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INVENTORY MANAGEMENT: A CASE STUDY OF DEPARTMENTAL STORE

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Abstract

Inventory management is a key operational function in the retail sector especially for departmental stores which manage a wide range of product categories where the pattern of demands is heterogeneous. Inefficient inventory practices could lead to stock outs, high excess inventory, augmented holding costs and reduced customer satisfaction, which contributes to negative effects on organizational profitability and competitiveness.

The present study involved the qualitative case study methodology which was based on the secondary sources of data generation, observational insights, and available literature sources respectively regarding inventory management. The focal parameters investigated include inventory control techniques, demand forecasting methodologies, replenishment policies, storage practices and the utilization of information technology for the purpose of inventory tracking.

The empirical findings suggest that in spite of primitive procedures in inventory control implementation, the departmental store shows constraints in the precision of forecasting, lack of systematic classification of inventory items, and the use of manual procedures that result in overall inefficiencies of operation.

Furthermore, the research also highlights the use of structured inventory model such as ABC analysis and economic order quantity (EOQ) framework and integration of point-of-sale systems and dedicated inventory management software to improve inventory accuracy and efficiency in cost.

Consequently, the case study draws to the end that efficient inventory management goes beyond just an operational necessity, as it represents a strategic tool that equips departmental stores to drive the levels of service, optimize working capital and provide a sustained competitive edge in a dynamic retail environment.

Finally, the results provide practical implications for retail managers and they add significantly to the body of academic knowledge and literature in the study of inventory management practices in a real-world retail environment.

1. Introduction

Inventory management is a basic part of operations management and has a direct impact on the efficiency, profitability, and customer satisfaction levels of retail organizations. Within the context of departmental stores, inventory management reaches a higher level of complexity because of the large source of products, heterogeneous patterns of demand, different sources of supply, and high frequency of stock turnover. A departmental store is required to position the right products in the right numbers at the right time at the lowest possible cost in terms of storage, ordering, and obsolescence Heizer, Render, Munson, (2020).

In a retail business, inventory is often one of the largest components of a working capital. Ineffective inventory management can therefore

place these cash burdens on organizations as it can keep capital tied up in excess amounts of inventory or by causing revenue losses because of stock outs (Brigham & Ehrhardt, 2017). Departmental stores face the persistent problems of unpredictable customer demand, the fluctuation in the seasons, the time demanded from the suppliers, and the risk of spoiling of the stock or items becoming fashioned out. These challenges make inventory decision - making a managerial responsibility of critical importance, and not a day-to-day operational activity.

Customer expectations in the modern-day retail environment have been escalated because of increased competition and the availability of other shopping channels. Customers expect regular product availability, competitive pricing and effective service. Failure to meet these expectations can lead to lost sales and poor customer loyalty as well as reputational damage to the store (Christopher, 2016). Consequently, inventory management has shifted from a traditional stock handling function to a strategic function that supports organizational competitiveness and long-term sustainability.

According to Chopra and Meindl (2019), good inventory management enables firms to balance responsiveness and efficiency in the supply chain. For departmental stores, an equilibrium is very crucial to attain as too much inventory will increase the cost of carrying inventory and insurance whereas too little inventory will disrupt the sale and degrade customer satisfaction. Therefore, retailers need to adopt an organized inventory control system and forecasting techniques to deal with uncertainty and increase the accuracy of their decision-making process.

The growing availability of technology has further changed the practices of maintaining inventory in retail organizations. Tools such as point-of-sale (POS) systems, inventory management software, and enterprise resource planning (ERP) systems help retailers to track their inventory levels in real-time and derive data-driven insights (Krajewski, Malhotra, & Ritzman, 2019). Nonetheless, there are still numerous small to medium-sized departmental stores whose working systems are semiautomatic and may limit the visibility of inventory and increase the probability of errors in processing operations.

Despite the literature existing on inventory management, a lack of empirical and case-based papers investigating the practice of inventory theories in the real world of retail businesses. Case studies provide useful insights about realities of operations, managerial issues, and practical constraints experienced by organizations (Yin, 2018). This study attempts to overcome this drawback by examining the inventory management practices of a departmental store and its practices as they conform to the principles of inventory management.

The main purpose of this case study would be to not only assess how effective inventory management practices are in a departmental store but also to identify the areas that could further improve inventory management practices. More specifically, the purpose of the study is to:

(1) Review existing inventory control and inventory replenishment practices; and

(2) Examine issues related to inventory planning and demand forecasting;

(3) Suggest practical recommendations based on academic theory and best practices in the industry.

