Walking on academic crossroads: Exploring M&A as temporary organizations

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OVERVIEW OF THE SYMPOSIUM

By Satu Teerikangas & Joana Geraldi

Integration in the Study of Organizations – A Lack of Integration?

The significance of the notion of 'integration' in the study of organizations was coined by Lawrence and Lorsch's (1967) seminal theory on how organizational departments structure themselves in response to shifting demands from the external environment. Lawrence and Lorsch argued that both differentiation and integration are required in the structuring of organizations and, in particular, organizational departments. 'Differentiation' refers to the structural mechanisms that distinguish departments (e.g. sales and marketing, operations, finance, research and development) from one another, whilst integration' refers to the levels and forms of collaboration necessary between the departments for the firm to achieve its overall objectives. Integrative mechanisms could relate e.g. to the use of cross-functional teams, managerial contact, paper systems, or managerial hierarchy (Lawrence & Lorsch, 1967). The publication of this seminal work formed part of the scholarly interest in appreciating the contingencies affecting organizations. Since then, the term 'integration' has gained popularity across a range of organizational contexts above and beyond the study of inter-departmental structuring.

Indeed, the last decades have witnessed an increasing academic and practitioner interest in the notion of 'integration' in the study of organizational and inter-organizational phenomena, be they of permanent or temporary nature. This interest can be observed, for example, in the context of the management of multinational firms, the implementation of mergers and acquisitions, the management of operations and supply chains, or the management of major 'mega'-projects, all of which have seen a rise in interest in applying the notion of 'integration' to their particular context of practice and/or academic research.

Beyond these phenomena, the term ‘integration’ appears as a conceptual dimension in the analysis of organizational culture dynamics (Wilson, 2001), the phases of planned change (Bullock & Batten, 1985), and in the characteristics of activity planning (Beckhard & Harris, 1987). Whilst this increasing amount of work has characterized each of these individual streams of research and practice, taking a critical stance, we observe that these reflections on integration across various organizational and inter-organizational realms have taken place largely in disregard of one another. It can thus be argued that a silo-based approach to the study of integration across organizational and inter-organizational phenomena characterizes the present state of the art. International business scholars have focused on means of integrating in the context of large, globally operating firms (add). Academics in strategic management have taken an interest in post-merger/acquisition integration as a means of capturing the value sought from a particular transaction (Mace & Montgomery, 1962; Haspeslagh & Jemison, 1991; Larsson & Finkelstein, 1999). The study of operations and supply chains has sought to appreciate the means of enhancing productivity and efficiency through enhanced within and across-firm integration of supply chains (add ref). Finally, in the context of mega-projects, typical to infrastructure projects, the notion of integration has emerged as critical in appreciating the ways in which the participating organizations in the mega-project can be made to cooperate more effectively together (add ref).

Despite developments in the study of integration within each of these contexts respectively, we observe to date little debate or cross-fertilization of knowledge across these varied organizational contexts across which the notion of integration is critical. This is the theoretical background against which the paper symposium proposal is set. The aim of the symposium is to initiate a dialogue amid scholars focused on the study of integration across relevant organizational contexts. Key questions to consider include: What is the importance of integration in a particular field of study? How is integration defined, approached and studied? What performance implications are observed? How is integration related to other organizational processes taking place? What are currently researched topics on integration? What kinds of integrative mechanisms are at play? In so doing, the symposium seeks to engage scholars to a longer-standing, inter-disciplinary and inter-phenomena cooperative debate on the role of integration in the study of organizations. Nearly 50 years after the publication of Lawrence and Lorsch's (1967) seminal theorizing on the role of integration in explaining how organizations structure themselves in response to demands from the external environment, is it time to review our understanding of integration across organizational phenomena? Is it time to integrate the existing appreciation of integration across organizational realms?

Presentations

In the paper symposium, the focus is on the conceptual and empirical overviews of the study of integration across organizational and inter-organizational contexts, be they of permanent or temporary nature.

The first paper focuses on the role of integration in multinational enterprises. Given their global reach, integration has emerged as an increasingly critical means of enhancing effectiveness and transferring knowledge across subsidiaries and national borders within the remit of multinational enterprises. Despite a wealth of scholarly interest in the study of integration in this context, the field has to date lacked critical reviews of the notion and role of integration in multinational contexts. This is the main aim of the first presentation. Colman, Grogaard & Stensaker proceed to reviewing current theorizing and findings on integration in the context of multinational enterprises. This critical, conceptual review leads the authors to identify when integration is most in need for multinational enterprises, and how such enterprises can most effectively make use of the integrative mechanisms available to them.

Mergers and acquisitions (M&A) rank amid firms' most favoured means of strategic expansion. The role of post-deal integration has been identified as critical to securing the sought performance and value added from a particular transaction (Haspeslagh & Jemison, 1991; Larsson & Finkelstein, 1999). Indeed, practitioners rank post-deal integration among the greatest challenges in making M&A work. This has been paralleled with an active scholarly interest in the study of M&A integration. Despite the concept as being central to post-merger/acquisition implementation, the authors of the second paper argue that the term itself has rarely lent itself to critical review or debate. The aim of the conceptual paper is to review key publications on M&A integration and to critically analyse the ways in which integration is defined and the theoretical foundations of these definitions. The authors find that the field lacks coherent, shared definitions of what integration 'is', and to this end, propose a definition of integration based on the reviewed material.

Building on the second presentation, the third paper argues that the notion of a temporary, or project-based organization, could be a means of organizing the post-merger/acquisition integration phase. Indeed, whilst practitioners organize merger integration via a set of inter-related projects and programs, this organizational focus appears lacking in the current theorizing on post-merger/acquisition integration. Based on a review of extant theorizing on the management of projects, the third paper proposes means through which the scholarly work on post-merger/acquisition integration could be enhanced via a project-based operationalization.

Following these three conceptual papers, the fourth and fifth presentations provide empirical insight into the study of integration in supply chain and mega-project contexts. The fourth paper focuses on the role of integration in within firm supply chain management. Whilst integration has been arguably identified as critical to the implementation of firms' supply chain management strategies, the fourth paper continues the classis exploration of

Lawrence & Lorsch's question of inter-departmental integration. The focus of the paper is on how personal from the supply chain side of the firm can contribute in the firms' product innovation activity. The findings stem from an annual, cross-sectional survey of manufacturing professionals. The paper highlights the integrative role of individuals in securing firm effectiveness.

