Inventory Management at Makerere University Business School and Its Impact on the Revenue Performance of Small and Medium Enterprises

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ABSTRACT

Numerous studies have explored the effectiveness of implementing operations management techniques in inventory management and its impact on revenue performance. This study aims to ascertain the significance of inventory management, its various approaches, and the correlation between managing inventory effectively and revenue performance. Employing a secondary data collection method, the researcher reviewed and analyzed pertinent documents from various authors. The research findings reveal that a majority of small and medium-sized enterprises struggle to adopt new inventory management methods, thereby adversely affecting their revenue performance. When inventory management isn't integrated seamlessly, treating it as a separate entity, these enterprises struggle to ensure optimal resource utilization. However, the study also notes the presence of both positive and negative relationships between inventory management strategies and sales performance. In conclusion, the study recommends that SMEs enhance their inventory management techniques to positively impact business revenue. This improvement is crucial for streamlining operations and maximizing financial outcomes.

Keywords: Inventory management, Business revenue, Applying operations, Management techniques, Sales performance.

INTRODUCTION

Inventories constitute the most significant part of current assets in business. On average inventories are approximately 60% of current assets in every business unit. [1, 2] argued that inventory is the most important aspect in business performance; it calls for SMEs to make inventory assets productive by aggressively managing and controlling inventory levels at minimal loss of sales and returns or without excess carrying costs. According to [2], inventories are defined as the stock of the product of a business in manufacturing for sale and components required to make up a product. In other words, the stock of manufactured products and materials that make up a product, [3]. He further argues that good inventory management is a major source of increased productivity, improved return on investment and better customer service. Therefore, an attempt to neglect the management of inventories will jeopardise the firm's long-term revenue performance and may fail ultimately, [4]. [5] reveals that many SMEs in Uganda have not taken inventory management as a serious and necessary issue which has led to shortages and low profits. High inventory levels in SMEs tie up capital in stock and low stock levels are also undesirable as they can result in stock-outs, [6]. Similarly, in resource-poor settings, SMEs do not consider inventory management practices as having a role in inventory turnover. This was evidenced in the study done by [7] who asserted that for companies in resource-poor settings to improve their turnover and effectively compete in the global market, they must not only effectively carry out inventory

management but also have enabling organizational policies and management support. The major aim of inventory management is to avoid excessive and inadequate levels of inventory and to maintain only sufficient inventory for the smooth performance of the business, [2]. In addition to the above, [8] argues that investment in inventory should be minimized as costs associated with holding inventory affect levels of revenue. Due to poor application inventory management techniques, many SMEs seem to have revenue problems. This is probably because the majority of businesses are not aware of the importance of inventory management and its effect on revenue performance. The researcher will throw more light on the importance of inventory management as relates to revenue performance.

Despite efforts put in by business organizations to increase revenue performance by emphasizing on proper inventory management system, performance is continuously deteriorating due to poor inventory management, (Procurement New, May-June 2004). The inventory costs as a percentage of total logistics costs are increasing [9]. Despite this rise, many organizations have not taken full advantage of ways to lower inventory costs through proper inventory management techniques and as a result, it is likely to affect their cash inflows and will lead to low revenues. Inventories are a significant portion of the current assets of any business enterprise [10]. Inaccuracies in an inventory create a range of problems, including loss of productivity, the manufacturing of unwanted items, a reduction in the levels of customer commitment, the accumulation of costly physical inventories and frustration [11]. The cost of any of these inaccuracies can indeed be significant. Therefore, this study was carried out to establish the relationship between inventory management and revenue performance of SMEs.

METHODOLOGY

Inventory Management

While inventory management is defined in several different ways, the concept implies the establishment of strategic objectives and the positioning of inventories [12]. As such, inventory management is the active control program, which allows a firm to manage its manufacturing, sales, purchases, distributions and payments [13]. Inventory management is a systematic control and regulation of the purchase, storage and usage of materials in such a way as to maintain an even flow of production and avoid excessive investment in inventories, [14]. According to [15], inventory management is a technique that ensures that the company is supplied with the right inventories at the right time, and in the right place.

Definition of inventory

According to [16], inventory is defined as an American accounting term for the value or quantity of raw materials, components, assemblies, consumables, Work in Progress (W.I.P) and finished goods that are kept or stored for use as the need arises in the business. Also, [17] defines inventory as simply the money piled on the shelf.

International Accounting Standards (IAS2) asserts that inventories are assets held for sale in the ordinary course of business, in the process of production, in the form of materials and finished goods. It should be noted that different scholars give various names of inventories that are being referred to as materials and goods. On the other hand, [18] argue that inventories refer to those physical assets of a business stock, which are stocked by the business unit either for further processing or for final sale. According to [19, 4, 16], the various forms of inventories which exist in a manufacturing company are raw materials are inputs kept in business for further production that is inputs that are under processing. Work in Progress (WIP); are semi-processed goods which are waiting for final processing. They act as raw materials for the next production. Finished goods; are goods kept in stores and they are ready for sale. Goods for resale; returned goods that are salable. Stores and Spares (supplies); are fully processed goods from one factory used as raw materials to make goods in another factory but are not changed at all.

