This dissertation contains articles on business reengineering and organizational learning published over the last ten years and a new article that still has to find its way to a journal. Chapters 2, 3, and 4 focus on reengineering, while chapters 5 and 6 consider knowledge and learning across markets and within organizations. Each chapter is self-contained and can be read as a separate essay. There is, however, another way to approach this book. If reengineering is interpreted as a recommendation to “organize around process” and learning to “organize around knowledge and the construction of meaning,” then both subjects can be viewed as developments in organization theory, each of which presents a different approach to division of labor and coordination issues.

Some theorists believe organization theory to be in a state of disarray (Pfeffer, 1993; Spender, 1998; Grant, 2001). In their opinion, innovative ideas emerge from firms and consultancies rather than from academics, and new organizational developments are proceeding faster than our capacity to theorize about them. Moreover, there would be hardly any cooperation among and within the different organization disciplines addressing organizational problems, thus obstructing the growth of organization theory. Instead, each organization discipline and every theory group operating in these disciplines would pursue its own specialized research agenda, thereby not only producing academically rigorous outcomes, but also an increasing divergence from managerial and organizational practice. All these contentions relate to the debate on rigor versus relevance that plays an ongoing role in organization theory. Reengineering and learning can therefore be seen as different, unrelated subjects, and as concepts of organization that can be evaluated in terms of their contribution to organization theory and to the rigor versus relevance debate. The five chapters in this dissertation can be read either way.

This chapter serves as an introduction to reengineering and learning. In addition, it poses the question: what can we learn from both concepts if we consider them in the wider context of organization theory and the debate on rigor and relevance taking place within this context? With this question, the objectives of this dissertation become clear. The first objective is to inform on business
reengineering and learning as two organizational topics, which can be studied independently. The second objective is to see both topics as major developments in organization theory, and to evaluate them in this context. Finally, the third objective is to take up a personal position in the rigor versus relevance debate.

I shall first describe the fundamental challenge of organization, and present an overview of the academic disciplines addressing this challenge. In doing so, a distinction is made between economics, organization studies, and organizational economics. I deal with organizational economics at greater length, because it plays a vital role in the rigor versus relevance debate and because it provides the context for chapter 6, in which I attempt to develop a new learning-based theory of the firm. Furthermore, the rigor and relevance debate among and within economics, organization studies, and organizational economics is briefly illustrated. This discussion not only allows me to subsequently introduce and summarize the five chapters dealing with reengineering and learning as separate subjects, but also to evaluate them as contributions to the much wider perspective of organization theory, and to develop some thoughts on rigor and relevance.

Chapter 2 is a summary of five articles published in several journals in the early days of reengineering. It introduces the concept of reengineering and a reengineering typology on which the notion of balanced change is developed. Chapter 3 is a complete reprint of an article that reports on a quantitative-empirical study into the relationship between balanced change and organizational performance. It is representative of a number of publications that resulted from this study. Of chapter 4, in which reengineering is critically assessed and its demise anticipated, four previous versions are in circulation. Learning across markets and within organizations is the subject of chapters 5 and 6. Chapter 5, too, is a complete reprint of a previous publication, whereas chapter 6 is “hot off the press,” and has not yet appeared in a journal. In total, this dissertation encompasses 18 publications, which I have collated alone or in collaboration with others. Although this is not an exhaustive list of everything that I have produced since 1993, it does entail most of my work in this period. The genesis of these publications is briefly highlighted in the preface, which also contains acknowledgements to all those with whom I have cooperated in one way or another over the last decade.
The Challenge of Organization

Broadly conceived, the fundamental challenge of organization is how to organize the production and distribution of the billions of products and services our developed societies need. This challenge arises from the fact that economies of specialization can be obtained from the division of labor. Specialization, however, leads to a need for coordination — that is, productive activity requires that heterogeneous resources and specialized actors (organizations, individuals, and even societies) are synchronized. Basically, there are two modes in which coordination can take place: across markets and within organizations. It is remarkable, however, that these two modes of organization are studied in separate academic disciplines, which hardly inform each other.

The functioning of markets is the traditional domain of microeconomics, in which the neoclassical theory acts as the dominant paradigm. It is on these markets that products and services are exchanged. Neoclassical economics is therefore focused on the distribution or allocation aspects of the fundamental challenge of organization. It is directed towards achieving coordination between market exchange parties. By contrast, organization studies, to which contributions are made from diverse academic disciplines such as sociology, psychology, management and organization, political science, and anthropology, is the field where organizing as a dynamic activity as well as organizations as entities are studied. Here, the production aspects of the fundamental challenge of organization occupy center stage. In organization studies, the focus is on achieving coordination within organizations or value networks. Since these bodies of theory hardly communicate with each other, no grand theory of organization, “explaining it all,” has yet appeared. Instead, there are many theories stemming from the different academic disciplines, each focusing on different aspects of the fundamental organization challenge.

A major development in organization theory — broadly described as all the academic disciplines addressing the fundamental challenge of organization in one way or another — are the so-called theories of economic organization, which try to bridge economics and organization studies (see figure 1.1). While still far removed from such a state, they are aimed at combining the exchange and production aspects of economic activity. I see this development as a highly ambitious project, which, from the perspective of the fundamental challenge of organization, is both inevitable and needed. Below, I will briefly describe some differences between economics and organization studies and how the economic
theories of organization try to combine both disciplines. It is not that I believe that, one day, we will arrive at a grand theory of organization, nor that such a theory should be our common goal. I do believe, however, in the debate between the different theories, opinions, and beliefs on how to divide labor and coordinate specialized activities as we build toward a science of organization. Moreover, this discussion allows me to comparatively assess business reengineering and learning as contributions to the wider perspective of organization theory, and to take up a position in the aforementioned rigor versus relevance debate.