The fifth paper takes the discussion on integrative roles from a focus on individuals to a focus on organizational convenors. The study is set in the context of mega-projects, i.e. temporary consortia of multiple organizations involved in the design and delivery of a major infrastructure system. A mega-project can thus be likened to a multi-party alliance. The scale and complexity inherent in mega-projects calls for coordinating the activities of the myriad of organizational players involved. The fifth paper studies the approaches to organizational coordination in mega-projects. The paper's findings are based on recent qualitative analyses of some of the United Kingdom's largest mega-projects, including the London 2012 Olympics.

Format of the symposium

The symposium begins with the chairs' introduction to the background, case and aims of the symposium. This is then followed by each of the five paper presentations. Each presenter is tasked to end their presentation with implications on the study of integration across organizational contexts. Short paper related questions are asked at the end of each presentation. The paper presentations are followed by the chairs' summary of the key insights stemming from this cross-disciplinary overview of the study of integration. The chairs then lead the audience into a facilitated discussion on the current status and future directions in the study of integration in organizational realms.

PROPOSED FORMAT OF THE SYMPOSIUM

Length: 90 minutes

Minutes 0-10: Welcome, introduction and aims of the symposium

- Satu Teerikangas & Joana Geraldi

Minutes 10-60: Paper presentations (10 minutes each)

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Minutes 60-90: Discussion

- Discussant comments
- Questions from the audience

Navigating Through the Jungle: Integration in the Multinational Enterprise

Helene C. Colman, Inger Stensaker, Brigitte Grogaard

The concept of integration has been a central theme in international business literature over several decades. Although multinational enterprises (MNEs) have engaged in the integration of their activities and resources throughout history, many firms continue to struggle with how to strengthen their competitiveness through integration (Bartlett & Ghoshal, 1988). Extant research has provided us with valuable insights into drivers and expected benefits of integration. Common drivers include efficiency pressures both internally and externally that lead firms to prioritize economies of scale and the development and utilization of knowledge across the MNEs' organizational units. Expected benefits typically include performance improvements (e.g. cost efficiencies) and better utilization of firm-specific advantages.

Various mechanisms have been identified to achieve integration in MNEs. These can for simplicity be divided into formal and informal integration mechanisms. On one hand, formal mechanisms such as centralized decision-making and global or regional standardization of organizational processes enable integration through structural changes (Keupp, Palmié, & Gassmann, 2011). On the other hand, MNEs also use informal mechanisms such as the development of shared organizational cultures and shared values to enable social integration of people (Cicekli, 2011; Clark & Geppert, 2011) and enhanced internal communication (Björkman, Barner-Rasmussen, & Li, 2004; Noorderhaven & Harzing, 2009).

However, many MNEs continue to struggle with what and how to successfully integrate. In this paper, we synthesize existing research on MNE integration and argue that there is a lack of insight into *how* MNEs can identify areas where integration is most suitable and *how* MNEs can effectively utilize and implement integration mechanisms. First, we identify the complexities arising from the wide range of conceptualizations of MNE integration. This complexity is further amplified by extensive research on integration in the areas of mergers and acquisitions (Birkinshaw, Bresman & Håkanson 2000) and within the field of organizational theory that is not fully aligned with the MNE research, even though the main concern for these literatures, as well, is achieving necessary control and coordination of activities and resources across organizational boundaries. The strands of research deal with various boundaries, either the boundaries between internal organizational units, premerger organizations or headquarter and their subsidiaries. In addition to the various conceptualizations of integration, there is also a myriad of different integration mechanisms. Although some of these mechanisms overlap, there is uncertainty around which mechanisms are most appropriate. To some extent, there has been a shift from a focus on structure and hierarchies towards socially contingent and normative integration mechanisms and forms of collaboration. However, the implications of this shift on the nature of integration and the overall mechanisms that foster integration as an outcome are unclear.

Second, extant research is unclear on *how* MNEs should use the identified integration mechanisms. For instance, few MNEs seek to maximize the centralization of decision-making or the standardization and formalization of routines and processes. Instead, firms strive to balance the need for integration with varying degrees of local adaptation. Indeed, it is widely recognized in the MNE literature that integration and local adaptation are not necessarily two opposites of a spectrum, but must often be combined and achieved simultaneously for MNEs to stay competitive (Meyer & Su, 2015).

This balance reflects the core assumption of one of the most often cited strategic frameworks for MNEs, the integration-responsiveness (IR) framework (Bartlett & Ghoshal, 1989; Prahalad & Doz, 1987). In their seminal book *Managing Across Borders*, Bartlett and Ghoshal (1989) introduced the ‘transnational’ strategy as the preferred strategy for MNEs seeking the more complex combination of integration and local responsiveness. However, the ability to identify and implement an optimal degree of integration remains a challenge and we have limited theoretical and empirical insights into how firms identify and achieve desired levels of integration. Indeed, the actual existence of firms with transnational strategies has been questioned (Gooderham & Ulset, 2002).

These complexities pose particular challenges for MNEs that seek an optimal balance between what/where to integrate and what/where to respond to local needs. We examine what extant research tells us about which mechanisms MNEs should use to assess the suitable areas and levels of integration as well as appropriate integration mechanisms?

In this paper, we identify the need to address the gap of how today's MNEs can navigate through the jungle of integration research and pursue the most appropriate integration mechanisms for their specific contexts. We take the first step in filling this gap by synthesizing research on MNE integration in top management journals where we distinguish integration as both a process, a set of management initiatives and as an organizational outcome. Several mechanisms are sketched out that provide new insights and venues for further empirical studies of mechanisms of interaction and exchange that operate at the boundaries of the organizations.

References

Barki, H., & Pinsonneault, A. 2005. A Model of Organizational Integration, Implementation Effort, and Performance. *Organization Science*, 16(2): 165-179

Bartlett, C. A., & Ghoshal, S. 1988. Organizing for Worldwide Effectiveness: The Transnational Solution. *California Management Review*, 31(1): 54-74.

Bartlett, C. A. & Ghoshal, S. 1989. *Managing across borders: The transnational solution*. Boston, MA: Harvard Business School Press.

Birkinshaw, J., Bresman, H., & Håkanson, L. 2000. Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation. *Journal of Management Studies*, 37(3): 395-425.

Björkman, I., Barner-Rasmussen, W., & Li, L. 2004. Managing knowledge transfer in MNCs: the impact of headquarters control mechanisms. *Journal of International Business Studies*, 35(5): 443-455.

