The People Dimension in Logistics and Supply Chain Management – its Role and Importance

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It is widely recognised that the effective application of logistics and supply chain management (SCM) has a vital role to play in European economic recovery. Experience suggests that success in achieving higher levels of supply chain integration (SCI) depends on both physical and technical components (the *hard-wiring*), as well as human and behavioural components (the *soft-wiring*). There is significant evidence that the latter has been largely neglected by the logistics and SCM community. Furthermore, it appears that the majority of supply chain improvement initiatives by practitioners have been primarily concerned with technological, structural and process issues. This chapter argues that the difficulties often encountered in attempting to put logistics and SCM theory into practice are largely a consequence of a lack of focus and understanding of the people dimension. Based on this discussion, it offers some suggestions for improvement in this area to supply chain professionals.

6.1 Introduction

This chapter focuses on the people dimension – the *soft-wiring* – of the supply chain in the context of both scholarly research and predominant practice as evidenced in the many empirical studies that have been conducted over the years. This aspect of logistics and supply chain management (SCM) is important from many perspectives (including relationships, management development and the potential role of supply chain learning). However, Storey et al. (2006) acknowledge the “crucial importance of the behavioural and people dimension but the relative neglect of this in any substantive form” (p. 754). The work of Fawcett et al. (2008) draws a similar conclusion: People are the key bridge to successful collaborative innovation and should therefore not be overlooked as companies invest in supply chain enablers such as technology, information, and measurement systems (p. 35).

This highlights the imbalance between the soft wiring (i.e. the people dimension) and the *hard-wiring* (e.g. technology, information, and measurement systems) in the supply chain improvement initiatives of firms. More recently, Tokar (2010) suggested that the issue of human behaviour has been largely neglected in logistics and SCM scholarship and presented a case for the importance of research in this area:

based on the belief that such research would offer theoretical richness to both areas, significantly improve the predictive accuracy of available models, and increase the efficiency of SCM and logistics in practice (p. 99).

Following this introduction, section 2 provides an overview of the concept of integration which is in many ways the central tenet – or *big idea* – of SCM. Section 3 then notes that there is significant evidence of a divergence between theory and practice. As discussed in section 4, this

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evidence points to the need for a stronger emphasis in scholarly research, as well as in practice, on the people dimension (i.e. the soft-wiring). The author alludes to the 2009 collection of poems by Irish Nobel literature laureate Seamus Heaney – *Human Chain* – to illustrate this point. In section 5 the author takes a critical look at the notion of “best practice” and concludes by highlighting the importance of asking the right questions if the design and management of supply chains is to be as effective as possible.

### 6.2 SCM’s “Big Idea” - Integration

The SCM concept was originally introduced by management consultants in the early 1980s and has a strong emphasis on the idea of inter-firm and intra-firm integration of supply chain activities. In many ways, integration is the central tenet – or “big idea” – of supply chain management. For example, Storey et al. (2006), in their discussion of the interlocking ideas and propositions of SCM declared that: “the central underpinning ideas relate to alignment and integration” (p. 758). Similarly, Pagell (2004) stated that: “in its essence the entire concept of SCM is really predicated on integration” (p. 460).

Most businesses – certainly manufacturing-based business – can be described in terms of the five functions: 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 often been measured, and therefore managed, in isolation, often working at cross purposes. As succinctly noted in the aforementioned paper by Storey et al., this traditional approach is analogous to a relay race with responsibility being passed from one function to another. 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 – for example - purchasing and procurement (‘buy’), production planning and control (‘make’), warehouse management (‘store’), transport management (‘move’) and customer relationship management (‘sell’). Contemporary SCM also has a strong focus on integration and the management of relationships between the upstream and downstream firms – suppliers, manufacturers, third-party logistics (3PL) firms, distributors, retailers and so on – that comprise the wider external (or *macro- or inter-firm*) supply chain or extended enterprise.

The core SCM concepts of integration and teamworking can be seen clearly with reference to any pursuit that requires groups of individuals to work together. Take the *symphony orchestra*\(^2\) (see Figure 6.1) as a case in point. If the various sections of the orchestra were to play in isolation from each other, irrespective of the virtuosity of the individual players and section leaders, the result would likely be noise to most ears (although some have argued that jazz is the more likely outcome!). However, with the aid of sheet music and a conductor, harmony can be added resulting in music to our ears! The sheet music is analogous to the supply chain plan, and the conductor to the supply chain director or manager. They ensure that the players operate as a team and perform in an integrated manner.

