On organization. Looking back on reengineering and ahead to learning

Huizing, A.

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This chapter serves the purpose of introducing the concept of business reengineering, and prepares the ground for chapters 3 and 4. For a proper understanding of this chapter, it is best that the reader takes himself back to 1993.

In 1990, two articles were published that presented business reengineering as a new management and organization concept (Hammer, 1990; Davenport and Short, 1990). It has since become popular under various headings, usually involving a combination of the key words “process,” “redesign,” “reengineering,” “business,” and “innovation.” From its start, the concept has also attracted criticism. Reengineering, so it was stated, does not really offer anything new; it would be a typical case of old wine in new bottles (Huizing, 1993). The critics also made references to the world of automation, which was heavily criticized at the end of the 1980s for the poor return on the investments in information technology. Allegedly, computers were seen everywhere except in the productivity statistics (Roach, 1991; De Jong, 1993; Kommer and Florijn, 1993). According to the critics, reengineering is being promoted as a response to this productivity paradox with the primary intention to help recover the market for information technology consultancy firms (Earl, 1994).

In this chapter, reengineering is seen as a new development in organization theory that deserves thinking about. Commercial forces have undoubtedly played a part, but cannot explain its rapid emergence. It is also true that numerous recent ideas and concepts from the modern management and organization literature can be found in reengineering. These ideas and concepts, however, are integrated into a novel organizing principle that can be summarized as “customer and process oriented organization.” Organizations are advised to identify their core processes and to see them as the basis for organizational change. To organize around processes further entails that all the other organizational aspects need to be aligned with the organization’s core processes, because they determine how the business works and value for the customer is created. 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. Consequently, reengineering is an alternative change concept that offers organizations a different approach to division of labor and coordination issues. Apparently, it is this process view on organization that attracts the attention of many – managers, consultants, and researchers alike.

Business reengineering has been described as "...the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed" (Hammer and Champy, 1993: 32). In this chapter, we shall first illustrate the characteristic elements of this definition, and consider the need for radical change in organizations, which the literature propelled into the limelight as being the cause of reengineering. We shall then consider the strategic aspects of this concept and relate them to reengineering’s organization design and change management ideas. In this context, the organization’s customer approach, its core processes, the role of information technology, organizational and human aspects, methodology, and the roles of change managers will be briefly discussed. This discussion leads to reengineering’s organizing principle, which is followed by an example of an organization that has managed to successfully apply this principle.

The next step is to present a reengineering typology based on three different process definitions. Each reengineering type, it is posed, carries different risks and requires different design and change management approaches. Organizations considering process change must therefore select the reengineering type that matches the ambition level dictated by their environment, and translate this ambition level into appropriate design and change management actions. This notion of balanced change for the reengineering types distinguished is outlined in three ideal-type patterns of change or change archetypes. Reengineering is a complex and risky undertaking. Failure rates of 50 to 70 percent have already been quoted (Hammer and Champy, 1993). The proposition of this chapter is that the ideal-type patterns of change can help managers design and govern reengineering initiatives, and that deviations from these patterns can help explain the high failure rates. Finally, directions for future research are indicated.
Transformation

Business reengineering is perfectly suited to our times, gripped as we are by a fundamental economic restructuring fed by large-scale developments such as individualization, more articulate customers, privatization, deregulation, European unification, internationalization, and rapid technological innovations. Reengineering opens up a new perspective for companies which find themselves confronted by sharper competition and increased pressure on profit margins, and for governmental institutions and administration agencies that are faced with privatization and budget cuts.

A typical example of a large-scale development is the deregulation in the 1980s of the civil aviation sector in the United States (Mahini and Turcq, 1993). This development resulted in a dramatic drop in the profitability of the airline companies in the first five years after the deregulation, followed by a slow recovery. The drop in profitability was primarily caused by an influx of no less than 215 new entrants to the market, putting enormous pressure on the maximum tariffs that could be set. To further illustrate this sharp turnabout: for 40 years prior to deregulation, the market had not seen a single new entrant. Moreover, of the 215 new entrants, only one managed to survive the tough price war (Southwest). More significantly, however, they managed to drag with them over half of the original companies. These organizations were unable to cope with the harder, more competitive rules of the game and vanished altogether from the playing field.

