# INCREASING EFFICIENCY OF WAREHOUSE MANAGEMENT CASE STUDY OF ABC COMPANY :TEXTILE INDUSTRY

**Pongtep Phudetch[*], Anchalee Hiranphaet[**]**
[*,**] *College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, Bangkok, Thailand,*
*E-Mail: [*]Pongtep.ph@ssru.ac.th, [**]anchalee.hi@ssru.ac.th*

## ABSTRACT

This research is an operational research to increase the efficiency of warehouse management. By researching a textile industry factory to improve efficiency. Warehouse management with the following objectives: 1 Reduce workload 2 Reduce forklift travel distance 3 Reduce picking time by starting with collecting data within thewarehouse from the activities of receiving, storing, picking, and disbursing, and using the data to improve operating methods to meet the objectives by Re location from the original distance of 1,366 meters per forklift movement, changed to 859 meters per forklift movement. The results of the study also found that Warehouse improvements can reduce workload by 43%, reducing product packing time by 43%.

There are 3 types of tools used in research: Observe, inquire and collect quantitative data. Details as follows: 1. Observation Observing the placement of products within the warehouse various work processes and keep an eye on obstacles What are thevarious tasks? Then collect Information is presented and projects are prepared. 2. Inquiry Inquiring about problems and obstacles in the Warehouse management and present project problems at How likely is it to reduce work steps? and ease of work 3. Collect quantitative data Quantitative data collection was done on the subject of Statistics, time,delay before and after doing research.

**Key word:** Warehouse Management, ABC Analysis, Textile Industry

## INTRODUCTION

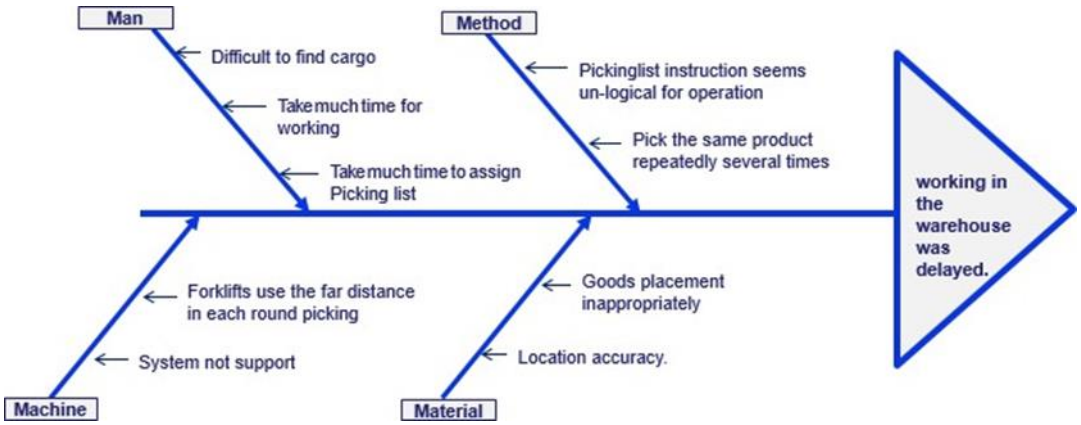
The textile and apparel industry in Thailand plays important role in the country' s Thailand' s textile and apparel production has become an integrated and diverse industry that covers a wide range of products, everything from synthetic yarns to wool fabrics, cotton bed linens to technical textiles, and t-shirt to high-end fashion garments. Thailand is well-known around the world for being one of the world's largest producers for fabric, sportswear, kids wear, womenswear and casualwear. Thailand is

also a world-renowned silk producer, as well as a spin or twist yarn producer. Moreover, the country's exquisite finishing, dyeing, and printing services also make it one of the most popular textile outsourcing destinations in the global market.

The domestic textile industry faces competition from other low- cost producing countries such as Bangladesh, Vietnam and Cambodia, so the country must shift from a competitive low-end market. Go to markets that offer innovative products with fewer competitors and higher added value. Including important logistics management such as increasing efficiency in warehouse management. to reduce costs Reduce working time To increase competitiveness in the current market. Increasing warehouse productivity is a top priority for warehouse managers everywhere. But what's the most effective method for increasing warehouse productivity? With so many variables in play, such as labor, staffing, workloads, scheduling, and third-party vendors (over which you have less control), it can be difficult to pinpoint the areas you should be focusing on in order to become more efficient.