Consumables; are goods used but do not become part of finished goods e.g. fuel used in transporting products to the market. Distressed inventories or expired stock, are inventory whose potential to be sold at a normal cost has or will soon pass. In certain industries, it could also mean that the stock is or will soon be impossible to sell. Examples of distressed inventory include products that have reached an expiry date or have reached a date in advance of expiry at which the planned market will no longer purchase them. Stock Keeping Unit (SKU) is a unique combination of all the components that are assembled into the purchasable item. Therefore, any change in the packaging or product is a new SKU. This level of detailed specification assists in managing inventory. Stock out means running out of inventory of an SKU. "New old stock" (sometimes abbreviated NOS) is a term used in business to refer to merchandise being offered for sale which was manufactured long ago but that has never been used. Such merchandise may not be produced any more, and the new old stock may represent the only market source of a particular item at present.

Revenue Performance

Revenue: the amount of money a company receives from its activities, mostly from the sale of products or services to customers [20]. Performance: refers to a particular trend, rate or behavior of different variables like returns on capital employed, sales volume, profitability and returns on sales [21]. Earlier definitions suggest that revenue management is a technique that companies can use to successfully increase yield (or revenue) by allocating fixed fares to predetermined capacities, instead of trying to compete on highly discounted prices [22]. The industry had gradually moved away from regulated market conditions, where the emphasis was on selling occupancy (the maximum number of inventory units), to the post-regulated market companies were forced to focus on overall revenue through monitoring yield (revenue per available space). Managing yield is a more effective strategy because flexing the combined average rate and occupancy level is more profitable than the previous approach where managers either lowered the average rate to buy higher occupancy levels or maintained high rates whilst losing revenue from low occupancy. There is no commonly agreed definition for revenue management. Definitions differ according to different perspectives [23-28]. However, the literature confirms that the core concept is to maximize revenue through the effective management of three main areas; pricing strategy, inventory control and control of availability. The terms revenue management and yield management are currently used synonymously. Real-time revenue management provides an integrated framework that incorporates robust, sophisticated systems offering the ability to sense and respond to changes in inventory and pricing in an automated manner to minimize decision delays and enhance revenue performance. Several factors contribute to good revenue performance for example demand, pricing, sales and technology. Many studies show that firms employing revenue management practices normally claim a revenue increase between 3-7 per cent without any significant capital expenditure, which results in some cases in a 50-100 per cent increase in profits [24, 29]. With such an attractive potential for profit enhancement, it is easy to understand why revenue management practices have been dropped in a variety of SMEs over the past two decades. SMEs, as key beneficiaries of this revenue maximization concept, particularly welcomed the revenue management concept and the application of revenue management in the firms that have been successful [23]. The evidence from major firms suggests that revenue management has enhanced profitability significantly example. Over $100 million is generated annually [29]. Although the claims that revenue management can improve an organization's operating performance significantly have been challenged because environmental factors may have contributed to the revenue/profit enhancements [30, 31], the evidence from recent studies still suggests that the implementation of a revenue

management strategy leads to a 1-8 per cent profit performance improvement in SMEs [32, 33].

Small and Medium Enterprises (SMEs)

Small and medium-sized enterprises are defined in numerous ways around the globe. In Uganda, the idea of defining an SME is a recent notion. Until 2006, no definition for medium enterprises existed in Uganda, whereas small-scale enterprises were defined under the Industries Development and Regulation Act, 1951 (IDR). The Micro, Small and Medium Enterprises Development Act, 2006 (MSMED) defined for the first time what a medium-scale enterprise was along with a revised definition of a small enterprise. The concept of a tiny enterprise gave way to ideas about a micro-enterprise. According to the MSMED, a micro-enterprise in the manufacturing sector is an enterprise with an investment in plant and machinery not exceeding UG.SHS. 2.5 million. A small enterprise is an enterprise with investment in plant and machinery more than UG.SHS 2.5 million but less than UGSHS 50 million. A medium enterprise is defined as having investment in plant and machinery more than UGSHS. 50 million but not exceeding UGSHS 100 million. Thus, in Uganda, all enterprises with investments in plant and machinery of up to UGSHS. 100 million are SMEs.

Relevance of Inventory Management

Today's successful companies have ensured good inventory management to get an edge over competitors. This is because inventory constitutes their biggest asset. (Microsoft Business Solutions White Paper, 2001) indicates that most companies carry 25-40% more inventory than they need. Management and staff of a company must therefore recognize that inventory is the reason they exist and is just as valuable as cash in the bank. It is therefore imperative that to ensure continuous improvement in turnover better inventory management must be achieved.