The Study of Organization

A major difference between economics and organization studies is that neoclassical economists have succeeded in framing the allocation aspects of the fundamental challenge of organization into one coherent economic problem. In their language: resources – defined as all means which may contribute toward the satisfaction of human needs (Douma and Schreuder, 1991) or as bundles of potential services (Penrose, 1959) – are scarce, which should therefore be used as efficiently as possible, “...whether the resources are dollars, a bowl of whipped

---

**Figure 1.1 The study of organization**

<table>
<thead>
<tr>
<th>The fundamental challenge of organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to organize the production and distribution of the products and services we need</td>
</tr>
</tbody>
</table>

- **Focus on different organization aspects**
  - **Exchange on markets**
    - Economics
      - Neoclassical perspective
  - **Production in organizations**
    - Organizational Economics
      - Behavioral perspective
      - Contractual/governance perspective
      - Competence perspective
    - Organization studies
      - Sociology
      - Psychology
      - Management and organization
      - Political science
      - Anthropology

- **Focus on different organizational problems**
  - Different approaches to division of labor and coordination issues
cream, available time, or even a reputation for honesty and skill” (Stigler, 1988: 193). However, most resources can be used in different ways and for different purposes, and can produce a variety of different products and services. That presents a unique economic problem: what is the optimal allocation of the scarce resources over the alternative ways in which they can be deployed? If resources are optimally allocated, they are considered to be used efficiently.

In organization studies, on the other hand, a diversity of organizational problems is addressed from which, consequently, a variety of different organization theories results. To give a few random examples: Galbraith (1973) as a main representative of the decision making school considers the reduction in the complexity with which organizations are confronted as the primary organizational problem. Lawrence and Lorsch (1967), however, representing the contingency approach, are directed towards the connection between the varying conditions in the environment and the organizational patterns that lead to successful economic performance. A feature of organization studies is that all these different organization theories co-exist, although attempts have been made to arrive at greater unity. Lammers (1991), for instance, has proposed to combine all thinkable organizational problems into four categories: problems of governability, controllability, quality of life, and auditability. Another example is provided by Quinn et al. (1996), who contributed to the debate on organizational effectiveness by suggesting that all possible criteria to evaluate organizations can be arranged into four perspectives: the open system, rational goal, internal process, and human relations perspectives. Nevertheless, unlike in mainstream economics, the theoretical efforts in organization studies have not resulted in one high-consensus paradigm.

Economists, however, pay a considerable price for their high-consensus paradigm. The allocation problem is essentially seen as a static optimization problem. As a result, neoclassical orthodoxy ignores the dynamic aspects of coordination. Moreover, in the development of the model of perfect competition, economists have assumed – among others – that people are fully rational and that firms can be treated as a “black box” or as a production function with a single brain maximizing profit. Consequently, the inner workings of firms and other organizations can be ignored (Jensen and Meckling, 1973; Rowlinson, 1997). In fact, when the ideal structure of an economy is viewed as a perfect market consisting of many atomized, independent actors whose activities can be coordinated by the price mechanism, organizations need not exist at all (Milgrom
and Roberts, 1992). Neoclassical orthodoxy, routinely sacrificing relevance for rigor, has therefore little to add to the study of management and organization.

**Bridging Economics and Organization Studies**

The economic theories of organization have emerged from a dissatisfaction with conventional neoclassical economics. If markets are so perfect, why do firms exist? That is, why are activities organized within firms and not purchased through the market? This seemingly simple question has led to the development of numerous economic theories of the firm. Theories of the firm are conceptualizations and models of organizations that explain and predict their structure and behavior (Grant, 1996). They can be seen as targeted attempts to combine economic reasoning with organization studies, because they open up the black box of the economists' production function by addressing the issues of the existence, the boundaries, and the internal organization of the firm (Foss, 1996). This relatively new field of interest is therefore referred to as “organizational economics” or “economic organization.”

There are many theories of the firm. In addition to the neoclassical posture, they can be distinguished into the behavioral perspective (March and Simon, 1958; Cyert and March, 1963), the contractual or governance perspective (Jensen and Meckling, 1973; Demsetz, 1988; Williamson, 1975, 1985), and the competence perspective (Nelson and Winter, 1982; Penrose, 1959). What unites these perspectives is that they all claim that markets suffer from imperfections, which opens the door for coordination of economic activity within organizations. In these perspectives, the perfect market of neoclassical economics does not and cannot exist. Ever since Coase (1937) started this line of reasoning, markets and organizations are considered alternative means of economic organization, the choice between which is of primary concern in organizational economics.

What accounts for the multitude of theories of the firm are the underlying assumptions related to human behavior and environmental conditions (Williamson, 1985; Simon, 1985). As a result, the theories of the firm vary in the factors identified creating a difference in the productivity advantage of a firm over market organization. They all focus on different aspects of the fundamental challenge of organization to illustrate their primary problems of economic organization. For instance, the joining of rational purposes with the cognitive limits of boundedly rational human actors is seen as the central problem of organization in the behavioral theory of the firm (March and Simon, 1958). Firms
CHAPTER 1 INTRODUCTION

exist, because they allow economizing on mind as a scarce resource. Likewise, in agency theory, the primary organizational problem is the incompatibility of individual goals (Rowlinson, 1997). In this view, organizations arise as one way of ensuring that agents – for instance, employees – act in the interests of principals – for example, managers.