In general, it can be posed that the rise of business reengineering is related to the increasingly important role played by free-market thinking in the world economy. The greater the degree of liberalization and deregulation in national and supranational economies, the more global and vicious the competition will become, and the more significance reengineering can have for organizations that have to keep up with these developments. This puts into perspective the first publications on reengineering in the popular press, which focused on the North American market (Hammer, 1990; Davenport and Short, 1990). These publications are characterized by a high “beat the Japanese” content, spouting rhetoric about the survival of Western (read: North American) businesses. Not every country or sector, however, is in dire need of change. There are sometimes significant differences between countries and sectors. A case in point is the DRT report (1991), which sheds light on the relationship between reengineering and competitiveness in the banking sector. This report reveals that
North American and British banks are the most advanced in terms of deploying a customer oriented strategy. In Italy, on the other hand, where markets are allegedly more protective, customer focus is never, or only sporadically, used as a competitive factor. Other countries, such as the Netherlands, occupy a halfway position. According to the DRT report, a corresponding interest in reengineering is shown: popular in the United States, virtually absent in Italy, and of increasing importance in the Netherlands.

Nonetheless, business reengineering can also be relevant outside the United States and the United Kingdom. Although there is a difference in the speed at which the aforementioned large-scale developments take place in countries and sectors, they all seem to be heading in the same direction. The agreement concluded between the European Community and Japan in 1991, limiting the market share of Japanese car manufacturers in Europe, was intended to give European companies time to adjust their organizations to the changing circumstances. This protectionist measure, however, can have no more than a temporary impact, as it encourages foreign competitors to base themselves in Europe, thus importing the stiffer competition. The challenge therefore lies in changing organizations in such a way, that they are able to face their competitors, preferably on a global scale. In particular for organizations operating in mature, saturated markets, sharper competition can imply a transformational change. Governments and administration agencies often face a similar proposition, confronted as they are with cuts in spending and privatization. Business reengineering responds to these needs by sketching a path to the future.

**Strategy, Customers and Core Processes**

In reengineering, it is suggested to start organizational change processes with a strategic reorientation. In this respect, using several, predominantly North American cases as typical examples – Rank Xerox (Davenport and Short, 1990), Ford (Hammer, 1990), Cigna (Caron et al., 1994) -, it is made clear that many organizations have lost sight of the customer. The rapidly rising pile of literature therefore strongly recommends putting the customer first, and ensuring that the products and services offered as well as the entire organization in all its aspects are better geared to the customer. The claim is that by making these amendments, organizations can obtain order of magnitude improvements in operational and administrative performance and even sustainable competitive advantages.
Organizations can make their first steps towards improved customer focus by thinking about how to approach their customers. The desired interaction with customers at the moment of truth – that is, the moment customers establish contact with organization members – then acts as the trigger for change (Vantrappen, 1992; De Jong, 1993). Once this step has been taken, more of the dominoes will fall. By continually posing the question “how can we provide customers with the best possible service?,” the organization is forced to consider its core processes, which determine how the business is done and value for the customer is created. In this way, the limitations of the often still functional and centralized organizations and the usual responsibility-centered, structural view on organizing can become painfully obvious. Organizations are suddenly faced with questions about the customer’s identity and expectations, are becoming increasingly aware that nobody is responsible for the overall operation, that new products or services are being developed too slowly, that lead times are too long, that compartmentalized departments or functional units are preventing alert response, or that it is virtually impossible to connect functional information systems along process lines. The organization’s processes are often unnecessarily complex. Leaving the governing of these processes to those closest to the customer and streamlining the relationship between these front workers and the back offices, can allow for many simplifications, accelerations and innovations. It may occasionally even lead to entire processes becoming surplus to requirements. In this respect, mass customization (Pine, 1993) can act as a significant impulse for change, meaning that organizations must be able to simultaneously combine economies of scale through standardization with the economies of scope through customization.