By combining theory and practice, this case study adds to both the academic literature and to retail managerial decision-making.

2. Literature Review

2.1 Concept and Scope of Inventory Management

Inventory management is the systematic process of planning, organizing, and managing inventory to maintain uninterrupted operations with minimum costs associated with inventory. This process involves the decisions on quantities to order, when to replenish, how to store and distribute the inventory items (Heizer, Render, & Munson, 2020). Within the retail setting, inventory management plays a key role especially in the departmental store as inventory serves as the key interface between customer demand and the supply-chain process.

From a financial point of view, inventory represents a significant amount of current assets of a firm. Brigham and Ehrhardt 2017 argue that

inefficient management of inventory has negative impact on liquidity and working capital management, which in turn limits an enterprise's ability to invest to pursue growth opportunities. In departmental stores the scope of inventory management is wider than the simple stock control and includes demand forecasting, coordination with suppliers, optimization of shelf space and checking the inventory turnover.

The complexity of inventory management increases along with variation in products and uncertainty in demand. Departmental stores generally handle thousands of stock-keeping units (SKUs) in hundreds of categories, with highly irregular demand patterns, life cycles and storage requirements. As such, "storing supplies in inventory control in these environments requires structured systems and analytical tools instead of intuitive decision-making" (Slack, Brandon-Jones, & Burgess, 2022).

2.2 Importance of Inventory Management in Retail and Departmental Stores

Inventory management is inextricably linked to customer satisfaction and competitive performance in retail organizations. Christopher (2016) notes the availability of product as the decisive factor for customer loyalty especially in the competitive retail market. Stock outs may cause customers to switch to competitors while too much inventory increases holding costs and raises the risk of obsolescence.

In departmental stores, the material inventory is used as a buffer against the unpredictability of customer need and supplier lead time. Bowersox, Closs, and Cooper (2019) state that properly managed inventory helps improve service levels while at the same time lowering overall logistics expenses. On the other hand, poor inventory management leads to higher markdowns, spoilage, and stock shrinkages which have a negative effect on profitability.

Empirical studies prove positive correlation between inventory turnover and firm performance among retail sector. High level of inventory turnover is a good indicator of using inventory efficiently and responding to customer demand whereas low level of inventory turnover is a bad indicator of overstocking and poor demand forecasting (Rajagopalan, 2013). For departmental stores that make money on thin margins, even small gains in the efficiency of their inventory can translate into sizable financial gains.

2.3 Inventory Control Techniques

2.3.1 Economic Order Quantity (EOQ)

The Economic Order Quantity (EOQ) model represents one of the most prominent inventory control techniques that aims at minimizing aggregate inventory costs by balancing ordering and holding expenditures. It is based on assumptions of always in demand, fixed-ordering costs, and known and constant holding costs (Heizer et2020. ال). While these premises might not entirely guard the complexities inherent in retail circumstances, the EOQ model continues, nonetheless, to have value on the management of a set of items that are characterized by steady demand within departments stores, for example, fundamental household goods.

Numerous empirical investigations show that EOQ-based methodologies, when adapted to account for the constraints of the actual environment, can significantly reduce inventory costs and improve the effectiveness of the replenishment. Numerous empirical investigations show that EOQ-based methodologies, if adapted to take into consideration practical constraints, can substantially reduce the costs of inventories and improve the effectiveness of the replenishment (Silver, Pyke, & Peterson, 2017). Nevertheless, the relevance of the EOQ framework is limited in the context of seasonal commodities, or commodities that are subject to high volatility, which are commonly faced in departmental retail situations.

2.3.2 ABC Analysis

ABC analysis divides inventory items into three categories based on the relative value and contribution to the total aggregate inventory cost of an item. Category A items comprise a small percentage of the total headcount but represent a large percentage of inventory value, while Category C items represent a large listing of items having more modest monetary value (Wild,2017). The use of this stratification allows managerial personnel to focus control activities

and to utilize resources in a way that allows them to focus resources in proportion to the economic importance of each category.

Within the retail milieu, ABC analysis is used to help focus managerial attention on the high value and high velocity items (leading to better inventory accuracy and mitigation of materials loss). Empirical investigations have shown that combining ABC analysis with methods of demand forecasting enhances visibility of inventory information and effectiveness of decision-making process (Gupta & Starr, 2014).

