Chapter 5
Human resources

Martina Dürndorfer
Management Perspective

Global economic reality is currently undergoing a period of transformation. The so-called "New Economy" has been declared dead; most of the related companies and their products have disappeared from the market or have been merged with other organisations. What remain are organisations faced with intensified competition and increased pressure on costs and profitability. At the same time they are going to be judged by how successfully they innovate and attract new customers, and how they open up new distribution channels in global markets in ever shorter times.

Every time managers are convinced that they have implemented the appropriate strategy to guarantee long-term organisational success they are confronted by new technology, new products, new competitors, new customers or new market requirements, calling again for new management solutions. This dynamic of a knowledge-driven society and the specific structural and interactive nature of network-innovative markets characterise our society and act on companies from within. It is against this background that innovation regularly occurs.

As the business context changes, new management solutions are continuously required.

It is vitally important to grasp the fundamental perspectives and changing demands of the competitive business landscape in order to identify specific challenges and risks for technological processes. This chapter focuses on:

- the interface between management and technological challenges;
- predominant developments and management approaches in the context of design;
- the implementation and deployment of processes;
- process '*enablers*';
- the role of human resources as a key dimension among other managerial implications.

Process-based management approaches

At the beginning of the 1990s dramatic shifts in the business environment loomed, affecting both strategic management thinking and the introduction or renewal of management approaches and methods. Companies started concentrating on value-added processes, on their resources, capabilities and core competencies. This was in response to growing customer demands and to the acceptance of the fact that customer fulfilment and the development of core competencies, as much as quality and price, are criteria which can signpost unique positions of competitive advantage. Companies began to reconsider their business processes and internal routines with regard to service level, terms of delivery and customer fulfilment. They started initiatives to

optimise these by using their own inherent technological and human potential, and to transform them into innovative and beneficial, value-adding solutions.

The functional partition of, thus far, valid organisational structures and the hierarchic alignment of companies, however, made flexibility difficult and hampered action in the marketplace. Companies urgently needed appropriate organisational forms and leadership instruments, adapted to their altered circumstances. Alternative organisational structures in the form of process models were developed. The essence of those management approaches, known as a resource-based view, consists of an undeviating focus on the customer and on value-creation and the organisation of internal and external business processes. Traditional functional structures and organisational boundaries lost their importance and were replaced by process forms.

Companies started to identify core processes and to define core competencies so they could configure products and services according to strategic relevance and added value. Core processes were defined as those characterised by highly interdependent and essential tasks, decisions, information and allocation of resources, which decisively promote the company's added value and competitiveness. They derive from the company's core competencies.

Support processes remain necessary to make sure that core processes function smoothly. Surveys identify product development, product supply to customers and the maintenance of customer relationships as the most decisive core processes. Those tasks and activities not crucial for the company's added value were subsequently, as far as possible, reduced or outsourced.

Support processes remain necessary to ensure that core processes function smoothly.

Classification of business processes

Within the discussion of processes as a means of corporate management, many problems and misunderstandings derive from differing perspectives. Management often takes a different view of the naming and content of business processes from that of a technologically oriented department.

From a management perspective a process is seen as comprising different business tasks with defined outcomes and objectives to be realised in given and standardised sequences of operations. In a process, internal and external customers have to be provided with services and information.

The following business processes can be distinguished:

- *achievement* processes which, in turn, are comprised of *service* processes and *production* processes;
- *support* processes;
- *leadership* processes.

Hence, a company may be interpreted as a bundle of processes striving for consistency, *i.e.* avoiding interfaces and friction in the resulting process organisation. This results in a paradigm shift from the fundamental inertia of the previous corporate organisation and management systems.

Those changes of corporate management can be carried out either radically (business re-engineering) or in moderation (for example, lean management and supply-chain management). Nonetheless, all process-oriented management approaches pursue, in principle, identical objectives (see Figure 5.1). Concentration on processes rather than on functions is the most common. In fact, process-based and resource-based management approaches and management systems did incorporate numerous well-known concepts of organisational management, such as results-oriented organisation or project-oriented organisation. Yet a careful look at them reveals a crucial difference from those of process re-engineering: it is the simultaneous advancement of technology deployment and the resulting opportunities of collaboration and automation.

