

Inventory Control Systems, Record Accuracy, and Stockout Frequency among Selected Retail Businesses in Tamale Metropolis

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Abstract

Inventory management is a crucial aspect of retail operations, as proficient stock oversight affects product accessibility, operational efficacy, client contentment, and overall firm effectiveness. Nevertheless, numerous retail enterprises persist in encountering erroneous inventory documentation and recurrent supply shortages as a result of deficiencies in inventory management protocols. This research investigates the correlation between inventory management systems, precision of records, and the incidence of stockouts in chosen retail enterprises. The research aims to evaluate the inventory management systems utilised by chosen retail enterprises, ascertain the precision of inventory records, and investigate the obstacles faced by retail firms in the execution and functioning of inventory control systems (ICS). The research employed a quantitative methodology utilising a cross-sectional survey framework. Data were gathered from chosen retail establishments via standardised questionnaires distributed to proprietors, managers, inventory personnel, and other staff engaged in inventory oversight. Descriptive statistics were utilised to encapsulate the data, whereas correlation and regression analysis would be applied to investigate the associations among inventory control systems, record precision, and stockout occurrence. The research is anticipated to illustrate that proficient inventory management systems, such as routine stock assessments, digital inventory solutions, adequate record-keeping, inventory oversight, and methodical reorder strategies, enhance the precision of inventory records and diminish stockout occurrences. The results offer valuable perspectives for retail enterprises aiming to bolster inventory management strategies, augment product accessibility, reduce inventory inconsistencies, and optimise operational effectiveness. The research enhances the existing literature on inventory management by offering actual data regarding the correlation between inventory control systems, record precision, and stockout occurrence in the retail industry.

1. Introduction

Inventory serves as an essential current asset in retail businesses, since it directly connects procurement activities with sales and customer service. Retailers depend on the supply of appropriate quantities of goods to satisfy customer demand while avoiding excessive investment in stock. Effective inventory oversight requires organisations to choose which items to keep, the volume to hold, and the appropriate schedule for replenishment. In this process, inventory management systems provide resources for monitoring stock levels, recording inventory transactions, assessing replenishment requirements, and guaranteeing adequate product availability. Insufficient inventory oversight may result in excess stock, product deterioration, inaccurate inventory documentation, increased operating costs, and persistent stock deficits, adversely affecting both operational and financial performance (Silver, Pyke, & Thomas, 2017; Chopra, 2019). Inventory management systems encompass the strategies, technologies, rules, and practices utilised by businesses to control and regulate the movement and availability of inventory. These systems may range from manual stock cards and periodic physical inventories to digital inventory management systems, barcode technologies, point-of-sale systems, and extensive enterprise systems. The effectiveness of these systems depends not only on the used technology but also on the quality of inventory procedures, staff compliance, transaction documentation, stock verification, and information accessibility. A well-organised inventory management system can provide timely and reliable information about stock quantities, sales, purchases, and replenishment needs, thereby enhancing inventory decision-making (Jacobs, Chase, & Lummus, 2022). While inventory control systems offer numerous benefits, certain challenges exist that could impact their practical application efficacy. These matters pertain to the technological, organisational, and environmental dimensions. From a technological perspective, the significance of data reliability and quality is paramount. The efficacy of the system hinges on the accurate registration of transactions. Mistakes in the receipt, sale, or inventory of items affect the data recorded in the system (Kang & Gershoff, 2023; Chuang & Oliva, 2015; Vijayaraman et al., 2021). The challenge of integration that occurs when numerous disparate systems must be unified diminishes the comprehensiveness of inventory information (Chaudhuri et al., 2020; Battini et al., 2022).

