

# Towards A Human Resources Management Approach In Supply Chain Management

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**Abstract:** Supply chain management (SCM) has grown as a discipline since the field attracted attention in the 1980s. However, it is observed that effective implementation of SCM is limited because the current focus is too task-based and information-centric. The concept is often conflated, in practice, with subcontractor management, where numerical flexibility is pertinent. At the same time, consideration of human resources management (HRM) in SCM has been limited. Strategic fit within supply chains tends to emphasise task-based numerical flexibility, rather than genuine consideration and development of human resources. On the other hand, HRM has, until recently, rarely taken into account inter-organisational characteristics that typify the construction industry. Therefore, this research intends to plug the gap by examining the use of human resources in construction supply chains, with a view of developing good practice for HRM in construction SCM. To achieve this, a two-phase research methodology comprising a scoping phase and case study phase will be ensued.

**Keywords:** Human Resources Management, Inter-Organisational, Literature, Project Environments, Supply Chain Management

## 1. Introduction

The field of supply chain management (SCM) has gained much popularity over the last three decades. SCM has come of age, with commentators suggesting it has developed from mere physical management of materials and logistics to understanding demand chains to more recent notions of value chains. Notwithstanding its various perspectives, effective SCM is understood to enhance organisational efficiency, effectiveness and competitiveness through improving customer and end user satisfaction. Despite much interest, the existing understanding of SCM is limited in terms of exploring the role of human resource management (HRM). To date, the emphasis of HRM in supply chains has been limited to a secondary function. This paper is a position paper, advocating the need to develop a more proactive approach in utilising human resources as a generator of value in supply chains, especially in project-based environments pertinent to the construction industry. As such, the paper puts forward a methodology for bridging the gap to examine the use of HRM in construction supply chains. The paper is organised as follows. Firstly, an overview of the extant literature of supply chain management which argues for the need to consider greater emphasis of HRM issues is presented. Thereafter, the aim and objectives of the ongoing research are outlined. Finally, the research methodology is discussed.

## 2. The evolution of supply chain management

Supply chain management (SCM) has grown as a discipline since the field attracted attention in the 1980s. SCM has developed from purely physical management of materials and logistics to understanding demand chains to more recent notions of value chains (Walters, 2004). Notwithstanding various perspectives of SCM, there is consensus in the literature that effective SCM enhances organisational performance and competitiveness through the management of operations across organisational boundaries (Giannakis *et al.*, 2004).

The emphasis of SCM has changed over the last three decades. The extant literature indicates that early focus of SCM lie within the movement of materials and components (Jones and Riley, 1987); with some commentators suggesting SCM is an extension of vertical integration (see Stonebraker and Liao, 2006). SCM has also been analysed from the marketing perspective, with academics and practitioners stressing the importance of business-to-business relationships within supply chains (Christopher, 1992). Concomitantly, the importance of customer satisfaction and the role of SCM in delivering value to customers and end-users have been addressed (Harland, 1996). In order to deliver customer value, Christopher (2004) asserts that businesses need to concentrate on developing their core competencies (Prahalad and Hamel, 1990). Subsequently, firms have begun developing their knowledge base (Teece, 1998) and engaging with the organisational learning agenda (e.g. Bessant *et al.*, 2003), often with information and communication technologies (ICT) as enabling tools (van Hoek, 2001).

However, the role of HRM in effective SCM, especially across firm boundaries, has not gathered much attention thus far. By HRM, we consider practices such as recruitment and selection, retention, training and development, rewards and incentives, employee involvement and participation etc. (see e.g. Ulrich, 1997). Where HRM is addressed, it is usually portrayed as a secondary, support function. For instance, Porter (1998), in his well-known value-chain model, explicitly highlights HRM as a secondary function. Croom *et al.* (2000) reviewed the SCM literature and noted that HRM is mainly confined to rewards and incentivisation, with “only one work that highlights the links between organisational competence and individual competence, and none relating to the links between individual and organisational competence required for good supply chain management (p. 73)” (see also Scarbrough, 1998). Winfield and Hay (1997) and Dyer and Nobeoka (2000) undertook research on Toyota and examined the impacts of supply chain development on employee relations. Thus, previous empirical studies discuss HRM only as consequences of SCM, rather than the consideration of HRM as a driver for effective SCM.

Indeed, HRM is rarely examined in the way decisions are made in SCM. For example, Goffin *et al.* (2006), in a recent exploratory study, noted that while the literature extols the need for integration in the supply chain, the reality is that consideration of supplier competence is far from ideal (Scarbrough, 1998). Power (2005) purported that the adoption of strategic thinking across the supply chain is challenging since “this is easier said than done within a stand-alone organisation, let alone across a diverse and dispersed group of trading partners (p. 252)”. Even the literature on supplier development (Krause and Scannell, 2002) aimed at integrating supply chains has focussed on aligning business processes across multiple organisations, albeit with little emphasis on HRM.