To release the power of new technological possibilities, using software systems in the restructuring and renewal of business processes turned out to be inevitable. Workflow management is an example of a systematic process-based application and transfer of knowledge across heterogeneous applications. The potential for technological and administrative savings was the primary focus of networking within process management approaches.

Networking, as an integral element of a company's processes, was established as a key factor for added value and corporate success. The importance of networking dynamics, the variations and opportunities as well as the subsequent results, needs to be better understood and appreciated, both inside and outside the company.

A further development of resource-based strategy can be seen in the concept of core competencies (Prahalad and Hamel, 1990). According to this approach, a corporate strategy should concentrate on the development of a core-competencies portfolio (as a set of capabilities resolving distinct tasks and problems) rather than on actions tied to corporate positions vis-à-vis the product/market matrix. The original concept of core competencies relied strongly on production technique and the technology steering it, and was subject to ongoing enlargement. Subsequently, knowledge and the underlying processes for knowledge creation were identified as crucial resources for competitive strengths and advantages in corporate management (Kim and Mauborgne, 1999).

Resources and capabilities:

- Resource-based view for competitive advantage

Main concerns:

- Sources of competitive advantage within the firm

Principal concepts and tools:

- Resource analyses
- Core competency analyses
- BPR (business process re-engineering)
- BSC (balanced scorecard)
- TQM (total quality management)

Organisational and implementation issues:

- Restructuring around key resource competence
- Outsourcing
- Focus on building core competencies
- Alliances

5.1 Strategic management approaches in the 1990s (adapted from Leibold *et al.*, 2002)

Current challenges for management

The existing strategic management system, based on the definition and examination of business objectives, is focused on the identification and delivery of core competencies and process efficiency. However, it is vulnerable to the fundamental, rapidly changing business environment. Those far-reaching economic changes at the beginning of the 1990s had a profound effect on corporate management and management approaches. Only a few years later companies are once again faced with huge challenges and renewal requirements. Those approaches are no longer sufficient for a highly dynamic knowledge-driven and network-oriented economy.

"The existing strategic management system ... ... is more likely to be a source of organisational inertia than a proactive force for dynamic change."
(Leibold *et al.*, 2002)

> *The existing strategic management system – including defined purpose (vision, mission, objectives, etc.), organisational structure, planning processes, measurement practices, core competency focus, human resource management, cultural norms, and evaluation and reward systems – is more likely to be a source of organisational inertia than a proactive force for dynamic change. Prior experiences, business process re-engineering, balancing and 'mapping' strategic processes, and historic 'formulas' for success increasingly become impediments to the innovative strategic management required for dealing with a turbulent knowledge economy*
>
> (Leibold *et al.*, 2002)

Close ties between technological, organisational and social progress are already part of process-oriented management approaches, as can be seen in the process innovation approach taken by Davenport (1993) who describes it as:

> *the envisioning of new work strategies, the actual process design activity, and the implementation of the change in all its complex technological, human and organisational dimensions*
>
> (Davenport, 1993)

Nevertheless, it took a long time for resource-based process-management approaches to shift their focus and strategic scope: the employees and their networks, their customer relationships and knowledge are the most decisive value drivers in a modern, innovation-promoting company, not the corporate structure by itself.

Current economic challenges can be summarised under four headings according to Leibold *et al.* (2002):

- the dramatic shift from visible assets and invisible customers to invisible assets and visible customers;
- the reality that vertical and horizontal organisations are being displaced by networks of intra-company, extra-company and intercompany relationships;
- displacement of the focus on competition (and competitive 'outperformance') to a focus on collaboration (and 'unique performance' and sustainability);
- descriptive and reactive traditional strategic management mind-sets are being forced to shift to creative, proactive strategic mindsets.

In a resource-focused and process-focused company the 'dynamic capabilities' are expressed in both processes and competencies and in its capability of triggering reconfiguration and learning processes (Teece *et al.*, 1997).

In order to develop competitive advantages, the reconfiguration and learning processes have to be encouraged to respond swiftly to changing business environmental parameters. Processes enabling and ensuring

- knowledge transfer and communication (social processes and networks)
- generation, transfer and documentation of knowledge and
- support, encouragement and development of knowledge-workers and knowledge-explorers (people)

are the most important value-drivers and catalysts for resource-based and capability-based companies to respond promptly and flexibly to a fast-changing business environment.

Smooth running reconfiguration and learning processes for communication, documentation, skill development are required to assure technical competence.