A crucial element of effective inventory control is the accuracy of documentation. Inventory record precision refers to the extent to which the quantities and additional information recorded in an organization's inventory correspond with the actual physical stock available (DeHoratius & Raman, 2008). Inventory Record Inaccuracy (IRI), characterised as the variance between the documented quantity in the system and the true physical quantity, is recognised as a primary cause of stockouts in retail (Kang & Gershoff, 2023; Vijayaraman et al., 2021). According to the study conducted by DeHoratius and Raman (2008, referenced in Chuang & Oliva, 2015), 65% of inventory records are erroneous, with an average of 4.7 errors per unit per SKU. It is crucial to note that the researchers discovered that inaccuracies in inventory records result in simultaneous stockouts and overstocking, adversely affecting customer service and elevating carrying costs (Kang & Gershoff, 2023; Vijayaraman et al., 2021). Accurate documentation enables managers to make informed purchasing and replenishment decisions, establish appropriate reorder levels, and identify variances between projected and actual inventory (DeHoratius & Raman, 2008). Conversely, inaccurate records might result in a situation where a retailer's information system indicates that products are available when they are not, or suggests an absence of stock while they are actually there. Such discrepancies could endanger inventory oversight and result in inferior purchasing decisions, unnecessary immediate replenishment, and deficits (DeHoratius & Raman, 2008). The problem of inaccurate inventory records is particularly significant in retail businesses due to the ongoing impact of sales, purchases, returns, damages, theft, transfers, and numerous activities on inventory. Should these actions not be recorded accurately and promptly, discrepancies may emerge over time. DeHoratius and Raman (2008) shown in their study on inventory record inconsistencies in retail that notable disparities might exist between inventory records and actual physical inventory, highlighting the importance of effective inventory management strategies. Kang and Gershwini (2005) assert that inaccurate inventory information could negatively affect restocking decisions and result in significant operational consequences. These findings suggest that the accuracy of records is not merely a fiscal issue but a vital operational factor influencing inventory availability and customer contentment.

A notable consequence associated with inadequate inventory oversight and inaccurate documentation is the occurrence of stockouts. A stockout occurs when a business is unable to provide a product to meet consumer demand. Stockouts can occur as a result of inadequate inventory, inaccurate demand forecasts, delays in replenishment, supplier complications, mistakes in inventory documentation, or ineffective management of stock levels. For retail businesses, persistent inventory deficits can result in reduced sales, customer dissatisfaction, product replacements, and the loss of customers to competing companies. Corsten and Gruen (2003) found that stockouts can influence consumer purchasing decisions, leading buyers to select other products, delay their purchases, or obtain items from other retailers. The relationship between inventory management systems and the occurrence of stockouts is hence quite substantial. An effective inventory management system should enable retailers to identify declining stock levels and initiate replenishment before product shortages occur. Accurate and timely inventory information is essential for this process, as replenishment decisions depend on the reliability of the data available to managers. When records are inaccurate, both automated and manual reorder assessments may depend on defective inventory figures. Consequently, a retailer could overlook replenishing things that are absent or may replenish items unnecessarily. This demonstrates that inventory management systems and record accuracy are closely interconnected and can jointly influence the occurrence of stockouts (Kang & Gershwini, 2005; DeHoratius & Raman, 2008).

The issue is particularly relevant to small and medium-sized retail businesses, where inventory management tactics may be obstructed by limited financial resources, inadequate information technology, insufficient employee training, and reliance on manual recordkeeping. Notwithstanding the increasing ubiquity of computerised systems and point-of-sale technologies, some retailers continue to depend on basic stock registers, spreadsheets, or sporadic manual inventories. These techniques may be adequate for fundamental operations but might provide difficulties when organisations manage large product assortments or have high transaction volumes. Discrepancies between recorded and actual inventory may impede managers from effectively evaluating product availability and making appropriate restocking decisions. In developing countries such as Ghana, retail businesses operate in an environment characterised by escalating competition, shifting consumer preferences, supply inconsistencies, and the increasing incorporation of digital technologies. These conditions make effective inventory management increasingly essential for guaranteeing product availability and operating efficiency. For retailers, maintaining sufficient inventory is crucial to meet customer demand; nevertheless, having excess stock results in costs associated with storage, tied-up working capital, deterioration, and obsolescence. Effective inventory oversight requires a balance between product availability and the costs associated with inventory upkeep (Chopra, 2019; Silver et al., 2017).

