IMPROVING VEHICLE TRACKING IN A HOLDING CARPARK

Chatchawan Trakoonsitthisri, Srobol Smutkupt, Orawee Thongkam, and Sutta Sornmayura
Assumption University of Thailand

ABSTRACT

This research was conducted to improve the operation of a parking area for vehicles waiting for export, and reduce the cost of management fees, through implementation of a barcode system. Barcoding is an automated identification system which is powerful technology and applied in many fields. A barcode system was designed and tested to see if it could solve the parking problem.

The focus company in this research manufactures vehicles in Thailand for export. Its internal operations are very good, but identifying where each vehicle is in the special parking area awaiting export was rudimentary. To begin to solve this problem, all relevant data was collated, such as the current ABC Company information and operation, historical data of cost, company volume, and the parking problem. All this was analyzed so as to develop a new and improved parking process. To implement the barcode system, ABC Company had to invest in equipment and software. The Company also modified the parking area by installing stud bars on the ground. Calculation of the Net Present Value of the returns from this project shows that the investment is valuable to the organization.

When all the improvements were finished and applied, the researcher compared the old operation with the new operation, concerning the process and cost. The results of implementing the barcode system not only solved the problem but also improved the vehicle export operation process. This project eliminates non-value added activities and enhances the skill of manpower. Communication inside and outside the Company is easier, accurate, and reliable. All concerned parties quickly dealt with urgent issues. The Company’s supply chain is more efficient and effective than before. The Company reduces costs, gains advantage over its competitors and improves collaboration with its partners.

*This is a much condensed version of Mr. Chatchawan’s MSc research report in part fulfillment of the requirements for the MSc degree in Supply Chain Management at Assumption University. His email is: chatchawan14t@gmail.com
บทคัดย่อ
การวิจัยฉบับนี้ได้ทำการศึกษาบริษัทเอธีชิ้นที่กำลังประสบปัญหาเกี่ยวกับความผิดพลาดของพนักงานในการจัดการในกระบวนการจัดส่งของบริษัทให้ไปถึงสถานที่ปลายจังหวัด โดยบริษัทนี้มีระบบการควบคุมความผิดพลาดอยู่ในระบบการจัดส่งของบริษัทที่มีการจัดการในฝั่งพนักงานส่วนงานและฝั่งพนักงานหน้าหน้าและมีความผิดพลาดที่เกิดขึ้นในกระบวนการจัดส่งของบริษัท ซึ่งทำให้การจัดส่งของบริษัทนี้มีความผิดพลาดที่เกิดขึ้นในกระบวนการจัดส่งของบริษัท ซึ่งทำให้การจัดส่งของบริษัทนี้มีความผิดพลาดที่เกิดขึ้นในกระบวนการจัดส่งของบริษัท

INTRODUCTION
Manufacturers have many operational processes which organize the production line, supply of raw materials, conversion into finished goods, then sale and delivery to the customer. Most manufacturers have inventory problems. Some have many types of materials, each with small numbers and small items that are very difficult to control manually. Therefore, a barcode system seems to be needed, and is very popular in the many businesses. A barcode on an item is a visual representation of data which is scanned and interpreted for the information it contains. A barcode works as a tracking technology and is represented in a sequence of lines or other shapes. Using the barcode system in inventories can help the business track where the merchandise is located and what amount is available. A worker will be able to know updates in each inventory and locations in the warehouse, by just keying the code in the computer system. It can save time in the operation, and inventory will be accurate and minimize the risk of error and human error. There are many advantages of this system and it is less expensive compared with other tools. That is the reason why barcode is a very