Björkman, I., Stahl, G. K., & Vaara, E. 2007. Cultural differences and capability transfer in cross-border acquisitions: the mediating roles of capability complementarity, absorptive capacity, and social integration. *Journal of International Business Studies*, 38(4): 658-672.

Cicekli, E. 2011. Antecedents of Normative Integration in Multinational Companies: A Conceptual Model. *International Journal of Management*, 28(4): 177-183.

Clark, E., & Geppert, M. 2011. Subsidiary Integration as Identity Construction and Institution Building: A Political Sensemaking Approach. *Journal of Management Studies*, 48(2): 395-416.

Gooderham, P. & Ulset, S. 2002. 'Beyond the M-form': Towards a critical test of the new form. *International Journal of the Economics of Business*, 9(1): 117-138.

Keupp, M. M., Palmié, M., & Gassmann, O. 2011. Achieving subsidiary integration in international innovation by managerial 'tools'. *Management International Review* 51(2): 213-239.

Meyer, K. E. & Su, Y.-S. 2015. Integration and responsiveness in subsidiaries in emerging economies. *Journal of World Business*, 50(1): 149.

Noorderhaven, N., & Harzing, A. W. 2009. Knowledge-sharing and social interaction within MNEs. *Journal of International Business Studies*, 40(5): 719.

Prahalad, C. K. & Doz, Y. 1987. *The multinational mission: Balancing local demands and global vision*. New York: Free Press.

What actually *is* post-deal integration following M&A?

Toward a Synthesis and Reconceptualization of the Concept

Audrey Rouzies, Satu Teerikangas, Helene C. Colman

Paralleling the rise of M&A in the corporate realm, research on mergers and acquisitions (M&A) has burgeoned over the last century. Despite their growing numbers, M&As do not easily reach their sought performance targets (King et al., 2004). The execution, i.e. the management of the M&A process, and particularly the post-deal integration phase (hereafter integration), is raised as critical for M&A performance (Haspeslagh & Jemison, 1991; Larsson & Finkelstein, 1999).

Despite being acknowledged as *the* challenge in making M&A work, a critical look at work on post-M&A integration points to a seeming lack of questioning as regards its defining characteristics. To begin with, the question of 'what integration is', is rarely raised. It appears that in the context of M&A, the term 'integration' has come to be so established that few, if any, seek to dissect or define it. Yet, in the absence of shared definitions, what is called 'integration' in one paper might not equal the view in another. Further, the term integration is associated with numerous related terms, be it 'cultural integration' (Cartwright & Cooper, 1993), 'task' and 'human integration' (Birkinshaw et al., 2000), 'sociocultural integration' (Björkman et al., 2007), 'procedural integration' (Shrivastava, 1986), 'structural integration' (Puranam et al., 2006), or 'integration strategy' (Haspeslagh & Jemison, 1991). It becomes legitimate to ask – what does integration, actually, consist in, and how does integration occur? In the absence of critical reviews, literature on M&A integration suffers from a lack of conceptual clarity with regard to what its central concept, namely integration, is vs. is not, what integration consists in, which concepts it relates to, and further, which theoretical lenses the concept of integration draws from.

This is the context against which this paper is set. It is acknowledged that new theoretical developments in a field build on the foundations provided by extant theorizing. However, in order to be able to stand on 'the shoulders of giants' (Merton, 1965) and to develop cumulative research, there is a need for conceptual clarity. We argue that providing consistency in the conceptualization of 'what integration is' is critical, if M&A research is to move forward. By taking a critical look at seminal extant research on M&A integration, we aim to assess the current state of this field of research and to bring forth an integrative definition to M&A integration. Such a critical and integrative review bears significance not only to research on M&A, but also informs, in a broader perspective, research on inter-organizational encounters, organizational design, and the broader social sciences, where the question of 'integration' is equally relevant.

METHODOLOGICAL APPROACH

The paper draws on seminal publications on M&A that specifically use the terminology 'M&A integration' and are focused on the dynamics of M&A integration, vs. for example, the cultural or human dimensions in M&A activity.

The list of reviewed articles was compiled as follows. Our focus was on leading academic journal outlets as well as seminal academic books ranging from the 1970s to the 2010s. We typed the keywords: '*merger*' and/or '*acquisition*' and/or '*integration*' onto the EBSCO Business Source Premier data set. A first list of 47 integration-related articles was identified. The three authors carefully analysed these articles. We excluded articles, which were not directly dealing with integration, though they mention integration in their title or as a keyword. Our final list thus came to count 23 articles. Following this first reading, the 23 articles were independently coded by two of the authors. The codes used in this analysis round included: (1) how is integration defined in the article; (2) how is integration conceptualized in the article; (3) is integration considered a process, an outcome, an activity, or other; (4) what is the level of analysis employed; (5) what is the method employed; (6) which background theories does the article rely on. After this second round of analysis, iteratively, the findings, as presented in the next section emerged.

FINDINGS

Our analysis highlights that the field lacks coherent definitions of this central concept in M&A integration. There appears to be a lack of conceptual clarity in the field; our understanding of the contingencies and nature of integration remains unclear. Our review suggests that the explicit and implicit definitions form an umbrella of M&A integration concepts. By categorizing these explicit definitions into four types, we provide the following definition of M&A integration that encompasses the existing definitions: *"Integration (in the M&A context) is a process of combination of firms that induces changes into one/both organizations, involves coordination, control, interaction and conflict resolution as well as centralization of support activities."*.

Then, a refined analysis of the implicit definitions of integration led us to fine-tune our imagery of post-M&A integration with respect to it relating to (1) strategies, goals and decision-making, (2) processes and phases, and (3) a set of managerial activities and actions.

We next proceeded to analyse the theoretical underpinnings of research on M&A integration. Whilst work on M&A has at times been criticized for being a-theoretical (Greenwood et al., 1994; Schweiger & Goulet, 2000) our analysis contradicts this argument. Our analysis posits that M&A research is anchored into a number of theories from various literatures. First, organizational design literature with respect to the role of integration and coordination in the designing of organizations (Laurence & Lorsch, 1967) forms a particularly powerful theoretical basis. Then, the literature in international business on control and coordination mechanisms in multinational firms (Bartlett & Ghoshal, 1989) and headquarter subsidiary relationships has been influential. Third, the literature on organizational learning with respect to exploitation vs. exploration features (March, 1991) regularly in the M&A integration strategy oriented papers. All three can thus be considered to form the core theoretical underpinning of the M&A literature on integration, though clearly the organizational design school dominates. Beyond these literatures, articles also refer to theories on strategy, e.g. with respect to the strategy classics such as agency theory. The planned vs. emergent approach to strategy implementation and change also features. The capability sharing literature and knowledge management literatures are referred to.

