

# Importance of Warehousing in Logistics System

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**Abstract**— Warehousing in transport services has an important role in the transport of goods. The freight company will not work well without warehouses. This is immutable and can be considered as a condition for a transport unit to be formed. The importance of warehousing for shipping units in general as well as for freight services, in particular, is undeniable. However, the actual situation of warehousing of transport units, as well as freight units, also have many outstanding issues. Research by the World Bank shows that the solid growth results of the past 20 years of Vietnam are mainly due to the rapid increase of labor force and the economic restructuring from agriculture to production, sector production, processing and services are more productive. WB said that building a commercial logistics service industry with higher competitiveness could be a driving force for sustainable growth in the coming time of Vietnam thanks to the positive impact on productivity and ability competencies of the business.

**Keywords**— Warehouse, logistics, Vietnam, the good.

## I. INTRODUCTION

Warehousing is an integral part of the supply chain as well as in logistics services. Warehousing is a place to store and preserve raw materials, semi-finished products or finished goods (goods) in order to provide customers with the fastest and lowest cost when they request. The importance of warehousing in logistics is huge. Warehouse operations have a direct impact on the storage and management of goods of businesses. Warehouse management in good logistics helps businesses. The warehouse has a direct role in ensuring the continuity of the production and distribution of goods. Warehouse management helps businesses store all products and manage the number of products on the entire system. Contribute to reducing production, transportation and distribution costs. Thanks to this, the warehouse can actively create economic-scale shipments during production and distribution, thereby reducing the average cost per unit, contributing to saving traffic costs through the management. good management of cargo loss, economical and efficient use of warehouse facilities. Support the customer service process of the business through ensuring the quality goods in terms of quantity, quality, shipment status, contributing to delivery on time and place[1].

The more the day-to-day distribution business, the higher the complexity in warehouse management and operation. The inventory is getting bigger, the product categories are more and more abundant, this often leads to the increasing demand for warehouse space and management manpower. Many distributors had to spend huge amounts of money on consolidating and clearing goods in the warehouse, managing the loading cycle, and moving to the consolidation place. Inconsistency of warehouse management also becomes a problem if you cannot accurately manage inventory in a warehouse with a larger warehouse or warehouse location in

many places [2].

Modern warehouses often have the following functions

**Consolidation:** when a shipment / raw material is not enough, the Consolidator will gather, adjust and arrange for individual shipments into quantities sufficient to use container shipping. When goods / raw materials are received from many small sources of goods, the warehouse acts as a consolidation point for such large lots, which will have the advantage of scale when being transported to factories and markets by different means. transportation facilities

**Merchandise coordination:** (Organizing business items) In order to meet the orders of a variety of customers, warehouse management is responsible for separating large shipments, coordinating and combining goods. Different into a complete order, ensuring goods ready for the sales process.

**Ensuring and storing goods:** Ensuring the goods are intact in quantity and quality throughout the operation, making the most of the warehouse area and capacity, taking care of preserving goods in the warehouse.

### A. Warehouse Classification

Warehouse activities have a direct impact on the storage and preservation of goods of businesses. Warehouse management in good logistics helps businesses Contribute to reducing production costs, transport, distribution of goods. Thus, the warehouse can actively create economic-scale shipments during production and distribution, reducing the average cost per unit. Contribute to saving the circulation costs through the good management of cargo loss, economical and efficient use of warehouse facilities. Maintain a stable supply, ready to deliver whenever customers demand. Providing customers with better service due to the right goods in terms of quantity, quality, and condition. Make a difference and increase the competitive position of the business [3].

#### 1) Cross docking

Cross Docking is a logistics technique that eliminates the function of storing and collecting orders of a warehouse, but still allows the implementation of receiving and shipping functions. The main idea of this technique is to transfer shipments directly from trailers to trailers - bypassing the intermediate storage process. Regular shipments take only about a day at the Cross dock and sometimes less than 1 hour. Therefore, it will reduce costs as well as increase the efficiency of exploiting or receiving stored goods and immediately load on trucks to transport to the prescribed place.