Each organization can be described in a limited number of core processes. While some writers distinguish a maximum of three or four processes (Kaplan and Murdock, 1991), others mention five to eight processes (Johansson et al., 1993). A core process is “... a set of interrelated activities, decisions, information, and material flows, which together determine the competitive success of the company” (Kaplan and Murdock, 1991: 28). They are commonly the primary activities of the value chain, that is, one sequence of functional activities (Porter, 1985). Examples are order generation and fulfillment, and product development. The characteristics of core processes are that they are central to business functioning, relate directly to external customers and to the organization’s core competences, and cross functional, geographic, business unit, and organization boundaries (Hammer and Champy, 1993; Jansen et al., 1995).
taken to its highest level, therefore, cuts across all the different organizations that make up the supply chain. Given that each organization has a limited number of core processes, they also provide an excellent interpretative framework for all current and future, planned and emergent change initiatives.

By ensuring that the customer-related core processes occupy center stage, the focus is shifted from the structures by which organizations are usually described and analyzed – functions, business units, regions, and so on – to the way the organization functions and value is created. Reengineering is revolutionary in the fact that it recommends the redesign of these core processes from scratch in one comprehensive shot, from the point of view of the customer’s current and future demands and needs. Such a clean slate approach to organizational change means that every business concept, assumption, purpose, and principle is questioned so that totally new ways of organizing can be considered. This would not only enable organizations to achieve order of magnitude improvements or a quantum leap in market performance, but also breakpoints that provide new business opportunities in the marketplace. A breakpoint is “...the achievement of excellence in one or more of the “value metrics” – the values the market puts on products and services – to the extent that the marketplace clearly recognizes the advantage and where the ensuing result is a disproportionate and sustained increase in market share” (Johansson et al., 1993: 16). Typical value metrics of apparent importance to the modern-day competitive relationships are customer satisfaction, flexibility, quality, cycle time, and innovativeness, which can and must be striven for simultaneously (Hammer and Champy, 1993). Breakthrough reengineering is therefore intended to result in operational excellence to achieve market leadership by rewriting the explicit and implicit rules on which the industry is based. This implies, partly at least, a shift towards competition based on the way organizations operate.

The striving for operational excellence and market leadership gives strategic meaning to reengineering, although there is a difference between product market strategy and process strategy. Porter’s conceptualization of competitive strategy (Porter, 1980) implies that organizations formulate a product market strategy to distinguish and position themselves in the market. Reengineering is less related to this conceptualization of strategy than it is to the resource or capability school of strategy (Wernerfelt, 1984; Barney, 1991; Conner, 1991; Peteraf, 1993). Reengineering could be grounded in this school of strategy, because it also broaches the subject of how to organize heterogeneous resources to achieve more productive resource combinations and sustainable advantages.
Furthermore, reengineering is seen as being able to bridge the conventional rift between strategy and operations (Edwards and Peppard, 1994). Discussions on strategy and core competences are often abstract and are difficult to relate to the operational processes. Defining the organization in a limited number of core processes could clarify these abstract discussions, while the current or desired core competences could push the redesign of the core processes in the right direction. In this view, the core processes are the drivers of the organization’s core competences and capabilities, and, in this sense, of its strategy. Resource-based thinking could therefore provide an appropriate model of strategic change for reengineering, which is still lacking at the moment.

**Information Technology**

The first publications on business reengineering in particular pointed to a definite link between process innovation and information technology. To use Hammer’s language: do not automate, obliterate (Hammer, 1990). It was argued, that organizations miss all kinds of opportunities if they automate outdated, inefficient, and cumbersome processes. By first redesigning processes and ridding them of all non-value adding activities and, where possible, integrating them, the benefits of investments in information technology could increase dramatically. Furthermore, new information technology can have a disruptive effect on organizations and processes in that it has the ability to fundamentally change the basic rules on which the business is based. The point made in reengineering was that by seeing innovative technology as the enabler for process innovation, breakthrough reengineering could become a reality. In order to achieve breakpoints, however, organizations and processes must be completely redesigned from scratch to exploit as best as possible the productive possibilities of the new technology. In this way, reengineering proponents responded to the productivity paradox mentioned before.