CONTRIBUTIONS

The paper makes the following theoretical contributions. For one, we untangle the 'messiness' characterizing the terminology related to M&A integration. The analysis and the subsequent definition of integration offered in the paper provide a platform for future, cumulative research endeavours on M&A integration. For another, we seek to position M&A integration into related disciplinary and theoretical discourses. Beyond informing the M&A debate, our findings induce an inter-disciplinary discussion on the links between the concept of integration across fields of theorizing in the organizational and social sciences. This leads us to point to avenues for future interdisciplinary inquiry in the study of 'integration' in the management and social sciences.

REFERENCES

Bartlett, C. A., & Ghoshal, S. 1989. *Managing across borders: The transnational solution.* London: Random House Business Books.

Birkinshaw, J., Bresman, H., & Håkansson, L. 2000. Managing the post-acquisition integration process: How the human integration and task integration processes interact to foster value creation. *Journal of Management Studies,* 37(3): 395-425.

Bjorkman, I., Stahl, G. K., & Vaara, E. 2007. Cultural differences and capability transfer in cross-border acquisitions: The mediating roles of capability complementarity, absorptive capacity, and social integration. *Journal of International Business Studies*, 38: 658-672.

Cartwright, S., & Cooper, C. L. 1993. The role of culture compatibility in successful organizational marriage. *Academy of Management Executive*, 7(2): 57-70.

Greenwood, R., Hinings, C. R., & Brown, J. 1994. Merging professional service firms. *Organisation Science*, 5(2): 239-257.

Haspeslagh, P. C., & Jemison, D. B. 1991. *Managing acquisitions: Creating value through corporate renewal*. New York: The Free Press.

King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. 2004. Meta-Analyses of post-acquisition performance: Indications of unidentified moderators. *Strategic Management Journal*, 25(2): 187-200.

Larsson, R., & Finkelstein, S. 1999. Integrating strategic, organisational, and human resource perspectives on mergers and acquisitions: A case survey of synergy realisation. *Organisation Science*, 10(1): 1-26.

Lawrence, P., and Lorsch, J. 1967. Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 12: 1-30.

March J.-G., 1991. “Exploration and exploitation in organizational learning”, *Organization Science*, 2(1): 71-87

Schweiger, D. M., & Goulet, P. K. 2000. Integrating mergers and acquisitions: An international research review, in C. Cooper and A. Gregory (eds.). *Advances in Mergers and Acquisitions*, 1. Amsterdam: JAI Press, 61-91.

Shrivastava, P. 1986. Postmerger Integration. *Journal of Business Strategy*, 7(1): 65-76.

Walking on academic crossroads: Exploring M&A as temporary organizations

Joana Geraldi

Paralleling the increasing corporate M&A activity since the 19th century, research on mergers and acquisitions (M&As) has emerged and increasingly burgeoned since the 1960s. Despite this ongoing corporate interest and liking to conducting M&As, research results keep reporting lamenting results (see e.g. King et al., 2004; Zollo and Meier, 2008). Research has identified M&A integration management as key to improved M&A performance (Haspeslagh and Jemison, 1991; Schweiger and Goulet, 2000; Teerikangas, 2006; Larsson & Finkelstein, 1999). As a consequence, research on M&A integration management has bloomed in the last decades.

Yet, it is striking that most of this research has remained embedded in the self-sustained context of literature on M&As (see also Mirc et al., 2010). Inspired by Zahra and Newey (2009) framework to explore intersections between academic fields, this paper links the literatures of M&A and project management[1]. We find the linking particularly intriguing, as there is a tendency in the practice of M&A to treat pre- and post-acquisition integration as ‘projects’, whilst no rigorous assessment or debate exists as to what best practices from the project management literature could be used to enhance the success of ‘M&A project management’, nor awareness of the recent developments in project thinking. It is this rigorous assessment that is at the core of the present endeavour. We discuss to what extent is M&A integration considered as projects and managed as such and with what consequences.

According to the traditional view of project management represented by the Project Management Institute (PMI), a project is defined as “a temporary endeavour undertaken to create a unique product, service or result” (PMI, 2013: 5); it should be managed by the

[1] Whilst acknowledging the debate within literature on projects surrounding the terms ‘project’, ‘project management’ and ‘management of projects’, in this paper, we use the term ‘project management’ to refer to this overall

"application of knowledge, skills, tools and techniques to project activities to meet project requirements" (PMI, 2013: 8). Seen from this perspective, projects concern the delivery of a pre-defined task in a pre-defined timeframe (e.g. Lock, 2007).

A look at the M&A practice and literature points to a wide use of the traditional project management: the pre-deal activities are often likened to 'projects'; the post-acquisition integration of the firms is managed as a 'project', and many common traditional project management tools and techniques are applied. Emphasis is placed on adequate planning, especially in the post-deal phase. The implicit assumption is that there is clarity in terms of 'project' scope and process, and so changes to plans and delays are to be avoided. Further, pre-defined timelines of 30/100/300 days (e.g. Angwin, 2004) have become an established mechanism of managing post-acquisition integration 'projects'.

This traditional project management approach provides an image of rationality and certainty, which can be advantageous, and promote legitimacy and a sense of security to employees. Yet, it comes with two underlining assumptions, namely that *scope* and *timeframe* can and should be defined at front, and at best, not altered.

The consequence is that managing M&A through traditional project management discourages change and makes it harder to accommodate emerging activities required in the integration process. Yet, the ultimate aim in M&As is the strengthening of the parent firm with the addition of the acquired firm, which often requires the integration of the firms organizationally, strategically, structurally and culturally. Hence, M&A integration is an uncertain endeavour, which involved the merger of two different structures and cultures in extremely political context, characterised by complex human intricacies. Its scope and specific work breakdown structure cannot be detailed up front. M&A integration would therefore profit from a more flexible management framework to respond and accommodate issues and opportunities identified throughout the integration process.

Moreover, managing M&A integration through projects assumes a pre-defined timeframe, and potential delays are recognised as a sign of project failure. The practice and research on M&As generally expected that on average one year suffices for post-acquisition integration to be completed. Yet, this expectation does not match the experienced duration of structural, social, and cultural integration, or the formation of a new identity following the merger or the acquisition (Laamanen and Keil, 2008; Teerikangas, 2006), which can last as long as 12 years (Biggadike, 1979).