2.4 Demand Forecasting and Inventory Replenishment

Demand forecasting is an essential input of inventory planning and control. Accurate predictions help retailers balance inventory stocks with predicted customer demand and avoid both stockouts and excess inventory (Chopra & Meindl, 2019). Departmental stores make frequent use of time series forecasting methods such as moving averages and exponential smoothing because of their simplicity and flexibility.

Makridakis, Spiliotis and Assimakopoulos (2018) believe that it is because not every forecasting technique is optimal for all cases, however, forecast accuracy depends on product characteristics, demand variability and data availability. In practice, departmental stores use historical sales data captured by point-of-sale systems overwhelmingly to make short-term forecasts.

Inventory replenishment systems provide prescriptions for when and how much inventory is to be ordered. Continuous relief systems review inventory level continuously, and send a signal for order when inventory level of an item is below a determined value, as a result such systems could be suitable in case of high demand or high value item. On the other hand, periodic - review systems include review of the inventory at a fixed interval, and are usually used for low - value or stable - demand products (Silver et al., 2017).

2.5 Role of Technology in Inventory Management

Technological advancements have significantly changed the face of how inventory controls are practiced in retail organizations. Contemporary information systems such as point-of-sale (POS) systems, enterprise resource planning (ERP) software, and custom inventory management systems support real-time monitoring of inventory levels and sales transactions (Krajewski, Malhotra, & Ritzman, 2019).

The use of bar code scanners and radio-frequency identification (RFID) technologies increases the accuracy of inventory and reduces manual errors. Waller and Fawcett (2013) argue that increased visibility of inventory made possible by such technologies enables retailers to respond more quickly to hot and cold demand swings, as well as supply disruptions. Nonetheless, some of the smaller and medium-sized departmental stores often face financial and technical limitations that limit their thorough implementation of such systems.

Recent academic writings also emphasize the growing importance of data analytics in the decision of inventory. Predictive analytics tools help retailers to identify demand trends, reorder points and boost supply chain performance (Hofmann & Rusch, 2017). However, the successful implementation of these analytical capabilities requires skilled personnel and organizational commitment - and resources that might be lacking within conventional retail settings.

2.6 Research Gap

Scholarly literature provides for a variety of theoretical and empirical knowledge on techniques of inventory management; however, a conspicuous gap exists in the case-based research focusing on departmental stores functioning in the real-world scenario. Prior investigations tend to be limited to quantitative modeling or the operational dynamics of large-scale retail chains, often at the expense of the specifics of the constraints that face the departmental outlets of middle size. Moreover, the existing body of literature is limited with respect to the practical application of the theories of inventory management and how they are adapted to the local conditions of the market.

This case study attempts to address that shortcoming by examining inventory management practices within a departmental

store, and evaluating their congruence with accepted inventory management principles. By establishing a correlation between theory and practice, the study results in a more elegant understanding of the problems and opportunities facing inventory management in the retail sector.

3. Research Methodology

The research methodology provides a systematic framework for the collection, analysis and interpretation of data intended to achieve the required outcomes of the study. The appropriate choice of a suitable methodology is central to ensuring the credibility, reliability and validity of the findings that are obtained. Accordingly, the current research study adopts a qualitative case study approach to examine the inventory management practices in one departmental store which can help in a detailed understanding of operational processes and decision making by managers in practical circumstances.

3.1 Research Design

The current research theories that the research employs are the qualitative case study design. A case study approach is considered to be particularly suitable where the goal is to explore complex organizational phenomena in their true contextual settings (Yin, 2018). In Departmental Stores, Inventory Management encompasses a constellation of interrelated variables (such as uncertainty in demand, relationship with suppliers and operational constraints) that defy comprehensive description through exclusively quantitative methods. The qualitative design allows as such an examination of 'how' the theories of inventory management are operationalized for practice and how managers manage to overcome the challenges in their operations.

Moreover, the case study framework allows for the synthesis of theoretical constructs obtained from the inventory management literature and empirical observations obtained from the selected departmental store. Saunders, Lewis, and Thornhill (2019) maintain that case studies are especially useful in relating theory and practice in research dealing with business and management.

3.2 Case Selection

The current investigation is directed to a medium sized departmental retail outlet in a competitive market situation. This establishment offers a wide variety of product categories - from groceries to home goods to personal care products and basic apparel. The selection of a departmental store as the case study is justifiable on the ground of the complex inventory architecture that it does possess and also the multifarious operational challenges that exist in the custody of disparate portfolio of stock-keeping units (SKUs).

