

ABSTRACT

Transportation mode selection is considered in the optimization of transportation cost in supply chain management which mainly focuses on purchasing management, transportation, and freight consolidation. To increase an overseas purchasing performance, a business process redesign is required for improving the process.

Overseas purchasing process is the most concerned aspect in the transportation mode selection. All customers expect to receive the immediate stock fulfillment when required, while the company has to spend a lot on frequent delivery of goods. Therefore, the purpose of this project is to improve the transportation cost and overseas purchasing process lead time.

This research starts from collecting the overseas purchasing data during July 2016 to March 2017, which the data are available since the overseas purchasing procedure has been set in June 2016. Next is analyzing the current overseas purchasing process to identify the factors that affect the high transportation cost. As a result, the company found out that compromised culture, inefficient inventory management tool, lack of information sharing, knowledge limitation, and improper purchasing strategy are the causes.

To eliminate these factors, the proactive order consolidation and the business process redesign in purchasing process were chosen and applied to ABC Company from April 2017 to May 2017. The proactive order consolidation is a strategy to combine smaller shipments to make a full load. It has helped the company to save 78.41% in the transportation cost. Whereas, the business process redesign in purchasing order schedule and new work flow process have reduced the purchasing lead time from averaged 27 days to 9 days when compared with the current process. It shows the positive change for the company.