

MODEL FOR IMPROVING THE TEMPERATURE-CONTROLLED WAREHOUSE MANAGEMENT PROCESS CASE STUDY: THAILAND POST DISTRIBUTION COMPANY LIMITED

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ABSTRACT

The objectives of this research are: 1. To study the temperature-controlled warehouse management process, a case study of Thailand Post Distribution Company Limited. 2. To study the temperature-controlled warehouse management process model, a case study of Thailand Post Distribution Company Limited. Interviewees include: company employee Thailand Post Distribution Co., Ltd., Bangna Warehouse, Samut Prakan,

19 people: 1. Customer Management Department: 4 people; 2. Temperature Controlled Warehouse Department: 10 people; 3. Information Department: 5 people. Tools used in research. Including an in- depth interview with key informants being company employees. Thai Post Distribution Company Limited, Bangna Warehouse, Samut Prakan, 3 departments. Data from interview respondents were analyzed using content analysis. This article presents the results of qualitative research. The results of the research found that 1) The company has a temperature-controlled warehouse management process by using various technologies in operations to make operations as efficient as possible, mainly by using the WMS system in the warehouse to help. Increase the efficiency of working in the warehouse. 2) The temperature-controlled warehouse management process model that can be used in the warehouse is the use of modern technology in the warehouse to increase work efficiency. Makes work in the warehouse quality and developed for the better.

Keywords: Management processes, Temperature-controlled Warehouse

INTRODUCTION

In the new era of competition, business operations need to adapt in order to survive. Management is important. Because whether businesses are small or large, they all have to face competing together. If entrepreneurs do not have management skills, this is often an obstacle. business growth. Increasing work efficiency is therefore another way to help promote management so that businesses can move forward in a situation of intense free competition. This, together with entering the ASEAN Community, is a cause that stimulates business competition. Entering the ASEAN Economic Community is therefore a cause for opening opportunities. Allow both domestic and foreign investors to seek wider business opportunities under integration in this region. However, we may view entering the ASEAN Economic Community as a good opportunity, but from another perspective it may be a threat. to investors as well. If there is no readiness to step into a more open market (Kasikorn Research Center, 2021)

To store products that require temperature control, warehouse management is required. To create a systematic operation that is efficient and worth the investment. There is quality control in storage. Picking goods. Prevent various losses that may occur. It is necessary to do so at the lowest possible cost. And there is a useful use of the warehouse space for storing

things. If efficiency is managed, it will have a positive impact on organizational development. If there

is bad management causing an impact on organizational work processes If the storage system is inefficient, it will have an impact on the storage system, such as product damage. Products are mixed up and there is no regularity. and there is no clear classification Therefore causing a delay in searching. and causing customers to have a long waiting period when coming to pick up products each time

The researcher sees the importance of studying the temperature-controlled warehouse management process model, a case study of Thailand Post Distribution Co., Ltd., in order to study warehouse management and storing products to prevent product damage. damage To deliver to customers completely and safely. Problems and obstacles in warehouse management To use the information obtained from the study as a guideline for the study. and apply the knowledge gained for further benefit.

Objectives

1. To study the temperature-controlled warehouse management process, a case study of Thailand Post Distribution Company Limited.

2. To study the temperature-controlled warehouse management process model, a case study of Thailand Post Distribution Company Limited. Tribulation Company Limited.

LITERATURE REVIEWS

Business management that supports businesses in many ways. Logistic management integrates its practices through the wide networks of handling products , storage, and transportation in Thailand. examined the logistic awareness for collaboration of reliability and cost and time attributes to ascertain the attributes of logistics in business management performance with convergence and capability. Aunyawong (2021)

Samrot Komonwanich and Anan Deerojanawong (2015) Warehouse is a part of supporting the distribution of products to the market. which involves the loading and unloading of goods as well Some businesses may ship products directly from the factory to customers. without using the services of a warehouse. However, some businesses usually have a warehouse between the factory and the customer.

