Book review

Gino CATTANI, Simone FERRIANI, Lars FREDERIKSEN, and Florian TÄUBE (Eds.) (2011) Project-Based Organizing and Strategic Management. Bingley (UK): Emerald Group Publishing.

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SOME BASIC FACTS

This collective work by 43 authors is composed of a total of 19 chapters, including the introduction by the four editors. These are spread across 541 pages including illustrations. No index is provided. The authors come mainly from Europe and North America and are known names in the fields of project management, product management, organization studies, strategic management, and innovation. This is the 28th volume in the series "Advances in strategic management". Previous volumes touched upon: globalization (vol. 27 – reviewed in vol. 14, n°2 of M@n@gement), economic institutions (vol. 26), network strategy (vol. 25), real options (vol. 24), ecology (vol. 23) and strategy process (vol. 22). The publication consists of five parts (each containing three to four chapters) entitled respectively: I) "Definitions and Connotations", II) "Temporary Structure and Permanent Learning", III) "Projects, Innovation and Capabilities", IV) "Projects and Networks", and V) "Toward Future Research".

THE BOOK

The different chapters could easily be read independently according to the reader's specific interests. In fact, this is the type of book which is unlikely to be read from cover to cover. Although the book is structured in five parts, most of the chapters cover more than one of the main themes related to the broader topic of project-based organizing which the book tackles, namely project-based learning, project embeddedness, and project capabilities. To help the reader, the editors actually provide in their introduction some mapping of the book's sections according to these themes.

Throughout the book, the authors attempt to answer a wide range of research questions, such as: How does the social structure used in temporary organizations emerge? How do temporary arrangements become encoded into institutionalized norms? How does organizational learning occur under conditions of project-based organizing? Which mechanisms allow project-based organizations to retain the lessons learned from their experiences? What processes underpin the genesis and evolution of project capabilities? How do capabilities unfold in project-based organizations? These questions
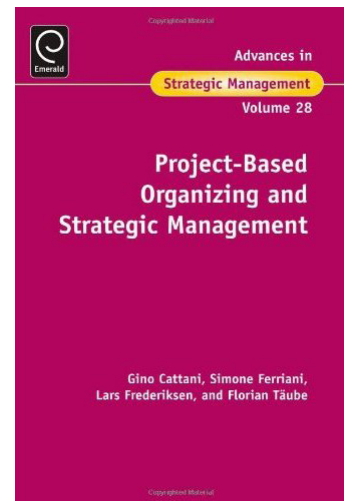
are addressed based on the results of research data collected using various methodologies including case studies, qualitative analysis, quantitative analysis, surveys and mixed methodologies.

"DEFINITIONS AND CONNOTATIONS"

Although the first part is entitled "Definitions and Connotations", the reader should not expect definitions and concept clarifications of the type normally encountered in textbooks. Unfortunately, no attempt is made anywhere in the book to clarify or unify the different terms used in previous publications: "project-based firms" (Lindkvist, 2004; Whitley, 2006), "project-oriented company" (Gareis, 2006), "project-based enterprise" (DeFillippi & Arthur, 1998), "project-based organizations" (Bresnen, Goussevskaia, & Swan, 2004; Hobday, 2000; Sydow, Lindkvist, & DeFillippi, 2004), and "project-intensive firms" (Söderlund & Bredin, 2006). To take just two examples, it is clear that project-based firms, as defined by (Lindkvist, 2004) as "firms that privilege strongly the project dimension and carry out most of their activities in projects" (p.5), differ greatly from the definition of a project-based enterprise proposed by (DeFillippi & Arthur, 1998) for the film industry as "companies formed to pursue a specific project outcome" (p.125). To quote Bresnen (2004), "it becomes important to recognize not only that definitions of project-based organization vary, but also that their empirical manifestations and characteristics will vary too, depending on their approximation to 'pure' or 'radical' conceptions of the form." (p.1538).