Whereas Hammer (1990) talks about the possible impact of single information technologies on organizations and processes, others (Davenport and Short, 1990; Johansson et al., 1993) stress the relationship with the organization’s capabilities, which “...are based on developing, carrying, and exchanging information through the firm’s human capital” (Amit and Schoemaker, 1993: 35). With this different emphasis, the attention shifts from automation to informing the organization. It is no longer information technology that is considered directly
responsible for creating competitive advantage – the slogan of the 1980s –, but the capabilities of the organization to combine heterogeneous resources, including information technology, in productive and distinctive ways. Shared databases, for instance, can be essential for developing capabilities to integrate tasks, functions, and processes. Other examples concern information collection and distribution capabilities, decision making capabilities, and process modeling and conceptualization capabilities. By supporting such capabilities, information technology can contribute to reducing not only the organization’s production costs, but also its information and coordination costs. In this way, reengineering and resource-based thinking are once again married up.

However, information technology can also be a considerable obstacle for reengineering (Earl, 1994). When data and systems architectures are geared to local, functional needs, there may be limits to process innovation. Put otherwise, organizations are often embedded in their information systems, making it difficult to integrate new information technology. Combined with process redesign, new information technology can unlock innovative business opportunities, but this means that an information infrastructure needs to be developed with the same process orientation (Truijens, 1994). For example, a large bank in the Netherlands has introduced a new layer in the information infrastructure, interfacing the existing functional information systems and the sequential process activities, with the aim of redesigning the processes without the direct need to simultaneously modify the existing applications (Canton and Mescher, 1994). This approach significantly increased the speed with which the changes could be implemented. This example indicates that there is a correlation between the success of reengineering efforts and the degree to which the information infrastructure enables newly designed processes (Davidson, 1993; Huizing et al., 1994).

Furthermore, a linkage between reengineering and information technology can be achieved in strategic information planning processes. Information systems initiatives are then considered in connection with the business changes proposed. This can provide business managers with a better insight into the possibilities and impossibilities of new information technology, and computer experts into the business needs (Earl, 1994). As a board member of a reengineered organization remarked: “Thanks to reengineering, I feel for the first time that I have a true grip on the automation department and can guide it” (Klein Klouwenberg and Huizing, 1993).
Organizational and Human Aspects

Once the concept of core processes is understood, many other, contemporary organization ideas seem to fit in. In conjunction, most of these ideas amount to the “team-based organization,” a concept that has a longer history in organization theory. Reengineering, therefore, ties in with the trend toward greater flexibility through decentralization, delegation and organizing in smaller units (Kastelein, 1985; Wissema, 1987; Shonk, 1992). It is, for instance, posed that an organization’s customer orientation is largely determined by the way it approaches customers at the moment of truth (Harrington, 1991; Schlesinger and Heskett, 1991). A redesign team actively involved in improving the organization’s customer approach, has all kinds of design options at its disposal. It could, for example, consider options such as “many points of contact with few responsibilities,” “one point of contact that operates as an intermediary to the back office,” “a front office team that is able to process all customer queries and instructions independently,” or of “a team that is additionally responsible for governing the entire logistics or service process.” The factor determining the eventual design choice is which decision making powers and responsibilities can and must be assigned to the front office workers, given the vision on the new, future organization and the nature of its work. Generally speaking, reengineering proposes to replace functional work units with process teams, and to empower those teams in such a way that they can be made accountable for the end-to-end processes. This type of result orientation will soon require the composition of multidisciplinary teams, representing all the necessary knowledge and expertise to satisfy customers demands.

It may become clear from this example that many design decisions influence each other and must therefore be attuned to each other. If decision making powers are delegated to the shop floor and integrated in process teams, then for many organizations simple tasks change to multidisciplinary work, people’s roles alter from controlled to empowered, job preparation changes from training to education, the focus of performance measures and compensation shifts from activity to results, and the advancement criteria change from length of service to performance and ability (Hammer and Champy, 1993). Furthermore, empowered process teams can result in fewer management layers and support functions, while their roles change from supervisors to coaches and facilitators (Johansson et al. 1993).
In addition, the organization’s information provision will need adjusting. A customer and result oriented way of organizing and working is simply impossible unless the organization members – managers and empowered employees alike – can dispose of the correct information in time. For example, all the available customer information needs to be integrated to get a complete picture of their behavior. Consequently, activity-based costing and a performance measurement system with financial and non-financial indicators are considered integral reengineering components (Kaplan and Norton, 1992). With a performance measurement system, the organization’s strategy can be crystallized in relevant value metrics, which reflect the level of ambition for the change effort at every organizational level. The impact of such a system on the behavior, values, and beliefs of the organization’s members can contribute to the practical exploitation of the productive possibilities of the newly designed processes (Torremans, 1993; Huizing and Clintjens, 1995). Moreover, performance measurement facilitates internal and external benchmarking, which enables a comparative evaluation of the performance of the organization members or teams with each other and with those of the competition (Harrington, 1991). Performance measurement and benchmarking are therefore often both a stimulus for reengineering and a component of its methodology.