We therefore deconstruct the notion of M&A as projects and propose two alternative approaches to management M&A integration: programme and portfolio. These alternative approaches come from project management domain, are based on the management through projects, but can be used to develop a more flexible platform to manage M&A integration, and so ratify the limitations of traditional project management.

M&A integration management could profit from conceptualising as ‘programmes’, as programmes do not assume pre-defined timeframe and scope as projects do. A ‘program’ is a framework to shape, host and manage a set of related projects and related activities in a coordinated way so to realise benefits that could not be obtained by managing projects individually (Pellegrinelli et al., 2011). Unlike projects, where the output of each sub-project is meaningless, unless coordinated and delivered with other projects; in programmes, each project has its own ‘business case’; yet projects realise more strategic benefits, when integrated with other, related projects. As programmes are defined as a set of projects, there are no strong barriers to the adding of new projects, if there is a strong indication that the new project will add value and contribute to the achievement of the intended strategic benefits. In this respect, programme can act as an umbrella to help the integration of disparate yet related initiatives, while maintaining much of their independency, which can be politically wise.

Another important implication is that the learning gained by the implementation of the first projects can be applied to the next projects within the programme.

This also means that the program does not need to be finished for it to provide its benefits (or a return on investment). Consequently, while programmes are temporary, they do not have a pre-defined time-frame as projects do, and hence can better accommodate the a longer-term and emergent nature of M&A integration.

In this respect, we propose that M&A integration can be managed in a three-phased approach. The first phase in the integration of an acquisition or a merger can be likened to an 'integration project' that can be signed off a year following the deal. However, this short term, seemingly transactional, 'project' focus to post-deal integration needs to be paralleled with another, longer-term perspective to these organizational upheavals. Projects do not lend themselves to the development of such longer-term and more flexible scope of integration.

A second, longer-term phase reflects the post-deal years, wherein gradually, more enduring and deeper-reaching changes can at best be expected to occur. These first years following the M&A deal can be managed as programmes, where the most relevant and intensive structural, cultural and social integration projects will take place, which are by nature more complex, uncertain and time-consuming.

As years passed, activities aimed at integration are no longer as intensive, and would not justify the structure of an ongoing program. This characterises a third phase in integration process. This phase could, in our view, could be managed as 'a portfolio'. Project portfolio management is a centralized, dynamic, complex and political decision process in which portfolios of projects, programs and other activities are constantly updated and revised, and ongoing projects maybe accelerated, terminated, or continued according to plan (Cooper, Edgett, & Kleinschmidt, 2002, p. 3). Its objective is to act as a bridge or hub between organizational strategy and project execution (Levine, 2005) with the goal to achieve specific strategic objectives through the selection and successful execution of projects, while using scarce resources effectively. Portfolio lends itself to the management of the later phase of M&A integration as it provides a flexible platform to select, prioritise, integrate and manage initiatives that can emerge organically as a response to day-to-day organisational practices.

Finally, we content that organizations *converge* towards integration, and hence they never become fully integrated. By achievement of satisfactory integration levels, the firm is likely to have already undertaken other M&As. Therefore, integration process constitutes an ongoing effort. In this respect, portfolios are helpful to cope with the new nature of current (cooperate) reality, where a ‘parent’ organization actually hosts multiple organizations undergoing an ongoing integration process.

In summary, our paper makes two contributions to extant literature. First, the learning that we identified from the project literature onto the study of M&As in our view provide an opportunity of reassessing our understanding of (1) what M&As are, (2) how they are managed, and (3) the time frame in which they are managed. Second, what this exercise reminds us poignantly about is the generic lack of mutual learning and fertilization across academic fields. While we are not against a paradigmatic development of knowledge, as defended by Pfeffer (1993), we argue, as Knudsen (2003) that this alone is not enough to enhance our understanding about management. It is for this reason that initiatives to integrate insights from different ‘disciplines’ and ‘contexts’ of management should be encouraged. In this respect, we not only study integration in organizational settings but also advocate for stronger integration in academia.

REFERENCES

Angwin, D. (2004). Speed in M&A Integration: The First 100 Days. ***European Management Journal***, 22(4): 418-430.

Biggadike, R. (1979) The risky business of diversification. **Harvard Business Review**, 57(3): 103-11.

Cooper, R. G., Edgett, S. J., & Kleinschmidt, E. J. (2002). ***Portfolio management: fundamental to new product success***. New York: Wiley.

Haspeslagh, P. C., & Jemison, D. B. (1991). ***Managing acquisitions: Creating value through corporate renewal*.** New York: The Free Press.
King, D. R., Dalton, D. R., Daily, C. M., and Covin, J. G. (2004). Meta-Analyses of Post-Acquisition Performance: Indications of Unidentified Moderators. ***Strategic Management Journal***, 25(2): 187-200.
Knudsen, C. (2003) Pluralism, scientific progress, and the structure of organization theory. Tsoukas, H. and Knudsen, C. (Eds) ***The Oxford Handbook of Organizationl Theory: Meta-Theoretical Perspectives***. Oxford: Oxford University Press.
Laamanen, T., Keil, T. (2008). Performance of serial acquirers: Toward an acquisition program perspective. **Strategic Management Journal**, 29: 663-672.
Larsson, R., and Finkelstein, S. (1999). Integrating Strategic, Organisational, and Human Resource Perspectives on Mergers and Acquisitions: A Case Survey of Synergy Realisation. **Organisation Science**, 10(1): 1-26.
Levine, H. A. (2005). ***Project Portfolio Management*** (1 ed.). San Francisco, CA: John Wiley & Sons.
Lock, D. (2007). ***Project Management***. Burlington: Gower.
Mirc, N., Rouzies, A., Teerikangas, S., and Tarba, S. (2010). The M&A community: myth or reality? A social network analysis of M&A scholars. Paper presented at the Annual **Conference of the European Academy of Management**, Rome, May 19-22.
Pellegrinelli, S., Partington, D., & Geraldi, J. (2011). Program management: an emerging opportunity for research and scholarship. In P. W. G. Morris, J. K. Pinto & J. Söderlund (Eds.), ***Oxford Handbook of Project Management***. Oxford: Oxford University Press, 252-272
Pfeffer, J. (1993). Barrier to the advance of organizational science: Paradigm development as a dependable variable. *Academy of Management Review*, *18*(4), 599-620.
Project Management Institute (PMI). (2013). ***A Guide to the Project Management Body of Knowledge (PMBOK Guide)***. 5th Edition. Project Management Institute.
Schweiger, DM & Goulet, PK (2000) Integrating mergers and acquisitions: An international research review. In Cooper, C. & Gregory, A. (Ed.) **Advances in Mergers and Acquisitions**, Amsterdam: JAI Press, 61-91.
Teerikangas, S. 2006
Zahra, S. A., & Newey, L. R. (2009). Maximizing the Impact of Organization Science: Theory-Building at the Intersection of Disciplines and/or Fields. ***Journal of Management Studies***, *46*(6): 1059-1075.
Zollo, M., & Meier, D. (2008). What is M&A performance? ***The Academy of Management Perspectives***, *22*: 55-77.