Warehouse means a place for holding or storing large quantities of goods. The activities in the warehouse are related to the storage and movement of goods to support production and distribution (Somrot Komonwanich and Anant Deerojanawong) (Kulchat Chatkul Na Ayutthaya, 2009) There are many benefits of warehousing. which can be summarized as follows

1. To benefit from transportation and production
2. To benefit from discounts from orders in large quantities.
3. To support changes in the market situation, such as shortages of raw materials. Uncertainty in raw material prices or uncertainty in product sales.
4. To support customer service in terms of having products continuously available at all times.
5. To support just- in- time production processes (Just- In- Time) as well as helping to support production to go smoothly.
6. To achieve low logistics cost management

Summary of the meaning of the word Warehousing (Warehousing) means the process of receiving and storing goods. Taking care of and providing various services to customers, creating value and finding ways to reduce costs is the goal of logistics management.

Mecalux, 2564 : Characteristics of temperature controlled warehouse

1. Divided according to the nature of the business

1.1 Private warehouse Consider it your own personal warehouse. There will be no other service users joining in. Can use the internal space freely. It can be a self- built warehouse or can be rented as well.

1.2 Public warehouse It is a storehouse where other users can join in the service as well. We are not the only owners. Often found in the form of warehouses for rent. To need space to store products.

2. Divided according to usage

2.1 A Fulfilment Center warehouse is a warehouse that receives products from other companies. or its own subsidiary company Come pack it into a package and deliver the product. and is also a warehouse for storing products Currently, this type of warehouse model is quite popular because it makes it more convenient for those doing business selling things online.

2.2 Cross Dock Warehouse: A warehouse used for loading and unloading goods from one vehicle to another. or use it to send and receive products at the same time But there will be a shorter storage period. Because it's just used as a place to exchange products.

2.3 Distribution center warehouse (Distribution Center) is a warehouse where products are stored. and is like a central link between manufacturers and retailers It will take the manufacturer's products and keep them in the warehouse. The products will then be sent on behalf of the manufacturer to retailers. Retailers do not need to stock large quantities of products themselves.

3. Divided according to product characteristics

3.1 General warehouse Store general items such as consumer items, tools, and everyday items.

3.2 Fresh produce warehouse stores all fresh products such as seafood, vegetables, and fruits to keep them always fresh.

3.3 Special warehouse Store high value items. or items that require special care, such as temperature control Proper internal humidity, such as medicines, various medical supplies, various cosmetics

3.4 Dangerous warehouse Store types of products that need to be sorted appropriately. and are stored according to correct principles There is a good system to control and take care of pollution. and must also receive permission from relevant agencies, such as chemicals, fuels, and flammable materials

METHODS

The main informant in this research is an employee in the company Thailand Post Distribution Co. , Ltd. in every department and every section including 1. Customer Management Department (4 people) 2. Temperature Controlled Warehouse Department (10 people) 3. Information Department (5 people) by There were 19 people with 5 years of experience or more. The research tools included a structured interview form. The existence of document collection (Review data)

Including primary data. Study how to create interview questions to determine the scope of content and be clear according to the research objectives. and secondary data (Secondary data) studied from textbooks, documents, articles, theories, and additional related research principles. To define the scope of research and create tools that cover the objectives. The researcher analyzed the data by adapting Colaizzi's (1978) qualitative data analysis procedures.

RESULTS

1. Temperature controlled warehouse management process

From studying and visiting the company's warehouse. In temperature- controlled warehouse management, it was learned that the company has used various technologies in operations to make operations as efficient as possible, mainly by using the WMS system in the warehouse to help with warehouse management. to be systematic Products will be placed on steel racks. To prevent the product from being damaged The operating process in a temperature-controlled warehouse involves a few steps. There is an admission Products are stored and exported to customers as safely as possible.