Cost

The cost savings that accrue from improved practices in inventory management are substantial [11]. Inventory management has significance for any enterprise in an inventory-intensive manufacturing industry because effective practices in inventory management will allow an enterprise to minimize inventory costs and therefore, avoid the dire consequences that come with a shortage of material resources. This sequence of events has special significance in the context of SMEs. Inventory management and control are crucial to a firm because mismanagement of inventory threatens a firm's viability [12]. [3] further argues that inventory management helps to maximize the value of a firm; this is so because the firm considers costs returns and risk factors when establishing its inventory policy. Inventory management can help a firm to know its cash conversion cycle (CCC). The cash conversion cycle (CCC) is the time duration in which a firm can convert its resources into cash. Effective inventory management enables SMEs to meet or exceed customer's expectations of product availability while maximizing net profits or minimizing costs [9].

Financial performance

The management of inventories influences a firm's financial strength and competitive position because the approach taken to inventory management directly affects working capital, production and customer service [34, 35]. However, while the critical role of inventories in a firm's survival is well organized in theory, inventory management does not necessarily drive practice in many SMEs. When business strategies are formulated, inventory management is not generally treated as a critical or strategic activity [12]. In the context of SMEs in Uganda and the formal inventory management practices they adopt, very few studies deal in-depth with this issue.

Inventory planning and decision-making

[26] argue that poor-quality forecasts are the main factors contributing to this sequence of events in SMEs. [37] observed that a sound and well-operated integrated production inventory management system is a decisive factor in a firm's success under a variety of conditions. However, he found shortages of necessary inputs, irrespective of high-inventory investments

in most SMEs. [38] discussed the linkages between inventory management and competitive advantage, bringing into focus the integration of strategic and competitive factors such as cost, delivery and quality. [38] argues that reducing the throughput time by faster value addition to the materials provides a firm with a distinct edge in competitive environments. However, inventory costs are determined not only by their level of inventory but also by the time the materials spend in the system. Inventory management has become a vital tool in determining an appropriate level of investment in inventory in today's competitive world.

Policies

Inventory management offers comprehensive reporting capabilities to keep an entity on top of inventory status it can help an entity bring about the creation of new or improved purchasing policies, sales policies pricing methods and even enhanced customer service [29]. However, according to [40, 41, 2], they argue that there are three major reasons for holding inventory in a business unit. These include the transaction motive; Which emphasizes the need to maintain inventories to meet the day-to-day obligations of the business that is production and sales effectively. Precautionary, motive: Small businesses need to keep inventories to overcome contingencies or emergencies as they fall due. Such contingencies include changes in demand and supply and other factors. Speculative motive: This motive influences the business unit to keep inventory to take advantage of price fluctuations within the economy. For instance, prices rise due to special days like Iddi, Christmas and Easter.

Inventory Management Approaches
Materials Requirement Planning (MRP)

According to [42], materials requirement planning is a computerized technique aimed at minimizing inventory and maintaining delivery schedules. It relates the dependent requirements for materials and components comprising an end product to periods known as buckets over a planned horizon based on forecasts provided by marketing or sales and other input information. Is a software-based production planning and inventory control system used to manage the manufacturing process. An MRP is intended to simultaneously meet three objectives;

- Ensure that materials and products are available for production and delivery to customers
- To maintain the lowest level of inventory.
- To plan manufacturing activities, delivery schedules and purchasing activities.

[43], tried to bring out the major problems encountered in trying to implement the MRP system, saying MRP is integrated and therefore any errors in the inventory data, bill of materials or the master production schedule, output data will be incorrect. MRP also requires that the user specifies how long it will take the factory to make a product from the part and yet the manufacturer could be having factories in other cities or countries. MRP takes no capacity in its calculations which means it will give results that are difficult to implement due to manpower and supply capacity.

Vendor-managed inventory (VMI)

Under VMI the vendor manages the inventory of the distributor. The manufacturer usually receives information via the electronic data interchange from the distributor. These messages tell the manufacturer various bits of the information such as what they have currently in inventory. The manufacturer reviews the information and decides when it is appropriate to place a purchase order. Further still, the manufacturer will set up the distributors inventory plan, he then monitors the distributors inventory level keeping track of sales and current levels and once he believes the inventory level has run low, he will generate a purchase order and distribute the product to the distributor. VMI gives control over the inventory to the manufacturer; it also promotes strong partnership between the manufacturer and the distributor [43].

Inventory speculation

The inventory speculation approach is, by far, the most frequently encountered inventory management approach in practice [44, 45]. With this approach, a firm would purchase items and physically hold such items within its storage facilities

before demand or usage requirements for these items are known with certainty [46]. This comes with many benefits, not the least of which is the ability to respond quickly to demand or usage needs and the ability to protect itself against fluctuations in prices. In addition, with this approach, a firm can also avail itself of volume discounts and reduced inbound transportation costs from buying in bulk [46, 44, 45], however, the inventory speculation approach is not without its cost disadvantages. Besides the opportunity cost and financial burden of having cash tied up in physical inventory, there is also the recurrence of high inventory holding costs, given the need for storage, material handling and tracking, and given the threat and expense of inventory obsolescence, particularly when operating in highly volatile competitive environments.

