Chapter 3

RFID and Labor Management Systems Selection in the Logistics Industry

Cheryl A. Tibus
Mercer University, USA

Linda L. Brennan
Mercer University, USA

EXECUTIVE SUMMARY

Faced with increasing competitive pressures, a logistics company in the United States sought to reduce its cost structure by implementing two information systems. The Labor Management System (LMS) was specifically designed to improve warehouse worker efficiency and the Radio Frequency Identification (RFID) system tracked the movement of products, pallets, and shipment. This case presents an overview of the logistics industry, background on the business need to consider new systems, and the requirements of the company in its system selection. Details of the technologies considered are included. The reader is then faced with the challenge of analyzing the options, and making a recommendation for systems selection.

DOI: 10.4018/978-1-4666-2618-8.ch003

Copyright ©2013, IGI Global. Copying or distributing in print or electronic forms without written permission of IGI Global is prohibited.
After analyzing this case study, the reader should be able to:

- Define logistics functions, supply chain management, and third party logistics (3PL) services
- Describe LMS and RFID systems
- Identify the expected costs and benefits of the proposed technologies
- Develop a multi-factor evaluation for vendor selection
- Make a recommendation based on the evaluation, financial data, and other considerations.

ORGANIZATIONAL BACKGROUND

A2B Logistics (A2B) is headquartered in the Southwestern United States, with locations, primarily warehouses with transportation management functions, across the United States. The company is considered a third party logistics (3PL) services provider, with a stated mission of “helping customers through the management of change and information in the supply chain” (A2B Logistics, 2008).

Logistics and Supply Chain Management

According to the Council of Supply Chain Management Professionals (www.cscmp.org), the logistics function includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service. It is involved in all levels of planning and execution—strategic, operational and tactical. Logistics management is an integrating function, which coordinates and optimizes all logistics activities, as well as integrates logistics activities with other functions including marketing, sales manufacturing, finance, and information technology.

Logistics definitions vary by perspective. Russell (2000) contrasts the way the term is used in common culture as, “handling the details of an activity,” with a customer perspective of “getting the right product to the right customer, in the right quantity, in the right condition at the right place, at the right time, and at the right cost” (p. 15). Meeting customer service requirements is the primary value driver for a logistics provider. This must be accomplished while minimizing the supply chain costs while maximizing the profits to the provider (Rutner & Langley, 2000).

Coyle, Bardi, and Langley (2003) suggest that a logical extension of the logistics concept is supply chain management. Supply chain management encapsulates the flow of activities, data, raw materials, finished products and various services in an effective and efficient manner as they travel through a variety of organizations in route to the final customer.
Strategic Framework for Developing a Process Model for Maximising the Potential of Radio Frequency Identification (RFID) Technology Integration in Hospitals
[www.igi-global.com/chapter/strategic-framework-developing-process-model/45101?camid=4v1a](www.igi-global.com/chapter/strategic-framework-developing-process-model/45101?camid=4v1a)