The selection of the establishment was done in view of accessibility, correspondence with the research purposes of the study, and representation of the normal departmental store operations. As Yin (2018) points out, concentrating on one case allows for an in-depth inquiry into inventory management practices, an analytical depth which cannot be achieved under the parameters of large-scale survey methodologies.

3.3 Data Sources and Data Collection

This research is based primarily on secondary sources (used of the data) and observations. Secondary information was gathered from academic journals, textbooks, industry reports and publicly-available retail management reports regarding inventory control, demand forecasting and retail operations. These sources form a theoretical foundation for analysis of inventory management practices and allow a comparison between the theory and practice (Heizer, Render, & Munson, 2020).

In addition, observations in relation to handling of inventory, stock replenishment practices and shelf management were incorporated to aid the analysis of the case. Observational data is especially useful in case study research, as it can offer understanding of the underlying processes in an organization that may not be clearly recorded (Saunders et al. 2019).

3.4 Data Analysis Method

In the present study, the approach adopted in data analysis is the method of qualitative description. Information gathered through secondary sources and observations were systematically reviewed and classified using

important inventory management themes, including inventory control techniques, demand forecast methods, replenishment policies and technology use. Thematic analysis was used to identify pattern and variations in existing inventory management theory and empirical practices found in the departmental store (Braun & Clarke, 2006).

Furthermore, the study compares practices relating to inventory management at the store with models that have been established, such as the Economic Order Quantity (EOQ), the ABC analysis and the system based on the continuous review. This comparative examine makes it less complicated to find out the gaps, inefficiencies, and possibilities for improvement in the prevailing inventory management system.

3.5 Ethical Considerations

Ethical considerations are a basic component of the case-study research methodology. The present investigation purposely excludes the inclusion of sensitive or confidential information related to the department store's monetary execution or supplier deals.

All empirical material used for the purposes of the research is derived from information accessible to the public or generalized observations with respect to safeguarding confidentiality and anonymity (Saunders et al., 2019). The observance of academic integrity has been demonstrated by careful referencing of all material referred to following APA guidelines.

4. Case Description: Inventory Management Practices in a Departmental Store

4.1 Background of the Departmental Store

This research focuses on a medium sized department store located in an urban shopping context and characterized by increasing competition and price sensitive consumers. The establishment caters to a wide variety of clients by offering a wide range of goods under one roof, from groceries, household needs and personal care items to stationery and basic clothes. The provision of such variety is aimed at increasing the convenience of consumers, which in turn increases inventory availability as a critical contributor to customer satisfaction, customer propensity for repeat patronage (Christopher, 2016).

The store uses a traditional brick-and-mortar retail paradigm and sources its merchandise through a wide variety of local and national merchants. Inventory management responsibilities are more or less in the hands of the store management, with little or no involvement of specialized inventory and supply chain professionals. Consistent with operational realities of medium-sized retail enterprises, the store tries to compromise between the imperatives of cost-efficiency and maintenance of service quality, all this while struggling with spatial, capital and technological limitations.

4.2 Product Categories and Inventory Structure

The inventory of the departmental store is divided into several major types of products and each type has different demand elasticity and requirements for handling. Grocery and fast mowing consumer goods (FMCGs) make up the greatest inventory share by volume and number of times sold. These items have a short shelf life but are susceptible to expiration, spoilage and shrinkage if not handled properly.

Household goods and personal care products are the second largest category, with demand usually being somewhat varied. Apparel and seasonal items Although a smaller portion of total sales, clothing and apparel is quite different from other goods in terms of inventories, due to fashion trends and seasons. According to Slack et al (2022), product diversification increases the complexity of inventory and requires differentiated control mechanisms instead of a uniform approach to inventory policy.

Despite this diversity, the store adopts in most of the product categories a uniform approach to inventory control. The lack of segmentation limits the store's ability to give priority to high-value and high-risk items and may be a contributing factor in not leveraging the inventory to its best.

4.3 Procurement and Supplier Management

Procurement activities in the departmental store are pursued through the aegis of various suppliers varying in size, reliability, and order time. Products that get regular demand are

purchased from regular suppliers with whom the store has long term relationships but some items that have lesser frequency of demand are purchased on ad hoc basis. Ordering decisions are largely based on historical experience with sales and a visual inspection of stock levels as opposed to structured demand forecasting models.

Lead times of suppliers show a large range, particularly of imported or branded merchandise, and so increase uncertainty in inventory planning. Chopra and Meindl (2019) emphasize that the variability of the lead times leads the retailers to hold safety stock in order to prevent stock outs. Nevertheless, the store is not using any formal safety-stock calculation method, so the decisions regarding replenishment are not consistent.

