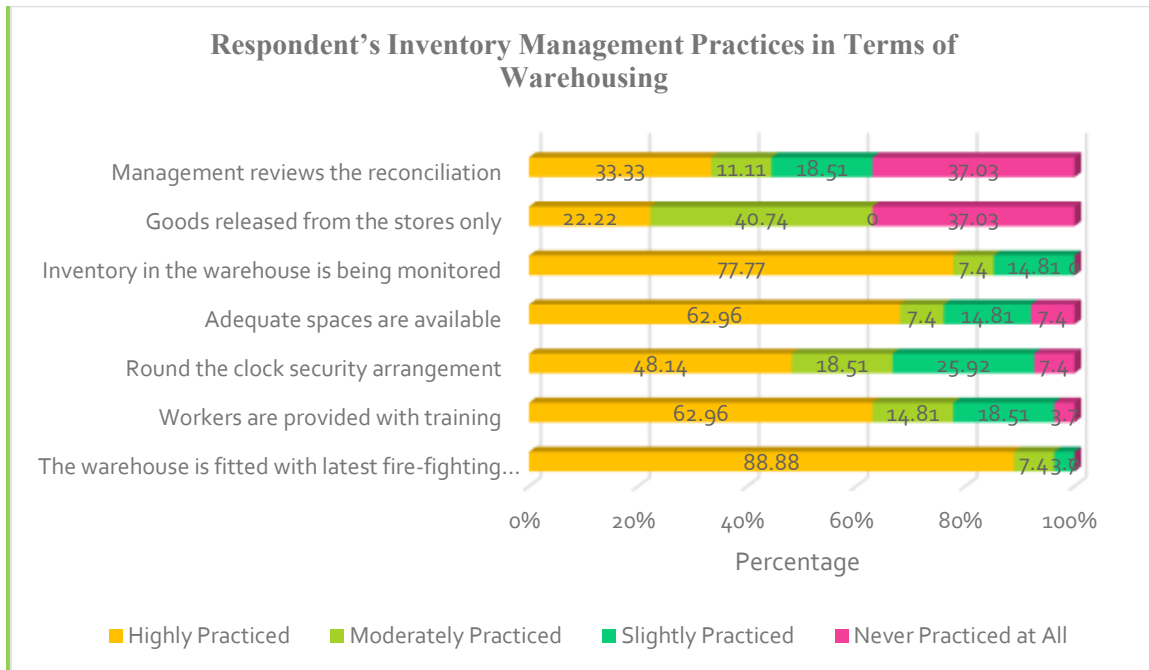


Figure 5 Respondent's Inventory Management Practices in Terms of Warehousing

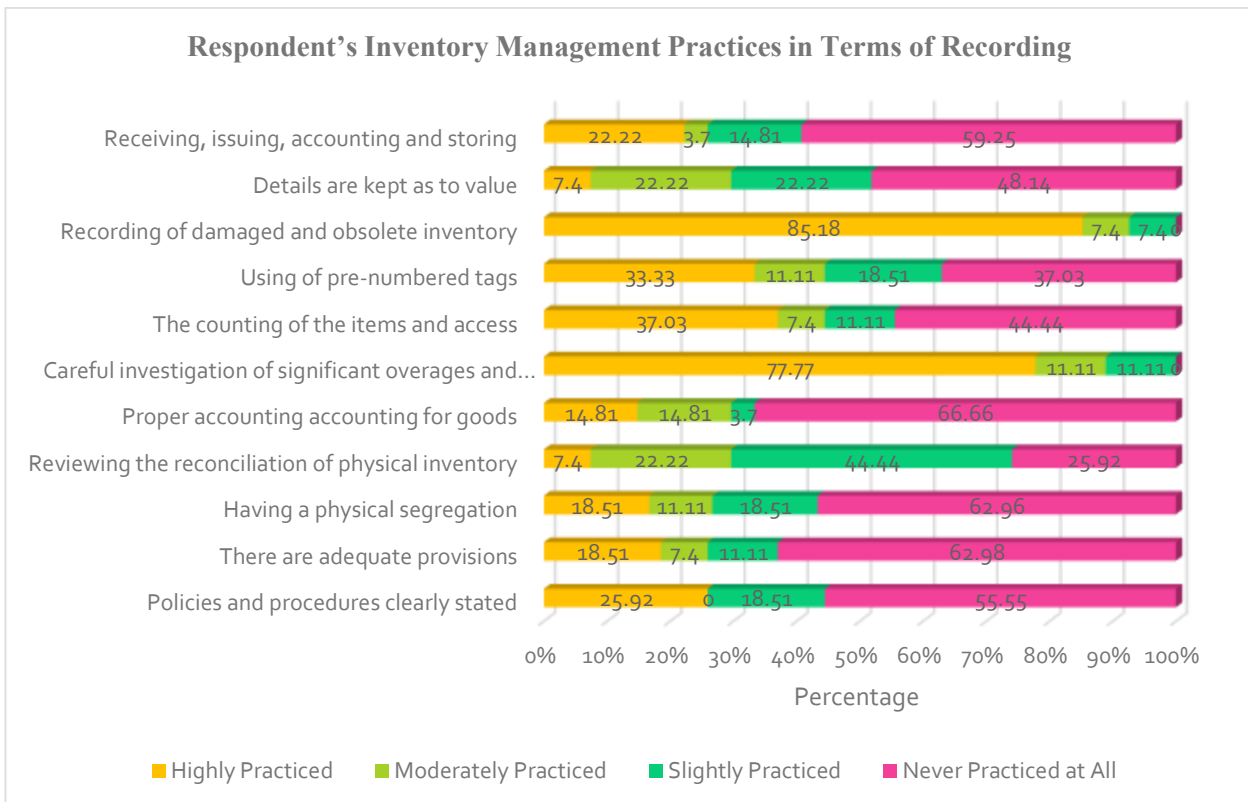


Figure 6 Respondent's Inventory Management Practices in Terms of Receiving

