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Supply Chain Change Management: an internal and B2B relationship perspective

Edward Sweeney

Introduction

Increasingly competitive markets, more discerning customers, globalisation of markets for inputs and outputs, shortening product life cycles and vertical disintegration have all combined to place supply chain management (SCM) at the core of the strategy development process. SCM was first introduced by consultants in the early 1980s (Oliver and Webber, 1982) and is now the subject of extensive debate in both commercial and academic circles. In essence, SCM is concerned the management of supply chain processes with a view to:

1. optimising total supply chain investment and cost; and,
2. meeting or exceeding customer service requirements in targeted markets/segments.

This is achieved through the *integrated* management of materials, financial and information flows throughout the chain. The notion of *integration* is central to SCM and has a profound impact on the nature of business-to-business (B2B) relationship management. This article discusses supply chain and internal (i.e. intra-firm) integration, before moving on to a discussion of B2B integration specifically. It highlights the need for re-evaluation of relationships in the context of the supply chain change process.

Supply Chain Integration

Analysis of the historical evolution of SCM, and indeed of the many definitions of SCM which have been proposed, shows that the concept of integration lies at the heart of SCM philosophy. Cooper *et al.* (1997) specifically described SCM as “an integrative philosophy to manage the total flow of a distribution channel from supplier to the ultimate user”. The work of Fawcett and Magnan (2002) identified four levels of integration in practice.

1. Internal cross-functional integration;
2. Backward integration with valued first-tier suppliers;
3. Forward integration with valued first-tier customers; and,

4. Complete backward and forward integration ('from the supplier's supplier to the customer's customer').

The first of these relates to integration of activities and processes which are carried out within a single organisation (i.e. *internal* or *micro* or *intra-firm* supply chain integration). The others describe varying degrees of integration of activities which span the boundaries of organisations (i.e. *external* or *macro* or *inter-firm* supply chain integration), with the last one being viewed as the theoretical ideal. The following sections discuss internal and external integration in more detail.

Internal Chain Integration

The phrase 'internal supply chain' is used to describe work aimed at breaking down the barriers between functions within organisations. Most businesses – certainly manufacturing-based business - can be described in terms of the five key supply chain activities: *buy*; *make*; *store*; *move*; and, *sell*. This is what is referred to as the internal (or micro or intra-firm) supply chain. Traditionally these functions have been managed in isolation, often working at cross purposes. SCM means thinking beyond the established boundaries, strengthening the linkages between the functions, and finding ways for them to pull together. A recognition that the 'whole is greater than the sum of the parts' calls for more effective integration between purchasing and procurement (*buy*), production planning and control (*make*), warehouse management (*store*), transport management (*move*) and customer relationship management (*sell*).

The desirability of achieving seamless integration is not something which is unique to SCM. Organisations have long realised the need for company-wide approaches to organisation design and re-engineering. The development of systems engineering approaches to manufacturing system redesign in the 1970s and 1980s (see, for example: Hitomi, 1996) was followed by the focus on organisational re-engineering, often based on business processes, in the 1980s and 1990s (see, for example: Hammer and Champy, 1993). A common feature of these approaches was a recognition that 'the whole is greater than the sum of the parts'. In other words, optimising subsystems (whether those subsystems are functional departments, production sites or individual processes in the manufacturing cycle) can result in a sub-optimised total system. Lack of efficiency and/or effectiveness is often a result

of the poorly designed interfaces between subsystems rather than any inherent subsystem weaknesses. There are numerous examples of companies who have generated significant improvements in competitive advantage as a result of the application of this *total systems* thinking.

B2B (External Chain) Integration

Every product or service is delivered to the final consumer (the only source of 'real' money in the chain) through a series of often complex movements between companies which comprise the complete chain. An inefficiency anywhere in the chain will result in the chain as a whole failing to achieve its true competitive potential. In other words, supply chains are increasingly competing with other supply chains rather than, in the more traditional axiom, companies simply competing with other companies. The phrase 'supply chain' is used to indicate that the chain is only as strong as its weakest link.