\(^2\) With due acknowledgement to Benjamin Britten’s *Young Person’s Guide to the Orchestra.*
6.3 Divergence of Theory and Practice – The Limitations of Hard-Wiring

There is significant evidence of a divergence between theory and practice in relation to this “big idea”. The comprehensive literature review of Chen and Paulraj (2004) noted that “practitioners are far from mastering SCM” (p. 150). Some authors, while asserting that SCM is a sound concept have noted that turning the idea into practice is not easy and that it has so far received more lip service than accomplishment, except in a few leading edge companies (Leenders et al., 2002). Carter and Narasimhan (1994) noted that the incorporation of SCM into the overall business planning process is not widely practiced. As noted earlier, the concept of integration lies at the heart of SCM philosophy. However, there is significant evidence of a divergence between theory and practice in this core area. For example, Storey et al. (2006) recognise that the theory suggests that the supply chain should be managed from end-to-end but note that, “our research found very few examples of this” (p. 763). The work of Fabbe-Costes and Jahre (2007) concluded that, “at this point in time it seems that we can confirm that integration is more rhetoric than reality, that it might be more difficult in practice than in theory” (p. 848). Using their own cultural reference they likened this scenario to that of the “Emperor’s New Suit” or “new clothes”. Their more recent work (Fabbe-Costes and Jahre 2008) reinforces this view. In short, there is evidence to suggest that there are – as Storey at al (2006) put it – “substantial gaps between theory and practice” (p. 769). Stank et al. (2011), in their recent synopsis of The New Supply Chain Agenda (Slone et al, 2011), make a similar point when they state that: “Unfortunately, few companies have yet to take advantage of the stakeholder value opportunity presented through supply chain activities” (p. 941). These arguments raise important questions concerning the real impact of SCM theory in practice.

In relation to the scholarly body of logistics and SCM knowledge, a number of interesting factors are evident. Firstly, some academic literature focuses on doing little more than describing phenomena that exist in practice. Secondly, another significant body of literature lays out prescriptions for success, often based on notions of so-called “best practice”. As New (1997) put it, this results in a form of “normative tension” between the is and the ought and goes on to state that:

the rhetoric of managerial folklore tells managers to feel that they should take a broad, integrative approach and ‘manage the whole chain’, and this often clouds practitioner reports, with both overstatement and yet profound cynicism (p. 16).

Thirdly, there is much literature that is primarily concerned with identifying trends in relation to the implementation of SCM in practice. Thus, as put by Storey et al. (2006), the literature tends “to move rather imperceptibly between description, prescription and trend identification” (p. 757).

These factors need to be considered through the lens of research philosophy and the positionality of researchers. The philosophy underpinning research of any kind is closely bound up with notions of ontology, epistemology and axiology. In particular, it relates closely to the concept of a paradigm with the paradigmatic preferences of the researcher determining to a great extent the detail of the methodology adopted. From the perspective of research in business and management generally researchers tend to position themselves along the positivist – interpretivist continuum. Positivist approaches are largely quantitative in nature and focus on testing theoretical propositions in an objective manner. Interpretivist approaches, on the other hand, tend to be more qualitative and, therefore, subjective in nature and often aim to build (i.e. rather than to test) theory. As noted by Mangan et al. (2004), “the majority of logistics research is, rightly or wrongly, primarily populated by quantitative research viewed through a positivist lens” (p. 575). This assertion is borne out by the reviews carried out by Dunn et al. (1994), Mentzer and Kahn (1995) and Samuel (1997) in the 1990s, and more recently by Sachan and Datta (2005), Frankel et al. (2005) and Spens and Kovacs (2006). For example, Sachan and Datta (2005) report that of the papers published in the Journal of Business Logistics, Supply Chain Management: An International Journal and the International Journal of Physical Distribution & Logistics Management between 1999 and 2003, the majority (over 60%) make exclusive use of research methods associated with the positivist paradigm (surveys, simulation and mathematical modeling). In many ways, the dominance of positivist research and largely quantitative methodologies is mirrored by the strong focus of the so-called “hard-wiring” of supply chain in practice. This hard-wiring is concerned primarily with technology, systems and structures. For example, recent research in an Irish context carried out by the author reveals that the great majority of recent and
planned major SCM initiatives by firms are in areas like information and communications technology (ICT), organization re-structuring, process control and other components of the hard-wiring.