In summary, the focus of analysis shifts from products and companies to people, organisational networks, and the social processes that bind them together in ongoing relationships.

Management in (business) networks

The past years have shown economy and society reflecting a world that is increasingly interconnected and in which the pace of technological change has been accelerating. In the course of the rapid progress of information and communication technologies, process management marked the beginning of a deployment of far-reaching network structures within and between companies. (Examples can be seen in Workflow Management Systems, computer supported co-operative work and in further virtual corporate structures.) Organisations "are changing more and more from well-structured and manageable systems into interwoven network systems with blurred boundaries" (Seufert *et al.*, 1999), where the underlying corporate arc-

hitecture approaches the "ideal of the 'boundaryless' organisation" (Cross *et al.*, 2002). This implies fundamental and heterogeneous challenges in the management of corporate processes: boundaries and rules for information, communication and decision-making processes are going to be transformed, corporate boundaries no longer rigidly separate information and communication processes between customers, suppliers and co-operating communities of practice (CoP). The permeability of boundaries exists both within corporate structures (*i.e.* between departments and teams, between core and support processes) and at the interface of companies and external stakeholders.

Interorganisational networks

In recent years, collaboration has become more and more an integral part of doing business with suppliers and customers. Business dynamics demand an even more determined integration of customers in order to build efficient innovation processes. So, what is new compared with the current practice of customer relationship management (CRM), which already claims that the customer is the centre of company interest? The concept of customer value propositions (product and services configuration) changes drastically.

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Customers function as product designers, as catalysts of innovation processes, not only in R&D, but in the broad spectrum of searching, generating and selecting ideas and market expectations, as agents for market response and as critical end users. As a logical consequence, CRM further develops to customer knowledge management (CKM; Leibold *et al.*, 2002) and weaves stronger ties between customers with their market, product and competitor knowledge, and the company concerned.

Network communities

Whereas innovations in the 'traditional' economy are often triggered by independently acting research institutes, R&D departments and other institutions, in a knowledge-based economy innovations are more likely to be influenced by networks and collaborating communities. Temporary as well as persistent learning and innovation networks arise. Companies strive for closer ties with supplier and customer networks to stimulate new ideas, create technology and improve value–chain management and business processes beyond corporate boundaries.

These network communities often use networking opportunities supported by Internet technology: approaches such as collaborative commerce

(c-commerce) or E-collaboration have gained ground in the last couple of years. What emerges is an intensive networking of different companies collaborating in the fields of product development, design and resource management, with the vision of profiting from mutual transfer of knowledge in a knowledge community. Objectives and criteria for success are, for example, the use of external ideas for innovation appropriate for a shared market, trend-scouting and active dialogue with customers and knowledge multipliers (research institutes, R&D institutions). Collaborative innovation, collaborative design, collaborative marketing, collaborative selling, collaborative support, and collaborative communication are terms symptomatic of a development integrating end users as co-creators in business processes.

With the intensified integration of customers in production processes and sales, product and service development, obligations and responsibilities have increased and continue to rise, for both companies and customers. In return for tailor-made products and services customers are expected to reveal specific information about their business and strategy. That means an investment of trust in the collaborating company, and offers, in return, a constant, reliable but flexible fulfilment of the customer's needs. This requires far-sighted and prudent deployment and development of corporate quality management strategies, going far beyond the mere product and service-focused customer–supplier relationship. In that sense, the existing mental models of the company are fundamentally challenged. It is forced to transform the, thus far, valid "'command-and-control' mentality, that characterised the age of information inequity, to the 'connect-and-collaborate' mentality needed in the age of information democracy" (Sawhney, 2002).

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Experience proves that there is no guarantee for successful implementation of a connect-and-collaborate strategy in operative business. There are various risks associated with the complexity of customer-oriented strategies, which can fail because of deficiencies in corporate structure and culture. The creation of transparency, of trust and sustainability is even more valuable in intercompany networks and structures than it was in former business environments. In particular, times of massive downsizing show clearly that handling customer – employee relationships with care is a crucial factor for success, but, conversely, it can become a bottleneck.

Continual damage to customer networks by labour force reduction can endanger strategically important access to the customer and to the market and subsequently threaten corporate success.