In the competence perspective, it is suggested that the potential value of resources can be leveraged when they are combined into competences and core competences (Amit and Schoemaker, 1993; Grant, 1999). Resources are regarded as the source of competences and core competences as the source of competitive advantage. Competences are defined as “...the capabilities of an enterprise to organize, manage, coordinate, or govern sets of activities” (Dosi and Teece, 1998: 284), and core competences as “...the sets of activities that a firm can organize and coordinate better than other firms.” Firms exist, because competences involving complex patterns of coordination between people and the organization’s heterogeneous resources cannot be readily assembled through markets. In this resource-based logic, every organization at any given moment in time represents a particular resource combination, which makes any process of organizational change a Schumpeterian quest for a more productive, new combination of resources (Mahoney and Pandian, 1992).

The so-called knowledge-based or learning-based theories of the firm are part of the competence perspective (Zack, 1999; Dosi et al., 2000; Choo and Bontis, 2002). In this literature, the firm’s knowledge is increasingly being considered the principal strategic resource, and the ability to create and apply it the core competence for building and sustaining competitive advantage or economic rent. As such, it points to important issues that are ignored or undervalued in the other perspectives. It carries through the emphasis in strategic management on a firm’s competitive advantage as realized through superior productive activity (Conner and Prahalad, 1996), it stresses the need to incorporate intangible assets such as knowledge (Liebeskind, 1999), and it contends that competence deals with dynamic efficiency, where dynamic efficiency is essentially about learning and innovation (Hodgson, 1998). Therefore, with the competence perspective and, in particular, the resource-based and knowledge-based theories of the firm, attention is shifting from the exchange of products and services as the predominant source of economic growth to the production aspects of economic activity. Organizational economics and organization studies are therefore steadily growing towards one another.
ON ORGANIZATION: LOOKING BACK ON REENGINEERING AND AHEAD TO LEARNING

The most recent development in organizational economics is that attempts are being made to integrate the exchange and production aspects of organization into comprehensive theories of economic organization (Moran and Ghoshal, 1999; Madhok, 2002). That is, the behavioral, governance, and competence perspectives on economic organization are being criticized for undervaluing the interrelations between the exchange and production aspects of organizing economic activity. Chapter 6 ties in with this development. Applied to knowledge and learning, I try to combine the exchange of information with the production of collective meaning in an effort to develop a richer learning-based theory of the firm.

Mutual Inspiration
Organizational economics and organization studies are growing towards one another, because economic reasoning in the successive economic theories of the firm is being increasingly applied to the internal functioning of organizations and networks of organizations. In neoclassical economics, the focus is on how markets achieve coordination between organizations and individuals. In the contractual or governance perspective, market and organizational coordination are comparatively assessed in a generic sense: given a choice between markets and organizations, which is better? Compared to organization studies, both perspectives are wider, because they include the division of labor between markets and organizations, and more narrow, because they focus on exchange relations and obscure the production aspects of economic activity within organizations. The competence perspective broadens the scope by focusing on differential efficiencies in using resources and (core) capabilities. That is, they emphasize differences among organizations in the realm of production, which can help explain performance differences between organizations and why some firms achieve a competitive advantage while other firms do not. As a result, there is an increasing dialogue between strategy scholars and economists to jointly attack strategic management problems (Rumelt et al., 1991). The same trend can be observed in organization theory. Many recent books bringing together a collection of articles contain contributions from organization studies as well as organizational economics (Zack, 1999; Dosi et al., 2000; Nonaka and Teece, 2001). Chapter 5 of this dissertation has been published in such a cross-disciplinary book (Choo and Bontis, 2002).
I applaud this conciliatory approach, because both organization studies and organizational economics can learn a lot from one another. That does not mean that I intend to reduce organizational problems to economic problems, nor do I intend to exclude other disciplines or to state that economics is incompatible with other organization theories. On the contrary. What I do wish to contend is that the economic theories of organization can contribute to our understanding of organizational problems. That is, these theories become more relevant the more the deployment and development of resources, resource combinations, and (core) capabilities forms a greater part of the organizational problems that we are trying to understand.

In this dissertation, all these theories — economics, organizational economics, and organization studies — act as the reference disciplines. Business reengineering emerged, and was developed, in the management and organization literature. To my knowledge, it has never been discussed outside this branch of literature, not in other organization studies, nor in organizational economics. From the very beginning, similarities have been drawn with resource-based thinking (Davenport and Short, 1990; Earl, 1994) and, at a later stage, with organizational learning (Guha et al., 1997), but these suggestions were never developed in the years to follow. As a result, reengineering has never been positioned and anchored in a wider theoretical context. I shall consider this issue further at the end of the chapter. By contrast, learning has been addressed for decades in several academic disciplines. With the recent development of knowledge-based views of the firm, this subject is also studied in organizational economics. It is therefore a much more fundamental phenomenon with a much wider span of attention than reengineering.

A Debate

The mutual inspiration among organization studies and organizational economics is accompanied by sometimes fierce debates. An illustrative example is provided by Simon (1997: 38), a representative from organization studies, whose behavioral theory of the firm had and still has considerable influence on the development of organizational economics: "When we look at organization in the real world, we find much more structure and complexity than is hinted at in the theory of the firm, whether in its classical or its "New Institutional" versions." In addition, he calls the neoclassical and governance theories of the firm "acts of
faith” (1997: 27). Resource-based theorist Grant (2001: 150) adds that Williamson’s transaction cost economics as the main representative of the governance perspective offers a limited view on what firms or other institutions actually do: “Certainly, we can analyze marriage as an institution that avoids the transaction costs of spot contracts for companionship, housework and sex, but such a focus provides little insight into the nature of marriage or the reasons for some of them being more successful than others.”