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In addition to low volatility, demand for the product must be sufficient to ensure shipments are routinely delivered because if demand is too low, regular deliveries will result in increased input freight costs, and the warehouse will have better storage. Some types of products, such as perishable items require immediate transportation; High-quality items without having to check the quality during delivery; The product has been tagged (bar code, RFID), labeled and ready to sell to customers,...

### 2) *Tax-suspension warehouse*

Tax-suspension warehouses are set up to store imported raw materials to supply for the production of enterprises that own tax-suspension warehouses. Imported materials brought into a bonded warehouse are not subject to import tax and other taxes.

Enterprises may keep both imported raw materials and accessories for the production of exports and domestic consumption in tax-suspension warehouses but must separate them for each type and separate customs management by each type. During the production process, enterprises can transfer a part of raw materials from one type to another but must make a written request to the local Customs and strictly comply with the registered export percentage.

When importing raw materials, the shipper does not necessarily have to separate documents and goods into two categories but can send a common batch for both types. But when carrying out import procedures, a separate declaration must be made for each type. Imported goods brought into a bonded warehouse may not be sold into the Vietnamese market. In cases where the Trade Ministry permits the sale of goods on the Vietnamese market, enterprises must pay import tax and other taxes according to the provisions of law.

Advantages of the tax suspension warehouse: For enterprises with large volumes of import and export goods, import of goods in the form of export production, the establishment of tax suspension warehouses will promptly serve the needs of storing raw materials and supplies. (but not paying import duty) is put into production.

### 3) *Bonded warehouses*

Being a warehouse or yard area separated from the surrounding area for temporary storage, preservation or provision of services for goods from foreign countries or from inside the country to be put into warehouses under the bonded warehouse renting contracts signed. Between bonded warehouse owners and cargo owners. Goods and means of transport going in or out, stored or preserved in bonded warehouses must go through customs procedures, be subject to inspection and supervision by customs offices.

## II. DIFFERENCES BETWEEN LOGISTICS AND DISTRIBUTION CENTERS

From a physical perspective, there is not much difference between a warehouse and a distribution center. They all have four walls, a roof, floors, interior space and vehicles'

entrances. Visually, its structure is quite similar. However, following the following definitions (quote KB Ackerman "Words of Warehousing") will help us better understand the difference taking place within the four walls. A distribution center is defined as the basis on which wholesale and retail orders are completed and adds that the term is used to describe the operation at a high rate, as opposed to a regular static archive [4].

Many people may argue that the Distribution Center is also only from the warehouse and has many similarities. But if you look at the main functions of the Distribution Center, you will see a clear difference

Distribution centers provide value-added services: Instead of simply being a store, Distribution Centers provide a multitude of services to customers of external or internal function rooms. company. A well-organized and well-organized distribution center will provide services such as Transport, Cross-docking, order fulfillment, labeling and packaging along with any services needed to complete the process. Order period, including order processing, order preparation, shipping, receiving, shipping, handling of returned goods and performance measurement.

Customer-centric distribution center: While the warehouse focuses on optimal methods of storage costs, the sole task of the distribution center is to provide the best service to its customers.

Technology-driven distribution centers: Today's distribution centers must have advanced and advanced order processing, transportation and warehouse management systems to carry out activities such as: Receive goods, scan barcodes, locate and store products efficiently, unloading & loading. Order processing and loading planning.

The distribution center focuses on relationships: Whether the customer is an outside company or internal units, a distribution center must continually focus on meeting customer requirements. The distribution center is a very important link between supplier and customer and therefore requires management not only in relation to customer needs but also in terms of effective methods and optimization. most expensive to meet those needs. In contrast, in most cases, an ordinary repository focuses only on cost optimization with little regard for customer service [5].

## III. SOME INADEQUACIES OF WAREHOUSING IN VIETNAM

The exporting activities of Vietnam have a particularly high proportion of logistics because our country's exports have a high content of imported raw materials. It is estimated that 70-80% of the value of Vietnam's exported garments is the value of imported raw materials and accessories. The corresponding figure for exported footwear is 50%. With this characteristic, Vietnam has considered as a country with strengths in logistics development thanks to the 3,000 km long coastline, with many important positions in international maritime transport, 49 seaports and nearly 250,000km of road. Despite many advantages, according to the World Bank, Vietnam's logistics infrastructure is very limited. The first is a cumbersome, confusing and inconsistent system of policies. For example, the logistics industry is currently under the control of many ministries and departments such as the

Ministry of Transport, the Ministry of Industry and Trade and the General Department of Customs [6].