Implications for management

From a management perspective, the following conclusions can be drawn. First, social capital lays the foundation for the networks which are decisive for innovations. Costs of mutual synchronisation (within and between companies and institutions) can be reduced by shared norms and beliefs rather than by hierarchic norms (Giddens, 2000).

Second, there is a trend to organic organisational forms. Irrespective of the specific character of the form (modular or cellular organisation), all are autonomous, self-organising systems that lack hierarchic or even lasting structures, but are bound together through trust relationships. Methods and guidelines on how to manage knowledge creation and transfer in this flexible context of networking and knowledge network life-cycles have to be developed and analysed by scientific research.

Third, cost consciousness and competition will intensify in a lasting economic downturn, simultaneously with high quality standards and differentiated customer needs. Profitability, efficiency and flexibility requirements of network-actors ('Networkers') and their importance as a competitive factor are consequently on the rise. The shorter 'half-life' of knowledge and the sharp increase of implicit knowledge force organisations to alter their behaviour. Efforts have to be undertaken to retain employees in the corporate network in order to gain stability and reliability and, more importantly, to build and make use of new network ties. The importance of personal factors, such as commitment, job satisfaction, job and work place design, motivation, corporate culture and corporate values, is on the rise and should kick off a renewal of organisational arrangements.

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Knowledge, networks and processes

In the preceding section we saw that there are various reasons for companies to join networks. The advantage of network structures initialising and supporting knowledge creation and knowledge-sharing processes is one of the most crucial points. It emphasises that knowledge is the most important resource of a company in the current economic situation. This is symptomatic of a trend in the current information and knowledge society where tangible means of production lose relevance as indicators of corporate performance ability compared with intangible assets, such as customer relationships, image, innovation skills, and human and intellectual capital (Stewart, 1997). With knowledge rapidly evolving, the basis of economic growth undergoes a remarkable alteration where the value of a company is derived not solely from tangible assets.

Many firms now have intellectual property as their major asset. Intellectual capital is the value that companies are able to extract from intellectual property – product innovation, patents, copyrights, know-how and corporate knowledge. To realise its value, companies must understand what intellectual capital is, where it resides, how to invest it, use it and determine the strategic value of all of the company's intellectual assets, as well as how to express the value to the marketplace in order to turn it into a competitive advantage. Generally, those companies that can be expected to achieve higher value growth by means of innovative products and services have a higher market value. Competitive advantage can often be equated with knowledge and capability, so companies cannot allow knowledge as a value driver to become a bottleneck.

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Intangible resources are difficult to acquire on external markets. Therefore, they have to be developed and harvested within companies themselves with a view to the future. Knowledge management solutions consequently have to safeguard the stability of the corporate knowledge pool. Besides being integrated into production, problem-solving and decision-making processes, employees have to be given opportunities to develop their skills further and to acquire specific knowledge regarding products and services, customers and networks. For this, organisational forms have to be instituted to facilitate creation and transfer of knowledge between individuals, groups and networks, both in organisations and across processes.

Critical elements and measures for success can best be described by the following elements according to a *dynamic knowledge management model* proposed by Seufert *et al.* (1999):

1. Interconnect the different levels and areas of knowledge:
   - enable networking between individual knowledge types (explicit and implicit);
   - enable networking between different levels (for example, individual, group, organisation);
   - enable networking between different areas of knowledge (for example, customer knowledge, R&D knowledge);
2. Interconnect knowledge work processes and knowledge network architecture:
   - knowledge creation and transfer can occur at different real, virtual or mental 'places';
   - knowledge creation and transfer can establish themselves in formal or informal networks;
3. Interconnect knowledge work processes and facilitating conditions.

Implications for management

When discussing organisational capabilities and dynamics, the approaches of process management and knowledge management are closely bound. Knowledge is seen as an indicator both for today's and tomorrow's innovative power of a company. Knowledge as a resource is created by the interaction of individuals within a business network, in "micro-communities of knowledge" (von Krogh *et al.*, 2000) and in business processes with different types and contents of knowledge.

Corporate knowledge management has to take into account the specific characteristics of knowledge creation and transfer and the characteristics of formal and informal networks in order to understand how new, relevant knowledge can be created and multiplied.

A method is needed that not only allows the gathering of knowledge but also encourages the development of knowledge competence. The kind and quality of network relations, their underlying mental models, and the respective embedding in cultural, political, socio-economic frameworks are increasingly important.

