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CONTRIBUTION OF INVENTORY MANAGEMENT TO THE OVERALL LOGISTICS AND SUPPLY CHAIN OF AN ORGANIZATION

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ABSTRACT

How well inventory management functions will affect how well items are stored. Improvements in moving load, delivery speed, service quality, operating costs, facility utilisation, and energy conservation have resulted from advances in methods and management concepts. Logistical manipulation relies heavily on effective inventory management. In light of the present state of affairs, it is evident that a robust system requires a well-defined logistical framework and an adequate inventory of tools and methods to connect the various stages of production. The purpose of this study is to provide a working definition of inventory management's place in the logistics process. In order to better define and understand logistics, its many uses, and the linkages between logistics and inventory, this study was conducted to aid logistics managers, researchers, and inventory planners.

1. INTRODUCTION

Ries (2011) argues that there has never been a better moment to start a business, since there has never been a larger number of people willing to try something new. High rates of graduate unemployment, among other things, have pushed many young people to take the entrepreneurial plunge in many developing nations, especially in places like Sub-Saharan Africa, where many new businesses have been founded in recent years. Governments and the private sector in Africa are both actively fostering the establishment of new businesses founded by entrepreneurs. The creation of "startup ecosystems" all across the globe, including Africa, is a new phenomenon that is further fueling the amazing growth of entrepreneurial start-ups. Information technology, investment, co-working spaces, networking, training, and ancillary services are all part of what makes these start-up ecosystems so effective at helping new businesses get off the ground. Startups in Africa and other emerging countries benefit from the infrastructure created by these ecosystems, which allows them to compete on an equal footing with their counterparts in more developed nations. Although there is no one agreed-upon definition of a startup, they have been categorised according to several factors such as their age, number of workers, revenue, growth, stability, profitability, culture, and the attitude of individuals inside the firm. According to Ripsas and Tröger (2014), a startup is a firm that is less than 10 years old, has an innovative business strategy or deploys novel technology, and/or is rapidly expanding in terms of both headcount and revenue. It's common knowledge that there are a lot of obstacles that prevent startups from succeeding after they launch. The capacity to draw in and retain enough paying clients is crucial to any startup's continued existence. This means that "Customer Development" should be one of a startup's primary focuses. Additionally, for a startup to have any chance of success, it has to start making money. The authors of this research argue that the use of supply chain management (SCM) principles is one way in which startups may improve their customer development skills and overall performance. Supply chain management (SCM) is

concerned with the planning and implementation of cross-departmental, interoperable procedures that create value for the client and are tailored to their actual requirements. The idea is to assist businesses in taking a more comprehensive and systematic approach to their operations, with an emphasis on maximising value for customers via collaboration with both internal and external supply chain partners. Organizations are tasked with managing the flow of information, materials, and money both internally and externally, with the former emphasising cooperation and coordination between suppliers and consumers. Firms may better serve their customers with the aid of these actions, which ensure that the correct product is delivered to them in the right amount, from the right place, at the right time, using the right technology. In industrialised nations, where SCM is actively used by many well-established multinational businesses, there has been a rise in both academic and professional interest in the topic. However, there has not been enough discussion on SCM in new businesses. This link between SCM practises and organisational performance has not been investigated in the extremely unpredictable setting of start-ups, despite the fact that past research indicates that SCM practises reflect favourably on organisational performance. However, the impact of SCM methods on the capacity for customer growth has not been investigated in the aforementioned research. This study fills up such gaps in the literature.

2. IMPORTANCE OF INVENTORY MANAGEMENT TO THE LOGISTICS OF AN INSTITUTION

When it comes to purchases, sales, and logistics, inventory management is one of the most crucial business procedures for a manufacturer or production organisation. It is concerned with inventory management at every stage of production and distribution. The data level is where day-to-day operations are structured, and here is where inventory control is located. Here, data drives everything from planning to keeping track of what's happening in the here and now. Controlling inventory is keeping track of purchases and sales in order to ensure enough supply. That which is done to ensure that adequate supplies are available and the costs of over or under stocks are low is what is meant by "inventory management," and it encompasses all activities related to developing and managing inventory levels of raw materials, semi-finished materials (work-in-progress), and finished goods. Stockpiles are fundamental to maintaining a functional manufacturing infrastructure, market, and distribution network. When it comes to an organization's production and distribution systems, they act as both grease and spring. In order to meet operational needs including manufacturing, plant and equipment maintenance, and more, organisations need to have an adequate inventory on hand. This causes a waste of resources that may have been put to better use elsewhere. The management of a company gets quite anxious if inventory stockpiles are high. As a result, management should examine it carefully. If there is a scarcity of inventory goods, which are necessary for production, management will be quite unhappy. Any increase in the redundancy of equipment or operations owing to shortages of inventory may lead to output loss and its related expenses. Even for a very complex and adaptable process of a variety of goods, the physical layout and capabilities of machines often govern how production control should function in a manufacturing system. These machines are not purpose-built, and each time the job shifts, they need a new setup including a variety of tools. The most crucial part of any business is keeping supply chain costs under control, and in order to do this, it has to hire experts in inventory management.