Hence, reengineering brings every organizational aspect up for discussion. It is therefore not only a revolutionary, but also a radical change concept (Hammer and Champy, 1993). In table 2.1, the essential elements are summarized. The strategic and design implications of reengineering are arranged to the organization’s customer approach, its process orientation, its organizational structure, the role of information and information technology, and performance measurement. A number of change directions complete the table.
Table 2.1 Essentials of business reengineering

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Process orientation</th>
<th>Organizational structure</th>
<th>Information (technology)</th>
<th>Performance measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A strategic vision for leadership or renewed competitiveness in the market</td>
<td>On the basis of the vision, describe the organization in a limited number of core processes to achieve breakpoints in competitive relationships</td>
<td>Structure and organizational routines to exploit market dynamics</td>
<td>Disruptive technologies as enabler</td>
<td>Crystallizing strategy in ambition level</td>
</tr>
<tr>
<td>Breakthrough strategy for creating value for the customer</td>
<td>Greater flexibility through empowered teamwork and less hierarchy</td>
<td>Customer information as asset (integral picture of customer behavior)</td>
<td>Benchmarking</td>
<td></td>
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<tr>
<td>Core competences relating to customer service</td>
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<td>Information planning and infrastructure focused on process support</td>
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<table>
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<tr>
<th>Design</th>
<th>Process orientation</th>
<th>Organizational structure</th>
<th>Information (technology)</th>
<th>Performance measurement</th>
</tr>
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<tbody>
<tr>
<td>A comprehensive, clean slate redesign of core processes (intra- and inter-organizational processes within the value chain)</td>
<td>Organization around processes</td>
<td>Customer databases</td>
<td>Benchmarking and a performance measurement system with financial and non-financial indicators for managers and empowered employees</td>
<td></td>
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<tr>
<td>Mass customization</td>
<td>Multidisciplinary, empowered teams</td>
<td>Support of managers and empowered teams</td>
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<tr>
<td></td>
<td>Coaching leadership</td>
<td>Support of core processes and mass customization</td>
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<td></td>
<td>Dedicated appraisal and reward systems</td>
<td>System integration</td>
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<table>
<thead>
<tr>
<th>Change directions</th>
<th>Process orientation</th>
<th>Organizational structure</th>
<th>Information (technology)</th>
<th>Performance measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>From product oriented to customer focused thinking and action</td>
<td>From a structural view to thinking in customer oriented processes</td>
<td>From controlling to visionary and facilitating leadership</td>
<td>From automation to informatizing the organization</td>
<td>From working for the boss to working for the customer</td>
</tr>
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<td></td>
<td></td>
<td>From functional tasks to process jobs</td>
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### Change Management

Designing a process based organization is one thing, actually achieving it in practice typically requires several years of radical and persistent organizational change. The implementation of reengineering therefore appears more challenging than the concept. In this regard, it is surprising that the reengineering literature pays relatively little attention to change management. The change methodologies
suggested vary from high level to highly detailed prescriptions (Davenport and Short, 1990; Kaplan and Murdock, 1991; Huizing and Maes, 1993). To illustrate, we shall pursue a detailed methodology that is based on tools, techniques, and models facilitating process analysis, modeling, engineering, and change (Johansson et al. 1993). Although each methodology mentioned in the literature has its own characteristics, the basic ideas usually correspond with this methodology. In addition, the change roles and responsibilities that have emerged in organizations implementing reengineering are illustrated (Hammer and Champy, 1993).