Knowledge management becomes a corporate strategic resource and core competence if the company succeeds in shaping idiosyncratic knowledge creation and transfer processes not easy for competitors to imitate.

People make the process

Process management is about the structured co-ordination of people and information.

Often process management and knowledge management are discussed as two interconnected dimensions of a prevalent business approach. However, these are two basically different perspectives. Process management is about the structured co-ordination of people and information. It is organised in a top-down manner, based on the assumption that it is easy to codify value creation, supposing that corporate processes can successfully be controlled by means of rules, routines and control mechanisms largely irrespective of individuals.

On the other hand, knowledge and innovation management is organised in a bottom-up manner and assumes that managers can best encourage knowledge creation by responding to the inventive, improvisational ways by which people actually get things done (Brown and Duguid, 2001).

As a consequence, companies face a dilemma that is difficult to handle. This demonstrates the conceptual weaknesses of previous process-based management approaches: on the one hand, processes are organised in such a

manner that working methods and employees' performance are embedded in standardised core processes with strict boundaries and performance indicators; on the other hand, companies profit from giving employees scope and a free hand to create innovative solutions. This gets more difficult the more widespread it becomes in business – acting in highly innovative informal networks and communities means, as a rule, acting beyond core process boundaries. Therefore, companies have to keep their balance between implementation and control of process frameworks and creation and systematic support of individual liberties.

Consequently, the leverage for success for process-based and knowledge-network-based companies comes from their human capital. Core competencies are difficult to imitate; knowledge pools fit for future challenges and innovations become strategic factors for success and move employees into the centre of company interest. If companies manage to enhance knowledge-worker productivity then the payoffs will be enormous. Recruiting and retaining the most highly skilled workers are vital elements of a company's success. The identification and promotion of relevant enablers become major strategic and operational concerns of companies.

Work is performed as a collective act, expedited through the investment of capabilities, skills and motivation by the employees. How work and working conditions are experienced differs from person to person and is based on various mental, individual and organisational attributes. The following core dimensions can be differentiated:

- personal (attitudes, motivation, commitment);
- inter-individual (standards, values shaped by social interactions and socialisation);
- organisational (rules, routines, instruments of working environment).

To lead a company requires particular qualities and capabilities in the knowledge economy. Leadership should have the ability to provide context and meaning to the organisation and its networks. The structural supports for a knowledge-network-based economic reality are defined in the following subsections.

Work is performed as a collective act, expedited through the investment of capabilities, skills and motivation by the employees.

Enabler: collaborative organisational context

Assessing and supporting informal networks and social networks is regarded as a key enabler. Informal networks are especially important in knowledge-intensive sectors, where people use personal relationships to find information and do their job (Cross *et al.*, 2002).

Within companies new ideas arise in highly flexible networks. The manner by which they manage to bridge 'structural holes' (Burt, 1992) and closed circles is crucial to their success. The way members of different networks (e.g. business economists, engineers, researchers, experts in human resources or finance) constructively work and communicate together is decisive for the efficiency of joint innovation and knowledge creation. Not only the circulation, but also the production of valuable information and innovative ideas derive from employees with 'bridging' and 'gatekeeper' functions and in large part from their individual and social capital as well as the given opportunities of modification (Coleman, 1988; Burt, 1992).

Knowledge management is likely to work more efficiently when knowledge workers have unhindered access to various knowledge sources and partners.

Specialists work on a basis of expert knowledge acquired in special training sessions. However, knowledge-workers work on a basis of implicit knowledge of their own and of transferred, explicit knowledge of others (Scarbrough, 1999). Therefore, they are dependent on a collaboration across subjects, organisations and functions. Consequently, knowledge management is likely to work more efficiently when knowledge workers have unhindered access to various knowledge sources and partners. But a subject-based division of labour institutionalised in firms obstructs this path. It triggers both visible and invisible boundaries between departments and working communities as well as hinders knowledge sharing and knowledge generation.

Enabler: autonomy and personal liberty

A further step in creating a framework to encourage innovation consists of the enhancement of commitment and self-organising power within a company: innovative firms let the employees participate in decision-making processes and give them responsibility. This is to increase the intrinsic motivation of employees, essential for the development of creativity and innovation (Axtell *et al.*, 2000).