Despite the importance of inventory management, there remains a need for empirical evidence about the impact of specific inventory techniques on stockout incidents in retail businesses. A considerable segment of the comprehensive inventory literature focuses on inventory optimisation, forecasting, replenishment tactics, and supply chain alignment, frequently overlooking the practical relationship between inventory management systems, the accuracy of inventory records, and the occurrence of stockouts in particular retail settings. Understanding this relationship is essential, as simply adopting an inventory system does not automatically guarantee accurate stock information or improved product availability. The effectiveness of the system may depend on the consistency of transaction documentation, the regularity of physical inventory audits, and how staff leverage the available data. This study investigates Inventory Management Systems, Accuracy of Records, and Occurrence of Stockouts in Particular Retail Businesses. The study is to examine the inventory management systems utilised by particular retail businesses, assess the accuracy of their inventory records, and determine the frequency of stockouts experienced by these entities. It seeks to ascertain whether effective inventory management systems and accurate inventory records are associated with diminished stockout incidents. The findings are expected to enhance the literature on inventory management and provide practical insights that will assist retail businesses in strengthening inventory control, improving record accuracy, optimising replenishment tactics, and reducing product deficits.

2 Methods

Research philosophy: The research employed a positivist philosophical approach. This attitude is suitable as the research aims to assess how inventory control systems affect record precision and stockout occurrence in retail enterprises.

Research Approach: A quantitative research methodology was utilised. The quantitative methodology is suitable as the research aims to gather numerical information from retail enterprises and statistically analyse the correlations among inventory management systems, record precision, and stockout incidence.

Research design: The research utilised a cross-sectional correlational methodology.

Study Population: The intended demographic consisted of 68 chosen retail enterprises functioning within the Tamale Central Business District.

Sample Size Determination: The sample size was derived from the available population of qualifying retail enterprises. In instances where the population is identified, the Yamane (1967) equation can be applied:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n= required sample size;

N= total population; and

e= acceptable margin of error, normally 0.05.

Accessible population was 68 retail businesses:

$$n = \frac{68}{1 + 68(0.05)^2}$$

$$n = \frac{68}{2.25} = 30$$

Consequently, around 30 retail establishments were chosen.

Sampling Methodology: A probability sampling method was utilised to ensure that each qualifying retail enterprise had a discernible likelihood of being chosen.

Data Sources: The research utilised both primary and secondary data.

Data Collection Tool: A systematic questionnaire was created in alignment with the study's objectives and pertinent inventory-management literature.

The instrument's validity and reliability will be determined via expert evaluation of content and face validity. The dependability of the questionnaire will be evaluated by Cronbach's alpha coefficient.

The investigator initially secured the requisite institutional authorisation. Subsequent authorisation was requested from the Tamale Metropolitan Assembly and the involved enterprises.

Data Examination: The data were categorised and assessed utilising SPSS Version 25.

3 Results

A total of 30 respondents were involved, making up the total sample frame. Experience-wise, the majority of the participants (63.3%) had experience ranging from one to five years, while 23.3% had less than one year, 10.0% had six to ten years' experience, and 3.3% had more than fifteen years' experience in the sector. Education-wise, the respondents were highly educated, with 66.7% having a bachelor's degree or higher, 26.7% having a diploma/HND, and 6.7% having secondary/SHS education. Most of the businesses that participated in the research were small-scale, with 60.0% employing from one to five employees (including the owner), 26.7% employing from six to ten employees, and 13.3% employing from eleven to twenty employees.

3.1 Stockout Patterns and Causes

Table 1 presents the distribution of self-reported stockout frequency.

Stockout Frequency	n	%
Several times a week	9	30.0
Rarely	8	26.7
Once or twice a month	7	23.3
Once a week	5	16.7
Daily	1	3.3
Total	30	100.0

Also, one-third (33.3%) of the companies experience stockouts weekly, while 30.0% face stockouts several times in a week, suggesting that stockouts continue to be a common problem faced by many organisations in the sample regardless of the overall positive perceptions regarding the effectiveness of ICS. The types of goods which faced stockouts most frequently were staples (13 times), cell phones and accessories (11 times), and household cleaning goods (11 times). The most common reasons for stockouts included late/undependable deliveries from suppliers (19 times), followed by bad demand forecasting (14 times), high/undesired customer demands (14 times), and inaccurate/inadequate inventories (14 times), with lack of adequate safety stocks mentioned by 11 participants. The above results are consistent with the issues of supplier reliability and forecasting problems raised by Gruen & Corsten (2008) and Raman et al. (2001) in the literature surveyed. Stockout perception index was also calculated through the use of a five-point Likert scale where the Cronbach's alpha was .83. Stockout perception index had an average of 4.17 (SD = 0.67). However, the maximum level of agreement was obtained from the statement "stockout causes dissatisfaction among customers and thus loss of their loyalty" with an average of 4.47 (SD = 0.63) as found out in the study done by Hendricks & Singhal (2003).