Enterprise Resource Planning (ERP)
Involves systems that attempt to integrate several data sources and processes of an organization into a unified system. A typical ERP system will use multiple components of computer software and hardware to achieve the integration. A key ingredient of most ERP systems is the use of a unified database to store data for various systems modules [47]. The key components of an ERP system are a common database and modular software design. Examples of modules in ERP include manufacturing supply chain, and customer relations management. However, the ERP system has several limitations among which are, the customization of ERP software is limited, re-engineering of business processes to fit the industry standards pre-described by the ERP system may lead to a loss of competitive advantage. Further still, ERP systems can be expensive leading to a new category 'ERP light' solution [47].

Re-order level system (ROL)
The re-order level is the level at which a replenishment order should be placed so that delivery is when the minimum stock is reached. Orders for the same fixed quantity will be required whenever it becomes necessary to do so. The re-order level is characterized by a predetermined re-order level. When stock levels fall to the re-order level a replenishment order is issued. Organizations operating this system maintain stock records with calculated re-order levels. Re-order level system has three controls that is re-order level, the level at which a replenishment order can be placed so that delivery is when the minimum stock level is reached and the re-order level given by; ROL= max usage rate per period x max lead time Max stock level, this is the level above which stock should not normally rise. MSL –Re-order level + Re-order quantity – (min usage rate x min lead time) [48].
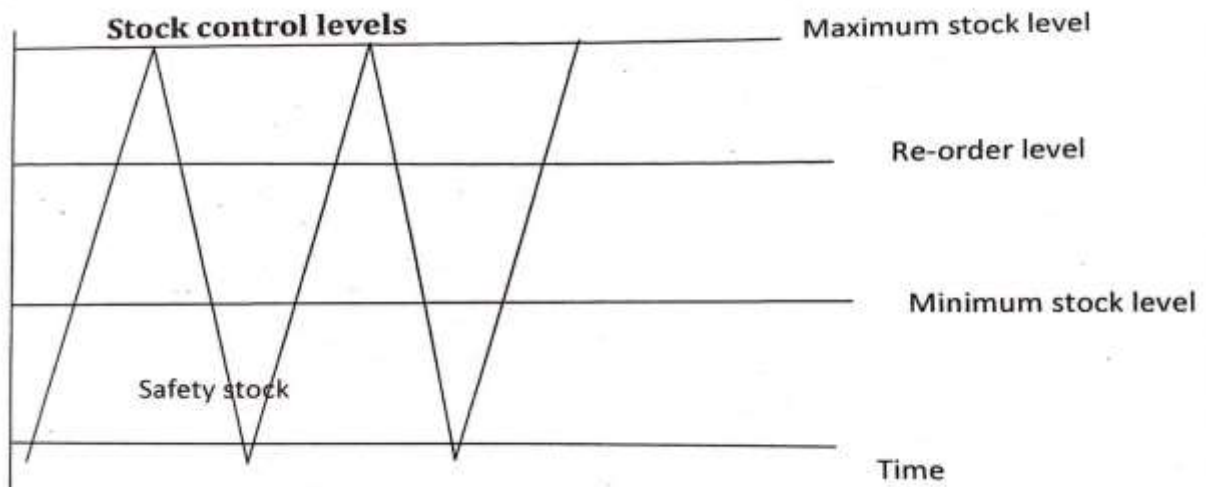Graph A.

Figure 1: shows the stock control levels
Source; Adopted from [49]

Economic Order Quantity (EOQ)

The literature reviewed in this study on inventory management demonstrated a strong relationship between inventory management and turnover and went further to show that an efficient inventory management system assures accurate Economic Order Quantities for stock; making the demand forecast for stock more reliable [50]. The better the monitoring system the easier it is to detect items running out of stock and stock obsolescence, which promotes Just in Time ordering which in turn, reduces inventory carrying costs. Efficient stock monitoring helps detect stock items not normally on a company's stock list, which eventually improves the customer service level. Through its impact on the customer service level, demand forecasting and inventory control costs, inventory monitoring determines how high or low the turnover rate will be and thus the overall turnover for SMEs. Furthermore, [51] argues that Economic Order Quantity is an inventory model that attempts to minimize total inventory costs by answering questions such as, "How should I order (EOQ) and how often should I place an order (cycle time)". The model assumes that the demand equation faced by the firm is linear. The rate of demand is constant or at least nearly constant. The goal is to minimize local inventory costs. Inventory costs are made up of holding costs and ordering costs. The equation for inventory cost is developed as below; Total inventory costs = Holding costs + Ordering costs. Accordingly, the underlying assumptions of economic order quantity include the following.

i. It assumes that demand is uniform, certain, and continuous over time.

ii. The lead time is constant and certain and the periodical replenishment of order is done.

iii. There is no limit in order size due either to stores or other constraints.

iv. The cost of placing an order is constant is independent of the size of the order. The delivery charge is also independent of the quantity ordered.

v. The cost of holding a unit of stock (carrying cost per unit of inventory) does not depend on the quantity in stock.

vi. All prices are constant and certain. There is no bulk purchase discount.

vii. the same amount is ordered each time that purchase is made.