The reengineering approach of Johansson et al. (1993) consists of three phases: a discover, redesign, and realize phase. In the discover phase, the organization creates a strategic vision for dominance or renewed competitiveness in the marketplace, and determines how the redesign of the core processes can contribute to achieving this strategy. The current business is examined with the intention to identify the opportunity and scale for reengineering, with or without seeking breakpoints. Key issues in this phase are the selection of the core processes that will be redesigned, the formation of the design team, and deciding on the tools and techniques to be used (for instance, customer surveys, benchmarking, process mapping, profitability analysis). The design team gives a high-level definition of the core process to be redesigned and its key management and supporting processes and details this analysis up to the point where a new process design can be created in concept. Furthermore, the current culture is assessed in order to understand the organization’s need for change, and its readiness and ability to change, short-term improvements are identified to help fund longer-term efforts, and the financial base case is provided. At the end of this phase, the commitment of top management is reconfirmed.

In the redesign phase, the design team undertakes a rigorous process mapping exercise to work out the conceptual design of the core process. The relations with the suppliers and the customers are incorporated explicitly. All creativity is unleashed on the current way that business is done, thereby questioning the underlying assumptions, principles, purposes, and concepts. Gradually, a vision on the core process is replaced by a concrete solution. Next, the expected change management issues need to be considered, and change strategies be invented to overcome them. In this phase, too, top management needs to recommit formally to the reengineering effort.
The third and last phase concerns the tactics by which reengineering is implemented. As shown in figure 2.1, this phase has five tracks involving five different types of activities: mobilize, communicate, act, measure, and sustain. Reengineering initiatives are strategic in that they are radical, need ongoing top management support, require substantial resources, and relate to performance issues that are at the core of the organization's competitiveness. Such complex organization-wide efforts call for skillful program management, that is a business-wide environment enabling a top-down transformation of the organization's operations (Pinto and Slevin, 1988; Wijnen, 1994). Communication skills, team-building and interpersonal skills are considered as important to the success of the reengineering initiative as the analytical, design and creativity activities.

Following this methodology also means that change roles and responsibilities have to be defined and communicated (Hammer and Champy, 1993). Top management generally performs the role of championing the reengineering endeavor from the start and is part of a steering committee, which develops and monitors the organization-wide change program. They also appoint the process owner, who is the executive responsible for the process under review. The process owner convenes a reengineering team, which will redesign the current process and implement the new one. The composition of this team can be adjusted in each phase so that, if needed, specific knowledge or experience can be

![Figure 2.1: Steps in a typical reengineering methodology (Johansson et al., 1993)](image-url)
brought to the team. A reengineering czar, who is the program leader overseeing the individual projects and who is responsible for developing appropriate techniques and tools, can assist the team. Together, all these change roles are responsible for enduring that the change program is understood by, and communicated clearly to all participants, so that sufficient support and commitment is acquired for each phase of the change process.

**Reengineering’s Organizing Principle**

As is apparent from the above, business reengineering is presented as a change concept, which moulds the different ideas and insights from the contemporary organization design and change management literature into a coherent whole. Reengineering is not so much a new concept because of the top-down change methodologies that reflect its comprehensive, analytical, and design engineering approach to organizations. Similar change methodologies are usually proposed and in practice applied if large-scale changes need to be implemented. Rather, the novelty of reengineering lies in its organizing principle that can be summarized as “customer and process oriented organization.”

It is customary in organization theory to approach organization design from a structural perspective. By contrast, in reengineering, the core processes, which determine how the work should be performed and how value for the customer is created, act as the interpretative frames of reference with which all the other organizational aspects need to be aligned. That is, people’s knowledge and capabilities, their jobs, the organization 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. With this, reengineering provides an alternative point of view on the continuous search of organizations for more productive and distinctive resource combinations. In particular for organizations with a functional or product oriented and centralized structure, the process view on organizing means a fundamental shift in the way the whole business thinks and works (Earl, 1994). Reengineering, therefore, can involve revolutionary change (Hammer and Champy, 1993; Davenport, 1993). The claim is that the energy, time, and costs needed to implement such transformational change will be recouped by the order of magnitude performance improvements and breakpoints in competitive relationships that can be achieved with reengineering.
The Belastingdienst (Dutch Inland Revenue) is a good example of a transformation where reengineering’s organizing principle was successfully applied (Van Moorsel, 1993). Up until 1987, this organization had a product oriented structure, consisting of functional departments that were responsible for income tax, wages and salaries tax, turnover tax, and corporation tax. Within these departments, the work was further divided into “levying” (determining the tax assessment), “inspecting” (controlling the company accounting systems), and “collecting.” As a result, large corporations in particular had to deal with a huge number of points of contact. On top of this, the many different departments, each of which was trying to assist “the customer” to the best of their ability, were facing growing coordination problems. The maximum statutory processing term of three years was therefore often in danger of being exceeded. Moreover, the Belastingdienst was slowly but surely losing the battle against tax fraud.