On the Benefits of Integrating Supply Chain Personnel in Product Innovation – A Contingency Perspective

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One of the central questions in research on organizations is why some firms outperform others (Hult, Ketchen, Cavusgil, & Calantone, 2006; Turkulainen & Ketokivi, 2013; Wagner, Grosse-Ruyken, & Erhun, 2012). Due to for example increased globalization and competition as well as technological advances, the perceived importance of a firm's *internal* supply chain (SC) function in affecting organizational effectiveness has increased significantly over the past decade (Cousins, Lawson, & Squire, 2006; Giunipero, Handfield, & Eltantawy, 2006; Kiessling, Harvey, & Garrison, 2004; Lakemond, van Echelt, & Wynstra, 2001). In particular, the internal SC function is no longer seen as having only exploitative, efficiency-seeking role in the organization. Rather, internal SC function is considered to have an important role in enhancing the competitiveness of the firm and a source of ideas for strategy (Priem & Swink, 2012). Moreover, recent research emphasizes the benefits of integrating the internal SC function in product innovation (Chen, Daugherty, & Landry, 2009; DiBenedetto, 1999; Giunipero et al., 2006; Lakemond et al., 2001; Lambert, Garcia-Dastugue, & Croxton, 2008; Wynstra, Axelsson, & Weele, 2000). The internal SC function can for example provide important information of the supply market, including raw materials and risks or logistics capabilities of the firm and supply chain (Lambert et al., 2008). This is considered highly beneficial and ever more critical as product innovation is increasingly important for firm survival and success in a contemporary world characterized by global competition and shorter product life cycles (Giunipero et al., 2006; Hult, Hurley, & Knight, 2004; Wagner, 2012).

In this study we aim to shed further light on the link between supply chain management and effectiveness by studying the performance implications of integrating internal SC personnel in product innovation activities. Specifically, we question that such cross-functional efforts are always desirable (cf. Lambert et al., 2008; Wynstra et al., 2000) and argue based on classical contingency theory that organizations cope with the demands of their internal and external environment in their search for effectiveness (Donaldson, 2001; Lawrence & Lorsch, 1967). Hence, the effectiveness of integrating SC personnel in product innovation activities are highly context dependent. The purpose of this study is to develop a more detailed understanding of the contextual value of integrating a firm's internal SC personnel a role in product innovation activities. We define *integration of supply chain personnel in innovation* (SCPI) as a firm's active engagement of its internal SC personnel in product and service innovation activities. By internal SC function, we refer specifically to two most critical supply chain functions, purchasing and logistics functions (Hult et al., 2006), rather than to definitions of supply chain functions that may include manufacturing and R&D (CSCMP, 2013). Moreover, our definition focuses on the internal supply chain rather than external parties, such as suppliers (Flynn, Huo, & Zhao, 2010). We use "personnel" to refer to members of SC functions at different levels, including managers.

We *elaborate* the generic contingency theoretical argument about the contextual effect of external environment and internal organizational context in the internal SC context (Ketokivi & Choi, 2014). Based on prior research on operations and supply chain, we focus on two factors. For the external environment, we focus on industry technological context because management of product innovation is particularly challenging in high technology industries characterized by high levels of uncertainty, increasing the need for information processing (Chandrasekaran, Linderman, & Schroeder, 2011; Galbraith, 1973; Song & Montoya-Weiss, 2001; Teece, 2000). With respect to internal organizational context, we focus on the organization's level of operational supplier integration; supplier integration is a critical aspect of internal organizational context from the perspective of SC personnel, because they gather rich information both intentionally and fortuitously by frequently interaction with suppliers at the boundaries of the organization. Building on the multi-contingency view (Burton, DeSanctis, & Obel, 2006) and the argument that organizational design and managerial practices should fit both external and internal organizational contexts (Siggelkow, 2001), we also hypothesize that the value of SCPI depends on the joint effect of these two contextual factors.

In order to test the foregoing hypotheses, we analyzed empirical data collected by a global survey of SC professionals, which is one of a series of cross-sectional surveys conducted annually since 2003. The data used in this study come from the sixth round of data collection efforts in 2008. A total of 299 responses were received. After screening the data and ensuring that the sample is independent and respondents are at higher levels in the organizations, a sample of 203 responses were kept for analysis. Most organizations are large manufacturing firms with annual sales greater than USD 1 billion (53.0%).

This paper makes several contributions. It sheds further light on the link between SCM and organizational effectiveness (Hult et al., 2006; Wagner et al., 2012). Despite the past research efforts, there is no clear and comprehensive theory on how internal SC contributes to effectiveness (Gonzalez-Benito, 2007; Priem & Swink, 2012; Wagner et al., 2012). In particular, the study develops understanding on the contextual dependency of operational effectiveness that integrating SC personnel in innovation activities provides (DiBenedetto, 1999; Giunipero et al., 2006; Lakemond et al., 2001; Lambert et al., 2008; Prajogo & Sohal, 2013; Wynstra et al., 2000). By focusing on internal SC personnel, our study also complements existing research, which emphasizes the benefits of early and direct involvement of *external* partners (key suppliers, customers, users) in product innovation (e.g., Azadegan, 2011; Oke, Prajogo, & Jayaram, 2013; Petersen, Handfield, & Ragatz, 2005; Wagner, 2012) or personnel from other functions, such as manufacturing and marketing (e.g., Calantone, Droge, & Vickery, 2002; Tatikonda & Montoya-Weiss, 2001).

REFERENCES

Azadegan, A. 2011. Benefiting from supplier operational innovativeness: The influence of supplier evaluations and absorptive capacity. ***Journal of Supply Chain Management***, 47(2): 49-64.

Burton, R.M., DeSanctis, G., & Obel, B. 2006. ***Organizational design – A step-by-step approach***. New York, NY: Cambridge University Press.