There is scope for exploring the role of HRM in driving effective SCM in construction, and how greater alignment and integration of HRM practices can be achieved for the benefit of

effective SCM. The next section looks in greater detail at the specific SCM literature relevant to construction and puts forward an argument that construction provides a unique context for exploring the role of HRM, within an inter-organisational setting, in supply chains.

### **3. Supply chain management in construction**

Much SCM research has hitherto centred upon manufacturing and retail industries (Tan, 2001). Indeed, the adoption of SCM in construction has lagged behind these industries. Akintoye *et al.* (2000), for example, surveyed the top 100 contractors in the UK and found that although there is some awareness of the concept of SCM, its adoption is still in its infancy. More recently, Briscoe and Dainty (2005), through case study research, suggested that the structural characteristics of the industry (one-off projects, geographically dispersed and high fragmentation) hamper the full realisation of supply chain integration. This echoes with observations made by several commentators, including Dubois and Gadde (2000) and Akintoye *et al.* (2000).

Indeed the exploitation of the benefits of effective SCM is not fully realised in the construction literature. Studies abound on the use of construction SCM for waste minimisation (see Proverbs and Holt, 2000; Vrijhoef and Koskela, 2000), often hinging on lean manufacturing philosophies (see Jones and Saad, 1998). Still, several dissenters have voiced their views against the mere transference of such principles from manufacturing without recognising the nuances of construction (see Green, 1999; Bresnen and Marshall, 2001), resulting in recent calls for more thorough, holistic understanding of SCM application in construction (see Akintoye *et al.*, 2000; Saad *et al.*, 2002; Briscoe and Dainty, 2005).

There is also another perspective of SCM that has been examined in the construction literature – that of supply chain relations. For instance, Dubois and Gadde (2000) investigated the issues of partnering and networking with construction suppliers and found that effective supply networking was, in reality, absent because of the dominant focus of project efficiency and competitive procurement methods. Work has also been undertaken on improving and standardising the design and construction process to integrate the variety of project stakeholders (Cooper *et al.*, 2004), as well as to improve trust in construction (see Wood *et al.*, 2002). Other notable work that touches upon relationships is the investigation into the issue of knowledge management, in particular the ability to locate knowledge held in people's heads (Kamara *et al.*, 2002; Tan *et al.*, 2004). However, all these studies have focussed largely on activity at the managerial level, with little reference as to how this might be applicable to human resources at the grassroots. Indeed, Saad *et al.* (2002) found that SCM in construction is only confined to the clients, consultants and contractors, with very little cascading lower down the supply chain in reality. Briscoe and Dainty (2005) also examined construction SCM from a client-driven perspective (see also Vrijhoef and de Ridder, 2005).

The role of HRM is largely unexplored in the construction SCM literature, especially in terms of how HRM can be utilised to integrate and align business processes across organisational boundaries. Yet, recent construction literature points to the importance of people in construction. Green (1999) talked about the human costs of lean production, whilst the Egan (1998) report fuelled the Respect for People agenda (Movement for Innovation, 2000). In fact, Loosemore *et al.* (2003) called for more proactive, strategic approach to HRM when managing construction projects. Arguably, given the construction sector's reliance on people

to deliver projects (Clarke, 2006), and its temporary multi-organisational nature, it is important to explore the role of HRM in construction SCM.

#### 4. Research gaps

O'Brien *et al.* (2002) observe “there needs to be development of shared understandings of epistemologies and ontologies (p. 141)” in the adoption of effective SCM in construction. Indeed, there are calls for deeper, more holistic understanding of SCM from an inter-organisational perspective. Harland (1996), for example, observed that SCM research has largely concentrated on dyadic (one-to-one) relationships, possibly due to restrictions of access. Fawcett and Magnan (2002) maintained that while the literature has promulgated an inter-organisational view of supply chains, their multi-methods study found the reality of extensive supply chain integration and collaboration between organisations to be less prevalent. In associated fields of organisational learning and knowledge management, there are also calls for more empirical studies that delve into the inter-organisational dynamics, particularly within supply chains (Holmqvist, 2003). Interestingly, Truss (2004) recently observed that the study of HRM has hitherto adopted an intra-organisational perspective (see e.g. Ulrich, 1997; Hadley *et al.*, 2005) as she developed a framework for managing human resources across firm boundaries in a franchise setting.