The point is that almost any situation can be described in mathematical language or in an algebraic formula. Such constructs can then be analysed in great detail and appropriate interpretations drawn. However, such analysis is entirely meaningless in the absence of an understanding of the real environment that the mathematics is attempting to describe (see Figure 6.2). Indeed, the construction of mathematical models almost always requires analysts to make assumptions about the nature of the real situation that they are trying to model. Thus, a critical issue in the analysis concerns the impact of these assumptions on the way in which models are interpreted and, in particular, how any assumptions made impose limitations on how the model can be used in practice.

\[
f(x) = f(x_1) + f(x_2) + \ldots + f(x_n)
\]

where \[
f(x_i) = \frac{\beta_i}{\eta_i} \left( \frac{x - \gamma_i}{\eta_i} \right)^{\beta_i - 1} \exp \left[ -\left( \frac{x - \gamma_i}{\eta_i} \right)^{\beta_i} \right]
\]

Figure 6.2 The Mathematical Descriptions of Real Environments

The fundamental point here is that adoption of purely positivist approaches to SCM research is seriously limiting as supply chains are, first and foremost, about people. Similarly, improvement initiatives in firms that focus exclusively on the “hard-wiring” dimension by definition largely ignore the people dimension and are unlikely to fulfil their potential as a result. This points to the need for a new focus on the Human Chain.

6.4 The Human Chain

The author has been a fan of Irish Nobel literature laureate Seamus Heaney for as long as he can remember. The initial interest was sparked by his work about a namesake. Sweeney Astray is a translation by Heaney from the Irish Buile Suibhne, which translates into English as The Madness of Sweeney or Sweeney’s Frenzy. The story follows a mad king called Sweeney in his crazed wanderings through the countryside, torn within himself by his love of the wild and his incurable loneliness. Seamus Heaney’s 2010 collection of poems – Human Chain – addresses, amongst other issues, relationships (between – for example - husband and wife, child and parent, the past and the present) and affirms the interconnectedness of phenomena. Supply chains are about people: customers are people; suppliers are people; those who design, manage and execute supply chain operations are people. However, as noted in the introduction to this Chapter, the people dimension has traditionally been underemphasized both in research and in practice.

In relation to research, Mangan et al. (2004) discussed the appropriateness of the positivist and interpretivist paradigms with reference to supply chain and logistics decision making noting that:

it could be suggested that positivism is relevant for getting an overview and for considering the broad structure of decisions, whereas phenomenology (i.e. interpretivism) is useful for finding out at the micro-level about the behaviour of the decision maker (p. 568).

This mirrors a comment made by New and Payne (1995) almost a decade earlier, albeit using slightly different language:

3With due acknowledgement to Antoine de Saint-Exupéry’s Le Petit Prince
The most striking conclusion is that while logistics is a difficult area for relevant empirical research, progress may be possible if the range of methodologies employed expands to match the greater scope of the holistic interpretations of logistics. ‘Soft’ data – such as managers’ expectations or fears concerning the behaviour of suppliers and customers – is as important as data on stock turns or delivery patterns. This presents a considerable challenge to a predominantly technical field (p. 74-75).

Both papers are suggesting a role for multi-paradigmatic positions, and the consequential use of methodologically pluralist approaches, to enrich and develop logistics and SCM understanding. Amongst the recommendations of Sachan and Datta (2005) is an increased focus on the use of “behavioral research methods” to develop new insights into what we know about contemporary supply chains. They also note that as a result of the dominance of positivist approaches research in the discipline “is not able to look the system holistically”. Other authors - notably Naslund (2002) – have also called for more research based on the interpretivist rather than the purely positivist paradigm.

In relation to SCM practice – and as noted earlier – there has traditionally been a strong emphasis on the hard-wiring with a focus on, for example, technology and systems. This ignores the criticality of the people dimension – the Human Chain to borrow Heaney’s language. The orchestral analogy outlined earlier in this article illustrated the centrality of integration in the overall SCM paradigm. But integration (either intra- or inter-firm) is predicated on relationships: relationships between individuals; relationships between teams; relationships between functions; relationships between divisions; and, relationships between upstream and downstream organizations, and relationships are in essence about people. For many firms, the adoption of the holistic SCM approach requires a reappraisal of the way in which both internal and external customer/supplier relationships are created and managed. The creation and management of so-called “partnerships” – possible the most abused word in the supply chain lexicon - with all customers and suppliers (internally and externally) is not what SCM is about. There is no “one size fits all” approach to this. There are many possible relationship forms and choosing the right ones in specific situations is the key. Nonetheless, one of the biggest manifestations of the adoption of SCM in recent years has involved the move away in many sectors from adversarial relationships with key external suppliers towards relationships which are based on mutual trust and benefits, openness and shared goals and objectives.