Calantone, R., Droge, C., & Vickery, S. 2002. Investigating the manufacturing-marketing interface in new product development: Does context affect the strength of relationships? ***Journal of Operations Management***, 20(3): 273-287.

Chandrasekaran, A., Linderman, K., & Schroeder, R. 2011. Antecedents to ambidexterity competency in high technology organizations. ***Journal of Operations Management***, 30(1-2): 134-151.

Chen, H., Daugherty, P.J., & Landry, T.D. 2009. Supply chain process integration: A theoretical framework. ***Journal of Business Logistics***, 30(2): 27-46.

Cousins, P.D., Lawson, B., & Squire, B. 2006. An empirical taxonomy of purchasing functions. ***International Journal of Operations & Production Management***, 26(7): 775-794.

CSCMP. 2013. Supply chain management definitions. Council of Supply Chain Management Professionals. Available online: https://cscmp.org/about-us/supply-chain-management-definitions.

DiBenedetto, C.A. 1999. Identifying key success factors in product development. ***Journal of Product Innovation Management***, 16: 530-544.

Donaldson, L. 2001. ***The contingency theory of organizations***. Thousand Oaks, CA: Sage Publications.

Flynn, B.B., Huo, B., & Zhao, X. 2010. The impact of supply chain integration on performance: A contingency and configuration approach. ***Journal of Operations Management***, 28(1): 58-71.

Galbraith, J. R. 1973. ***Designing complex organizations***. Reading, MA: Addison-Wesley.

Giunipero, L.C., Handfield, R.B., & Eltantawy, R. 2006. Supply management's evolution: Key skill sets for the supply manager of the future. ***International Journal of Operations & Production Management***, 26(7): 822-844.

Gonzalez-Benito, J. 2007. A theory of purchasing's contribution to business performance. ***Journal of Operations Management***, 25(4): 901-917.

Hult, G.T.M., Hurley, R.F., & Knight, G.A. 2004. Innovativeness: Its antecedents and impact on business performance. ***Industrial Marketing Management***, 33(5): 429-438.

Hult, G.T.M., Ketchen, D.J., Jr., Cavusgil, S.T., & Calantone, R.J. 2006. Knowledge as a strategic resource in supply chains. ***Journal of Operations Management***, 24(5): 458-475.

Ketokivi, M., & Choi, T. 2014. The renaissance of case research as a scientific method. ***Journal of Operations Management***, 32(5): 232-240.

Kiessling, T., Harvey, M., & Garrison, G. 2004. The importance of boundary-spanners in global supply chains and logistics management in the 21st century. ***Journal of Global Marketing***, 17(4).

Lakemond, N., van Echelt, F., & Wynstra, F. 2001. A configuration typology for involving purchasing specialists in product development. ***Journal of Supply Chain Management***, 37(4): 11-20.

Lambert, D.M., Garcia-Dastugue, S.J., & Croxton, K.L. 2008. The role of logistics managers in the cross-functional implementation of supply chain management. ***Journal of Business Logistics***, 29(1): 113-132.

Lawrence, P.R., & Lorsch, J.W. 1967. ***Organization and environment – Managing differentiation and integration***. Boston, MA: Harvard Business School Press.

Oke, A., Prajogo, D.I., & Jayaram, J. 2013. Strengthening the innovation chain: The role of internal innovation climate and strategic relationships with supply chain partners. ***Journal of Supply Chain Management***, 49(4): 43-58.

Petersen, K.J., Handfield, R.B., & Ragatz, G.L. 2005. Supplier integration into new product development: Coordinating product, process and supply chain design. ***Journal of Operations Management***, 23(3-4): 371-388.

Prajogo, D.I., & Sohal, A.S. 2013. Supply chain professionals – A study of competencies, use of technologies, and future challenges. ***International Journal of Operations & Production Management***, 33(11-12): 1532-1554.

Priem, R.L., & Swink, M. 2012. A demand-side perspective on supply chain management. ***Journal of Supply Chain Management***, 48(2): 7-13.

Siggelkow, N. 2001. Change in the presence of fit: The rise, the fall, and the reneissance of Liz Claiborne. ***Academy of Management Journal***, 44(4): 838-857.

Song, M., & Montoya-Weiss, M.M. 2001. The effect of perceived technological uncertainty on japanese new product development. ***Academy of Management Journal***, 44(1): 61-80.

Tatikonda, M.V., & Montoya-Weiss, M.M. 2001. Integrating operations and marketing perspectives of product innovation: The influence of organizational process factors and capabilities on development performance. ***Management Science***, 47(1): 151-172.

Teece, D.J. 2000. Strategies for managing knowledge assets: The role of firm structure and industrial context. ***Long Range Planning***, 33(1): 35-54.

Turkulainen, V., & Ketokivi, M. 2013. The contingent value of organizational integration. ***Journal of Organization Design***, 2(2): 31-43.

Wagner, S.M. 2012. Tapping supplier innovation. ***Journal of Supply Chain Management***, 48(2): 37-52.

Wagner, S.M., Grosse-Ruyken, P.T., & Erhun, F. 2012. The link between supply chain fit and financial performance of the firm. ***Journal of Operations Management***, 30(4): 340-353.

Wynstra, F., Axelsson, B., & van Weele, A. 2000. Driving and enabling factors for purchasing involvement in product development. ***European Journal of Purchasing & Supply Management***, 6(2): 129-141.

Systems integration and inter-organizational coordination:

the case of three megaprojects

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A megaproject is an large-scale investment (at least $250 million adjusted to 2002 dollars) to design and produce the physical infrastructures (e.g. transport, urban developments, energy, water and other utility systems) (Altshuler & Luberoff, 2003; Flyvberg, Bruzeius & Rothengatter, 2003; Merrow, 2011). A single client – either a large firm or government organization – is often responsible for delivering megaprojects. It has to create a governance structure to coordinate and control a large network of organizations often including hundreds of contractors and thousands of subcontractors. Led by a systems integrator, the multiple organizations work jointly undertaking interdependent tasks to achieve the project goal for a limited period of time. This type of inter-organizational project facilitates coordinated and interdependent collaborative activities among multiple organizations, with disparate goals, overlapping areas of responsibilities and varying capabilities, under conditions of uncertainty (Jones and Lichtenstein, 2007).