Not only is there no attempt to reach agreement on some common terms, but additional terms are actually introduced throughout the different chapters of this book, for example: project-based organizing (many chapters in the book), "project-based organizations" (de Fillippi and Lehrer), "multi-project ventures" (Schwab and Miner), "project-based firms" (Nightingale et al.), and the "P-Form corporation" (Söderlund and Tell). However, the editors do acknowledge the central ambiguity in the use of the different terms, for example whether "project-based organizing should be restricted to temporary as opposed to stable organizations" (p. xxvii).

When it comes to the nuance between the term "organization" as opposed to the more dynamic (and process-oriented) term "organizing" used in the title of the book, in the spirit of (Bengtsson, Müllern, Söderholm, & Wåhlin, 2007), (Czarniawska, 2008), (Weick, 1969, 1979) and (Weick, Sutcliffe, & Obstfeld, 2009), no attempt is made to reassure the reader that the distinction between these notions is anchored and understood properly.

The first four chapters of Part I do offer a good basis for some of the challenges faced by project-based organizations. Each chapter investigates different types of organizations: complex product systems, films, hearing aids, Heathrow Terminal 5. First, Davies et al. revisit some of the key challenges facing complex product systems based on a 10-year research programme including the development and use of project capabilities for innovation; learning within, between and beyond projects; organizing for project business opportunities; managing software and IT-intensive projects; developing strong systems integration capability; providing project-based solutions and leading the project business.

In Chapter 2, Skilton presents the variety of cooperative strategies used to organize the international co-production of motion pictures, which is potentially

the most interesting industry in which to study project-based firms. The author concludes that there are multiple strategic logics at work in international film co-production; for example, the strategic behavior with respect to partner choice and project structure differs between international co-productions involving global production companies and projects involving locally oriented production companies.

The third case presented in Part I is a retrospective study of the Danish hearing aid manufacturer Oticon at a very turbulent time due to the shift from analog behind-the-ear to digital in-the-ear technology. The so-called spaghetti organization, a very innovative way of promoting new ideas and developing new products, was put in place by Kolind in the 1990s. This new form could be seen as an experiment in pure project-based organization. This rapidly became a thoroughly studied case using an extremely lean structure, and new ways to propose new ideas and make decisions. The authors, De Fillippi and Lehrer, trace how this revolutionary organizing approach gradually evolved back into a more traditional organization with respect to project selection once the environment became less turbulent.

The fourth chapter, entitled Definitions and Connotations, takes Heathrow Terminal 5 as a case example for arguing against a well-established paradigm that project managers could rationally predict, optimize and control some of the key project parameters: timing, cost and quality. Instead, Nightingale and Brady suggest a paradigm whereby people are conceptualized as "sources of deterministic behaviour in an otherwise often unpredictable world. Projects are key tools that are used to strategically create this predictable behavior, with project plans used as scaffolding to help co-ordinate the distributed behavior of systematically connected people in space and time as the project proceeds." (p. 83)

"TEMPORARY STRUCTURE AND PERMANENT LEARNING"

Knowledge management is a neglected topic in the literature on project-based organizations although it is widely known that this is a key challenge to organizations. If the temporary setting established for the duration of the project is dissolve once the goals are achieved, what happens to the knowledge acquired during the project? The topic is complex in theory but also a practical challenge to organizations faced with organizational amnesia. This is not as simple as producing lessons learned at the end of a project, which is far from sufficient to transfer the knowledge to the subsequent project or to the permanent organization (Dinsmore & Cooke-Davies, 2006). The three chapters present how this problem is addressed in three different settings.

Schwab and Miner use the concept of project ventures, i.e. "temporary organizational entities that combine several individuals to complete a specific task within a pre-established short-term frame" (p.117). They focus on partnering flexibility, which is an example of structural flexibility using the multilevel frame proposed in (Volberda, 1998): (1) operational flexibility (changes within established structures), (2) structural flexibility (changes of organizational structures and processes) and (3) strategic flexibility (changes of organizational goals and long-term plans). They found that partnering flexibility creates opportunities for learning while bringing challenges due to

the transitory nature of the project ventures.