Similarly, my experience suggests that good supply chain design and management in practice is neither purely an art nor a science. It is probably best described as amalgam of the two and more akin to a craft. It certainly has elements of art in that creativity and innovation are critical success factors. But there is also a scientific dimension with a need for robust analysis and concomitant attention to detail.

Finally, recent years have seen a strong focus in research and in practice on the notion of supply chain “best practice” often linked to inter-firm benchmarking processes. I strongly dispute the concept of “best practice” in this context. The notion implies that there is one single optimum supply chain strategy that is equally appropriate irrespective of the detail of individual scenarios (i.e. that “one size fits all”). Every company has unique products, unique processes and – perhaps most importantly – unique people and a unique culture. The resultant reality is that every supplier and every customer in has its own particular cost/customer service drivers and its own set of strategic priorities. The detail of each customer/supplier dyad is also characterised by its own unique set of factors. The optimum solution must be tailored to each of these sets of factors to reflect the uniqueness of the specific scenario. Indeed, it has long been recognised that good supply chain design practice in any sector must be based on: (i) fully understanding these dynamics; (ii) designing supply chain configurations that take these dynamics into account; and, (iii) implementing these solutions superbly with strong attention to detail. The latter is important as “the devil is in the detail” and this detail varies significantly from company to company and from supply chain to supply chain.

6.5 Implications for Supply Chains Managers

The major lesson for practitioners from the foregoing is that progress in putting SCM theory into practice is unlikely unless the right questions are asked. So what is the question? The key question
for SCM professionals is: what is the optimum supply chain configuration given that I have certain unique strengths and weaknesses, and that the market and the wider business environment is likely to throw up particular opportunities and threats? The bad news is: (i) while we can of course learn from so-called “world-class” exponents of SCM practice, we can not blindly copy so-called “best practice”; and, (ii) there are no “magic solutions” or “silver bullets” or “panaceas”.

This raises questions in relation to the key components of “appropriate practice” (as opposed to so-called “best practice”). The author’s ongoing research into SCM practice in firms in Ireland (indigenous and multinationals) suggests that while pockets of excellence do undoubtedly exist, there is significant room for improvement in many sectors (particularly in the more traditional industries). The areas for improvement relate to many factors, one of which is overall supply chain structure/configuration/architecture (the primary focus of the “best practice” model). These factors include, but are not limited to:

- investment in supply chain ICT and systems as a facilitator of integration (i.e. the hardwiring);
- creating and managing relationships in the supply chain (i.e. the soft-wiring);
- elimination of excessive complexity - and other non-value adding activities (NVAs) - in many supply chain operations;
- effective measurement of supply chain performance; and,
- (of course returning to the first theme of this chapter - SCM’s “big idea”) integration between internal supply chain activities, as well as between firms upstream and downstream in supply chain.

The author’s ongoing work suggests that addressing these issues has the potential to significantly improve supply chain capability and performance.

**References**


Supply Chain Management: Perspectives, Issues and Cases

It is quite complicated to mention the developments that have been taking place in recent years in management studies and, in particular, in Supply Chain Management (SCM). Based on this premise, the volume contains contributions that highlight some basic issues of the recent international debate on SCM, which has gained the attention of several scholars, for a deeper understanding of its theoretical implications and to improve the methods and scope of empirical research. Accordingly, the book presents a large number of papers relating to SCM as well as the Logistics and Transport Services Industry, written by academics, managers, entrepreneurs, practitioners and other experts.

The volume, therefore, includes papers by Authors with different backgrounds, research and practical expertise. Hence, this reflects both the wide scope and complexity of SCM, and the variety of perspectives from which processes and strategies are analyzed and interpreted.

This volume is structured into three sections, which represent three different points of view on issues, constraints and actions, revolving around SCM and Logistics and Transport Services industry.

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