2.1 Logistics

"Part of the supply chain process that plans, executes, and regulates the efficient, effective forward and reverse movement and storage of products, services, and associated information between the point of origin and the

point of consumption in order to satisfy consumers' expectations," it reads. Logistics is the study of how goods and supplies enter, are used within, and leave an organisation. The process of moving goods after they have been acquired from vendors is known as "inbound logistics." The management of the flow of materials and components throughout an organisation is known as materials management. The term "physical distribution" is used to describe the process by which finished products go from the factory's last stop on the production line to the final consumer. The most up-to-date definitions of logistics all agree that it is the practise of transporting and managing products and materials from the point of origin to the point of final disposal, with the goal of maximising customer satisfaction and enhancing competitiveness in the marketplace. It is "the process of anticipating customer needs and wants; acquiring the capital, materials, people, technologies, and information necessary to meet those needs and wants; optimising the goods- or service-producing network to fulfil requests; and utilising the network to fulfil requests in a timely manner," as defined by the Oxford Dictionary. That's what logistics is all about: putting the client first in all business decisions.

2.2 Inventory Management

Inventory management's primary objective is to facilitate the efficient movement of items, products, and services throughout a company. The term "inventory" refers to the stockpile of products and materials that an enterprise has on hand in preparation for making a sale. Stationery, office equipment, plant and machinery, consumables, and so on are all examples of the kinds of things that may be found in a store's stock, which might be used immediately or sold to customers.

2.3 Types of Inventory

There are three basic categories for stocks of goods, and they are as follows:

i. Raw material inventory: Everything an organisation buys to use in its operations falls under this category. Raw materials include things like flour, yeast, eggs, etc., that might be found in a bakery's stockroom.
ii. Work-In-Progress Inventory: To be processed further by the factory, these raw materials are now in a "waste" state. Partially processed materials are those that have not reached the final stage of production.
iii. Finished Goods Inventory: Finished items inventory looks like this. Examples include the quantity of completed items in stock, the quantity of goods in storage, and the quantity of goods ready for transportation. Management of inventory requires close cooperation between the company's manufacturing and retail divisions.

2.4 Storage and Warehousing

Warehouses play a crucial role in the logistics industry. Its broadest use is to the long-term warehousing of any kind of manufactured, agricultural, or commercial product. Acceptance of items (loading, unloading), inspection, and "appropriate storage" are only a few of the many tasks involved in warehousing. Infrastructure, tracking systems, and "inter product stations" communication are all part of the warehouse management system as a whole. The "Just in Time" method of storing is one of the most environmentally friendly developments in recent years. It entails bypassing middlemen such as warehouses and having goods sent straight from the manufacturer to the supplier. However, the increasing distances between intermediaries as a result of globalisation severely restrict the system's applicability. Warehousing services are essential to

modern logistics, but there are many ways to improve the efficiency and environmental friendliness of storage facilities without sacrificing functionality.

2.5 Organizational Logistics Chain Performance

If businesses want to keep from spending a disproportionate amount of money on inventory, they need to take a close look at inventory management strategies and the efficiency of their supply chain. By soliciting and acting on client input and ensuring that the time, place, and cost tenets are always optimised, it can guarantee that its services are well received by their intended audience. In order for a company to maximise earnings or stick to its financial plan, it must strike a balance between the total cost model's three components: purchase costs, order costs, and holding costs. Organizations need to hire competent professionals with knowledge of the technical foundation of inventory management in order to effectively control supply chain costs. In today's world, when companies are always competing with one another, supply chain management has to be significantly improved. Efficient operations need the employment of trained professionals and the use of cutting-edge tools, such as Enterprise Resource Planning (ERP) and Material Requirements Planning (MRP) (MRP). In this way, the organization's performance may be maximised via the implementation of demand planning, forecasting, and placement, all of which are essential components of effective inventory management. Inventory management's primary goal is to optimise customer service while minimising all associated expenses so that operations are profitable. It is important to efficiently purchase, store, consume, and account for materials; to keep timely records of inventories of all the items; to ensure adequate supply of products to customers and avoid shortages as much as possible; to make sure that the financial investment in inventories is minimum (i.e., to see that the working capital is blocked to the minimum possible extent); and so on.

3. EXPLAINING THE IMPORTANCE OF INVENTORY MANAGEMENT IN THE LOGISTICS BUSINESS

As the raw materials are received and the finished goods are delivered in the storage area of the warehouse that is placed on shelves or compartments as stock or the raw materials which are acquired in access for production is also considered stock, logistics management is approached complex due to its accurate implementation, especially for larger organisations.