It is argued that construction provides a unique opportunity for developing a deeper inter-organisational understanding of SCM, and the role HRM can play across organisational boundaries. This is because the *modus operandi* of construction is typified by temporary multi-organisations. This structural characteristic of the construction sector also provides scope for investigating what Lamming (1993) calls the study of supply chain relationships as “quasi-firm” (see also Eccles, 1981). Harland *et al.* (2004) suggest that “the management of lean supply chains may require [the view of supply chain relationships] as a “quasi-firm” with its own organisational structure and goals, communication mechanisms and culture (p. 214)”. Indeed, the study of construction supply chains is also timely in the UK given current demand with events/initiatives like Olympics 2012 and the level of public spending in terms of healthcare (Procure21, LIFT), schools (Building Schools for the Future), and housing (affordable housing, and Decent Homes Initiative). Furthermore, with advances in procurement strategies that encourage collaborative working, particularly between the public and private sectors (Hall *et al.*, 2000; Hughes *et al.*, 2006), the study of construction supply chains is ever pertinent.

## **5. Research outcomes**

Given the dearth of research examining the role of HRM in construction supply chains and the need for deeper, more holistic understanding of how best to utilise human resources in an inter-organisational context, the key aim of the ongoing research is “to develop a more proactive approach in human resource management for managing construction supply chains”. To achieve the aim the following objectives will need to be met:

- To establish the “as is” and “desired” approach in human resources management for managing construction supply chains within a construction project setting;
- To investigate the HRM factors that contribute to the efficacy of construction supply chain management at the project-level;
- To investigate the shifting emphases of HRM throughout the construction project life cycle;
- To develop and test a prototype approach of HRM for effective construction supply chain management at the project-level that considers both systematic (procedural) and systemic (cultural) issues, and;
- To disseminate good practice of HRM in managing construction supply chains effectively.

The research is intended to benefit both the academic and industrial community. For the academic community, the project will result in the development of new models of supply chain management that will integrate human resource management practices. The work will also extend the current understanding, both theoretically and empirically, of the inter-organisational dynamics surrounding construction supply chains (as “quasi-firms”). For industrial practitioners, the methodology adopted will enable participants to reflect on their organisational practices. The resultant guidelines will provide practitioners with insights into how best to utilise their human resources for effective supply chain management.

## **6. Research methodology**

Due to the exploratory nature of the research, the research methodology adopts an interpretative framework largely comprising the conduct of case studies (Yin, 1994) that consists of interviews with a range of stakeholders and documentary evidence where available. The research is split into two phases: a scoping phase and case study phase. An overview of the research methodology is illustrated in Figure 1 below.

### ***6.1 Phase 1: Scoping phase***

Phase 1 – Scoping phase – consists of a desktop study and the conducting of preliminary interviews. The purpose of this phase is to exhaustively identify the key HRM issues in construction supply chains, as well as to help refine the research questions. The desktop study is aimed at systematically reviewing the literature in accordance with the guidance provided by Tranfield *et al.* (2003). The subject areas to be covered include human resource management practices and supply chain management, with special emphasis on construction project-based environments. The review will also consider the impacts of construction procurement, since the adoption of any organisational practice in construction will depend on the choice of procurement strategy. Following the systematic review, scoping interviews will be conducted with senior managers in the first instance of stakeholder organisations within a typical construction project, i.e. client, design team, contractor, subcontractor and supplier. The scoping interviews are intended to elicit the senior managers' views on how HRM is practised at that point in time. This will enable the construction of an “as-is” model of HRM in construction SCM. The scoping interviews will also explore the issues – drivers and barriers – to adoption of HRM practices in construction supply chains.

### ***6.2 Phase 2: Case study phase***

Following the scoping work undertaken in Phase 1, the findings will enable the development of case study methodology in the second phase. The case study phase is further broken into two rounds. The ‘first round’ case studies include data collection from six case study projects: two case studies from construction projects undergoing early design stage; two case studies from projects undergoing tender stage, and two case studies from projects undergoing construction to handover stage. The purpose of the case studies is to first verify the findings obtained in the scoping phase, and more importantly, to examine systematic (procedural) and systemic (cultural) issues surrounding the implementation of HRM in construction supply chains in greater detail. The range of case studies and the stages of the construction project life cycle will provide both temporal and longitudinal insights into the opportunities in the design and construction process where HRM practices can be appropriately adopted for effective SCM. Unlike the scoping interviews, it is likely that interviews will be conducted with senior managers, line managers and a range of employees. Furthermore, documentary evidence (e.g. organisational archives, project records), where available, will be examined.