Responding to such criticism, Williamson (1999) admits that there is a need to go beyond generic governance to address strategy issues faced by rent-seeking firms, to include learning with which transaction cost economics makes only limited contact, and to see adaptation and achieving dynamic efficiency as the central problems of economic organization. Nevertheless, he adds, saying this is much easier than doing it. He asserts that the competence perspective on economic organization suffers from obscure and often tautological definitions of key terms, and from failures of operationalization. “There being no apparatus by which to advise firms on how to reconfigure their core competences, the argument relies on ex post rationalization: show me a success story and I will show you (uncover) a core competence” (ibid.: 1093). In the end, however, Williamson concludes that the considerations made in the competence perspective are unarguably important and should be incorporated into an enriched theory of economic organization that goes beyond ex post rationalization by advancing predictions and confronting the data.

In other words, the discussion within and among organizational economics and organization studies shows all the characteristics of a rigor versus relevance debate, where at times extreme positions are taken up, revealing different perceptions on science and the role it plays or should play. An example is organization theorist Pfeffer (1993) who argues that we would be wise to adopt economics with its formal, if not mathematical precision as the role model for organization theory. Organization theory lacks a grand theory of organization and a well-developed, high-consensus paradigm and is therefore considered to be in a bad shape. As a result, “…there are thousands of flowers blooming but nobody does any manicuring or tending” (Pfeffer, 1993: 1). In the words of Grant (2001: 153): “Progress has been made in specific areas and in applying individual disciplines (sociology, economics, psychology, politics, ecology, systems theory and information science), yet there has been a failure to integrate these areas and disciplines into a single body of theory.” Organization theorists are specialized and that results in coordination problems, as has been stated at the start of this
chapter. Apparently, they fail to do what they seek to teach others: to synchronize their activities to increase their prestige and authority.

Van Maanen (1995) embodies the reverse side. He lashes out against what he calls the "Pfefferdigm" (ibid.: 133): "...this sour view of our field is – to be gentle – insufferably smug; pious and orthodox; philosophically indefensible; extraordinarily naive as to how science actually works; theoretically foolish, vain and autocratic; and – still being gentle – reflective of a most out-of-date and discredited father-knows-best version of knowledge, rhetoric and the role theory plays in the life of any intellectual community.” According to him, good science is a good conversation. Moreover, the very fact that thousands of flowers are blooming is not a weakness, but rather a sign that organization theory is alive and well.

I shall use this debate at the end of this chapter to assess my experiences with business reengineering and learning. However, prior to doing this, I shall provide a summary of the five chapters of this dissertation.

**Business Reengineering**

I have chosen to spread my publications on business reengineering across three chapters, which correspond with the life cycle phases of this management and organization concept. In chapter 2, the emergence of reengineering between 1990 and 1994 is described. The discussion of the strategic, organizational design, and change management aspects of thinking in terms of customer oriented processes leads to a reengineering typology, which was developed in the following years. Reengineering peaked around 1995. In that year, a quantitative-empirical research project into experiences with this concept in the Netherlands was carried out. The main findings are highlighted in chapter 3. In chapter 4, the demise of reengineering is described on the basis of a critical assessment of this concept. My first article on this topic was published in 1997, when I concurrently bid farewell to reengineering, although articles continued to be published up to 2000. A note to the readers is that it is best that they take themselves back to the period of 1990-1997 while reading the three chapters, as I did not make any changes to the articles on which these chapters are based.
Chapter 2 - Business Reengineering: The Early Days

In chapter 2, business reengineering is viewed as an integral organizational change concept, which molds different ideas and insights from the contemporary management and organization literature into a coherent whole. In reengineering, organizations are advised to identify their core processes, which determine how the business works and value for the customer is created, and to take them as the basis for organizational change (Hammer and Champy, 1993; Davenport, 1993; Johansson et al. 1993). To organize around process further entails that all the other organizational aspects need to be aligned with the organization’s core processes. That is, organization members’ knowledge and capabilities, their roles, the organizational structure, the management systems, the information infrastructure, and even people’s attitudes, beliefs, and cultural norms about what is important are to be shaped by the design and redesign of the core processes. In reengineering, therefore, structure, behavior, and, to a certain extent even strategy follow process. The contribution of reengineering to organization theory is embraced in this new organizing principle, which is captured as “customer and process oriented organization.” Reengineering therefore offers an alternative organizational change concept to organizations looking for more productive resource combinations and (core) capabilities.

Next, a reengineering typology based on three different process definitions is presented, because in practice, only a minority of organizations appears to require transformational change and breakthrough reengineering based on the redesign of the core processes. It is posed, that each reengineering type carries different risks and requires different design and change management approaches. Hence, every organization must choose the reengineering type that matches the ambition level dictated by its environment. This need to attune the requirements of the environment, the ambition level, the organizational design actions, and the change management measures to each other is reflected in the notion of “balanced change.” Subsequently, this notion of balanced change is outlined into three ideal-type patterns of change or change archetypes. The proposition is that these change archetypes can help managers design and govern reengineering initiatives, providing insight into how deviations from the ideal-type change patterns or mismatches in the change process can be avoided.
Chapter 3 - Balance in Business Reengineering: An Empirical Study into Fit and Performance

Chapter 3 reports on the quantitative-empirical study carried out into the relationship between balanced change and organizational performance. The three change archetypes from chapter 2 are operationalized and analyzed with the aid of a questionnaire. The focus of attention is the fit between the ambition level set for the change process and the corresponding organizational design and change management measures. The relationship between the organization's ambition level and its environment is not considered. The hypothesis is that organizations that change according to an ideal-type pattern of change outperform organizations that follow a different, inconsistent pattern. That is, deviations from the ideal-type patterns are alleged to reduce organizational performance.