Coordination activities in megaprojects differs markedly from inter-organizational coordination and vertical integration found in permanent or enduring organizations, such as firms, joint ventures and alliances. Permanent organizations engage in ongoing and open ended interactions. They rarely have a specified end date. Megaprojects, by contrast, are designed to be temporary. They exist for a defined period of time, ranging from years to decades, to achieve specified goals. When those goals are achieved, the temporary organization disbands. This presentation explores the types of temporary organizations established to facilitate coordination and guide collaborative activities involved in megaprojects.

We begin by defining a megaproject as the most complex type of “system of system” or “array project” (Shenhar and Dvir, 1996, Shenhar, 2001; Shenhar and Dvir, 2007). This type of project has to cope with high degrees of complexity. An array project joins together a dispersed and large-scale collection of systems, each with a specific purpose, to achieve a common goal (e.g. an airport composed of terminal buildings, runways, an air traffic control tower, IT and transportation links). They are often spread over a wide geographical area and developed over time as new systems are added in an evolutionary way. Often coordinated as programmes, array projects are usually coordinated by an "umbrella organization that deals mainly with the financial, logistical, and legal issues and is responsible for contracting and controlling the offices of systems projects that make up the array" (Shenhar and Dvir, 2007: 105).

This research reports on the findings of three case studies of megaprojects in London: Heathrow Terminal 5, London 2012 Olympics and the Crossrail suburban railway system. We classified each megaproject as an array. We were able to study the three megaproject sequentially because the first one (T5) was executed between 2002-2008, the second (London Olympics) between 2006-2012 and the third between 2009-2018. Our qualitative research methods for each case study involved data triangulation using in-depth semi-structured interviews, documentary material and participatory observation (Pettigrew, 1990; Yin, 2003). Documents including the project contract and guide book, company powerpoint presentations, government reports, project audits, newspaper articles and trade press were analyzed. We used the findings from our three case studies to identify the key challenges and practices involved in systems integration structures and processes designed for a variety of megaprojects. In an attempt to theorize from our data, we were inspired by Langley's (1999) call to design process research combining deductive (theory-driven) and inductive (data-driven) methods: "that selectively takes concepts from different theoretical traditions and adapts them to the data at hand, or takes ideas from the data and attaches them to theoretical perspectives, enriching those theories as it goes along" (Langley 1999: 708).

Prior research has explored the variety of mechanisms for coordinating or integrating the interdependent activities in large-scale projects (Lawrence and Lorsch, 1967; Morris, 2013). Originally created for the US weapons systems projects in the 1950s, a systems integrator is now widely used as the lead organization responsible for coordinating the network of contractors and subcontractors involved in megaprojects (Davies, Gann and Douglas, 2009). A systems integrator must establish the project governance structure, assume responsibility for risk, work with partners in integrated project teams, and lead a transient network of external suppliers consisting of dozens of first-tier suppliers, hundreds of contractors and thousands of subcontractors (Brusoni, Prencipe and Pavitt, 2001; Prencipe, Davies and Hobday, 2003; Hobday, Davies and Prencipe, 2005; Davies, Brady and Hobday, 2007).

One of the greatest challenges involved in the integration of multiple systems is that megagprojects cross so many organizational boundaries. The different suppliers and customers have their own independent identities, often conflicting interests, motivations and priorities for scheduling and allocating funding. Each may try to influence the development of the project by, for example, pushing for their preferred definitions of technical specifications and user requirements. The overall systems integrator has to preside over and understand the entire collection of systems well enough to make trade-offs and reach decisions in the interest of overall project goals.

In large and complex megaprojects, few prime contractors have the breadth of capabilities in-house to manage the integration of multiple systems. As our study shows, megaprojects can be coordinated by two other contrasting types of temporary systems integrator organizations. Large and experienced repeat clients (permanent) organizations can establish the capabilities in-house to coordinate a series of megaprojects. Alternatively, a megaproject can be coordinated by a temporary joint-venture organization – such as a special purpose vehicle – established to represent the interests of a one-off client and gain access to a broader base of capabilities than one prime contractor alone can provide.

References

Altshuler, A. and Luberoff, D. 2003. Mega-projects: The changing politics of urban public investment, Washington: The Brookings Institution.

Brusoni, S., Prencipe, A., and Pavitt, K. (2001), Knowledge specialization and the boundaries of the firm: why do firms know more than they make?, Administrative Science Quarterly, 46: 597-621.

Davies, A., Gann, D. and Douglas, T. 2009. Innovation in megaprojects: systems integration at Heathrow Terminal 5. California Management Review, 51(2): 101-125.

Davies, A., Brady, T. and Hobday, M. 2007. Organizing for solutions: systems seller vs. systems integrator', Industrial Marketing Management, Special Issue: 'Project marketing and marketing solutions', 36:183-193.

Flyvbjerg, B., Bruzelius, N. and Rothengatter, W. 2003. Megaprojects and risk: an anatomy of ambition. Cambridge: Cambridge University Press.

Hobday, M., Davies, A. and Prencipe, A. 2005. ‘Systems Integration: A Core Capability of the Modern Corporation’, Industrial and Corporate Change, 14:1109-1143.

Jones, C. and Lichtenstein, B.B. 2008. Temporary inter-organizational projects: How temporal and social embeddedness ehance coordination and manage uncertainty, pp231-255 in Cropper, S., Ebers, M. Ring, P.S. and Huxman, C. (eds). Handbook of Interorganizational Relations, Oxford: Oxford University Press.

Langley, A. 1999. Strategies for theorizing from process data. *Academy of* Management Review **24**(4): 691-710.

Lawrence, P.R. and Lorsch, J.W. 1967. Organization and environment: managing differentiation and integration, Boston, MA: Harvard Business School Press.

Morris, P.W.G. (2013). Reconstructing Project Management, Chichester, Wiley-Blackwell.

Pettigrew, AM. 1990. Longitudinal field research on change: theory and practice. Organization Science **1**(3): 267-292.

Prencipe, A., Davies, A. and Hobday, M. 2003. The business of systems integration, Oxford: Oxford University Press.

Shenhar, A. J., and Dvir, D. 1996. ’Toward a typological theory of project management.’, Research Policy, 25: 607-632.

Shenhar, 2001. One size does not fit all projects: exploring classical contingency domains, Management Science, 47/3: 394-414.

Shenhar, A. J. and Dvir, D. 2007. Reinventing project management: the diamond approach to successful growth and innovation. Boston, Mass: Harvard Business School Press.

Yin, RK. 2003. Case study research: design and methods. Thousand Oaks, California: Sage Publications.