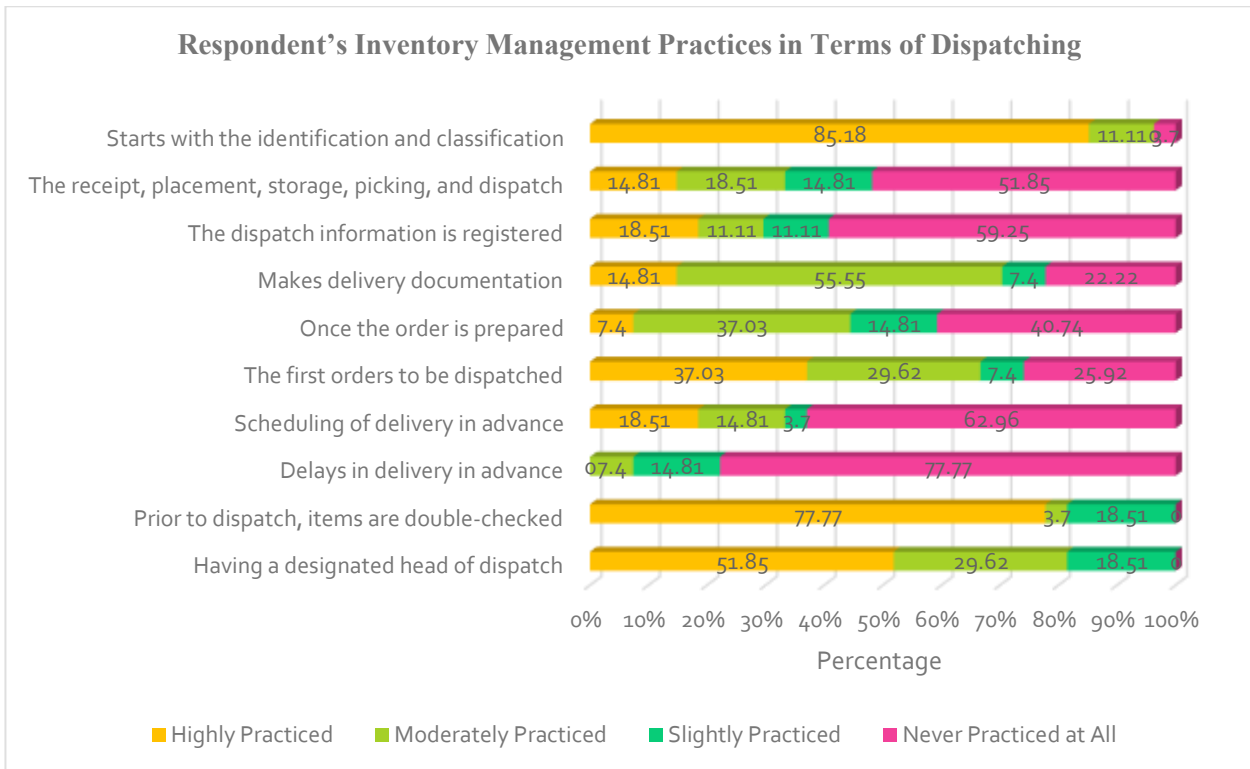


Figure 7 Respondent's Inventory Management Practices in Terms of Dispatching

Problem 2. Business performance of small retail enterprises

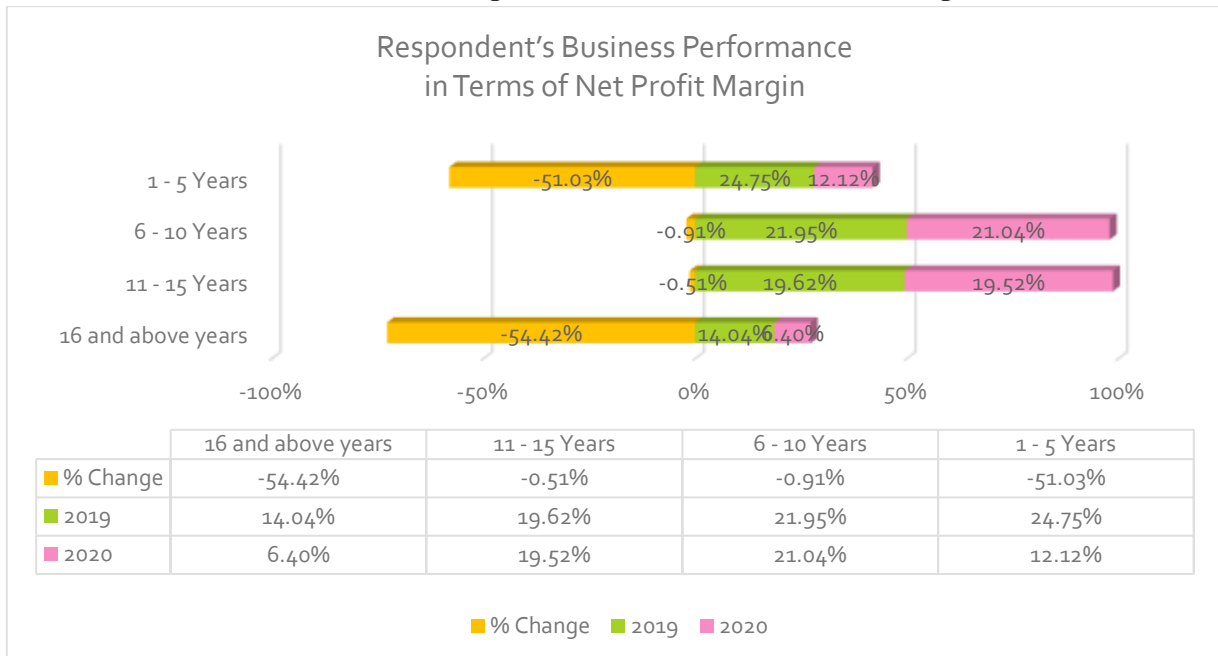


Figure 10

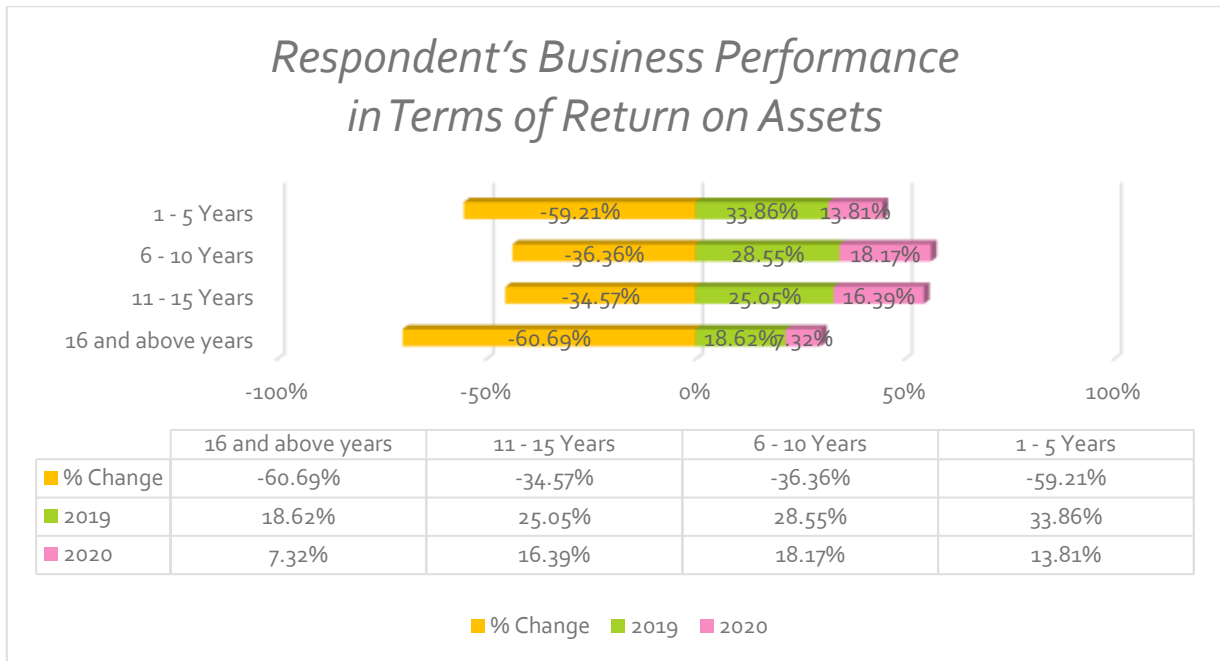