It is concluded that consistent reengineering endeavors generally result in greater benefits than do inconsistent change efforts, and that an increasing number of misfits results in decreasing reengineering success. The study also shows that only a minority of organizations has succeeded in creating a “magical mix” between the level of ambition set and the design and change management measures actually taken. Moreover, only a few organizations studied pursued breakthrough reengineering to achieve a competitive advantage. That calls the reengineering concept as it was originally promoted in the literature (Hammer, 1990; Davenport and Short, 1990; Kaplan and Murdock, 1991) into question.

Chapter 4 - Business Reengineering: A Critical Assessment

In chapter 4, the concept of business reengineering is critically assessed. Twelve points of criticism stemming from diverse academic disciplines and eleven answers of reengineering proponents are summarized under four denominators: the (limited) strategic significance of reengineering, the (lack of) concern for the human dimension and change management issues, the (troublesome) relationship with information and communication technology, and the (inadequate) theoretical substantiation and methodological support of reengineering.

On the one hand, this chapter concludes that many critics seem to have no reason to criticize reengineering other than commercial ones. Their criticism is often solely based on the first and therefore relatively immature publications on reengineering, and conveniently neglects the more recent theoretical improvements made to this concept. On the other hand, the atheoretical start of reengineering, its design engineering view on people, organization, and change
management, and the naively optimistic expectations regarding the productive possibilities of new information and communication technology have created a context in which it is difficult for reengineering to survive as a valued and accepted management and organization concept. However, it is surprising to discover that reengineering’s process view on organization is seldom contested. It is therefore expected that this organizing principle will remain of value to organizations that need to improve their performance, although it is in need of more thorough research to substantiate it. Nevertheless, it is also anticipated that business reengineering will be included in the long list of short-lived innovations in organization theory. It has become a too conceptually and emotionally charged concept to continue the role it once played.

Learning

Learning across markets and within organizations is the subject of chapters 5 and 6. In chapter 5, the possibilities of transaction cost economics, agency theory, and resource-based and knowledge-based thinking are analyzed and integrated into a framework with four governance structures to support learning in organizations. Chapter 6 elaborates on this issue, and takes tentative steps towards a new learning-based theory of the firm, making use of various insights and concepts from organization studies, in particular of the social constructivist learning theory (Berger and Luckmann, 1967; Wenger, 1998).

Chapter 5 - Knowledge and Learning, Markets and Organizations: Managing the Information Transaction Space

Chapter 5 begins with four points of criticism of the way in which knowledge management is often represented in theory and applied in practice. First, knowledge is frequently seen as a relatively static phenomenon, not capturing the ongoing cycle of action taking and knowledge acquisition found in learning theories. Second, the prevailing notion of knowledge often rests on a naively objectivist model of learning. Third, many knowledge initiatives are biased toward the supply of information and underestimate the active role of information users in seeking and creating meaning. Fourth, knowledge initiatives often take place within organizational boundaries or within a limited network of organizations that may run counter to the borderless learning behavior of
information seekers. Faced with such criticism, what can knowledge management possibly mean for organizations?

Addressing this question, it is explained that the value-adding processes of an organization and its products and services depend on how resources, resource combinations, and (core) capabilities are viewed, which is a function of the knowledge applied or the meanings attached to them (Tsoukas, 1996). The more an organization learns about the different ways of coordinating and leveraging resources, the greater the potential productivity of any given set of resources and the attendant prospects of successful action will be (Penrose, 1959; Moran and Ghoshal, 1999). In organizational contexts, therefore, learning is or could be directed towards the deployment and development of resources, resource combinations, and (core) capabilities. As to managing knowledge and learning, it is argued that the production of individual and collective meaning cannot be managed in the traditional sense of planning, control, and hierarchy. "It cannot be designed; it can only be designed for – that is, facilitated or frustrated" (Wenger, 1998: 230). What can be organized to a certain extent are the processes of information exchange between information demand and supply. Individually or collectively, people learn through social interaction and the exchange of information. Consequently, knowledge management is seen as an organizational discipline bridging information demand and supply in support of learning processes within organizations.

The object of knowledge management is called "the information transaction space," which represents the set of all possible information exchanges available to any actor at any given moment in time. Following neoclassical economics, unrestricted information exchange would maximize people's learning and, therefore, the productive possibilities of the organization's resources, resource combinations, and (core) capabilities. However, the information transaction space does not function as a perfect market. Market imperfections occur, because of three generic information exchange problems that are related to people's bounded rationality and their proclivities to behave opportunistically. From the perspective of the information seeker, these problems are: (1) knowledgeable and trustworthy information sources have to be found, (2) the relevant questions have to be posed in terms that cannot be misunderstood, and (3) the information gathered has to be interpreted to create meaning from it and applied to the context-specific practice of the information user. For knowledge management to be helpful in learning processes, all knowledge initiatives should
be related to at least one of these three information exchange problems. That is, all three problems can be considered as objects of organization.