According to [49], Economic Order Quantity is the quantity that results in the lowest total variable costs. This can be illustrated below;
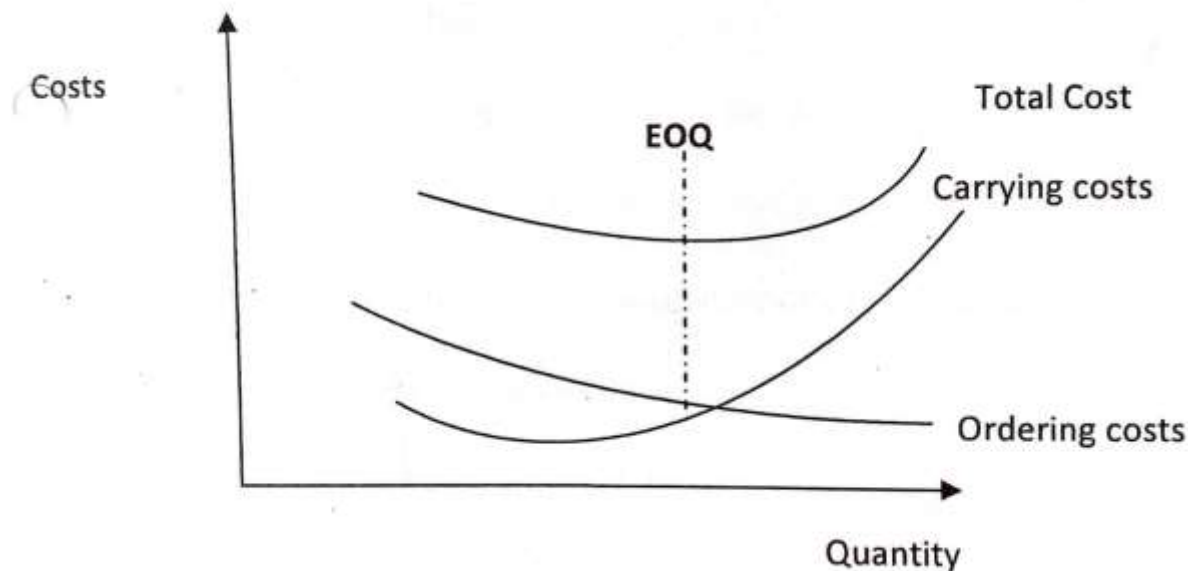

Figure 2: Shows Economic Order Quantity (EOQ) model

The graph is translated into a formula below ;EOQ; Source; Adopted from [49]
where OC is the ordering cost per unit
D is the total demand
CC is the total carrying cost
Accordingly, the more inventory held the higher the holding costs which is why the holding cost curve, curves upwards and the more inventory ordered, the less the costs which are why the ordering cost curve slopes downwards. An optimum order size is reached at a point where the holding cost curve and the ordering cost curve meet.

Electronic Point of Sale (EPOS)
Point of sale can mean a retail shop, a checkout counter in a shop or a location where a transaction occurs. Point-of-sale systems are usually used in supermarkets, restaurants and stadiums. Electronic point-of-sale system is often highly sophisticated being integrated with office merchandising, planning procurement and business intelligence systems providing retailers with routine information to manage their business. Electronic point-of-sale software makes it easier and possible for businesses to ensure that they are fully operational at all times and that all your staff's repetitive point-of-sale tasks are as streamlined as possible. The modern EPOS systems are retailers' eyes and ears on their business [47].

