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MANAGING AN AGILE SUPPLY CHAIN

Supply Chain Agility in the Food and Drink Industry: the key to further enhancing shareholder value

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Background

The international business environment continues to develop at a rapid rate. Increasing interactions between economies, particularly between North America, Europe and Asia, has raised many important issues regarding transport infrastructure, logistics and broader supply chain management (SCM). In this evolving environment the Irish food and drink industry continues to be a vital sector in the overall economy with a gross output estimated at over €18 billion. The sector employs almost 50,000 people directly and in the region of 60,000 people in distribution and other services. Total employment linked to the sector is almost 230,000. It exports almost €8 billion worth of food and drink products to 120 countries worldwide annually and accounts for over 60% of exports by indigenous manufacturers.

It must be recognised that any product is delivered to the ultimate customer through a complex interaction of several companies on the way. The manufacturer's ability to give the customer what they want, when they want it, at the price and quality that they want, is not just determined by the efficiency and effectiveness of the manufacturer's own operation. Inefficiencies anywhere in the supply chain will reduce the chances of the manufacturer successfully competing against other suppliers. Without a proper focus on total supply chain management, therefore, a company will never achieve true competitive advantage. The increasingly international nature of markets and companies has resulted in many companies becoming part of large and complex global supply chains. These factors have sharpened the focus on the need for improvements in all aspects of supply chain performance. In relation to the food and drink industry in Ireland there is evidence that SCM concepts are being more widely embraced[1].

Defining SCM

NITL defines SCM in terms of *Four Fundamentals*, all of which are vital to the continuing profitability of the companies in all parts of the food chain. *Fundamental 1* relates to the overall objectives of SCM. These are concerned with:

- Meeting or exceeding customer service requirements in the market; and
- Optimising total supply chain costs and investment.

Both are self evidently important. Downward pressure now exists on supply chain costs (such as purchasing costs, production costs, transport costs and customer service costs) with many companies adopting ***lean*** principles in response. Simultaneously, customer service requirements are becoming more and more demanding, not least as a result of the purchasing power of the retail multiples. *Fundamental 2*, relating to SCM philosophy,

[1] NITL's ongoing research into SCM capability and awareness in Irish firms provides evidence of this – for further information contact the author.

recognises that a supply chain is only as strong as its weakest link. This is as true in the food industry as it is in any industry. It requires that raw material suppliers, distributors, manufacturers, retailers and others work together in new and innovative ways. It further requires that barriers between internal functions and activities to be tackled. *Fundamental 3* is concerned with the efficient and effective management of material, money and information flows throughout the supply chain. The latter (i.e. management of information flows) is of particular importance. Significant investment in information and communications technology (ICT) in the food and drink industry in recent years bears testament to this. *Fundamental 4* requires companies, particularly in an environment where outsourcing of supply chain functionality has become more common, to re-appraise both internal and external customer/supplier relationships.

The Future – Agility?

The focus on cost competitiveness in the food and drink industry has resulted in a strong focus on ***lean*** thinking in recent years. Lean programmes within companies have often focussed on cost cutting across the supply chain. The need for ***agility*** in SCM is based on increasingly volatile market demand patterns and shortening product life cycles. A leading academic authority on agility, Professor Martin Christopher[2], states that:

> 'Whilst "leanness" may be an element of "agility" in certain circumstances, by itself it will not enable the organisation to meet the precise needs of the customer more rapidly'.

This implies that lean is effectively a subset of agile. Furthermore, the emphasis on speed is evident in Christopher's use of the word "rapidly". The implication here is that time is a key competitive weapon, with reduced new product introduction (NPI) and order fulfilment times, for example, providing the potential for significant performance improvement.

Agility can be described in terms of four characteristics.

1. Market sensitive: A truly agile supply chain must be capable of delivering based on real demand in the market. This often requires a shift from forecast-driven planning to demand-driven planning.
2. Virtual: Agile supply chains share real time data across companies boundaries. These virtual supply chains aim to reduce inventory levels through the more effective use of information, particularly information about customer demand. Recent developments in ICT have facilitated this.
3. Process integration: In an agile supply chain there are high levels of integration between processes within the firm and between the firms upstream and downstream in the external supply chain. This replaces the fragmentation which is a characteristic of many traditionally managed supply chains.
4. Network-based: This recognises that increasingly supply chains compete with other supply chains (as opposed to companies competing with other companies as was the traditional view). An agile supply chain attempts to leverage the competencies of all players in the supply chain (the "network partners") to ensure higher levels of responsiveness to dynamic market requirements.

[2] Professor Christopher is Professor of Marketing and Logistics at Cranfield University, UK.

Concluding Comments

The changing dynamics of sector globally has resulted in a situation where the effective management of food and drink supply chains is becoming increasingly regarded as a major source of competitive advantage. In short, the potential exists across the industry to significantly enhance shareholder value through the adoption of SCM thinking. The specific environment in which the industry operates brings its own particular challenges but these are not insurmountable – rather they require that creative SCM strategies be developed, and then executed superbly, with strong attention to detail. NITL's ongoing research is continuing to monitor the rate of development of SCM capability in the sector.

About the Author

Edward Sweeney is Director of Learning at the National Institute for Transport and Logistics (NITL), based at the Dublin Institute of Technology (DIT). NITL was established in 1998 as Ireland's "Centre of Excellence" in supply chain management. Since then it has provided a range of education, training, consultancy and research supports to companies in Ireland and abroad. The importance of the food industry to the Irish economy, and of SCM to the Irish food sector, is reflected in the fact that NITL has worked extensively in this area. At NITL Edward is responsible for the development and implementation of the integrated supply chain management (SCM) development programmes and carries out research and consultancy work on behalf of NITL client companies. He is an engineer by background and has worked and lectured in over 20 countries in Europe, North America and Asia. His work has been widely published and he is a regular contributor to business and academic conferences and seminars throughout the world. His most recent book, *Perspectives on Supply Chain Management and Logistics: Creating Competitive Organisations in the 21st Century*, was published recently by Blackhall Publishing.