Inventory management relies on a wide range of data and information, such as product identifiers, lot numbers, serial numbers, prices, quantities, and precise dates and times of when things were transferred between different stages of manufacturing.

Organizations in the logistics sector rely on inventory logistics management to help them carry out their operations in harmony with the surrounding environment. Logistics management is better able to change with the times and keep stock levels stable.

Many businesses in the logistics sector have the same difficulty in developing a new strategy, putting it into action, making the best decisions, etc.

Logistics firms attempt to continue to apply new methods and invest in those processes that are more likely to produce process improvements via an approach of many disciplinary activities across several functional areas such as manufacturing, sourcing, etc.

In addition, spend money on tech so that creation and dissemination of data can keep up with the brisk pace of the global economy. Data reflection may be sped up and simplified with the use of automated procedures that help to control the right flow of information.

For a company to run smoothly, it needs solutions that work well together, and logistics inventory management is a top priority for that reason.

4. SUPPLY CHAIN MANAGEMENT

Logistics, as defined by the Council of Supply Chain Management Professionals (formerly the Council of Logistics Management), is the "part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customers' requirements" (from the 1998 definition). The Institute for Supply Management defines supply chain management as "the process of designing and leading the execution of integrated, value-added operations that cut across organisational boundaries to provide what customers want when they want it." Stock and Lambert argue that a company's supply chain is the sum of all its interconnected business activities, from the company's initial suppliers all the way to the company's final consumers.

Supply chain management (SCM) coordinates a company's activities, from sourcing raw materials through manufacturing a final product that satisfies client demand. A supply chain management (SCM) strategy oversees all stages of a product's production and distribution from sourcing raw materials to keeping track of finished goods at retail. SCM also comprises making and delivering final items in enough quantities, at suitable times, and in suitable places. The other objective is to reduce the expenses of operations while still meeting or exceeding client requirements. Inferring from this, SCM may be seen as an interconnected set of procedures and actions including the acquisition of inputs, the production of goods, and the distribution of final goods. Supply chain management (SCM) is fundamental since it helps lower prices and shorten the manufacturing cycle. The emergence of globalisation has allowed businesses to go beyond national boundaries and reorganise the method in which they meet the needs of their clients and distribute their goods. Businesses all around the world use supply chain management to cut costs as much as possible while yet being buoyant in the face of intense competition.

4.1 Objectives of Supply Chain Management

From taking in client orders to delivering on those items, the SCM has you covered. Product development, advertising, logistics, administration, financing, and support after the sale are just some of the other possible roles. Effective supply chain management may reduce overhead and increase profits for any business. In addition to better serving customers, SCM works to reduce the time it takes to bring completed goods to market. Organizations use SCM to foster amicable links with all of the people and businesses throughout the supply chain. One of the primary goals of any SCM is to maximise happy customers by maintaining a constant flow of items to them.

Let's go into each of these goals one by one.

- To create value for customers: Assuring happy customers is crucial to a company's bottom line. A market-driven, customer-needs-based approach to customer care is at the heart of SCM's efforts to increase value for the customer. As a consequence, the company is able to count on steady revenue.
- To increase organisational responsiveness towards change: When it comes to the business environment, organisations need to often adjust to numerous changes such as the introduction of new technology and the introduction of new government legislation. Organizations may more easily adapt to these shifts with the support of efficient SCM.

- To reduce organisation risks: Natural catastrophes, catastrophic weather, labour strikes, and supplier failures are just few of the many causes of network-wide interruptions that businesses face on a regular basis. The steady flow of goods and services to consumers is disrupted by these unexpected events, which may have far-reaching effects on businesses. A reliable SCM network allows businesses to mitigate these dangers by creating contingency plans.
- To enhance cost-efficiencies: In order to maximise savings, SCM focuses primarily on minimising overhead expenses in the supply chain, such as inventory carrying costs, labour costs, freight costs, etc. Companies use SCM techniques like contracts and bids/proposals to get the most cost-effective financial resources.
- To maximise revenue generation: Strategic supply chain management (SCM) is vital because it helps businesses increase their bottom line. Profit margins are boosted by SCM because it lowers operating, inventory, and transportation expenses. Transportation, or the conveyance of completed products from a warehouse to the final market destination, is an integral part of supply chain management. The company will lose money if its final products do not make it to market in a timely manner, since this would prevent it from meeting the needs of its consumers. Accordingly, SCM seeks to maximise the company's revenue.
- To improve quality: Supply chain management (SCM) serves as a vital connection between the company and its suppliers. The provider is the expert on the market and client needs at the moment. If the company's goods aren't up to snuff or aren't satisfying consumers' needs, the supplier may provide helpful insights or feedback in the form of notes. As a result, the company may fix each issue one at a time and boost the product's overall quality. A company's goal should be to provide a product that is well-liked by consumers and to the pleasure of those consumers. A happier client base means happier customers and more goodwill for your business. A happy consumer will spread positive word of mouth about your business, which may help you attract more clients.

5. LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Products, services, and information are all part of the value-added services and connections made possible by Supply Chain Management (SCM). Logistics is the system of transport and storage facilities used to convey goods from their source of production to their final destination, the consumer. The term "supply chain" is used to describe the series of steps involved in getting a product from its raw state, though the value-adding operations, and finally to the client. Supply chains work to guarantee that the right items go to the right people at the right time and at the right price. A supply chain is the network of companies and individuals involved in creating and delivering a company's goods or services to customers. Producers, suppliers, wholesalers, transport companies, distributors, wholesalers, retailers, etc. are all nodes in the supply chain. Supply chain management (SCM) is concerned with the export and import of products and services. A shopper in India, for instance, would go to a mall to buy some new garments. The shopper picks up a piece of fabric upon entering the shopping centre and examines it, whereupon he or she discovers that it was manufactured in China. Although the buyer is from India, we have the Chinese-made item they want. The development of SCM has made it feasible to ship goods from one end of the globe to the other. Now, businesses may get components from vendors all across the continent and ship their final goods to customers all over the globe, all thanks to SCM. The phrase "supply chain management" was first used in print in a 1982 interview with the Financial Times by Booz Allen Hamilton consultant Keith Oliver. Organisational managers started using the phrase more often once it became a management buzzword in the late 1990s. Supply chains used to include a wide

variety of processes involving the movement and transformation of raw materials into final goods. Supply chain management is the topic of this chapter. Its goals and significance are also outlined in this section. In addition, the chapter describes logistics and its function in supply chain management. Finally, this chapter compares and contrasts logistics with supply chain management.

Synchronization of several procedures is what Supply Chain Management (SCM) is all about. In order to ensure that clients have access to a high-quality final product, the procedures begin with establishing connections with suppliers. Logistics refers to the coordinated system of transport and storage facilities that moves goods from their site of production to their final destination. The supply chain is crucial to the success of a business because it guarantees that customers can easily get products when and when they need them. The supply chain is now the backbone of every modern business, and without it, survival would be extremely difficult. Organizations throughout the world are increasing their operations overseas and rethinking traditional approaches to managing supply and demand. The term "supply chain" is used to refer to the group of businesses that work together to make, move, and sell a certain product. In addition to minimising stockouts, a well-oiled supply chain also ensures that consumers always have access to a wide selection of products. As a result, merchants see an increase in sales, inventory turnover, and profit margins. As a rule, businesses strive to provide the highest level of service to their patrons. A company's ability to provide its goods and services on schedule and without interruption directly impacts how well it serves its consumers. Organizations need to plan how they will collect and organise SCM resources, raw materials, and components for the purpose of manufacturing and delivering completed goods to clients on schedule. The timely delivery of items to clients is ensured by efficient SCM thanks to the seamless movement of commodities and associated data. By promptly processing consumer orders and exceeding their expectations, SCM helps businesses advance profitably.

When it comes to supply chain management, there are three distinct decision-making stages.

1. Design: In this stage, businesses determine how their supply chains will be set up in the near and far future. Because of the difficulty of making rapid changes, these choices are typically made for the long term. Some examples of supply chain decisions include deciding whether to use an internal or external system, deciding where to locate production and storage facilities, deciding where and how much of each product will be stored, outlining the tasks that will be completed at each phase of the process, deciding on transportation and data management strategies, and so on.
2. Plan: At this stage, plans are made for the next three months to a year in advance. With the design restrictions in mind, the goal of planning is to maximise supply chain excess over a certain time frame. Forecasting market demand for items in the following year is the first step in planning the supply chain. Markets to be served, subcontractors to be employed in production, inventory regulations to be adhered to, marketing and promotional tactics to be implemented, etc., are all decisions that need to be made during the planning phase. Several variables, such as the rate of demand shift and the strength of the competition, must be taken into account during the planning stage.
3. Operation: Planning rules are defined, and the supply chain structure is locked down. These choices are often made once every day or once per week.

6. CONCLUSION

We try to define the function of inventory in logistics systems by reviewing a wide range of literature, beginning with logistical operations and ending with inventory management systems. The primary topics of this study include a historical overview of logistics, descriptions of the numerous inventory operations

involved in logistics, examples of logistics's practical use, and examples of its synergy with inventory management systems. There is a close interplay between inventory and logistics systems. In order to carry out its duties, logistics management requires inventory management, and a well-implemented logistics system has the potential to enhance the quality of life in the warehouse and its operations. As a key component of the logistics system, inventory management involves a wide range of procedures. Integrating Inventory with other logistics processes is essential for a successful logistics strategy.

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