Next, a dynamic framework for managing the information transaction space is developed that is based on the three generic information exchange problems mentioned above. Grounded in economic theories of organization, it integrates the coordination, cost, and learning perspectives on knowledge management. The framework extends the usual market-hierarchy dichotomy in economic theory by distinguishing four equally efficient, yet differentiated governance structures, each with a different organizing principle to support learning. Moreover, it is reasoned that the allocatively and, in particular, adaptively efficient economic development of organizations is dependent upon their management’s “interpretative flexibility” (Spender, 1996) while managing the information transaction space. Organization members learn and managers have to learn how they learn best. Put otherwise, organizing learning itself is also an object of learning. This open-ended process of coordinating and learning may be more important in creating and sustaining a competitive advantage and economic rent than the specific knowledge acquired. In that sense, management’s dynamic ability to make the best use of the information transaction space is a defining competitive dimension of any organization.

Chapter 6 - Towards a Learning-Based Theory of the Firm

The objective of chapter 6 is to take tentative steps towards a predictive learning-based theory of the firm that advances a separate and empirically relevant answer to the question: why do firms exist? Building on, in particular, transaction cost economics, knowledge-based views of the firm, and social constructivism, it is based on two premises that differentiate it from alternative theories of the firm.

The first premise is that learning, defined as the construction of new meanings to guide actions (Berger and Luckmann, 1967; Dixon, 1997), fundamentally differs from other economic activities due to the stickiness of knowledge and the limited controllability of learning. Every organization needs to share meanings, for the knowledge to run a business can never be collected by a single mind (Hayek, 1945). However, the stickiness of knowledge implies that the outcomes of meaning sharing are highly uncertain, because commonality of meaning cannot be guaranteed. Moreover, the controllability of learning is limited in that it results from an interplay between organization and self-organization, and from the interaction among local, experiential knowledge developed in firms and
more disembodied, global knowledge embedded in wider scientific and non-scientific "economies of meaning" (Wenger, 1998). Consequently, modesty is required as to the possibilities of organizing learning. That is, firms can only indirectly affect the production of individual and collective meaning by facilitating information exchange supportive of learning and by providing an institutional context in which the potential value of learning can be realized. Most theories of the firm ignore these idiosyncratic attributes of learning. They either confuse information with knowledge or the ownership of information assets with the construction of meaning. As a result, they overestimate the manageability of learning.

The second premise in this chapter is that a learning-based theory of the firm needs to integrate the exchange and production aspects of organizing learning and the associated learning capabilities. It should combine both aspects as learning involves the exchange of information and the production of individual and collective meaning. Such an integrative approach, however, is not common in economic theory. By taking the transaction as the basic unit of analysis, transaction cost economics reflects the neoclassical preoccupation with exchange as the predominant economic activity (Williamson, 1985; Grant, 2001). It essentially ignores how resources, resource combinations, and (core) capabilities can best be deployed and developed to create and realize value. By contrast, most knowledge-based theorists present the firm as a dynamic, knowledge-bearing institution that enjoys the unique advantage of being able to organize economic activity in ways that markets simply cannot (among others, Foss, 1996; Spender, 1996; Ghoshal and Moran, 1996; Hodgson, 1998). That is, they assert that the production activities of the firm, including those related to learning, cannot be understood from the logic of markets. Knowledge-based theories of the firm thus focus on the production aspects of organizing economic activity, and tend to undervalue the relations between exchange and economic development (Madhok, 2002).

The point is, however, that knowledge and learning capabilities are not only difficult to assemble by means of market exchange, but also difficult to fully obtain through firm organization, in particular in dynamic, complex, and uncertain environments. From a learning perspective, therefore, both markets and firms are needed. Markets exist, because they embody an enormous variety of organizational forms and sizes offering plentiful contexts facilitating all kinds of learning, which helps in discovering and evaluating new ways of creating and realizing value in manners that single firms cannot. On the other hand, firms
exist, because they act as formative beacons on these markets guiding the imagination and creativity of their members, and provide institutional contexts for realizing the potential value of their ideas and understandings in ways that markets cannot. They are the institutions in which the global knowledge embedded in economies of meaning can be efficiently combined with the firm's local knowledge, and in which the planned and emergent learning structures can productively interact, to economize on individual and collective learning.

Subsequently, this chapter attempts to operationalize the abovementioned learning-based view of the firm through development of predictive theory. Sometimes learning across the market will be preferred, while in other situations the firm will enjoy the advantage. A predictive theory of the firm needs to unfold these differences between both modes of organization. As in transaction cost economics, therefore, the strategy for deriving propositions is comparative institutional analysis or discriminating alignment. Given a choice between the market and the firm, which is better? The discriminating alignment hypothesis is that learning economies will be achieved when the attributes of learning, information exchange, and modes of organization are properly attuned to each other. On this basis, several propositions are advanced identifying the factors responsible for market or firm advantage. Finally, the steps taken in this chapter toward a learning-based theory of the firm are captured in three implications for economic theory and for a wider theory of performance differences between firms, which is a major concern in both strategic management and resource-based theory. Some consequences of these implications are highlighted, indicating the future research agenda.

Reengineering, Learning, and Organization Theory

What can we learn from the concepts of reengineering and learning if we place them in the context of organization theory and the debate on rigor versus relevance taking place in this context?

In retrospect, it is safe to say that reengineering was a relatively short-lived management hype that lasted approximately seven years. The contribution of reengineering to organization theory is that it put the usual structural view on organization up for discussion, and focused considerable attention on the concept of customer and process oriented organization as an alternative organizing principle. The fact that the process view on organization was admittedly not
entirely new, or that only a minority of organizations used their core processes as a basis for revolutionary change, takes nothing away from the fact that reengineering has expanded the repertoire for the design and governance of organizational change. In the meantime, it has become so engrained a feature of organization theory, and has become such a well-known concept, that the “business reengineering” label hardly matters any more. The process view on organization, however, continues to play a role in concepts such as enterprise resource planning and customer relationship management.