4.4 Inventory Control and Replenishment Practices

The retail outlet has a very basic inventory replenishment structure in which periodic evaluations of inventory levels are made and orders triggered based on indications of low stock. Although this methodology is compatible with the use of a periodic review system, it does not Article 11 determinate reorder points, nor predetermine order quantities, making replenishment decisions reactive rather than proactive and thus increasing the risks of both excess inventory and stock shortage.

Despite having sales data preserved in a own, these figures are not regularly subject to systematic analysis for the functions of both demand forecasting and inventory optimal value. Empirical evidence suggests that reliance on intuition-based ordering practices often results in disappointing performance for inventory management by optimizing practices although management decisions are made based on intuition, especially situations characterized by demand volatility (Silver, Pyke, & Peterson, 2017). Consequently, there is reduced capacity of the store to reduce expenditures and to allocate resources in an efficient manner; formal inventory models such as Economic Order Quantity (EOQ) or ABC categorization are no longer included.

4.5 Inventory Storage and Handling

The distribution of the inventory in the retail establishment is limited by having a small backroom space with additional merchandise that is displayed directly on shelves. While primitive storage protocols are observed, systematic procedures for governing inventory rotation (particularly with regard to perishable items) are deficient. As a result, antecedent stock often remains on the surface of shelving tiers with subsequent consignments both in front of it and thereby increasing the likelihood of product expiry and associated wastage.

Some responsibility for inventory management is dispersed among store personnel, many of whom have inadequate formal training in the discipline. As Bowersox and colleagues (2019) have identified, gaps in training and ambiguous accountability structures can significantly increase the number of inaccuracies and shrinkage in inventory inventories within the retail setting.

4.6 Use of Technology in Inventory Management

The departmental store uses a rudimentary point-of-sale (POS) system to record sales transactions and generate sales reports on a daily basis. Although this is a system that provides a great source of sales information, it does not have complete integration with the inventory management functions. As consequence, inventory updates are partly-automated and rely on staff inputs and manual physical stock checking.

The constrained use of technology reduces real time visibility of stock, thus delays managerial responses to disruptions in stock. Krajewski, Malhotra and Ritzman (2019) in their studies state that integrated inventory information systems can lead to a better degree of accuracy and timely decision-making. The absence of such integration within the store compounds the problem of inaccurate inventory and inefficiencies in the operation of the store.

4.7 Inventory-Related Challenges Faced by the Store

The departmental retail establishment is faced with a range of inventory handling difficulties, particularly recurring inventory stock-outs of

fast-turnover items and excess accumulation of slow-turnover items, and increased cost of inventory holding. Seasonal variability in demand adds to the confusion of inventory planning; even more so when there are no systematic forecasting methodologies employed. These issues highlight the fact that existing theoretical paradigms of inventory management are not closely aligned with the empirical practices in the establishment.

5. Analysis and Discussion

The departmental retail establishment is faced with a range of inventory handling difficulties, particularly recurring inventory stock-outs of fast-turnover items and excess accumulation of slow-turnover items, and increased cost of inventory holding. Seasonal variability in demand adds to the confusion of inventory planning; even more so when there are no systematic forecasting methodologies employed. These issues highlight the fact that existing theoretical paradigms of inventory management are not closely aligned with the empirical practices in the establishment.

5.1 Inventory Control Practices versus Theoretical Models

The departmental retail establishment is faced with a range of inventory handling difficulties, particularly recurring inventory stock-outs of fast-turnover items and excess accumulation of slow-turnover items, and increased cost of inventory holding. Seasonal variability in demand adds to the confusion of inventory planning; even more so when there are no systematic forecasting methodologies employed. These issues highlight the fact that existing theoretical paradigms of inventory management are not closely aligned with the empirical practices in the establishment.

5.2 Demand Forecasting and Replenishment Inefficiencies

Demand-based forecasting of the demand is crucial in balancing the inventory levels with the demand of customers and minimizing uncertainty (Chopra and Meindl, 2019). Replenishment decisions in the case store are highly reactive and experience-based but not using formal forecasting methods. In spite of the fact that the sales information can be obtained via the point-of-sale system, the information is not thoroughly analyzed to reveal the demand patterns or seasonal trends.

Through this reactive strategy there is a high risk of stock outs when demand is high and high stock when demand is low. Makridakis, Spiliotis, and Assimakopoulos (2018) suggest that the use of informal forecasting techniques decreases the accuracy of the forecast and undermines inventory planning. The periodic review-like nature of the store, lack of specific reorder points or safety stocks, is also an addition to the inconsistent replenishment results.