ABC analysis
Several operations management techniques exist that can be used to control inventory carrying costs, one such technique is the use of the Pareto rule or ABC analysis to efficiently manage inventory. ABC analysis involves the categorization of all stock. Close examination of an inventory list often reveals that, for any given inventory, a small number of stock accounts for the majority of costs. The Pareto analysis classifies inventory using the 80-20 rule where 80 per cent of the investment or sales value is held in 20 per cent of the inventory. ABC analysis stems from the theory Pareto by classifying the inventory A, B or C according to the value of annual usage. The ABC analysis is most frequently used for item aggregation because of its simple implementation procedure. The turnover value of all products is determined and ranked in descending order. Then the cumulative turnover relative to the ranking order and the percentage of cumulative turnover are calculated. The percentage range of the product is then calculated by dividing the ranking number of the parts by the total number of products. This test was carried out on the company stock and the analysis indicated that a very small proportion (20 per cent) of the products examined accounted for a large proportion of the total turnover (75 per cent). All class A items must be given the tightest possible control with complete and accurate records maintained. Class B items require less rigorous control with reorder levels reviewed quarterly, or when major changes occur. Class C items account for only 5 per cent of turnover although they constitute 60 per cent of the inventory. They require the simplest possible controls with only periodic reviews of inventory levels. Large inventories and replenishment batch quantities are set to avoid stock shortages [52]. To effectively use ABC analysis and control inventory carrying costs, one needs to have an effective inventory monitoring system that empowers management with the right information to reduce inventory in times of dramatic sales decline and increase it in times of high demand resulting in high returns on investment [53]. According to [41], ABC analysis is an inventory management technique which involves the classification of materials in stores according to their value.
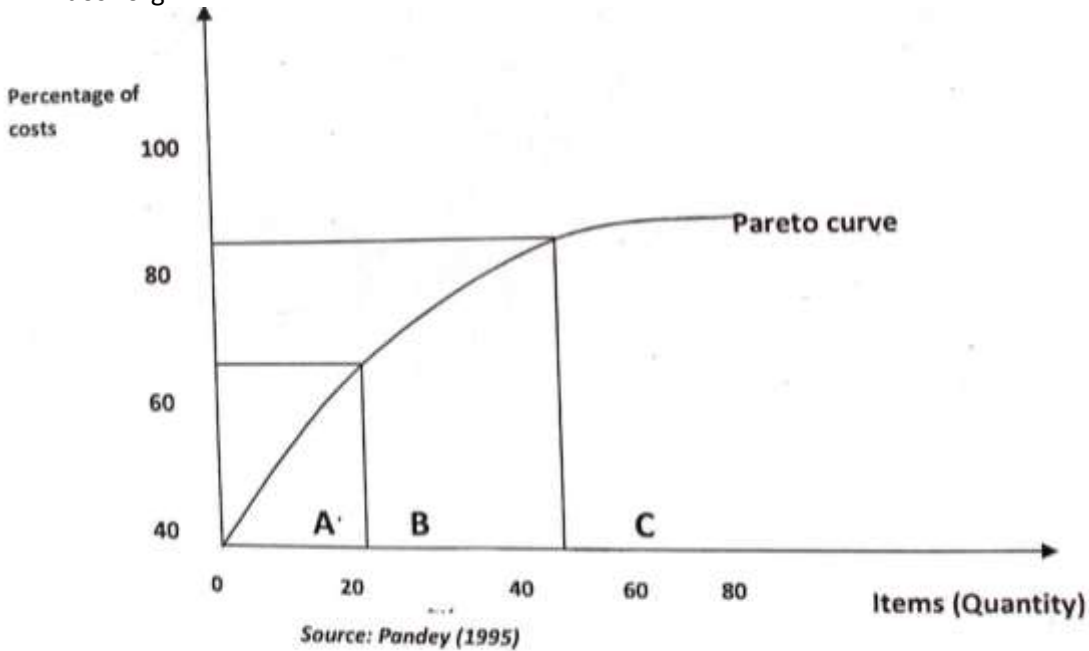
Figure 3: The model was developed by Pareto hence a Pareton curve below;

Periodic review system (PRS)

[54], asserts that in monitoring the inventory management system, two measures are used namely; the inventory turnover rate and the system stock-out rate as well as the demand-forecasting rate. Triggered by an unplanned stock out or by a periodic review of the inventory turnover rate for any items that have just finished an order cycle, the monitoring system is designed to analyse systematically the causes of inventory system deviations. The analysis eventually leads to the fitness-related and/ or operations-related causes of the deviations. The system can be referred to as a constant cycle. The stock is normally reviewed at regular fixed intervals to determine whether more should be ordered. It is characterized by

- Stock levels of all parts are reviewed at fixed intervals
- Where necessary a replenishment order is issued
- Quantity of replenishment order is not previously calculated but is based upon the likely demand until the next review, the present stock level and lead time. Periodic review is advantageous in a way that all stocks are reviewed periodically so

that there is more chance of obsolete items being eliminated [55].

Just in time (JIT)

According to [56] just in time is an inventory strategy implemented to improve the returns of a business by reducing in-process inventory and its associated carrying costs. JIT emphasizes inventory as one of the seven wastes that are overproduction waiting time, transportation, inventory, procuring, motion and production defects and as such its practice involves the philosophical aim of reducing input buffer to zero. For items of very high value, that are frequently used, it makes sense to attempt to keep low or possibly no inventory of these items and instead get very frequent deliveries possibly daily. The major objective is to avoid tying lots of money in stock. The organization will need to find reliable suppliers of defect-free products who are just time-oriented. JIT is advantageous in a way that, it essentially seeks to achieve a balanced supply chain with minimal inventory at every stage and where transmit quantities of material and stock are reduced to the lowest possible amount. The ultimate aim is a batch of one unit [56].