The chapter written by Müller-Seitz and Sydow investigates how SEMATECH (Semiconductor Manufacturing Technology), a leading global semiconductor manufacturing consortium, became a permanent organization when it had in fact been created as a temporary one "to provide the US semiconductor industry the capability of achieving a world-leadership manufacturing position by the mid-1990s" (p. 163). Projects, being temporary organizations, are normally meant to be disbanded when they achieve their goals. Moreover, they should be created with some "built-in termination mechanisms" (Lundin & Söderholm, 1995) The authors suggest that the metamorphosis of SEMATECH from temporary to permanent was accomplished, among other things, by terminating this built-in process.

The third chapter in this part explores the management of eight projects in a large public research organization, NLAT (National Lab for Advanced Technologies), which adopted a project-based organization in 1998. The chapter shows that projects achieved technological success at the expense of violating project management principles where success was measured according to three indicators (achievement of goals, timely delivery at predetermined milestones, and client satisfaction). To assess learning, they used Ibert's (2004) categories: memory (ability to store knowledge), experience (ability to learn from accumulated knowledge) and reflection (ability to detect and correct deviations).

Prencipe and Tell (2001) suggested that the learning abilities of project-based firms could be broken down into three levels: individual, group/projects, and organizational. Using this framework, the focus of the three chapters of book on learning is primarily at the organizational level, but they introduce new ways of looking at the links between project learning and organizational learning.

PROJECT, INNOVATION AND CAPABILITIES

The strategic management literature dealing with capabilities has led to extensive discussion between academics on exactly what these capabilities are, how they could be developed, and to what extent they contribute to improving performance and competitive advantage. Collis (1994) defined organizational capabilities as "the socially complex routines that determine the efficiency with which firms physically transform inputs into outputs" (p. 145). Winter (2003) sees an organizational capability as "a high-level routine (or collection of routines) that, together with its implementing input flows, confers upon an organization's management a set of decision options for producing significant outputs of a particular type" (p. 991). Other definitions assume that capabilities are not related to specific resources or competences but are collective and socially embedded and relate to the way complex problems are solved over time (Dosi, Nelson, & Winter, 2000; Schreyögg & Kliesch-Eberl, 2007).

Publications on capabilities have evolved into the study of more categorized types of capabilities: substantive capabilities, i.e. the ability to perform the basic functional activities of a firm (Schreyögg & Kliesch-Eberl, 2007; Winter, 2003), absorptive capabilities, i.e. the processes by which firms acquire, assimilate, transform, and exploit knowledge (Cohen & Levinthal, 1990; Zahra & George, 2002), adaptive capabilities, i.e. the process of identifying and capitalizing on

emerging market opportunities (Chakravarthy, 1982), innovative capabilities i.e. the ability to develop new products and/or markets by aligning strategic innovative orientation with innovative behaviours and processes (Wang & Ahmed, 2007), and dynamic capabilities, i.e. the enterprise's ability to sense, seize, and adapt in order to generate and exploit internal and external enterprise-specific competences, and to address the enterprise`s changing environment (Teece, 2009, p. 87-88).

This third part in the book reuses some of these concepts to propose that project capabilities are developed in project-based organizations in order to support a strategy and provide some form of competitive advantage. Of the five parts of the book, this is the one focusing most on strategy.

In the first chapter on this topic, Nightingale, Baden-Fuller and Hopkins establish a solid and useful theoretical foundation for this fairly newly coined concept of project capabilities in a chapter which is more theoretical than the rest of the book. They distinguish two types of project capabilities: those that eliminate variance in project outcomes (to control costs and add value) and the economies of scale that reduce costs across multiple projects (p. 215). They reflect on the benefits and incentives of developing both types of capabilities in different contexts (related to repetitiveness and complexity) ranging from building a single wall to the space program. This analysis sheds some light on the paradox facing project-based firms: the ability to develop, improve and repeatedly use project capabilities in a context which is poorly suited for routine tasks.