5.3 Impact of Limited Technology Integration

Inventory management literature has extensively shown how technology can be utilized to increase inventory visibility and decision-making (Krajewski, Malhotra, and Ritzman, 2019). Although the departmental store has a simple POS system, it is not as effective as it is not integrated with sales information and inventory management capabilities. Physical stock count and manual update of the inventory data enhance the possibilities of the error, procrastination, and distortion between the registered and the real level of inventory.

Waller and Fawcett (2013) note that real-time inventory data can help retailers to react promptly to demand variations and supply issues. Without this kind of integration, the store cannot keep proper inventory records so there will be an ineffective ordering decision and high holding costs. This technological void indicates a lost opportunity in terms of operational enhancement by the use of comparatively available inventory management software tools.

5.4 Storage Practices and Inventory Losses

Inefficiency in inventory storage and inventory handling practices is also observed during the analysis. Absence of standard inventory rotation process especially of perishable products enhances chances of products expiry and wastage. Bowersox, Closs, and Cooper (2019) note that one of the key causes of inventory shrinkage in a retail setting is a lack of storage discipline and deficient staffing training.

The lack of accountability in inventory handling in the case store where there is shared responsibility means the likelihood of making mistakes and losses is high. Such problems are not only impacting the accuracy of inventory, but they also have direct financial consequences, where expired or damaged goods should be written off, and lowering profitability in general.

5.5 Managerial and Financial Implications

In the managerial sense, the findings indicate that inventory control in the departmental store is aimed more at being an operational requirement than as a strategic operation. This strategy restricts the possibility of using inventory as a competitive advantage with the store. Monetarily, inventory control inefficiencies bind-up working capital, raise holding costs, and decrease inventory turnover, and all these have adverse impacts on profitability (Brigham and Ehrhardt, 2017).

On the whole, the analysis shows that the practice of inventory management may be greatly improved in accordance with the existing theoretical framework and utilizing the available technology to enhance the operational performance and customer service levels of the store. The findings support the argument in the literature that good inventory management is an operation and strategic necessity in retail businesses.

6. Findings and Managerial Implications

6.1 Key Findings

The discoveries of this case study indicate that the departmental store has applied the inventory management practices that are more operational and informal as opposed to models of structured inventory control. One of the salient findings is that it has not been systematically classified in terms of inventory; the store does not differentiate between high value and fast-moving items and low value and slow-moving items and as a result had similar control practices on the heterogeneous product categories. This finding supports the past studies that lack of the ability to prioritize inventory items reduces the extent of control and swells the costs of inventory (Wild, 2017).

The other important result is related to the demand forecasting and replenishment processes. Whereas the sale information is recorded through a point-of-sale, the information is not analyzed to form the basis of forecasting or planning inventory. This results in reactive replenishment decisions as opposed to data-driven replenishment decisions increasing the likelihood of a stock out during busiest times and excess stock during periods of low demand. This finding supports the argument of Chopra and Meindl (2019), who assert that the lack of responsiveness and efficiency in supply-chain depends on poor forecasting.

It is also found in the study that the limited level of technological integration has a significant negative impact on stock accuracy and visibility. An incomplete dependence on manual stock-checks and records keeps system increases the chances of differences in the recorded and real inventory. Consistent with the results of Krajewski, Malhotra, and Ritzman (2019), the lack of integrated inventory systems limits managerial timely decision-making and aggravates the problems with the inventory control.

Lastly, storage and handling practices were found to be underdeveloped in terms of standardizing them. Lack of formal procedures of inventory rotation and the lack of staff training are a few factors that led to the loss of inventory, in the case of perishable and fast-moving products. Such losses have negative impacts on profitability and inventory turnover, which is the focus of retail operations literature (Bowersox, Closs, and Cooper, 2019).

6.2 Managerial Implications

The current case study provides some managerial implications that are relevant to the departmental store managers. To start with, the implementation of systematic methods of inventory management, namely, the analysis of ABC and the use of EOQ as the means of ordering, seems to be a necessity of the right product categories. The implementation of these models eases the distribution of an increased focus and resources on high-impact items, which improves the efficiency of inventory and cost management (Heizer, Render, and Munson, 2020).

Second, the managers should make use of the available sales data to guide the demand

forecasting and inventory planning. Although rudimentary methods of forecasting, such as moving averages and trend analysis, can have a significant refining effect on replenishment decisions and reduce uncertainty in demand (Makridakis, Spiliotis, and Assimakopoulos, 2018).