Because of many regulatory agencies, many laws and regulations have arisen, which have led to different interpretations, implementations, practices, and even overlaps between the localities and the central government. This irrationality has made the import and export customs procedures a lot of time. And from here, shippers and logistics service providers have to pay a lubrication fee to minimize the time of delay in export, import, and transportation in the supply chain.

Another inadequacy is the policy of planning and deploying the construction of the infrastructure system. These are scattered ports and waterways systems due to the development policy of quantity over quality, leading to oversupply. The imbalance between supply and demand in infrastructure construction in the deep-water port area is evident in CaiMep - Thi Vai port. The designed capacity of this port is about 1.6-2 million tons of cargo or 5.2 million TEU of container clearance each year. But since being put into operation, the output of clearance cargo of CaiMep - Thi Vai port has only corresponded to a small portion of capacity [7].

In addition, expressway projects serving the demand for traffic to inland container yards, seaports and airports are rarely planned and implemented as complex works, often with very slow progress contribute to causing traffic congestion, reducing the potential of goods exploitation of seaport system. For example, CaiMep - Thi Vai port is expected to be a deep-water port within Southeast Asia. But due to planning inadequacies, this port has very low utilization, not enough scale to become a transshipment hub.

In addition, although there are only about 25 multinational logistics companies operating in Vietnam such as DHL, UPS, FedEx, foreign enterprises account for 70-80% of the logistics market share. Meanwhile, most Vietnamese businesses act as subcontractors or agents for foreign companies. This situation also shows that the rate of outsourcing logistics services of Vietnamese companies is quite modest at 25-30%, much lower than China (63%) and Japan (40%).

#### IV. WAREHOUSING DEVELOPMENT

##### A. Cut back on Procedures

WB said that building a commercial logistics service industry with higher competitiveness could be a driving force for sustainable growth in the coming time of Vietnam thanks to the positive impact on productivity and ability. competition of the business. A more efficient transport and logistics system will play a significant role in improving productivity in the future. By improving the reliability of the supply chain and strengthening transport and warehousing systems, it will help manufacturers, transport, and logistics service providers, and trade management agencies minimize avoidance can be avoided, thereby reducing business costs and enabling Vietnam to absorb world market demand, attract investment and create jobs.

In addition, improving the efficiency of the logistics industry is also consistent with the long-term orientation of promoting export-led growth of Vietnam. Vietnam's export activities have a particularly high proportion of logistics

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However, a summary of the World Bank's data sources shows that Vietnam's logistics costs are now higher than in other countries in the region due to supply chain instability. Therefore, the World Bank recommends a number of key solutions to improve the efficiency and cost of logistics operations in Vietnam. That is, minimize paperwork in the clearance process, import and export operations; Strengthen links between remote areas and deep-water ports at the southern and northern gateways. At the same time, creating conditions for international firms to participate in the market of third-party logistics services, encourage cooperation between domestic and foreign enterprises to participate in the market. Promote a more sustainable supply-demand balance in the trucking industry. The first solution is to minimize paperwork in the clearance process, import and export operations; ensure circulation of trucks, barges, on adequate infrastructure, minimize procedural delays. In parallel with the reduction of procedures, it is necessary to create conditions for international firms to participate in the market of third party forwarding and logistics services; encourage coordination between domestic and foreign enterprises to participate in the market; create conditions for enterprises to access credit capital to increase the scale and modernize their means. However, there is still room for improvement in infrastructure. In particular, the deep-water ports in CaiMep - Thi Vai need to be strengthened connectivity conditions on the mainland as well as waterway connections with Ho Chi Minh City and surrounding areas.