These days, the Belastingdienst is split into the divisions “individuals,” “small and medium-sized businesses,” and “large corporations.” The lead times have been reduced from years to months, while it is the ambition to reduce them to weeks. All 30,000 members of staff were given a new job. Single points of contact have been created, even for large corporations. A multidisciplinary and empowered process team made up of all the required specialist knowledge and expertise is responsible for levying, inspecting and collecting the taxes of approximately 100 large corporations. A performance measurement system, including a fiscal monitor, is currently being developed. No organizational aspect has been left unchanged. This multiyear process of organizational change was started with a new strategy crystallized in an ambition level that forced the organization to explore new ways of thinking and acting. Interestingly, although this transformation began with a structural view on organization and organizational change, the many change initiatives and ideas only started falling into place once they had been molded into a process oriented approach (Van Moorsel, 1993).

A Reengineering Typology

As indicated above, business reengineering was originally described as a breakthrough management and organization concept. Its transformational and fundamental nature was however quickly questioned. Not every organization is in need of revolutionary change (Caron et al. 1994). Organizations may consider the
risks of reengineering to be too high, their change capabilities to be insufficient, or simply not require radical change. Furthermore, the argument mentioned earlier on in this chapter, that the speed of external developments such as liberalization and deregulation may differ per country or sector, could explain why organizations differ in their proclivities to change.

On the basis of these arguments, different reengineering typologies have been created, used to indicate that reengineering can be applied with different ambition levels (Harrington, 1991; Robinson, 1994). One framework of analysis uses three reengineering types based on three different process definitions: core processes, business processes, and work processes (Batelaan and Wildschut, 1994). Core processes are focused on one or more of the strategic objectives that determine competitive success and in their extreme form encompass all organizations that make up a value chain. Each core process can be unraveled in various business processes, which for example are engrafted onto the distinguished customer groups or market segments. For instance, if integrated logistics is a core process, then a business process could consist of all the logistical activities performed for the foreign market. Business processes also cross organizational boundaries. A business process in turn is made up of work processes that take place within departments or functional areas such as sales or purchasing. Core processes fit in with breakthrough reengineering, whereas business process and work process redesign correspond to less revolutionary variants.

By distinguishing different process types, the difference between reengineering and known management concepts such as total quality management and socio-technical systems thinking fade away. Core processes, however, have a much wider scope than is customary in alternative change concepts. Total quality management and the socio-technical approach are therefore usually associated with evolutionary rather than with revolutionary change. The inclusion of different process types may therefore explain the frequently heard remark that reengineering is simply old wine in new bottles (Kaplan and Murdock, 1991; Earl, 1994). However, instead of delving into such unproductive discussions, it would seem more meaningful to think about the relative advantages and disadvantages of revolutionary versus evolutionary change, and the contrasting tactics for accomplishing both kinds of changes (Stoddard and Jarvenpaa, 1995). In short, there is a trade-off between the size of the performance improvements, the risks organizations are willing to bear, the ability to change, and the amount of effort that has to be put into the change endeavor. Each reengineering type carries
different risks and requires different design and change management approaches. Every organization must therefore 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 organization design actions, and the change management measures to each other is reflected in the notion of “balanced change.”

Balanced Change

Depending on the developments in the environment, their present state and the degree to which they wish to occupy a pro-active or reactive stance, organizations will have to implement (radical) changes to a greater or lesser degree. Depending on these strategic considerations, they will have to determine whether reengineering is a suitable change concept, what opportunities are offered by this concept, and the scale on which it will have to be applied. In that, the need to change, the ability to change, and the risks involved in changing the organization all play a role (Batelaan and Wildschut, 1994). As a result, reengineering will be deployed differently in each organization. By categorizing reengineering into different types, these differences can be met. Figure 2.2 specifies three ideal-type patterns of change or change archetypes that indicate how the notion of balanced change can be operationalized.