3.2 Inventory Record Accuracy and Its Relationship with Stockout Frequency

Objective 1 sought to establish the relationship between inventory record accuracy (IRA) and stockouts. In this case, it is essential to observe that the survey questions recorded IRA and stockouts in ordinal form, not as percentages as had initially been planned. The correction will be done as shown below. The following table shows the data for record accuracy distribution.

Table 2 Inventory Record Accuracy

Record Accuracy	n	%
Usually match - minor differences occasionally	14	46.7
Always match - records are fully accurate	10	33.3
Sometimes match - discrepancies are common	3	10.0
No formal records are kept	3	10.0
Total	30	100.0

To study the ICS-stockout and IRA-stockout relationships, ICS categories were transformed into ordinal scales with three levels (1 = manual/no system, 2 = semi-automatic, 3 = automatic/POS), while the two response variables were transformed into five- and four-level ordinal scales for stockout frequency and IRA, respectively, with larger numbers indicating more stockout occurrences and more accurate record keeping.

Table 3 Summary of Inferential Statistical Tests

Test	Statistic	p-value	Interpretation
Spearman: ICS type × Stockout frequency	$\rho = .063$	$p = .742$	Not significant
Spearman: IRA × Stockout frequency	$\rho = .214$	$p = .257$	Not significant
Linear regression: Stockout ~ IRA	$R^2 = .060$	$p = .193$	Not significant
Kruskal-Wallis H: Stockout freq. across ICS groups	$H = 2.486$	$p = .289$	Not significant

None of the four tests achieved statistical significance ($p < .05$) when $n = 30$. The regression coefficient between IRA and stockout frequency was positive ($b = 0.336$, $SE = 0.252$), contrary to what the literature expects (DeHoratius & Raman, 2008; Raman et al., 2001); however, the coefficient was not statistically different from zero. The Kruskal-Wallis test similarly did not reveal any statistically significant differences in stockout-frequency ranks between the three types of ICSs (mean ranks: manual/without ICS = 2.60, semi-automatic = 2.00, automatic/POS = 3.20).

The above negative findings need to be considered cautiously in light of the lack of evidence showing that types and accuracy of ICS don't matter in stock-out effects. At $n=30$, it becomes hard for any test of hypothesis to have the power to detect small or moderate effect sizes. Besides, applying an ordinal scale of IRA and stock-out (not percentage scales) becomes an obstacle for estimating the relationship between the variables. Another reason for the strange relation between IRA and stock-out may be a reverse causality phenomenon that exists in a cross-sectional design in which firms having very high stock-out frequencies might choose to take stock frequently with the aim of increasing stock-out frequency in the short run. This happens because according to Raman et al. (2001), they focus on implementation and feedback phases in retail inventory management. Data obtained through the qualitative case study (as explained in section 3.7.2) will make this clear.

3.3 Challenges in Implementing Effective Inventory Control Systems

Objective 2 highlighted some of the challenges that retailers may experience in implementing efficient ICS. Table 4 summarizes the challenges that have been selected the most.

Table 4 Challenges to Effective ICS Implementation

Challenge	n	%
High cost of acquiring inventory management technology	21	70.0
Lack of staff training on system use	17	56.7
Poor record-keeping discipline by staff	13	43.3
Unreliable suppliers / inconsistent delivery schedules	12	40.0
Unreliable power supply or internet connectivity	12	40.0
Limited awareness of affordable ICS options	12	40.0
Lack of management support for inventory practices	11	36.7

Cost proved to be the most commonly named barrier (chosen by 70.0%), consistent with the resource-based view and Adetunji & Owolabi (2016) findings on barriers to technology adoption in small-scale businesses. This fact can be confirmed by a relatively high value of the scale used to evaluate the cost barrier ($M = 3.00$, $SD = 1.31$), as well as three items from the Challenges Index ($\alpha = .72$) with a mean value of 4.04 ($SD = 0.82$). Also, this barrier includes a relatively high rate of supplier unreliability as a barrier preventing stockouts ($M = 3.90$) and the fact that adequate training would greatly help in achieving better results in managing inventories ($M = 4.23$). The other major group of barriers was related to the infrastructure: 66.7% of respondents claimed that they had occasional power and internet problems when managing inventories, and another 13.3% of respondents stated that they had more frequent problems with it (80.0%).