This may be part of the solution to reduce the vacancy of these ports at present. For the Red River Delta, the construction of LachHuyen port (Hai Phong) is a priority, but this program also faces risks of unclear financial structure. Moreover, the management of supply and demand in the Northern port cluster needs to be strengthened to avoid repeating the same mistakes as the Southern region has made. In particular, concentrated warehousing is still a new concept in Vietnam and much work remains to be done. Accordingly increasing the use of information technology infrastructure in logistics activities, especially on the automation of customs clearance processes, the widespread use of GPS systems, weighing equipment in the field of road transport. , as well as enhancing the efficiency of axle load management for trucks moving on national highways.

These problems and advantages to overcome and make use of all need close cooperation between the concerned branches. As a middle-income country in the transitional period, Vietnam has reached the level where quality has become an essential element, no longer a minor element in improving competitiveness, especially in the case of the logistics industry.

##### B. Efficient Warehouse Management to Reduce Costs

Labor costs are currently on the rise in many markets, while economic growth has slowed down. At the same time,

facing the problem of minimum wage increase requires managers to find solutions on how to achieve maximum productivity per hour of labor. In an article about the minimum wage in Seattle, we consulted readers on how they improve productivity through incentive pay and raise wages. Although opinions have been collected over the weeks, no one thinks that the preferential salary policy and salary increase help optimize productivity. Inventory always accounts for the majority of asset value in the balance sheet of businesses operating in the form of multi-channel. Therefore, if dividing, arranging goods in rows in combination with strict location control will support tracking the status of goods in the warehouse and throughout the implementation process [9].

1) *Strictly control the amount of input and output*

The process requires the attention of managers because errors in the process will be a threat to the business growth of profits. Exclusive cooperation with the carrier, increasing the likelihood of success when negotiating cost reduction in some stages without compromising service quality.

2) *Simplify processes - cut costs*

The physical process and steps involved in the product flow as well as the order completion process. In short, the simpler the process, the less labor-intensive the process is, so the cost is lower.

3) *Achieve the set KPIs*

Be aware of your labor productivity and delivery costs, the cost of a particular package and each delivery. It is possible to evaluate and recommend cost-cutting measures. These indicators are measured and set specifically managers need to send regular feedback to employees, the performance reports of each individual and each department. When there is interaction, labor productivity will be higher.

4) *Building an effective management team*

What to do to optimize the entire operation process. Managing all aspects of the process significantly affects workers' costs, morale, and quality of order fulfillment. So, what are their individual needs? What information should be provided from businesses to help management teams understand the nature of goods, customers, and suppliers? What training resources are available online or locally?

5) *Use management software*

Using software to manage the warehouse helps businesses to promptly and accurately capture the amount of inventory in stock, goods that have been or are about to expire, errors, returned goods, etc. can offer timely handling plans (buy more goods, quickly liquidate goods that are about to expire, unsold goods from the previous season, ...). The software can only be changed by a person who has the right to decide in warehouse management so it will limit the occurrence of errors. Speed and accuracy have been improved, thus significantly reducing the time and cost of handling delivery requests to customers in accordance with regulations.

Warehouse management features on warehouse management software help businesses capture the situation of import-export - inventory according to categories, groups, and details to each material and goods in many warehouses. The software satisfies all methods of calculating ex-warehouse prices and provides a full range of forms of delivery notes, warehousing tickets, warehouse cards, general inventory

books, detail books of supplies, goods, ... according to regulations [10].

In addition, the software also has many special features and utilities suitable to the warehouse management characteristics of enterprises in all areas such as: Tracking goods by the lot expiry date, specification codes, single conversion. calculating positions, making minutes of inventory, controlling inventory according to norms, setting the minimum inventory level for each supply and goods ...

## V. CONCLUSION

Logistics is an extremely important process and is closely related to other processes such as production, transportation, ... The current development of logistics is necessary and highly influential work to countries' economies. Therefore, investing in logistics as well as solving logistics inadequacies in Vietnam is an extremely difficult problem. Simplifying procedures is only one solution to minimize logistics costs in Vietnam due to instability in the supply chain. In addition, the construction of additional warehouses and connecting warehouses with roads and ports is also a radical solution to increase the ability of goods circulation as well as reduce logistics costs.

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