In the second chapter, Söderlund and Tell attempt to address three broad questions related to strategy and capabilities in P-Form corporations: (1) what are the main characteristics of P-form corporations? (2) What are the capabilities acquired and developed by P-form corporations and how are these acquired? (3) How do these capabilities vary across different strategic alternatives in the P-form corporation? After a discussion of what is meant by P-form corporations, the authors look at the core competencies found in such firms. They then propose four types of strategies (focusing, combining, shifting and switching) in a two-by-two matrix along the axes of exploitation versus exploration and deterministic versus voluntaristic. Each type would attempt to develop specific competences and would involve different types of risks.

The chapter entitled "Strategic Responses to Standardization: Embrace, Extend or Extinguish?" differs from the other chapters in the rest of the book because the focus deals with product management rather than project management. The authors investigate how Microsoft responded to 12 software technologies (such as CORBA, HTML, TCP/IP, HTTP, and Java) in the period between 1990 and 2005 using content analysis of news articles. They suggest a typology of four strategic responses to standardization based on two orthogonal decisions: embrace and extend.

PROJECTS AND NETWORKS

While most of the book uses firms as the unit of analysis, part IV brings it down to the individuals and the teams involved in projects. Traditional project management tools and techniques are now being challenged by new ways of collaborating with the advent of new networking technologies such as wikis,

document sharing tools, video and teleconferencing, and the like. Adopting a social-network perspective, the four chapters address different issues resulting from these new ways of working: how leadership is shared in geographically dispersed project teams, the consequences of local versus international network ties for innovative success, the use of wikis in the co-creation process, and the notion of ambidexterity at the individual level.

"While traditionally the project leader was considered as the exclusive source of leadership behavior, recent research indicates that particularly dispersed projects may profit from joint leadership efforts by all project members" (p.289). Using this assumption as their starting point, Muethel and Hoegl propose a model based on four functions to investigate the impact of shared leadership on project performance in geographically dispersed teams more specifically when tasks are uncertain. The chapter includes seven propositions emerging from their model which have unfortunately not yet been tested empirically but which should serve as a useful reference for future research.

As previously mentioned, the three other chapters deal with networks of individuals and teams. However, the chapter by Al-Laham and Amburgey entitled "Staying local or reaching globally? Analyzing structural characteristics of project-based networks in German biotech." is somewhat at odds with the part of the book in which it appears. It looks at networks (clusters) of firms and the structural characteristics of their ties both locally and at an international level. The quantitative research is based on four public sources of data to study the biotech industry in Germany during the period between 1995 and 2004. The unit of analysis and the methodology is therefore very different from the three other chapters.

The third chapter on projects and networks, by Garud, Kumaraswamy and Tuertscher, investigates a very modern topic in the field of project management: the use of wikis for collaboration between authors working on shared written productions (such as Wikipedia articles). Such an environment offers opportunities for investigating true virtual teams in action. The research method used by the researchers is also very original. Because the wiki technology leaves a digital trace of the different contributions to any page being written, it becomes possible to analyze who updated the articles, with which frequency and in which sequence using a tool called history flow. The analysis of the history of three Wikipedia articles allowed the authors to break down the co-creation process into three sub-processes labeled co-construction, justification and materialization.

March (1991) introduced the notion that organizations must balance their exploration for new ideas, new products and new ways of working with their exploitation i.e. using and improving existing products and technologies. O'Reilly, Harreld and Tushman (2009; 2004, 2008) refers to ambidexterity as the ability for organizations to pursue both approaches simultaneously. Simon and Tellier borrow these concepts at the individual level to study how social networks evolve when ideas move from exploration to exploitation. To understand this evolution, they interviewed 74 key actors in six cases in an R&D center at a semiconductor company.

TOWARD FUTURE RESEARCH

The title of the last part, "Toward Future Research", is somewhat misleading. A better title would probably have been "New looks at project-based organizing in creative industries" because the authors do not really propose new research areas but rather address existing topics from new angles.