Figure 11

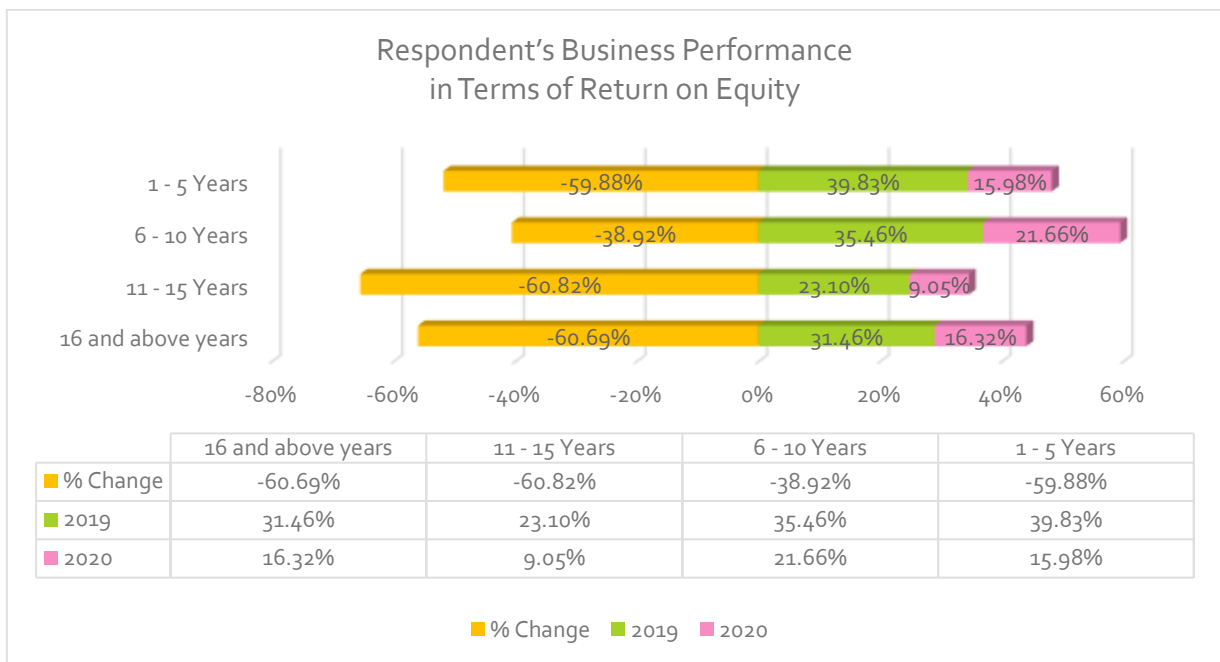


Figure 12

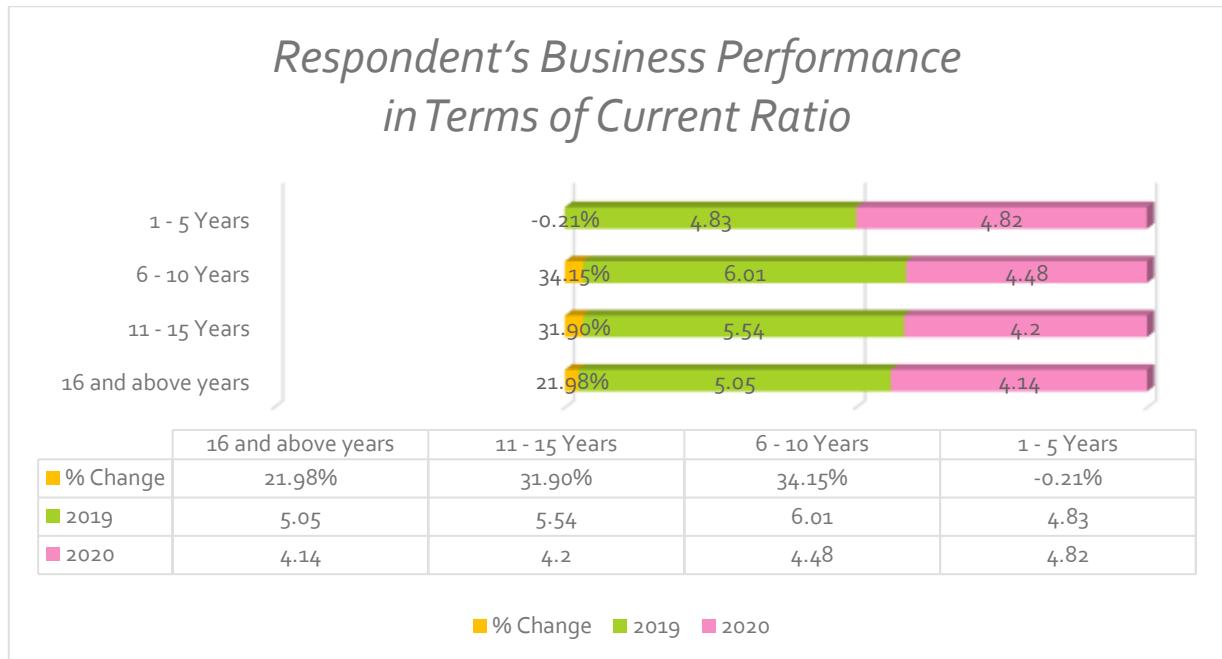


Figure 13

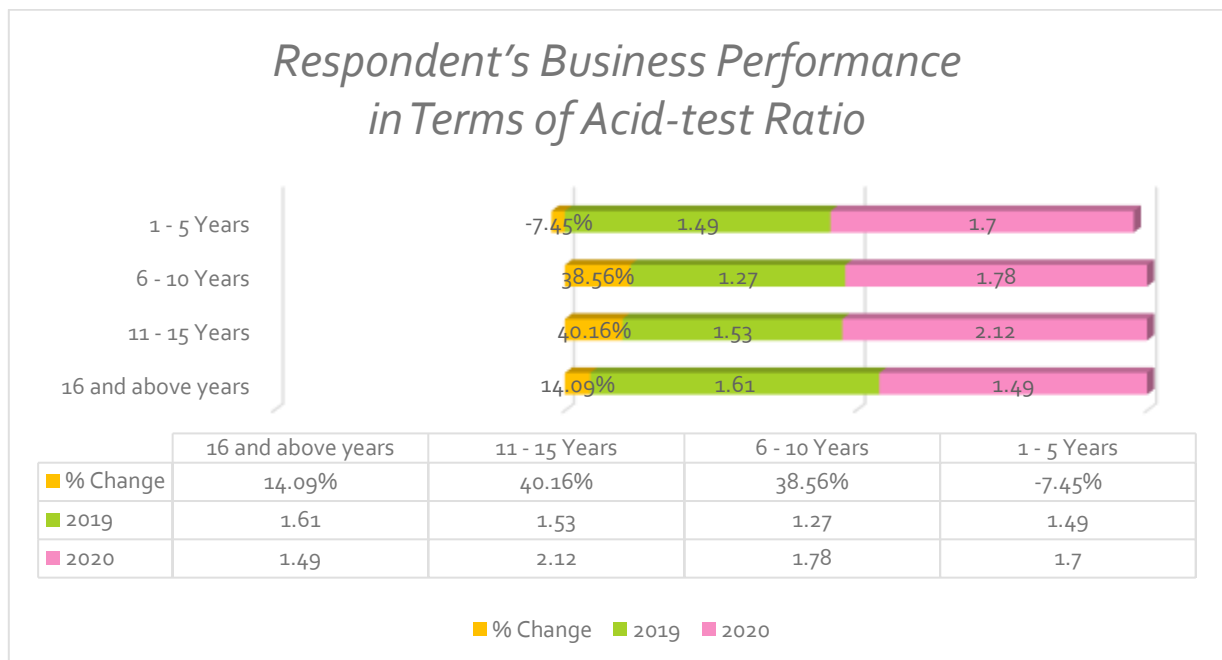


Figure 14

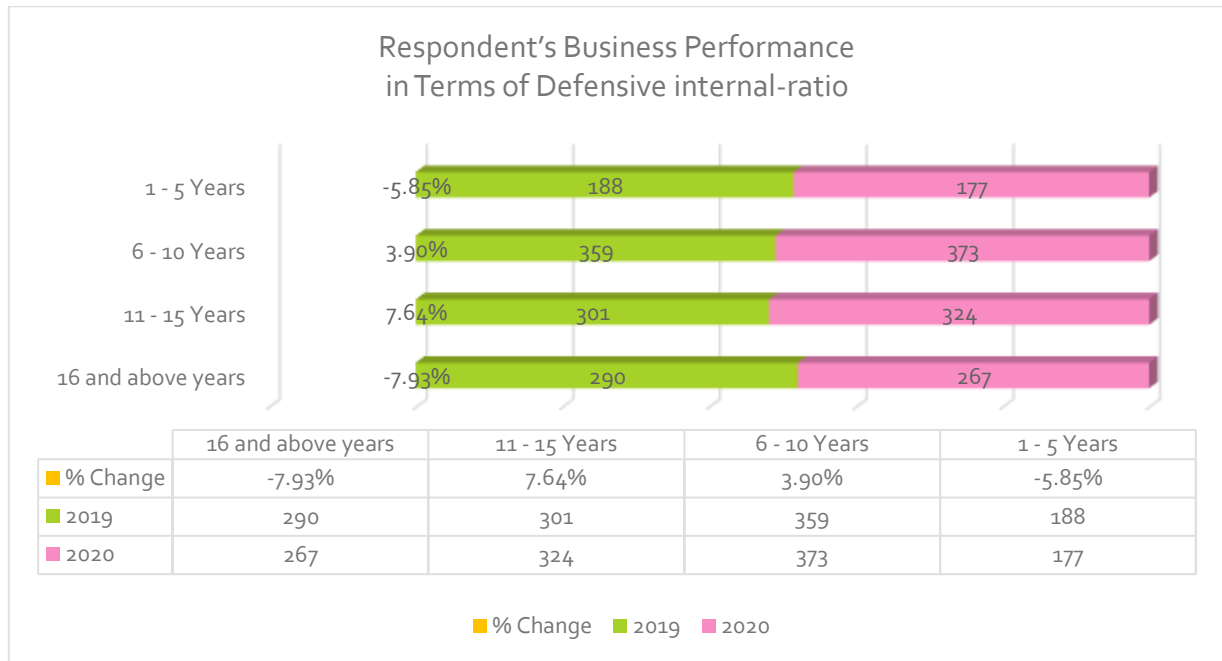


Figure 15

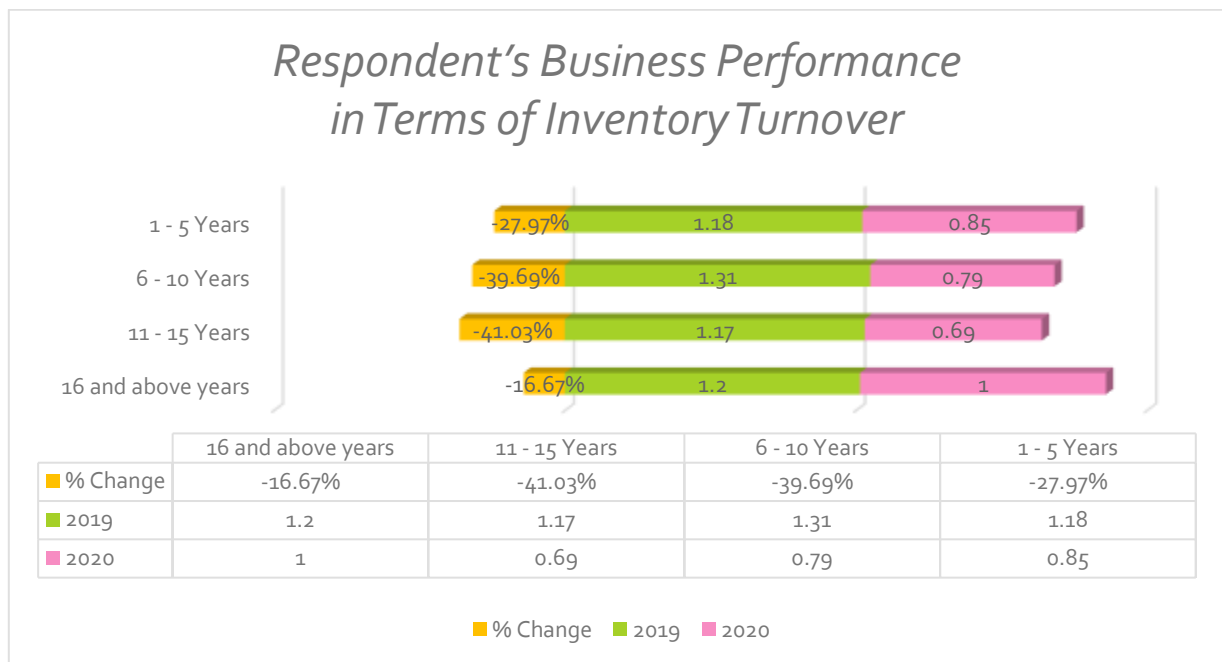