2. Modern technology used in temperature-controlled warehouses

From studying the technology used in temperature-controlled warehouses It is known that the technology that is regularly used in warehouses includes computer and mobile devices used to work by counting inventories or searching for products. It is a device that is easy to carry. Convenient to use and also has a WMS system to help manage the warehouse, making the warehouse have a better system. Work from receiving the product Collection of products to delivery is convenient, fast and efficient.

3. Obstacles and methods for solving problems in temperature-controlled warehouses

The study found that the company encountered problems in managing temperature-controlled warehouses. That is, there is not enough storage space. How to manage this can be done by planning your warehouse well. Divide the proportion of treasury management into a system. and provide a backup plan in case of insufficient space. The area will be divided as follows. Area for receiving new products that arrive Area for opening boxes and placing new products Main area for storing products Area for storing surplus products or remaining stock and packaging area or product packing zone. Problems, errors or disruptions in temperature-controlled warehouses, how to manage and solve them. There will be expert officers in each department stationed. We will have a dedicated team of technicians who support various systems in order to fix them in a timely manner. Because if it takes a long time to solve the problem, it may affect the products in the warehouse, for example, if the refrigeration unit breaks. There will be a team of technicians waiting to provide immediate support to prevent the temperature in the warehouse from rising. Because there may be damage. All employees must undergo training in solving immediate problems. We will discuss and plan before doing anything. So that the problem affects the product as little as possible. Or if possible, try not to affect the product at all. Because we think that the most important thing is products and customers.

4. Adopting a temperature- controlled warehouse management process model in the warehouse.

From the study, it was found that using a temperature- controlled warehouse management process in the warehouse is the use of modern technology in the warehouse to increase work efficiency. Make work in the warehouse quality and accurate. Helps reduce errors that occur in the warehouse. Reduce employee mistakes Save time at work Don't waste time doing unnecessary work. Reduce the need to hire employees Reduce the use of human labor Increase the accuracy and speed of the warehouse and increase the capacity of the warehouse. Makes it possible to analyze, improve, and create strategies for business progress.

5. Guidelines for increasing the efficiency of temperature warehouse management

From the study, it was found that the facility has proper and efficient storage. There is a plan to use the space to maximum benefit. On the labor side, we organize training for employees and officials to have knowledge and expertise in performing their jobs. Materials and equipment There are sufficient machinery and vehicles for use. In addition, technology is used in the warehouse to create speed. Reduce product movement time and work more efficiently.

Construction technology that increases the thickness of special cold insulation is used to reduce energy consumption for service quality. Service with willingness and all service employees will receive training in service. Satisfaction questions will be asked and customer proposals will be improved.