In 1997, seven years after the emergence of reengineering, I levied four points of criticism on this concept (see chapter 4). The first three points of criticism – the limited strategic significance of reengineering, its lack of concern for the human dimension and the change management issues, and the troublesome relationship with information and communication technology – culminated in the fourth point of criticism: the poor theoretical substantiation and methodological support of reengineering. Reengineering emerged, and was initially developed, in the popular management literature, where pragmatism prevails. Numerous possibilities were at hand to marry up the concept with received theories from organization studies and organizational economics. For instance, the resource-based strategy literature could have been consulted to find an appropriate model of strategic change, or different organization studies for alternative change management approaches and more sophisticated information management concepts. However, such endeavors happened too late, if they took place at all. Business reengineering has therefore taught us that, no matter how intuitively attractive and relevant management concepts and ideas may be, they cannot exist without theoretical substantiation, proven methodologies, and substantial evidence for the underlying organizing principles. Theoretical substantiation is essential to build up a more sustainable and generally accessible knowledge base (Benders et al., 2001). Looking back, I can see that a whole host of opportunities was missed, which undoubtedly contributed to reengineering’s demise.

Knowledge management might well await a similar fate as reengineering. If I place its emergence in 1995 (Nonaka and Takeuchi, 1995), then this concept has also built up seven years of experience. This concept, too, has been subjected to four points of criticism (see chapter 5): knowledge does not capture the ongoing cycle of action taking and knowledge acquisition found in learning theories, the objectivist model of learning that is often applied, the bias of many knowledge initiatives toward the supply of information, and the inward-looking perspective of knowledge management. These points of criticism primarily reflect
a need for more sophisticated learning theories and methodologies on which the organization of learning within and among organizations can be grounded. Such theories are being developed in particular in the field of (social) psychology, where the social constructivist theory of learning is gaining significance. By using such learning theories for organizational issues, attention is shifting from knowledge management, which often is rather instrumental in nature, to organizational learning, which appears to be the more conceptual and fundamental topic. The concept of knowledge management will probably disappear in the near future; I expect organizational learning to weather the storm.

Organizational learning also differs markedly from business reengineering in terms of organizing. A social constructivist definition of learning is the construction of new meanings to guide actions (Berger and Luckmann, 1967; Dixon, 1997). Consequently, the organizing principle in organizational learning is focused on facilitating and economizing on individual and collective meaning production. Given that any division of labor is also a “division of learning,” the organization of learning often includes the creation of parallel learning structures “…that exist outside of the formal hierarchy and the role of which are to promote learning and innovation with a view to changing the formal structure in order to improve its effectiveness” (Grant, 2001: 163). In this sense, breakthrough reengineering could be seen as a much more radical concept than learning. For most organizations, adopting reengineering implies a transformational change of all its aspects, where the process view on organization becomes the new and primary organizing principle. In organizational learning, on the other hand, the existing organization can remain intact, because creating parallel learning structures implies that an additional organizing principle is added to it. It is, however, also possible to state the opposite. Then, learning is the more radical concept, because it directly affects people’s attitudes, values, and beliefs. This is precisely one of the aspects that have been underestimated in reengineering: revolutionary change requires radical learning (Andreu and Ciborra, 1996).

Organizational learning differs from reengineering in another respect, in that well-established theories from organization studies and organizational economics are extensively used. Spender (1998: x) commenting on this difference, has observed that: “Since World War II academic theorists have diverged further and further from managerial and organizational practice. While the academics’ contributions to economic analysis, accounting, and financial practice increase, (…), the very opposite is true of managerial and organizational
CHAPTER 1 INTRODUCTION

theory. Here the new ideas have emerged from firms themselves, (...), and from the consultancies, (...). But when it comes to making managerial sense of the concept of knowledge, the academics have a head start. (...). If there is to be a knowledge-based theory of the firm, it is highly likely that it will be based on the work of academics rather than only on the insights which practice provides.” The early promotion of reengineering was largely due to information technology management consultants, whereas in organizational learning academics supposedly have the edge. The question is whether that matters.

As mentioned previously, some experts believe organization theory to be in a state of disarray (Pfeffer, 1993; Grant, 2001). It is true that there is little or no collaboration among and within the different organization disciplines. Agreement within and across these disciplines is therefore unlikely and, consequently, a grand theory of organization is probably impossible. To be specific, reengineering research has produced various, increasingly complex models of process organization (among others, Kettinger and Grover, 1995; Guha et al., 1997). However, we have failed to arrive at a rigorous comparison with alternative organizing principles. Consequently, the process models of reengineering provide little guidance to those interested in finding out how to integrate different organizing principles into one theory or one practice. Hence, we are faced with a situation that managers in practice are confronted with this issue of comparing or integrating organizing principles, while that issue is hardly addressed in theory. Reengineering research is not an exception in this respect, but confirms the rule that exists in organization disciplines.

It also seems true that the speed at which new developments present themselves is greater than our capacity to theorize about them (Grant, 2001). New developments are often signaled first in the popular management literature, which frequently results in the next management hype. As Earl (1994: 22) remarks: “There is always a fine balance between hype and rhetoric serving as propaganda, illusion and myth in a cynical, self-serving campaign or being essential to promote new ideas, educate managers about them, and build confidence and credibility in them.” In chapter 4, I quote Davenport (Wall Street Journal, 1996) who, reflecting on reengineering, warned us about the next hype: “The next big thing will get us in trouble.” If he was referring to the Internet hype, he was proved right. I therefore see new developments proceeding faster than our capacity to theorize about them as an important source of tension in organization theory. The editorial policy of the top-ranked academic journals, where lead times are usually two to four years, does not exactly help matters. To illustrate, our
study into balanced change (see chapter 3) was published after the first version of
chapter 4, which concluded my research into reengineering, had already appeared.
However, we could not have started this research any sooner, as we had found too
few organizations that had any experience with reengineering. Organization
theory is thus changing so quickly, and the lead times of the premier academic
journals are so long, that we are increasingly being faced with a mismatch. On top
of this, research projects fulfilling the requirements of the top-ranked journals that
still favor empirical science above “good conversations” are often taking too long
to complete. However, we need these journals, as they provide the arena where
the debate in organization theory primarily takes place.