Figure 16

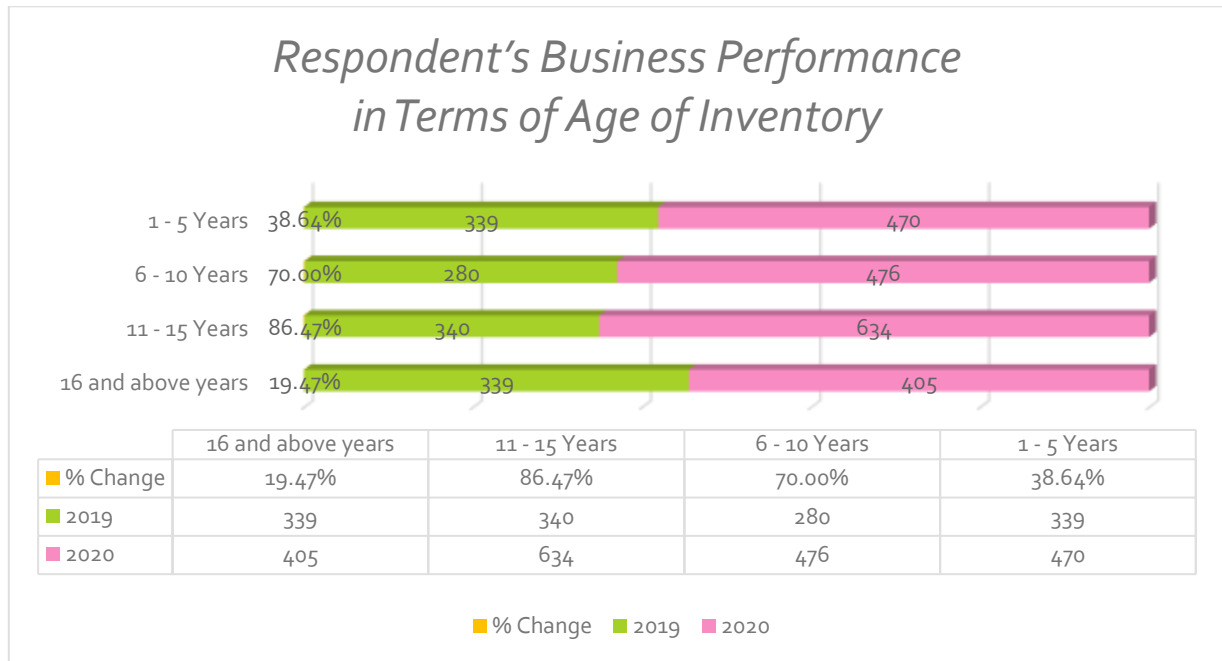


Figure 17

Tables

Table 1

Relationship between Inventory Management Practices and Business Performance in year 2019 in terms of Profitability Ratios.

| Profitability Ratios | | Inventory Management Practices | | | | | |
|----------------------|---------|--------------------------------|----------------------|---------------------|---------------------|----------------------|----------------------|
| | | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Net Profit Margin | on | 0.025 ns (0.900) | -0.098 ns (0.625) | 0.200 ns (0.318) | 0.108 ns (0.592) | -0.123 ns (0.542) | -0.123 ns (0.541) |
| | Assets | 0.034 ns (0.867) | 0.076 ns (0.706) | 0.266 ns (0.180) | 0.089 ns (0.657) | -0.181 ns (0.367) | -0.082 ns (0.685) |
| Return on Equity | on | 0.040 ns (0.843) | 0.091 ns (0.652) | 0.260 ns (0.190) | 0.172 ns (0.390) | -0.189 ns (0.345) | -0.114 ns (0.572) |
| | Overall | 0.031 ns (0.878) | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values