Third, cost incurred in the integrated inventory management systems promotes accuracy and visibility of inventory. With the combination of point-of-sale information with inventory data, the stock levels can be monitored in real time, hence, aiding in proactive decision-making. Although it requires an initial investment, the long-term benefits with respect to the cost reduction and improvement of services are proved long enough (Waller and Fawcett, 2013).

On the whole, the results indicate that inventory control in question should be viewed as a strategic and not an operational activity. Through the alignment of inventory activity with the recognized concepts based on the theoretical framework, and the exploitation of the available technology, a departmental store manager will be able to increase the level of service, improve working capital, and support the competitive activity.

7. Conclusion and Recommendations

7.1 Conclusion

The case study has investigated inventory management in a medium sized departmental store and has aimed to analyze them based on the effectiveness of inventory management practices and their coherence with the existing inventory management theories. As the analysis indicates, although the store has simple inventory processes that are good enough to manage operations of the day-to day running of the store, there are no structured inventory control systems in place and it has a serious impact on operational efficiency and cost optimization. The process of inventory management is done in a more operational approach as opposed to being a strategic exercise, which leads to inconsistent inventory replenishment decisions, stock outages, and over-inventory.

The results reveal that dependencies on ordering based on intuition, low demand projections, and partial application on technology are some of the issues making inventory management ineffective. These problems are consistent with those in the existing literature, which point to the fact that poor inventory management adds to holding costs, decreases inventory turnover, and has a negative customer satisfaction impact (Chopra and Meindl, 2019; Brigham and Ehrhardt, 2017). Moreover, improper storage and poor staff training predisposes the results of inventory loss and most so on perishable and fast-moving product(s).

In general, the research supports the assumption that inventory management is an important factor that may determine operational and financial performance within the departmental stores. Integrating inventory practice, based on existing theoretical frameworks, and using data-driven decision-making capabilities can help retail organizations to improve the levels of service, working capital use, and may maintain competitive advantage through the changing retail landscape.

7.2 Recommendations

Examination of the case study provides a list of suggestions that can be used to improve inventory control in the departmental stores. First, the management of the store is recommended to introduce organized approaches to inventory administration, in particular, the ABC analysis, to classify items of the inventory basing their importance and demand behavior. This approach will enable prioritization of high-impact items and the use of differentiated control strategies (Wild, 2017).

Secondly, the encouragement of the elementary demand-forecasting methods that use the historical sales records is promoted. Mechanisms such as moving averages and trend analysis can be used to improve the accuracy of forecasting and proactive decisions made related to replenishing products, thereby reducing stockouts and overstocking (Makridakis, Spiliotis, and Assimakopoulos, 2018).

Thirdly, there is greater incorporation of inventory management technology considerations to be unavoidable. Having point-of-sale systems together with inventory lists will be able to add real-time inventory, increase accuracy, and support prompt management

decision-making (Krajewski, Malhotra, and Ritzman, 2019).

Lastly, inventory loss can be reduced by investing in personnel and standardization of storage processes, particularly when it comes to rotation of inventory, which will achieve greater performance of overall inventory. The case study ought to be followed by prospective research which would combine quantitative data or comparison of the inventory practice in various departmental stores thus boosting the generalizability.

8. Limitations of the Study

Although this case provides useful information on the role of an inventory practice among a departmental store setting, it is limited by a few methodological and contextual issues that should be considered when interpreting the results. Learning the recognition of such formidable concessions leads to the advancement of the inquiry and reveals possible directions of further studies.

One of the major limitation lies in basing the study by one empirical case. Although, the in-depth case-study format allows a comprehensive examination of the inventory-management procedures in any real-world context, the conclusions of such a study might not be relevant to all departmental stores or retail forms. The difference in the size of stores, the ownership structure, geographic location, and the technology adoption level is likely to have divergent inventory practices (Yin, 2018). Such a solitary case has therefore to be treated with caution when generalizing it to retail setting.

Another weakness is associated with the nature of the research design, which is quantitative. The research is mainly based on secondary research and observation, and not the quantitative measurements of inventory, i.e. turnover rates, stockholding cost, stock-out rates, etc. Qualitative analysis can provide a comprehensive contextual knowledge, but the lack of performance data on a numerical level limits the ability to estimate the exact financial impact of inventory inefficiencies (Saunders, Lewis, and Thornhill, 2019). The use of quantitative data would have made the analysis more robust since it would have allowed objective assessment of performance.