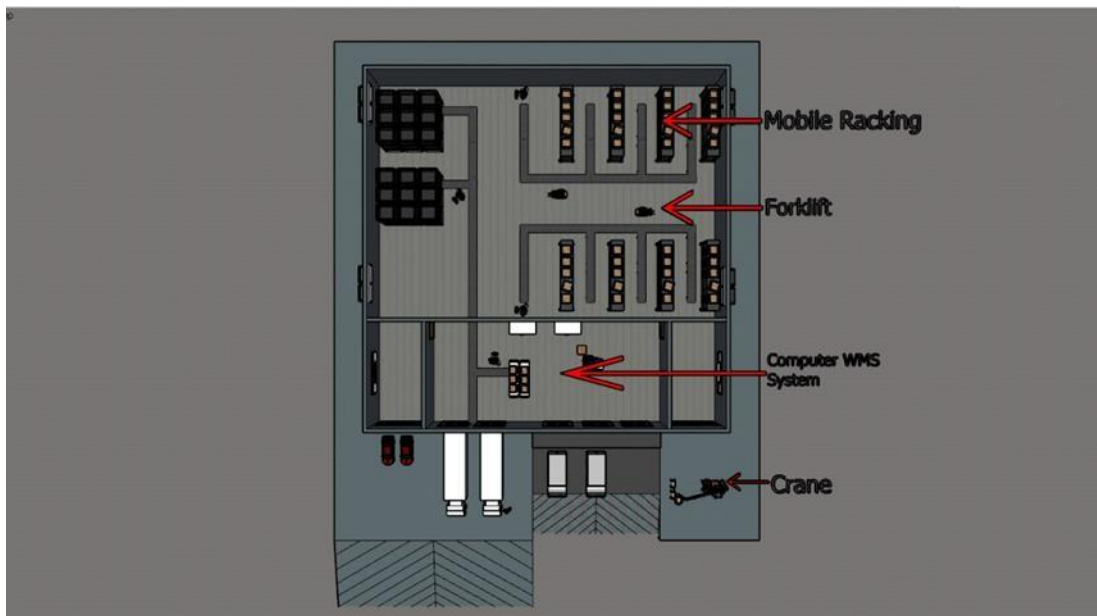
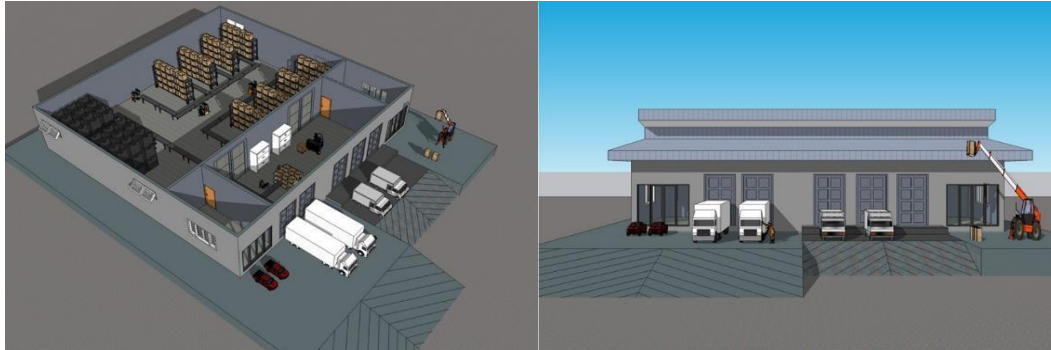


Figure 1: Interior image of a temperature- controlled warehouse with a management process model in place.

CONCLUSION AND FUTURE WORK

The results of the study according to objective number 1 are consistent with the research of Patcha Treemongkol, Natthaphan Meemuk, Suwanee Hongwijit (2021) who studied the improvement of warehouse management efficiency, a case study of Toyoda Company (Thailand) Limited from the study, there is consistency in product classification, making product searches faster. Reduce product loss The researcher sees the importance of increasing the efficiency of working in the warehouse, so he studies and conducts research to provide guidelines for increasing the efficiency of the warehouse for the company.

The results of the study according to objective number 2 are consistent with the research of Kesanaree Srihanat, Sasithorn Naksud (2019) who studied the temperature control system for frozen chicken in a cold storage warehouse, a case study of GFPT Company. Public Company Limited. According to the study, there is consistency in the use of technology in temperature-controlled warehouses, resulting in quality work in the warehouse and increasing

the capacity of the warehouse. The researcher sees the importance of developing a temperature-controlled warehouse management process model, so he studied and prepared this research book to provide guidelines for companies to use the management process model to develop temperature-controlled warehouses. This is beneficial to entrepreneurs in terms of lower costs and personnel who reduce the use of labor to use technology instead.

Research Suggestions

Suggestions for this research

1. From the survey, entrepreneurs must invest money in developing systems used in warehouses to keep up with technology. To be able to develop a more efficient process for using temperature-controlled warehouses.

2. Process factors of operations At present, the receipt of goods should be calculated to avoid the problem of insufficient storage space.

Suggestions for next research

1. You should study methods to increase efficiency in temperature- controlled warehouses. The study is in line with service users.

2. Study the process model for using software with temperature control systems. It is a study to find methods and development guidelines for increasing efficiency even further.

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