Table 2

Relationship between Inventory Management Practices and Business Performance in year 2020 in terms of Profitability Ratios.

| Profitability Ratios | Inventory Management Practices | | | | | |
|----------------------|--------------------------------|---------------------|---------------------|----------------------|----------------------|---------------------|
| | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Net Profit Margin | 0.210 ns (0.292) | 0.135 ns (0.502) | 0.042 ns (0.834) | -0.139 ns (0.488) | 0.070 ns (0.730) | 0.025 ns (0.900) |
| Return on Assets | 0.244 ns (0.220) | 0.141 ns (0.482) | 0.092 ns (0.648) | -0.155 ns (0.439) | -0.031 ns (0.879) | 0.005 ns (0.980) |
| Return on Equity | 0.248 ns (0.212) | 0.166 ns (0.409) | 0.092 ns (0.648) | -0.125 ns (0.534) | -0.010 ns (0.962) | 0.016 ns (0.937) |
| Overall | 0.066ns (0.745) | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values

Table 3

Relationship between Inventory Management Practices and Business Performance in year 2019 in terms of Liquidity Ratios.

| Liquidity Ratios | Inventory Management Practices | | | | | |
|--------------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Current Ratio | 0.015 ns (0.941) | 0.067 ns (0.739) | 0.163 ns (0.415) | -0.133 ns (0.507) | 0.125 ns (0.534) | 0.114 ns (0.572) |
| Acid-test Ratio | 0.025 ns (0.902) | 0.013 ns (0.948) | 0.062 ns (0.757) | -0.140 ns (0.485) | -0.022 ns (0.911) | -0.116 ns (0.565) |
| Defensive-Internal Ratio | -0.047 ns (0.815) | -0.169 ns (0.399) | -0.082 ns (0.684) | -0.124 ns (0.539) | -0.054 ns (0.788) | -0.147 ns (0.466) |
| Overall | -0.150ns (0.454) | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values

Table 4

Relationship between Inventory Management Practices and Business Performance in year 2020 in terms of Liquidity Ratios.

| Liquidity Ratios | Inventory Management Practices | | | | | |
|--------------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Current Ratio | -0.067 ns (0.741) | 0.136 ns (0.499) | 0.052 ns (0.797) | -0.003 ns (0.987) | -0.033 ns (0.871) | -0.174 ns (0.386) |
| Acid-test Ratio | 0.051 ns (0.802) | 0.117 ns (0.561) | 0.012 ns (0.951) | 0.010 ns (0.959) | -0.122 ns (0.544) | -0.201 ns (0.315) |
| Defensive-Internal Ratio | 0.067 ns (0.740) | -0.073 ns (0.717) | -0.109 ns (0.589) | -0.041 ns (0.840) | -0.107 ns (0.595) | -0.149 ns (0.460) |
| Overall | -0.123ns (0.540) | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values

Table 5

Relationship between Inventory Management Practices and Business Performance in year 2019 in terms of Activity Ratios.

| Activity Ratios | Inventory Management Practices | | | | | |
|--------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Inventory Turnover | -0.092 ns (0.649) | -0.007 ns (0.970) | -0.101 ns (0.617) | -0.247 ns (0.214) | -0.096 ns (0.635) | -0.166 ns (0.409) |
| Age of Inventory | 0.102 ns (0.613) | -0.036 ns (0.859) | 0.078 ns (0.701) | 0.268 ns (0.176) | 0.044 ns (0.828) | 0.102 ns (0.612) |
| Overall | 0.138ns (0.492) | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values

Table 6

Relationship between Inventory Management Practices and Business Performance in year 2020 in terms of Activity Ratios.

| Activity Ratios | Inventory Management Practices | | | | | |
|--------------------|--------------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| | Ordering | Receiving | Storing | Warehousing | Recording | Dispatching |
| Inventory Turnover | 0.019 ns (0.924) | 0.394* (0.042) | -0.090 ns (0.656) | -0.005 ns (0.980) | -0.031 ns (0.879) | 0.093 ns (0.645) |
| Age of Inventory | -0.047 ns (0.815) | -0.441* (0.021) | 0.143 ns (0.477) | 0.053 ns (0.792) | -0.021 ns (0.918) | -0.145 ns (0.471) |
| Overall | 0.084ns 0.691 | | | | | |

Legend: ns no significant relationship ($p \geq 0.05$)

*significant relationship

values enclosed in parenthesis are p-values and the correlation coefficient values (r) are above the p-values