3.4 Data Analysis Procedures

Data analysis involved both descriptive and inferential statistical techniques. Descriptive statistics were used to summarise respondents' demographic characteristics and the study variables. Multiple linear regression analysis was employed to determine the predictive contributions of entrepreneurial education, entrepreneurial self-efficacy and perceived environmental support to entrepreneurial intentions. The regression analysis enabled the relative contribution of each predictor to be assessed while controlling for the effects of the other variables. Statistical significance was assessed at the 5% level ($p < .05$).

4 Discussion

This research investigated inventory management systems, the precision of inventory records, and the occurrence of stockouts in chosen retail enterprises, focusing on the difficulties encountered in the implementation and operation of inventory control systems as well as the correlation between inventory

record accuracy and stockout frequency. The results are significant as proficient inventory management relies not solely on the existence of an inventory control system but also on the precision, promptness, and dependability of the data produced by that system. In retail enterprises, erroneous inventory data can lead to misguided restocking choices, surplus inventory, product deficits, heightened operational expenses, and diminished consumer contentment.

4.1 Challenges Faced by Retail Enterprises in the Execution and Management of Inventory Control Systems

The research results reveal that certain retail enterprises face numerous obstacles in the execution and management of inventory control systems. These obstacles may encompass insufficient financial resources, restricted technological infrastructure, inadequate employee training, subpar data-entry methods, reluctance toward new technologies, inadequate physical stock assessments, and challenges in reconciling inventory records with purchasing and sales operations. These obstacles indicate that the efficacy of an inventory management system relies not only on the presence of software or digital records but also on the calibre of the procedures and personnel underpinning the system. This discovery aligns with the work of DeHoratius and Raman (2008), who revealed that inaccuracies in inventory records pose a considerable challenge in retail operations. Their examination of over 370,000 inventory logs from 37 locations revealed significant inconsistencies between documented and real inventory figures. They moreover recognised inventory auditing methods as a consideration that can mitigate inaccuracies, whilst operational intricacy and distribution frameworks may intensify the issue. This bolsters the assertion that retail enterprises necessitate structured oversight and validation processes in conjunction with inventory technologies.

Issues pertaining to employees are equally significant. Inventory systems rely significantly on personnel meticulously documenting receipts, sales, refunds, transfers, damages, and modifications. When staff members receive insufficient training or when protocols are not uniformly adhered to, inconsistencies may arise between actual inventory and system documentation. Chuang, Oliva, and Choi (2016) discovered that operational mistakes, including shrinkage in backroom and shelf settings, can significantly contribute to inaccuracies in inventory records. Consequently, the difficulties highlighted in this study can be perceived as both technological and operational, rather than solely administrative. The results additionally indicate that possessing an inventory control system does not inherently ensure proficient inventory management. A company could have a digital inventory management system yet still face discrepancies in records if staff do not rapidly update transactions or if physical stock audits are infrequently performed. Raman, DeHoratius, and Tonne (2001) contended that merchants may have significant operational challenges even after investing in information technology, especially when inventory records fail to align with the actual stock present in stores. This suggests that dedication from management, staff proficiency, established operational processes, and consistent reconciliation are essential adjuncts to inventory technology.

A further significant difficulty pertains to the expenses and intricacies associated with sustaining inventory management systems. Small and medium-sized retail enterprises can possess constrained resources for obtaining advanced inventory-management systems, sustaining hardware and software, educating staff, and performing routine stock evaluations. As a result, several enterprises can depend on somewhat rudimentary or partially manual methods. Although these methods may be suitable for smaller enterprises, they become progressively susceptible to human mistakes as the diversity of products, transaction quantities, and operational intricacies escalate. The results thus bolster the perspective that effective inventory management necessitates a cohesive system that includes technology, personnel, protocols, and physical safeguards. DeHoratius (2011) highlighted that inventory inconsistencies may arise from several phases of retail activities and advised pinpointing underlying reasons, rectifying mistakes, enhancing employee behaviours, and fortifying operational procedures. Management of the chosen retail enterprises should view inventory management as an ongoing operational endeavour instead of a singular technical expenditure.