Therefore, the challenge in organization theory is to generate research
that is academically rigorous and simultaneously relevant to practice. I fully agree
with Robey and Markus (1998: 14) who conclude: “If academics and practitioners
go their separate ways, we anticipate an impoverished future for both parties.”
Consequently, we have to move “beyond rigor and relevance.” This is of course
easier said than done. I am currently hoping to find it in economic theories of
organization, which are endeavoring to make economics more relevant to the
study of organization, while at the same time preserving the rigor of the analyses.
I am applying these theories to the organization of learning (see chapters 5 and 6).
Interestingly, the significance of this topic for the economic development of firms
is hardly contested. Implicitly or explicitly, it is widely acknowledged that
differential learning within and between firms is key: learning matters
(Williamson, 1999). There is, however, a debate on the exact relationship between
learning and the existence, boundaries, and internal organization of the firm, and
on how to incorporate that into an empirically sound, predictive theory of
economic organization while preserving the theory’s plausibility and relevance.
This topic, therefore, has all the characteristics of the rigor versus relevance
debate between and within organization studies and organizational economics
mentioned before.

Unlike Pfeffer (1993), I do not see the differences among organization
disciplines and theorists as a sign of weakness, obstructing the progress towards a
grand theory of organization. After all, why should building towards a science of
organization have to result in one high-consensus paradigm? Furthermore, I
believe that the differences of opinion and the different methodologies
organization theorists suggest tend to contribute towards, rather than hinder, the
growth of organization theory. I can enjoy eloquent theories or thoughts presented
as “good conversations” as well as laborious efforts to develop predictive theories
along the more traditional lines of doing research and confronting the data in an empirical research program. We need diversity and creativity as well as different kinds of evidence for the ideas presented. In this sense, the debate on rigor versus relevance may very well prove to be highly unproductive.

This dissertation is a testimony to these personal convictions. The five chapters differ not only in terms of content, but also in terms of depth, rigor, research methods, and even – I am afraid – style of writing. They also reflect my position in the rigor and relevance debate.

Looking back on reengineering, I can see that we collectively missed a host of opportunities to improve the concept and to substantiate it, both theoretically and methodologically. Moreover, the improvements made to the concept generally appeared too late. Now, reengineering has disappeared from our minds and writings. Nevertheless, the process view on organization is still important as becomes clear, for instance, in the literature on customer relationship management. In this literature, however, there are hardly any references made to reengineering or to the lessons learned in that regard, as if knowledge cannot be accumulated. More generally, many topics in organization theory come and go. Most topics of recent importance originated in consultancy firms, who, driven by commercial forces, are both innovative and practical. I see these characteristics of the field as a given. How to deal with them as academics? I have no other answer than to better combine rigor and relevance. That is, presenting new ideas or elaborations of such ideas should be considered as important as subjecting these ideas to rigorous research to find bits and pieces of evidence, as, every now and then, critically assessing the work that has be done. The importance of sound theories and proven methodologies in combination with relevance becomes even more evident if we look back on the Internet hype with its dramatic effects, both macro-economically and micro-economically. However, any major innovation in organization theory has far-reaching consequences. Therefore, we simply have to simultaneously be rigorous and relevant.

Looking ahead to learning, I am confronted with this task. I have chosen to depart from economic theories of organization, because I am attracted to the more rigorous habitat of this field, the central position reserved for human behavior, and the language already developed. Much work, however, remains to be done, in particular with regard to the relevance of the knowledge-based or learning-based views of the firm, which are still incomplete, crude, and in need of a more accurate view on human nature and deeper behavioral insights. If it is true that knowledge is becoming increasingly important for the development of
(supra)national economies and individual organizations, the replacement of the neoclassical “economic man” with Simon’s “administrative man,” and the replacement of “administrative man” with Williamson’s “contractual man,” will find a logical continuation in the replacement of “contractual man” with “learning man.” Organization studies are helpful in this regard, so cooperation is needed and welcomed. That is my personal reaction to the current state in which organization theory finds itself. However, I would not dare to suggest that this is the best way to proceed for everyone. Let those 1000 flowers bloom, therefore, and let us debate the healthy tensions they pose.

Notes

1. The contractual or governance perspective includes agency theory, property rights, and transaction cost economics. The competence perspective entails evolutionary economics as well as resource-based and knowledge-based views of the firm.

2. With “New Institutional” versions, Simon particularly refers to Williamson’s transaction cost economics.

References


Benders, J., R.J. van den Berg, M. van Bijsterveld, S. Heusinkveld, and K. van Veen (2001), Professioneel pragmatisme, Bedrijfskunde, jrg 73, nr 2: 78-84.


ON ORGANIZATION: LOOKING BACK ON REENGINEERING AND AHEAD TO LEARNING


Pfeffer, J. (1993), An Interview with Jeffrey Pfeffer, Organization and Management Division Newsletter, Winter, 1, 5.


CHAPTER 1 INTRODUCTION


Wall Street Journal, Next Big Thing, November 27, 1996.


