

# Chapter 8

## Future State of Outsourcing Supply Chain Information Systems: An Analysis of Survey Results

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### **ABSTRACT**

*The purpose of this study is to acquire knowledge that will help clarify outsourcing trends in general and an information systems utilization perspective in particular. The authors review recent studies on outsourcing and conduct a nationwide survey. The results of the survey reveal that 60 percent of the respondents are focusing on their supply chain for cost reduction and/or competitive advantages and less than half of the respondents plan to outsource supply chain processes and information systems within the next 5 years. Results also show that major reasons for outsourcing include a lack of ability to handle in house and return on assets, while the largest barrier to outsourcing is cost followed by control concern.*

### **INTRODUCTION**

In recent years, outsourcing has become a major trend in various industries and business processes due to globalization and the development of information technology. This trend is not an exception

to supply chain management. As logistics service providers become more experienced and sophisticated in their offerings, more and more firms are turning to logistics services providers for such activities as warehousing, packaging, order fulfillment, and transportation. What is not so clear, however, is the role of information technology and

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information systems (IT/IS) in these outsourced activities. In general, we understand that IT/IS are the enablers of outsourcing. IT/IS help firms control outsourced activities, communicate with outsourced product and/or service providers, and eventually collaborate with third party logistics providers. Sometimes, however, IT/IS themselves are subject to outsourcing. When firms outsource supply chain processes, what will happen to IT/IS?

This paper attempts to answer this question by utilizing a survey approach that will take facts from practitioners throughout the United States. Some firms may utilize internal systems, some may outsource to the provider, while still others may outsource to supply chain management information systems providers. The purpose of this study is to acquire knowledge that will help clarify the direction of outsourcing from an information systems utilization perspective. This study will help both practitioners and researchers understand outsourcing trends by industries and, in particular, the relationship between outsourced supply chain processes and information technologies/information systems. This study will be especially valuable to the firms that plan outsourcing supply chain processes and/or information systems. This study is limited to the presentation of the survey results along with some discussions and is not intended to provide statistical inferences to the findings. The remainder of this study consists of a literature review on outsourcing, survey design and data collection, results and discussion on the survey followed by a conclusion that addresses a summary of findings and future directions.

## **LITERATURE REVIEW**

This section includes outsourcing trends identified by a literature review. Although the literature review is not exhaustive, it will show the recent trends by industries and products. In addition, the study covers activities outsourced, outsourcing trends (past, current, and future), and key driv-

ers for retaining or outsourcing internal systems, technological capabilities for outsourcing, and enablers and barriers to outsourcing.

## **Outsourcing by Industry**

### **Aerospace**

About fifty years ago, the aerospace industry was a typical example of vertically integrated firms. American manufacturers, which the aerospace industry belongs to, outsource their business between 50 and 70 percent in terms of total value added to their products (Rossetti & Choi, 2005). According to Rossetti and Choi, companies can achieve their maximized collective market presence and profitability with strategic partnership or outsourcing. However, Rossetti and Choi argue that outsourcing can result in abusing partners by focusing on reducing price excessively and repeatedly, extending payment terms, and forcing them to reduce inventory level to an acceptable level.

### **Automobile**

Volkswagen (VW) in Brazil, which produces trucks and buses, has implemented the pure modular consortium model, which is radical outsourcing in that module suppliers have the responsibility of assembling their modules directly on VW's assembly line (Collins et al., 1997; Pires, 1998). VW prepares the plant and assembly line, and takes the responsibility of plant coordination and final testing. Only 200 workers out of 1,350 employees required for the full capacity of the plant will be directly hired by VW. In addition, VW maintains seven module suppliers instead of 400 traditional suppliers. As a result, VW can save twenty percent of its cost and at least ten percent of assembly time.

Like Volkswagen, Volvo actively implements an outsourcing policy of internal activities such as allowing parts of final assembly of components by suppliers (Svensson, 2001). Accordingly, Volvo

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