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Chapter III

Information Flows in a New Zealand Sheep Meat Supply Chain

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Abstract

Recent outbreaks of Bovine Spongiform Encephalopathy (BSE), foot-and-mouth disease, and bird flu have heightened awareness of traceability and information flows in agricultural industries. Existing supply chain research has focused on supply chains for manufactured goods, but the agricultural industry differs from manufacturing, being characterized by horizontal alliances and imprecise output predictions arising from uncontrollable factors such as weather and rates of natural increase. This chapter explores the downstream information flows in a sheep meat supply chain. It identifies stakeholders and the nature and efficiency of their information exchanges. Findings show that important information is generated in several tiers along the supply chain, but this information is not always shared and opportunities for increased supply chain competitiveness are lost. The lack of information sharing is explained by the unwillingness of partners to commit to tight contractual agreements, the lack of adequate technological infrastructure, and the absence of regulations mandating certain information flows.

Introduction

New Zealand, once known as "Britain's farm," is a world leader in production of quality beef, sheep, and dairy products. For more than a hundred years, New Zealand sheep meat has been produced for local consumption and export. Although it is less dependent on primary industries today than in the past, sheep meat is still a major export earner for New Zealand and its production and processing provides many employment opportunities.

A carefully coordinated supply chain would provide New Zealand's sheep meat industry with new capabilities and efficiencies in production and processing, as well as an increased responsiveness to consumer preferences. In addition, and more importantly, it would prepare the industry to meet increasing international requirements for traceability. A key element in agribusiness supply chain operation is the integration of information flows that not only facilitate operations but also add value to products and provide confidence to consumers. A sophisticated supply chain would lead the New Zealand's sheep meat industry into the 21st century and better prepare it for future competition in international markets.

The research reported in this chapter focuses on downstream information flows. We interviewed major stakeholders in the supply chain to determine their information needs and the information they provide to their downstream partners. In the remainder of this chapter, we report the various information flows and information media used, identify redundancies and deficiencies, and make recommendations for improvements.

Information Flows in the Supply Chain

Competitive environments create pressure on organisations to collaborate. Supply chain management governs these collaborations by integrating "key business processes from end users through to original suppliers that provide products, services, and information that add value for customers and other stakeholders" (Lambert & Cooper, 2000, p. 66). Information flows are critical to these collaborations and their improvement is a major incentive in supply chain integration (Buhr, 2000). Such flows creates closer collaboration between the supply chain members (Mariotti, 1999), have positive impacts on customer satisfaction (Singh, 1996), and can lead to the creation of new products and services, new marketing approaches, and advanced operations (Hoek, 1998).