

APPLYING A WEB-BASED SYSTEM TO IMPROVE SUPPLY CHAIN EFFICIENCY IN THE PHARMACEUTICAL INDUSTRY IN THAILAND

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ABSTRACT

In order to successfully connect the whole supply chain, an information standard is needed to exchange electronic documents between business partners. The XML-based standard is starting to gain popularity over the EDI-based standard in many industries. There are two main standards being implemented by the industry. ebXML is supported by the United Nations and OASIS, while RosettaNet is supported by companies in electronics and high-tech industries. The aim of these standards is to electronically connect companies within the same supply chain, regardless of their size.

In this research, we study a medium size multinational pharmaceutical company in Thailand, and how a web-based system and a business standard for information flow (RosettaNet standard in this case) can be applied to improve efficiency in its supply chain. In particular, we examine the information flow during the process of order transactions between the pharmaceutical company, its customers (hospitals), and its distributors. We first examine the current business process and propose a new process with a web-based system. The new system is examined and the ROI model is analyzed.

Key Words: RosettaNet, Pharmaceutical, XML, Web-based system

INTRODUCTION

The pharmaceutical market differs from almost all other consumer goods in that the buying decision is not made by the final consumer: the drug is usually prescribed by the general practitioner and paid for by the patient (James, 1993). The distribution channel for the pharmaceutical industry can be separated into two main channels. The first channel is through

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