Inventory Postponement

In contrast to inventory speculation, a firm, operating under an inventory postponement approach, would deliberately delay the purchase and the physical possession of inventory items until demand or usage requirements are known with certainty [46]. By doing so, a firm can minimize the risk of inventory obsolescence, reduce the opportunity cost of having capital tied up in such items, and avoid incurring inventory storage and tracking expenses since these items are physically located with the supplier. However, such an approach does have its drawbacks. There is, foremost, the risk of lost sales because the firm may not be able to respond in as timely a manner as having these items readily available within its storage facilities [44, 45]. Furthermore, transportation and materials handling costs from having to purchase in smaller batch sizes would likely result [57], as would the risk of price increase.

Inventory consignment

A firm operating under an inventory consignment approach would physically hold purchased items in inventory, but in this arrangement, ownership of these items would reside with its supplier [58]. Only after the items have been either used in production or have been sold to customers would the firm then make payments to the appropriate suppliers. By following this approach, the firm would benefit from having relatively immediate access to items to meet demand or usage needs without investing financial capital or risking obsolescence expense [59]. Unfortunately, in addition to the expense of storing, handling and tracking these purchased items, a firm could also be subject to price fluctuations, with the price of the items on hand increasing between the time when they were physically received and when they were put to use or sold.

The Relationship Between Inventory Management and Revenue Performance of SMES

In general, efficient or inefficient management of inventories is only on factor that may influence firm performance. A range of other macroeconomic, industry and firm-level factors are also important. Historically, economists have focused on industry level variables using the structure-conduct-performance (SCP) framework. This stresses the role of industry concentration and a firm's market share, since higher levels of both could be (theoretically) linked to higher profitability. Further studies also investigate other possible determinants, for example, ownership structure of the firm [60], strategic direction [61], size of the board [62], innovation [63] Inventory management-performance relationship produced also mixed results. Specifically, [64, 65] indicated that timely and informative customer demand data can result in improved firm performance through reduced inventories. [66] proved that the improvement of inventory turnover (following JIT adoption) in firms led to an increase in earnings per share. According to [18], a business can increase its general performance as it works towards zero defects as far as the Just-in-time approach of inventory management is concerned. JIT demands that nothing goes wrong and consequently demands and results in very efficient operations. This results in higher revenue hence good performance. Inventory management also requires a team approach to production where each person has a known role but working towards a common goal. The success of a business organization raises the spirits and morale of the employees. As a result, they will be encouraged to work harder for higher performance [3]. [67] shows a significant negative relation between gross operating income and the number of inventory days for a sample of non-financial firms during the period 1992-1996, suggesting that managers can create value for their shareholders by reducing the number of inventory days to a reasonable minimum. Additional evidence was provided by [68], who found no overall decrease in inventory ratios despite an increased focus on inventory reduction and [68], who concluded that SMEs with very high inventory ratios have more possibilities to be bad financial performers. This is consistent with the

findings of [69], which reported a strong negative relation between the cash conversion cycle and corporate profitability for SMEs. [70] by examining the market value of the SMEs concerning their various inventory policies, reported that firms with abnormally high inventories have abnormally poor stock returns, firms with abnormally low inventories have ordinary stock returns while SMEs with slightly lower than average inventories perform best over time. Furthermore, in a more recent study,

[69] examined the associations among three constructs-inventory, IT investments and financial performance and they concluded that reducing inventories has a significant and direct relationship with financial performance. Managing inventory levels in the aggregate is a common concern of senior management because the impact of changing the inventory management procedures on turnover is reflected in the turnover growth [71].

RESULTS

This chapter summarizes the key issues from the theoretical literature and shall cover the researcher's findings, discussion and interpretations related to the research objectives and questions. Qualitative analysis was used to enable the researcher to address the statement of the problem under the following headings; relevance, approaches of inventory management and the relationship between inventory management and revenue performance SMEs.

Findings on Relevance of Inventory Management

The study revealed that the cost savings that accrue from improved practices in inventory management are substantial [11]. It was also further observed by [12, 9] that inventory management and control are crucial to a firm because mismanagement of inventory threatens a firm's viability. This was in line with [3, 59] who asserts that inventory management helps to maximize the value of a firm because the firm considers cost return and risk factor and it improves information sharing and coordination and reduces supply chain cost. Further findings by [34, 38], found that management of inventories influences a firm's financial strength and competitive position because the approach taken to inventory management directly affects working capital, production and customer service and [37] observed that a sound inventory management system is a decisive factor in a firm's success. While [39] declared that inventory management improved policies like purchasing, sales, pricing and enhanced customer services and at the same time, [40], affirmed that

business organizations can hold inventory for speculative, precautionary and transaction motives. The researcher agrees with the different authors' findings about the relevance of inventory management that can lead to reduced cost, improved policy, enhanced planning and decision making and is used as a competitive tool, hence a sound financial performance.