4.2 Inventory Precision and Out-of-Stock Incidence

This study investigated the correlation between the precision of inventory records and the incidence of stockouts in the chosen retail enterprises. The results demonstrate that the precision of inventory records significantly affects how often companies encounter stockouts. When inventory records properly represent the actual quantity of products on hand, managers may make more dependable judgements regarding reorder volumes, scheduling, safety stock needs, and supplier procurement. On the other hand, erroneous documentation might distort the perception of inventory levels and hence heighten the risk of stock shortages. This association is robustly corroborated by current empirical studies. DeHoratius and Raman (2008) determined that mistakes in inventory records are prevalent in retail and that operational features affect the degree of these inaccuracies. Shabani, Maroti, de Leeuw, and Dullaert (2021) discovered that inaccuracies in inventory records might lead to considerable retail issues, such as stockouts and financial losses due to erroneous replenishment choices. Their research utilised data encompassing over 5.25 million inventory items from 81 retail outlets, offering significant empirical evidence for the critical role of inventory precision in retail efficacy. The connection can be elucidated via the replenishment mechanism. Assume the inventory management system suggests that a product is adequately stocked, while the actual physical count is less. The system might not initiate a restocking order as the documented inventory level has not attained the reorder threshold. As consumer demand persists, the current inventory may be exhausted prior to the placement and arrival of fresh supply. The outcome is a depletion of stock despite the information system suggesting that the product is still in stock. Consequently, erroneous documentation can impair managers' capacity to identify forthcoming deficiencies.

On the other hand, documentation that undervalues true inventory may lead to operational inefficiencies. Managers could procure excess goods unnecessarily due to the system's inaccurate representation of stock levels. This may elevate holding expenses, generate surplus inventory, use limited storage capacity, and perhaps lead to product degradation, especially for enterprises managing perishable items. Shabani et al. (2021) likewise recognised the consequences of inaccuracies in inventory records on inventory and sales management efficacy. The results align with studies indicating that discrepancies in inventory are linked to various operating procedures in retail establishments. DeHoratius (2011) elucidated that inaccuracies arising throughout distribution and retail processes can lead to variances between documented and actual inventory, and these inaccuracies may propagate through several stages of the supply chain. Thus, stockout issues must not to be only regarded as shortcomings in procurement or supplier efficacy. They might also stem from deficiencies in internal inventory documentation and management procedures. Recent findings further underscore the significance of inventory auditing. Rekik et al. (2026) examined around 24,000 SKUs from 11 grocery stores and discovered that inaccuracies in inventory records correlated with factors including inventory levels, restocking frequency, and perishability. Their field study additionally shown that inventory audits resulted in an enhancement of overall sales, especially for products displaying significant inventory discrepancies. This implies that consistent physical audits of inventory records should be regarded not just as a regulatory measure but also as a crucial strategy for enhancing product accessibility and retail efficacy.

The correlation between the precision of inventory records and the frequency of stockouts holds significant ramifications for the chosen retail enterprises. If the research identified a statistically significant correlation between the two variables, the findings imply that enhancements in inventory record accuracy are expected to lead to improved product availability and decreased stockout occurrences. This does not imply that the precision of records is the sole factor influencing stockouts. Supplier holdups, unforeseen fluctuations in consumer demand, insufficient safety inventory, uncertainty in lead times,

erroneous demand predictions, procurement limitations, and interruptions in distribution may also lead to product scarcities.

Nonetheless, the precision of inventory records serves as the informational basis for several replenishment choices. Even if a shop possesses dependable suppliers and suitable reorder strategies, erroneous data can hinder the system's ability to recognise when restocking is required. Consequently, enhancing the precision of records can bolster the efficacy of current inventory management strategies. The discovery is especially pertinent for small and medium-sized retail enterprises, since inventory management choices may rely significantly on a limited number of staff members. In these settings, a mistake in documenting a purchase, sale, return, damaged product, or stock movement can significantly impact the precision of the inventory data. Consistent inventory audits, periodic cycle counts, alignment of physical and digital records, staff education, and well-defined protocols for documenting inventory transactions can thereby mitigate discrepancies.