In this research, the researcher analyzed using a tool called Fishbone analysis Goods placed in several area, not grouped. Picking list instruction seems un- logical for operation. No areas divided by the movement of goods such as fast moving, slow moving etc.

Fishbone Analysis




## RESEARCH OBJECTIVES

1. Reduce workload
2. Reduce forklift travel distance
3. Reduce picking time by starting with collecting data within the warehouse from the activities of receiving, storing, picking, and disbursing.

## LITERATURE REVIEWS

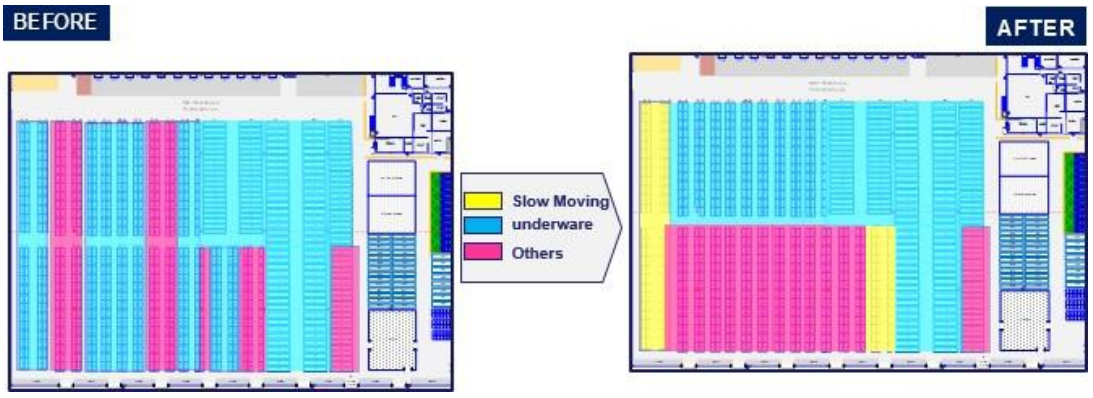
Waraporn Saninmoon, (2016) Bar code elements contain information. or information, codes, printing and labeling and machines Read, divided into 2 functions, which is to indicate uniqueness. of different products and creates speed and accuracy To transfer data to a translation software system The bar code is used in conjunction with a reader that can produce samkaeng. Passed to the bar code by the black bar bar supports the light. The space between the light strips is reflected and the light that is reflected back to the machine and changed Light is symbolized in digital form and translated into information. needPrachaphon Setthasathien 2019. This research aims to improve the system. Storing products and increasing disbursement efficiency Products studied in the warehouse of Nam Phet Glass and Shop. Aluminum from operations studies found the following problems: Products are not stored in an orderly manner, resulting in use Long time to search for products and stored products For a long time it was damaged, so it was kept. Product list data for classification of products found that There are 13 types of products in the store, all divided into categories. 93 types can be classified into 3 main categories Then use ABC Classification analysis and Visual Control to sort out the classification. Product categories are arranged in order of importance and labeled. Indicating the placement of products on the shelves. It was found that Improving the new product storage system makes products It is stored in an orderly manner and takes a long time to Product disbursement has decreased from the original total time for Picked up the product in 12 hours 21 minutes 18 seconds. 6 hours 25 minutes 23 seconds which can be measured Product picking time efficiency decreased 08.1796. Anchalee Hiranphaet (2 July - December 2016).

Transportation management process ABC Dye Products Co., Ltd. : Case study on transportation procedures. The study result found that transportation management process met the problem as operation, human and internal and external environment for example ERP data system has not completed, lacking manual, no standard form, delay of revised security document, officers have no skill, knowledge of rule and regulation operation in term transporting of hazard goods, communication between internal unit and external organization This research applied knowledges and ideas involved to recommendation, solution to increase efficiency of transportation management process, create working standard, reduce miscommunication to reach objectives of this research. Warissara Supha and Khanittha Reankratok (2018). Adecision on warehouse location selection for a chemical company. The result from usine LOGWARE software with MULTI COG method and engineering economics to conclude thee options which the old warehouse at Bangbuathong, Nonthaburi province, found that creating two neew warehouses is best suited for investing in replacing the old warehouse. There should be located in Phra Nakhon Si Ayutthaya province and Chonburi province.