The ‘second round’ case studies will involve repeating one case study from each of the stages selected in the first round. The purpose is to track any potential changes in the dynamics as a result of progressing through the project life cycle, as well as to explore opportunities for intervention. The ultimate aim is to test and verify the good practice of utilising human resources in construction supply chains before final dissemination. It is anticipated that interviews will be undertaken in a similar fashion to the ‘first round’ case studies, although the questions are likely to be directed at understanding the changes that took place since the first interview. As such, it is hoped that more depth in relation to longitudinal insights of the adoption of HRM practices in construction supply chains will be sought.

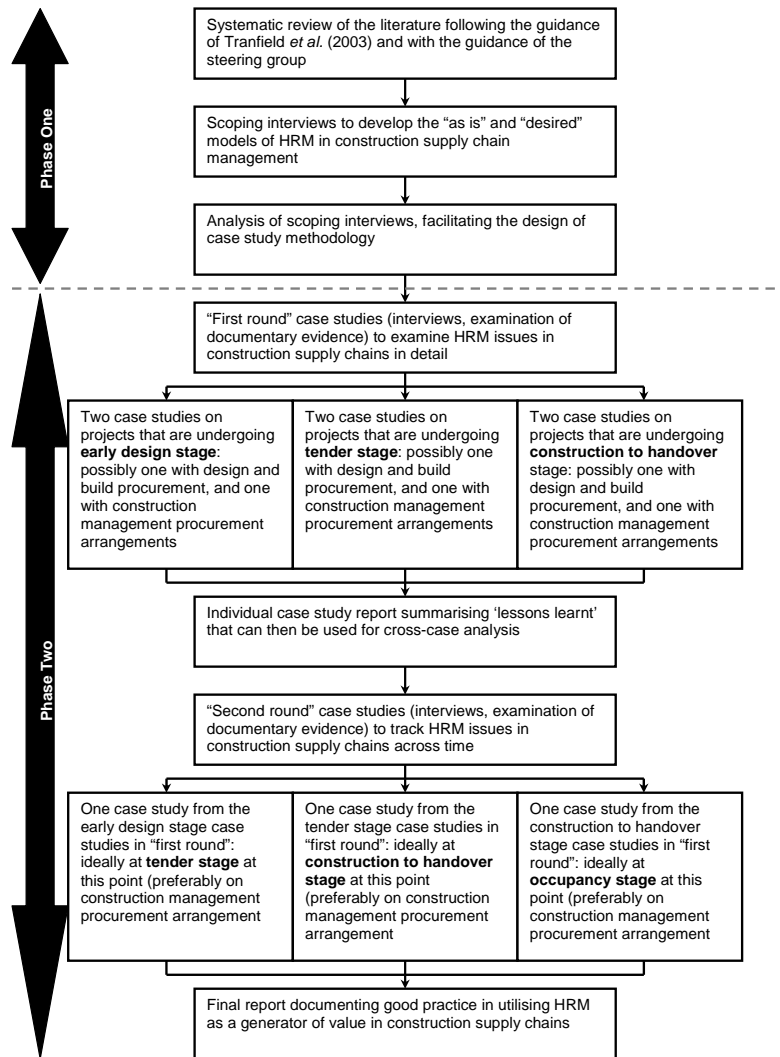


Fig. 1. Research methodology to develop a HRM approach in construction SCM

## 7. Conclusions

In conclusion, this paper has reviewed the extant literature on supply chain management and found a lack of research aimed at understanding the role of human resource management in the effective management of supply chains. Alongside this gap, there are also calls for the consideration of HRM across organisational boundaries. The embryonic research described here attempts to plug these gaps with a two-phase research methodology. The first phase comprises a series of exploratory interviews conducted with senior managers in stakeholder organisations (client, contractor, subcontractors and suppliers) within the supply chain of a typical project in the Northeast of England. This is to capture the perceptions of exploitation of HRM in managing construction supply chains and to elicit from the participants areas of consideration for enhancing the use of HRM in managing construction supply chains for delivering project success. Therefore, the first phase will contrast “as-is” and “desired” models of HRM in construction supply chain management. The second phase involves the conduct of six case studies that will enable the research team to delve deeper into the issues identified during the exploratory phase and to advance a model of HRM in construction supply chain management. The “as is” and “desired” models established in Phase 1 will be instrumental during the case studies to explain the practical drivers and barriers (on both systematic and systemic issues) to affording a more proactive approach of HRM in construction supply chains. The six case studies will be drawn from different stages of typical construction projects – two from early design stage, two from tender stage, and two from construction to handover stage. Furthermore, one prospective case study from each stage will be repeated so that the research team can learn from the issues relating to changes across time. Taken together, Phases 1 and 2 will provide a robust methodology that will contribute to the development of a more proactive approach in HRM for the managing of construction supply chains.

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