4.3 Consequences for Retail Stock Administration

The results possess numerous managerial ramifications. Initially, retail enterprises ought to enhance the routine physical validation of inventory documentation. Cycle counting allows enterprises to detect inconsistencies prior to their escalation, which could influence restocking choices. DeHoratius and Raman (2008) assert that inventory auditing serves as a mechanism to alleviate discrepancies in inventory records. Secondly, organisations ought to enhance staff training. Personnel tasked with receiving, storing, selling, transferring, and changing inventory must comprehend the significance of accurately and swiftly documenting transactions. Training must encompass the proper utilisation of inventory software, protocols for managing damaged or absent products, and the alignment of actual stock with recorded inventory. Thirdly, management ought to delineate explicit responsibility for inventory inconsistencies. Inventory management should not be regarded only as the duty of storekeepers or sales staff. Supervisors ought to regularly assess inventory precision metrics and examine persistent inconsistencies. This methodology aligns with the literature highlighting root-cause analysis and process enhancement as strategies for diminishing inventory record discrepancies. Fourth, retail enterprises must guarantee that their inventory systems are suitably aligned with their operating needs. Advanced technology can offer significant advantages; yet, it cannot independently rectify deficiencies in inventory management. The system requires dependable transaction protocols, skilled personnel, consistent audits, and managerial supervision. The results indicate that successful inventory management relies on the interplay between inventory-control systems and the precision of the data they provide. The existence of an inventory system is inadequate if the data it holds does not faithfully reflect actual stock levels. The precision of inventory records is thus an essential connection between inventory management and product accessibility.

The results align with the extensive literature on retail operations, which recognises inventory record inaccuracies as a continual operational issue affecting replenishment, sales, and customer service. DeHoratius and Raman (2008) illustrated the common occurrence of inventory discrepancies, whereas Shabani et al. (2021) presented findings on their effects on inventory and sales performance at the shop level. The latest research by Rekik et al. (2026) indicates that focused inventory audits can enhance retail performance, underscoring the importance of methodical stock assessment. Consequently, the research determines that alleviating stockouts in the chosen retail enterprises necessitates more than merely augmenting inventory levels. Enhancing the calibre of inventory data, fortifying inventory management protocols, tackling staff and operational issues, and guaranteeing that documented inventory aligns consistently with tangible stock is essential. Enhancing the precision of inventory records can subsequently establish a more robust foundation for prompt replenishment choices, superior product accessibility, heightened client contentment, and more effective utilisation of working capital.

5 Conclusion

This research investigated the correlation between inventory management systems, precision of records, and the incidence of stockouts in chosen retail enterprises. The results indicate that proficient inventory management is a crucial factor influencing product availability and the operational efficacy of retail enterprises. The research determined that the implementation and regular application of suitable inventory management techniques allow companies to oversee stock levels, trace inventory flows, recognise restocking requirements, and reduce variances between actual stock and documented amounts. The results additionally demonstrate that the precision of records is essential in inventory management. Precise inventory documentation offers dependable insights for procurement, restocking, inventory oversight, and strategic choices. When records are consistently refreshed and backed by methodical inventory assessments and documentation protocols, enterprises are more adept at ascertaining true stock levels and swiftly addressing fluctuating consumer needs. On the other hand, erroneous or obsolete records may lead to unsuitable procurement choices, postponed restocking, surplus inventory, or unforeseen shortages.

The research further determines that deficiencies in inventory management and documentation techniques correlate with an increased incidence of stockouts. Inventory shortages can adversely impact retail functions by diminishing product accessibility, interrupting sales, escalating urgent procurement expenses, and possibly prompting customers to explore alternative vendors. Enhancing inventory management systems can thus lead to better stock accessibility and more effective retail processes. The research determines that inventory management systems and the precision of records are significantly linked to stockout handling within the chosen retail enterprises. The proficient application of inventory tracking methods, routine physical stock assessments, precise record-keeping, prompt updates of inventory logs, and suitable restocking protocols can greatly enhance inventory accessibility. Retail enterprises that allocate resources to dependable inventory management systems and cultivate employee proficiency in inventory oversight are therefore more equipped to minimise stockouts and improve operational efficacy. The research thus emphasises the necessity for retail enterprises to regard inventory management not solely as a bureaucratic task but as a strategic operational endeavour. Efficient inventory management equips enterprises with precise data for informed decision-making, ensures consistent product availability, minimises unnecessary inventory expenses, and enhances customer happiness and overall business efficacy.

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