In the strategic considerations on organizational change, external and internal alignment occupy center stage (Greenwood and Hinings, 1988; Broekstra, 1989; Huizing, 1993). External alignment means determining a level of ambition that is in keeping with the contextual and transactional environment in which the organization operates, and its strategic intentions. The contextual environment combines the economical, political, technological, and socio-cultural factors that indirectly influence the organization. The transactional environment consists of the stakeholders groups – customers, suppliers, shareholders, and so on – who interact directly with the organization (Ackoff, 1981). A strategic gap emerges when the organization is unable to meet the requirements of the contextual or transactional environment, which can be the trigger for change. If so, ambitions for reengineering are set.

Internal alignment involves translating the organization’s ambitions into appropriate organization design and change management actions, which should bridge the perceived strategic gap with the environment. As far as organization
design is concerned, a distinction can be made to the breadth and the depth of the change effort. The term “breadth” refers to the process scope to be used: are core, business or work processes the objects of analysis? The term “depth” implies the degree in which the organizational and human aspects are radically and integrally changed. As indicated before, these changes relate to the organization’s customer approach, process orientation, organizational structure, information technology, and performance measurement (see table 2.1). Put together, breadth and depth indicate how radical the intended changes are. Lastly, with regard to change management, organization-wide program management can be distinguished from project management, which can be applied to relatively small-scale changes.

![Diagram showing three ideal-type change patterns for reengineering](image)

Figure 2.2: Three ideal-type change patterns for reengineering

Organizations that manage to solve the external and internal alignment issues are considered to be fit for purpose, that is, in balance (Miles and Snow, 1994). This notion of balanced change applies to all three reengineering types, although it can
be stated that the alignment issues require more attention the more reengineering is considered a breakthrough change concept. The larger the scale at which reengineering is applied, the riskier the change process becomes, and the bigger the chance of mismatches frustrating this change process. Such mismatches can, for instance, occur if process teams are installed without actually delegating the corresponding decision-making powers to them, or if far less attention is paid to the organizational and human aspects than to the structural and technological changes. It is up to change managers to prevent such mismatches from occurring.

The three reengineering types distinguished are represented as the local project, the cross-functional project, and the organization-wide program. If a high ambition level is deployed, changes at the level of the organization’s core processes will have to be implemented, and all business aspects will have to be radically changed. For these radical changes, a change program is formulated to keep track of all required, planned and emergent change initiatives. The two other reengineering types are alternative approaches for organizations with lower levels of ambition. Balanced change then means that the breadth of change can be limited to single business processes or even work processes. In that case, the depth of change can also be reduced, because the redesign affects a smaller section of the overall organization, or because fewer business aspects are involved. Moreover, relatively simple or cross-functional project management will probably suffice.

These three reengineering types can be seen as the ideal-type patterns of change or change archetypes. The proposition is that organizations deviating from these patterns will be less successful in their change efforts. Such deviations or mismatches could partly explain the failure rates of 50 to 70 percent, mentioned at the start of this chapter. They also provide an indication of how organizations can improve their change performance.

**Conclusion**

This chapter has presented business reengineering as a change concept that moulds the different ideas and insights from the contemporary management and organization literature into a coherent whole. It is based on a new organizing principle that can be summarized as “customer and process oriented organization.” It is claimed that organizations can use this principle to achieve
substantial performance improvements and breakpoints that provide new business opportunities.

However, many issues require further research. Reengineering lacks a solid theoretical foundation, for instance. The literature has suggested that the concept has much ground in common with the resource-based school of strategy, but that has not yet resulted in an appropriate model of strategic change. The methodological substantiation also requires attention. Many, often high-level methodologies are suggested, but all are immature and none is proven. On top of this, there are a host of questions concerning reengineering’s process view on organization, including: how best to design and govern the relationships between the front and back office, how to incorporate process supporting technology in the existing information provision, and how do performance measures influence the behavior of organization members? All these questions come together if reengineering is seen as an integral change concept, which makes it a complex and risky undertaking. Therefore, three ideal-type patterns of change have been developed, which are aimed at assisting managers and employees in designing and governing their reengineering initiatives. These change archetypes also deserve further investigation.

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