Findings on the Approaches to Inventory Management

The researcher found out that several inventory management approaches exist; the most frequently encountered inventory management approach in practice is the Material Requirement Planning (MRP), Vendor Managed Inventory (VMI), and Inventory Speculation, [44, 45], Enterprise Resource Planning (ERP), Re-order Level (ROL), Economic Order Quantity (EOQ), ABC Analysis, Just In Time, and Inventory Postponement are available for SMEs to apply. According to different scholars discovered that one approach is better than the other. According to [44], inventory postponement would be preferred over inventory speculation. Conversely, according to [45], inventory speculation would be a "better approach" than inventory postponement. Therefore, a firm should consider some common decision framework, such a decision framework should identify and define a set of common factors and underlying drivers, which, when varied, would help firms select the most appropriate inventory management approach for a particular purchased item and context. What a firm Selects as its inventory management approach can contribute either positively

or negatively to this outcome. The different inventory approaches have their advantages and disadvantages as seen in the related literature review. However, the underlying assumptions of EOQ have been criticized because demand, lead time, prices and cost of placing orders are never constant but change depending on the macroeconomic indicators. Likewise, the JIT concept can hardly work in LDC like Uganda because of the lack of appropriate technologies to make efficient orders in time [56].

Findings on the Relationship Between Management and Revenue Performance of SMEs

The findings also discovered that the inventory management approach substantially affects the level of growth of the inventory turnover. It was also found that by separating inventory management and treating it as a "silo" function, a company cannot deliver effective management of resources. According to the study, inventory management has a strong relationship with revenue performance in terms of the ownership structure of the firm, strategic direction, size of the board and innovation. However, this relationship has also found that the

above variables tend to produce mixed results, for instance, timely and informative customer demand can lead to reduced inventories [64]. The relationship has resulted in high revenue and good performance in SMEs and encouraged them to work harder for higher performance. According to [67, 68, 69], found out that, there was a strong negative relationship between gross operating income and the number of inventories days, no overall decrease in inventory ratios despite an increased focus on inventory reduction, SMEs, with very high inventory ratios had a bad financial performance, and the cash conversion cycle and corporate profitability for SMEs. However, firms with abnormally high inventories had abnormally poor stock returns hence firms with abnormally low inventories had ordinary stock returns, while SMEs with slightly lower-than-average inventories performed best over time. The researcher concluded with a strong belief that associations among inventory, IT investments and financial performance can lead to significantly reduced inventories hence a direct relationship with financial performance.

DISCUSSION

In a wrap-up, the researcher observed that organizations should have ideal inventory management because it helps to reduce costs, increase revenue and hence improve the financial performance of an organization. There are several inventory management techniques but they are all aimed at reducing the overall costs of an organization and hence improving the

revenue performance, however, there are also several changes in inventory management as sometimes the approaches are not easily applicable in developing countries like Uganda and it is hard to exactly anticipate demand which in turn leads to over stocking hence increasing overall costs.

CONCLUSION

The Approaches of Inventory Management

The researcher discovered that there are various approaches, and models of inventory management as mentioned above, these include; Economic Order Quantity, ABC analysis, Just-in-time, Periodic Review System, Electronic Point Sale, Re-order Level, Vendor Managed Inventory, Enterprise Resource Planning, Materials Requirement Planning and Postponement. However, most importantly a firm should choose the most appropriate

approach applicable to its operations given the fact that others are not suitable for SMEs in Uganda coupled with the high cost of applying, technological advancement and lack of skilled personnel.

The Relationship Between Inventory Management and Revenue Performance of SMEs

The researcher concluded that there was a strong relationship between inventory management and the revenue performance of SMEs in line with the associations among inventory. IT investments and financial

performance can lead to significantly reduced inventory costs, the ownership structure of the firm, strategic direction, size of the board and innovation. However, there was a negative impact between gross operating income and the number of inventory days, no overall decrease in inventory ratios despite an increased focus on inventory reduction, SMEs with very high inventory ratios had a bad financial performance, the cash conversion cycle and corporate profitability for SMEs.

Recommendations

- Business organizations should reduce their supplier's lead times and use effective ERP tools.
- The challenges of knowing customer needs can be overcome by instituting an automated Customer Relationship Management (CRM) system that will handle customer complaints, assess customer requirements and act as a feedback system to the customer.
- The demand forecasting procedures and software have to be improved to analyse historical demand data more accurately,

input external factors like lost sales, and seasonal changes and flexibility to handle emergencies. The software should be linked to the CRM to attain this goal. These then result in focused procurement based on customer needs and eventually reduce the re-order rates.

- Inventory management should not be handled in totality but in aggregate with management information system and human resources, customizing the system to link the CRM module to both purchase and demand forecasting modules.
- Also integrate the purchasing, manufacturing, distribution marketing and sales to come up with clear policies and make good use and application of appropriate inventory management techniques.
- The researcher therefore recommends, that for companies involved in the distribution industry to achieve continuous growth in turnover, management support must augment operations management efficiency.

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