Maoret, Massa and Jones propose to replace organization-centric and field-centric views with a new "projects as events" perspective. "They The authors illustrate various instances in which projects, like events, can be considered sequences of activities that unfold gradually or suddenly and that are coordinated through a core idea or concept, triggering distinctive networks at multiple levels of analysis" (p. xxxiv). Although this chapter draws from examples from three creative industries (architecture, film and music), this is probably one of the most theoretical chapters in the book. This new perspective does have consequences on the methodology to be used when studying project-based organizing. It remains to be seen if this new approach will be adopted by other researchers.

The second chapter also takes a new look at the film industry during the period when Irving Thalberg ran the Metro-Goldwyn-Mayer film studios between 1923 and 1936. Although this was an already well documented and analyzed industry and period, Lampel proposes a new framework for "analyzing project-based organizations which couples the institutional logic of the external environment, with the institutional logic which emerges from the internal project field." (p. 445). The author argues that an analysis of the strategy of project-based organizations must take into account the interaction between deliberate and emergent strategic processes. In the context of project-based organizations, deliberate strategic processes respond to the external environment while emergent strategic processes are rooted in the organizational project portfolio.

The chapter by Perretti also investigates the film industry from the perspective of the influence of the categorization of films into genres on the construction of identities in this industry. The author also takes a longitudinal approach for the period between 1920 and 1970. He proposes a new look using hybridity (i.e. "the association of organizations and/or the products they offer with multiple category memberships" (p. 467)).

The last chapter of the book is by far the most surprising and original for readers interested in the use of project management tools and processes to achieve creative goals such as arts, circus or video games. Svejeneva, Pedersen and Vives reflect on the specific issues related to projects of passion, i.e. projects for which there is little or no business justification defined as "a distinctive archetype of temporary organizations established to express significant identities and address individual motivations associated with vision, vocation, or values" (p. 506). In the particular case of the famous work of arts by Christo under the patronage of Jean-Claude, the main driver was not financial but rather a quest for aesthetic beauty and artistic expression. In this context, the authors propose a theoretical model to understand the motivation, mechanisms used and outcomes to study seven of the projects by the artist (incl. the famous wrapping of the Pont-Neuf in Paris, the wrapped Reichstag in Berlin, the gates in New York and the surrounded islands in Florida). This chapter undermines some of the most established ideas about how projects are established, justified, approved and executed. It is particularly enlightening to

learn that some of these projects took over 20 years (and some over 35 years) to obtain all the necessary approvals for an exhibition lasting just a fortnight without producing direct revenues. The authors rightly quote March (1995) "most heretics are burned, not sanctified, most inventions prove worthless, not priceless. Most deviant organizations perish." (p. 436)

SOME IMPRESSIONS FROM MY READINGS

In the M@n@gemen issue 15(1), Rolf Lundin reviewed The Oxford Handbook of Project Management by Morris, Pinto and Söderlund. Although both books address the topic of project management, their aim, structure and scope are very different. While the first one attempts consciously to cover a large number of the topics of interest to practitioners and academics (such as governance, progam management, the history of project management, and contracting), the second is more research-based and targets academics.

The book is a very interesting collection of 18 contributions by independent authors providing new insights and the results of some unpublished research. Each chapter could be read separately like articles in specialized periodicals on project management, organization studies or strategy management. I did recommend some of the chapters (knowing that they would not have to read the complete book) to some colleagues knowing that they would be interested by some of the specific topics: project capabilities, the study of wikis in virtual teams, shared leadership, and new project management perspectives in creative project-based organizations. In the same vein, I will most likely re-use and quote some of the material in my favorite chapters. This publication is clearly well anchored in research and the target audience is evidently academics in the field of project management, potentially in the fields of strategy or innovation.

The introduction by the editors and the division into different parts attempt to present some links between the different chapters but in a sense this could be seen as somewhat artificial. The book does not include a conclusion chapter because the introduction by the editors also serves as the conclusion if read again at the end of the book.

Finally, since I have a specific interest in project portfolio management (Petit & Hobbs, 2012) and knowing that many large organizations use this to ensure the strategic alignment of their projects, it was surprising to see that almost none of the 18 chapters dealt with project portfolios in one way or another.

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