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The effects of country and industry on implementing value chain cost analysis

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Abstract

This study provides evidence based on data collected from 65 US and 34 Hong Kong companies regarding current implementation of value chain cost analysis. The findings indicate significant differences in cost systems of companies in these two regions under value chain framework. The US manufacturing firms have invested more of their resources in upstream activities than have their Hong Kong counterparts, but this observation did not hold in the service industry. Overall, however, the results support a positive link between the percentages of cost and degrees of cost tracing, particularly for upstream activities, for firms in both regions. Implications of this study in cost management for the US and Hong Kong companies are also discussed. © 2002 University of Illinois. All rights reserved.

Keywords: Value chain analysis; Cost management; Global competition; Hong Kong; Cost tracing; Upstream and downstream activities

1. Introduction

In today's global business environment, companies face significant competition and are under tremendous pressure to improve their productivity. To cope with these challenges, corporate managers have gradually become customer-driven and have focused on delivering quality products at competitive prices. In the past decade, many management tools have been introduced and implemented to improve operational efficiency and to enhance corporate

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competitiveness. Of these tools, Porter (1985, p. 33) suggests that the value chain analysis, which involves "disaggregating a firm's operations into strategically relevant activities in order to understand the behavior of costs and potential sources of differentiation," can be an effective means of optimizing the use of limited resources. Many researchers have expanded upon Porter's framework to explain how value chain analysis can be an important managerial tool (e.g., Hergert & Morris, 1989; Shank & Govindarajan, 1992, 1993; SMAC, 1996). Using field research, Shank and Govindarajan (1993) conclude that value chain analysis is useful in understanding how a firm is positioned in its industry. Once the value chain is fully articulated, strategic decisions can be made more easily based on a clear understanding of the firm's competitive advantages as shown by the factors in the chain.

The value chain is a sequence of business activities that add value (utility) to the products or services provided by an organization to its customers.[1] How a firm undertakes these value chain activities can affect its profit in two ways. First, managing these activities effectively may improve the firm's cost structure and profitability (Gadiesh & Gilbert, 1998). Second, the mix of value chain activities could affect customers' satisfaction with the products and/or services provided by the firm (Artto, 1994; Boer, 1996; Shields & Young, 1991; Susman, 1989) and, hence, indirectly increase the firm's revenues and profit. Thus, the first step in managing value chain activities is to understand how a firm allocates its resources to value chain activities. This information is crucial, because a proper mix of activities (i.e., trading off across activities) could affect a firm's total revenues and costs. For example, more emphasis on research and design could increase the cost at an early stage of the product. On the other hand, it may reduce the costs of downstream activities,[2] such as marketing and customer services. Based on the distribution of costs among different activities, managers can then determine the optimal mix of value chain activities and evaluate whether they are allocated properly to support different products and customers (Boer, 1996; Foster, 1996; Foster & Gupta, 1994; Foster, Gupta, & Sjoblom, 1996; Innes & Mitchell, 1995). A cost structure that is well managed through value chain analysis can also enhance customers' satisfaction. Through a detailed articulation of the company's important activities, value chain analysis provides managers with valuable insights into the company's competitive advantages and disadvantages, enabling them to develop strategies to enhance customer satisfaction.

There are reasons why we conduct a comparative study of value chain implementation between the US and Hong Kong companies. According to Whitley (1992), many changes in the United States economy since 1970, coupled with the rise of the economy in many Asian sectors of the world economy, have encouraged a growing interest in conducting comparative studies of business organizations in US and Asia. Since management accounting practices could vary significantly among countries and can be society dependent (Kristensen, 1997),

[1] Seven value chain activities are used in this study. Six of these value chain activities (research and development, design, production, marketing, distribution, and customer service) are categorized based on the literature of Horngren, Foster, and Datar (1997, p. 3) and SMAC (1996, p. 4). The last activity, namely "overall administration," is added based on Porter's (1985) discussion.

[2] In this study, we define upstream activities as activities from the initiation of R&D to the completion of manufacturing processes. Activities after production are defined as downstream activities.