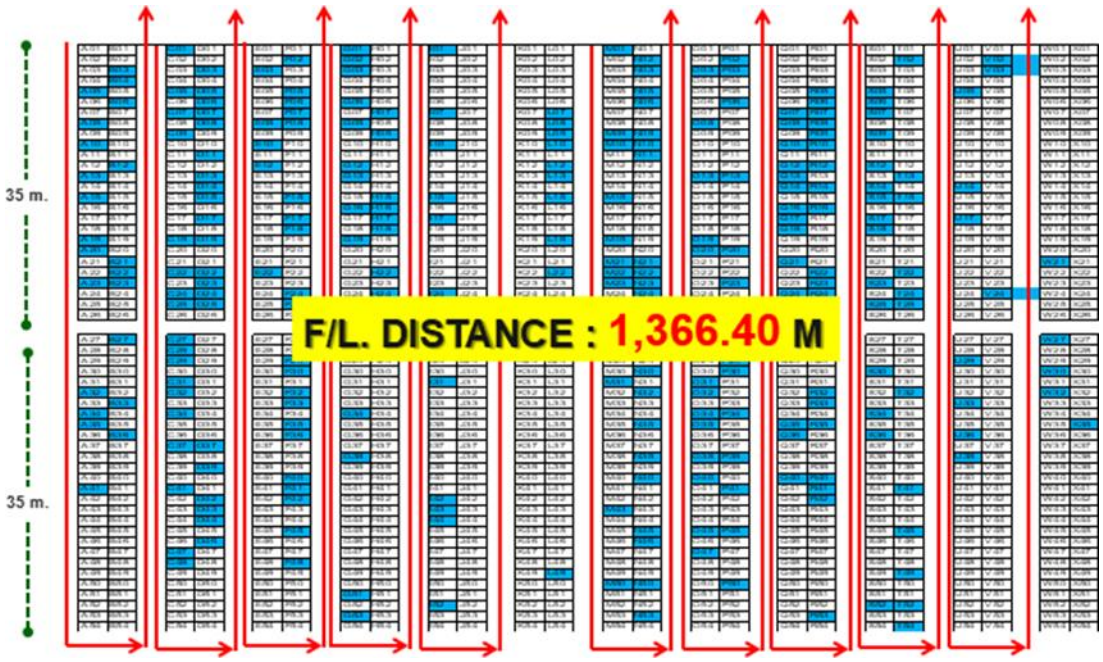
## METHODS

1. Observation Observing the placement of products within the warehousevarious work processes and keep an eye on obstacles What are the various tasks? Then collect Information is presented and projects are prepared.
2. Inquiry about problems and obstacles in the Warehouse management andpresent project problems at How likely is it to reduce Steps in working and ease of working.
3. Collect quantitative data Quantitative data collection was done on thesubject of Statistics, time, delays before and after doing the project.

**RE-LOCATION** : Re Arrange product inside rack, grouped by customer



**RE-LOCATION Forklift traffic line before re-location**




**RE-LOCATION Forklift traffic line After re-location**


**RESULT OF CHANGE PICKING METHOD** Add- On function to generate new format of Picking List base on “Batch Picking” Batch picking is the picking method thatcombines multiple orders into one picking trip. After the picking process, items are sorted/ consolidated by order. Batch picking increases throughput and operational efficiency. Batch picking improves picking efficiency by consolidating pick quantities and minimizing the forklift distances.

| Date | Batch # No. | Total Order | Volume | | Qty Small Item | No. of Line | | | No. of Location | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Qty | M3 | | Order picking | Batch Picking | Line Reduced | Order Picking | Batch Picking | Ratio Reduced |
| 17-Oct | 1 | 65 | 3,404 | 181.53 | 3,191 | 302 | 169 | -133 | 302 | 169 | 44% |
| 17-Oct | 2 | 28 | 739 | 63.86 | 663 | 95 | 69 | -26 | 95 | 69 | 27% |
| 17-Oct | 3 | 83 | 1,047 | 156.62 | 797 | 152 | 61 | -91 | 152 | 61 | 60% |
| 17-Oct | 4 | 21 | 26 | 4.07 | 22 | 26 | 15 | -11 | 26 | 15 | 42% |
| 17-Oct | 5 | 8 | 101 | 18.47 | 71 | 28 | 26 | -2 | 28 | 26 | 7% |
| 17-Oct | 6 | 4 | 10 | 1.64 | 7 | 10 | 9 | -1 | 10 | 9 | 10% |
| | | **209** | **5,327** | **426** | **4,751** | 613 | 349 | -264 | 613 | 349 | 43% |


## ACKNOWLEDGEMENTS

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Any learning, inspiration, wisdom, attitude improvements, resulted from theusage of this facility which leads to the continuous process of brightening up our lives,will make us remain forever thankful.


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