The research is also limited by lack of accessibility to internal organizational data. Due to the issue of confidentiality, the extensive financial statements, contracts with suppliers and inventory-cost specifics were not available to access, which means that the researcher had to use generalized observations instead of precise cost estimations. This restriction might restrain the rigor of the financial analysis provided.

Lastly, the research fails to provide an explicit consideration of the outside-environment dynamics, i.e., macro-economic circumstances, inflationary forces or supply-chain hiccups, which have the potential of making significant impacts on inventory-management decisions. Such events as shortages of suppliers or demand shocks can temporarily distort the performance of inventory, and cannot be effectively included in a single case study framework.

9. Directions for Future Research

Based on the results and shortcomings of this case study, a number of research opportunities can be formulated. Further research would expand the research area to compare the case studies in various departmental stores. Compared to the other store sizes, ownership and geographical regions would be better than what was done here to compare the inventory management practices to give a better understanding of the best practices in the retail industry.

The other avenue that future researchers should consider concerning the application of the expectancy theory is the quantification of performance measures. Inventory turnover ratios, carrying cost percentages, service levels, and frequency of stockouts could be included in the set of researchers in order to estimate the effectiveness of inventory management practices using a narrow scope of financial and operational indicators. Arguably, both the qualitative information and the quantitative analysis should be combined to gain a more in-depth picture of inventory performance (Bowersox, Closs, and Cooper, 2019).

The research also may be applied in the future to explore how superior technologies empowered inventory management in the departmental stores. Radio-frequency identification (RFID) and predictive analytics

are just a few examples of technologies that are getting more and more mentions in the literature (Hofmann and Rusch, 2017). It would be of special importance to investigate the adoption obstacles, trade of cost and benefits, and performance of such technologies in small and medium-sized retail stores.

Moreover, future research can cover the behavioral nature of inventory management, managerial decision-making bias, employee training ability, and organizational culture. The way human factors impact inventory decisions may be used to justify the fact that theoretical models are not universally applied in practice and also find ways of enhancing their adoption. Lastly, future studies might estimate the effect of external interferences, including industry interruptions of supply chains or economic turmoil on inventory-management resilience. Additionally, the analysis of the way in which departmental stores change their inventory responses to uncertainty would lead to the expansion of the literature about supply-chain risk management and resilience.

References

Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2019). *Supply chain logistics management* (5th ed.). McGraw-Hill Education.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brigham, E. F., & Ehrhardt, M. C. (2017). *Financial management: Theory and practice* (15th ed.). Cengage Learning.

Chopra, S., & Meindl, P. (2019). *Supply chain management: Strategy, planning, and operation* (7th ed.). Pearson Education.

Christopher, M. (2016). *Logistics & supply chain management* (5th ed.). Pearson Education.

Gupta, A., & Starr, M. K. (2014). *Production and operations management systems*. CRC Press.

Heizer, J., Render, B., & Munson, C. (2020). *Operations management: Sustainability and supply chain management* (13th ed.). Pearson Education.

Hofmann, E., & Rüsch, M. (2017). Industry 4.0 and the current status as well as future prospects on logistics. *Computers in Industry*, 89, 23–34. https://doi.org/10.1016/j.compind.2017.04.002

Krajewski, L. J., Malhotra, M. K., & Ritzman, L. P. (2019). *Operations management: Processes and supply chains* (12th ed.). Pearson Education.

Makridakis, S., Spiliotis, E., & Assimakopoulos, V. (2018). Statistical and machine learning forecasting methods: Concerns and ways forward. *PLOS ONE*, 13(3), e0194889. https://doi.org/10.1371/journal.pone.0194889

Rajagopalan, S. (2013). Impact of retail inventory management on business performance. *Journal of Retailing*, 89(1), 1–10. https://doi.org/10.1016/j.jretai.2012.10.001

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education.

Silver, E. A., Pyke, D. F., & Peterson, R. (2017). *Inventory management and production planning and scheduling* (3rd ed.). Wiley.

Slack, N., Brandon-Jones, A., & Burgess, N. (2022). *Operations management* (10th ed.). Pearson Education.

Waller, M. A., & Fawcett, S. E. (2013). Data science, predictive analytics, and big data: A revolution that will transform supply chain design and management. *Journal of Business Logistics*, 34(2), 77–84. https://doi.org/10.1111/jbl.12010

Wild, T. (2017). *Best practice in inventory management* (3rd ed.). Routledge.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.