The simplistic representation in Figure 1 (below) of an external (or macro or inter-firm) supply chain shows materials flowing from the raw material source through the various stages in the chain to the final consumer. Money (i.e. funds) then flows back down the chain. Information flow is bi-directional and its effective management is a critical success factor. The point is that every link matters and that value is added, and profit generated, at each link along the way.

In other words, the supply chain is increasingly viewed as a single process, with the various links (i.e. companies) in the chain needing to function in as seamless a manner as possible. All of the above raises serious questions concerning the relationships which exist between customers and suppliers throughout the chain. In short, moving from fragmented to more integrated approaches inevitably requires changes to the ways in which both internal and external customer and supplier relationships are created and managed.

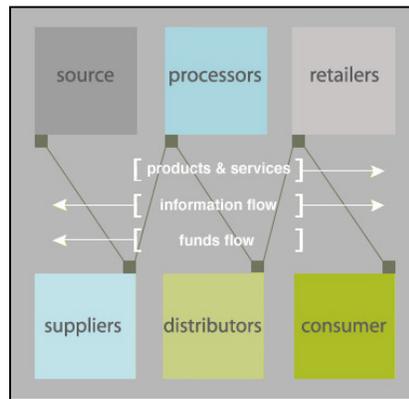


Figure 1: The B2B (External) Supply Chain

Supply Chain Relationships

SCM should not be a ‘zero-sum’ game based on adversarial relationships; rather, it needs to be a ‘win-win’ game based on partnership approaches. This point is relevant to the interactions between the key ‘internal’ supply chain functions of buy, make, store, move and sell, as well as to relationships between an organisation and its external customers and suppliers (i.e. B2B relationships). Several SCM definitions which have been proposed highlight the importance of relationship management. For example, the Council of Supply Chain Management Professionals (CSCMP, 2010) defines SCM as follows:

Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies.

CSCMP, in discussing boundaries and relationships, goes on to state that SCM is an “integrating function”, which “drives coordination of processes and activities with and across marketing, sales, product design, finance and information technology”. The approach represented by this definition reiterates some of the earlier points and again has a strong emphasis on internal and external coordination and collaboration. In a B2B context, it specifically embraces the concept of “co-ordination and collaboration with channel partners”. The final part of the definition provides a useful

conceptual view of SCM and is noteworthy for its simplicity, with its focus on integration of supply and demand. Finally, Lambert *et al.* (1998) went even further by suggesting that, “Increasingly the management of relationships across the supply chain is being referred to as supply chain management (SCM)”.

The Impact of Vertical Disintegration

Companies are increasingly focusing on what they regard as their core activities or competencies. The corollary of this is that activities regarded as ‘non-core’ are being outsourced. Key supply chain activities such as transportation, warehousing and manufacturing are increasingly being outsourced to third-party organisations. This has resulted in a shift away from the traditional model of ‘control through ownership’ towards models which are based on management and control through effective supply chain relationship management. In short, as this process of vertical disintegration has taken place so supply chain architectures have become more virtual. The traditional *fully vertically integrated* approaches are being replaced by contemporary *fully virtually integrated* approaches – a new FVI is evolving. This has sharpened the focus on the need for the creation of appropriate relationship forms throughout the supply chain, as well as on their effective management.

‘Appropriate’ is the key word in this context as different relationship forms will be relevant in different situations. Relationship forms vary from short-term and (often) adversarial to long-term and more partnership-oriented. The trend towards the development of stronger relationships with fewer suppliers is one manifestation of this thinking. For example, early involvement by suppliers in the new product introduction (NPI) process requires that B2B relationships, based on mutual trust and benefits, as well as on shared goals and objectives – i.e. partnerships - are in place.

Conclusions

There can be little doubt that SCM is becoming a more important feature of the business landscape. Whilst there is considerable debate about exactly what activities SCM embraces, there is general agreement that activity integration is a core element of SCM philosophy. This has implications for the way in which relationships, both internally and in a B2B environment, are created and managed. Any effective supply

chain change initiative must, therefore, have a strong focus on the creation and management of such relationships.

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