Enabler: social capital

As mentioned previously, social capital is a valuable asset for those networks involved in fostering innovation. Costs of mutual synchronisation can be reduced by shared experiences, values and standards much better than through hierarchies or bureaucratic rules (Giddens, 2000). Social capital is influential and flexible: it can permeate boundaries, as can be seen in the successful co-operation of companies, research institutes and related associations.

As a consequence, firms have to make efforts and take appropriate measures to connect individual, inter-individual and organisational processes

in an idiosyncratic way, *i.e.* difficult for competitors to imitate. Knowledge and people as resources become strategic factors for success and competitive advantages when management recognises the potential of the combined economic, mental and motivational aspects of process performance and takes measures to transform them into added value. How far human resource management can help enable this transformation is to be shown in the following section.

Implications for management

In the course of process and core-competencies orientation and continuous innovation in technology, the role and focus of human resources (HR) has changed strategically and operationally. HR management (HRM) has been forced, more and more, to improve its own customer orientation both within the company and as a service provider for external customers. Above all, an adaptation to the new economic challenges means that innovative HRM has to support the above-mentioned 'enablers' with compatible HR measures and instruments.

It is not sufficient for HR to perform the role of important but increasingly narrow technical specialists. It is more about serving as reactive advisers and hand-maidens to line management (Clark, 1993). Additionally, HRM is to be regarded as an effective enabler for social processes in the context of innovation processes, as a guide and coach for networks, as a supporter of empowerment, and as a supplier of appropriate HR tools (e.g. recruiting and personnel development tools) and data of available human resources (HR metrics). Thus, HR professionals become fully recognised members of the management team, strategic change-makers, specialist advisers and monitoring 'auditors' in the planning, implementation and operation of change (Clark, 1993).

It is not sufficient for HR to perform the role of important, but increasingly narrow, technical specialists. It is more about serving as reactive advisers and hand-maidens to line management, acting as:
- enablers;
- business partners;
- designers; and
- supporters.

(Clark, 1993)

Personnel development and organisational development, knowledge management and organisational management have to work closely together to support the strategic development of corporate management (see Table 5.2).

The *core tasks* identified as essential for management in innovative organisations and the subsequent *HR roles* supporting and developing the company's human capital in order to ensure sustainable competitive advantages are:

1. Creation and adaptation of organisational routines and forms:
   - *Enabler* – design, coaching and monitoring of HR tools and measures forming a framework supporting motivation in value-chain processes (e.g. HR incentives, workplace design, design of working time models).

	Competition for products and markets	Competition for resources and competencies	Competencies for creativity and staff development
Perspective on employees	People viewed as factors of production	People viewed as valuable resources	People viewed as "talent investors"
HR's role in strategy	Implementation, support	Contributory	Central
Key HR activity	Administering of recruitment, training and benefits	Aligning resources and capabilities to achieve strategic intent	Building human capital as a core source of competitive advantage

5.2 The evolving focus of strategy (Bartlett and Ghoshal, 2002)

- *Business partner* – integration of HR professionals within business line, working with executive teams to create value-driven people strategies and consistent knowledge creation and innovation.
- *Designer* – design and implementation of flexible organisational structures supporting learning and innovation processes (e.g. project teams, formal and informal communities of practice).
- *Supporter* – HRM simplifies or takes over administrative work of employees and business managers in order to achieve a customer-oriented efficiency beyond value-chain processes.

2. Co-operation and communication:
   - *Mediator* – social processes and networks need experts capable of mediating and moderating in conflict situations.
   - *Strategic partner of management* – design and implementation of a personnel strategy as an integral part of a predominant corporate strategy.
   - *Communicant* – HR must not only account for an organisation's human capital, but also channel and communicate this capital wisely. A lack of managerial attention will harden individual and organisational barriers which already exist.
3. Corporate culture:
   - *Cultural agent* – HR plays an important role in shaping a corporate culture, communicating corporate values and designing instruments to promote a culture of innovation and learning.
   - *Commitment agent* – in order to boost commitment, HR has to establish a matching organisational framework (e.g. measures such as partial transfer of responsibility, integration of employees in corporate strategy

and values, transparency of company's goals and processes, intrinsically and extrinsically attractive rewards for individual performance readiness) that is supported at all levels of management.

4. Leadership and development:
   - *Trainer* – coach employees and superiors in working out and accepting joint and binding leadership principles.
   - *Consultant* – selection, placement and development of capabilities and skills of employees and teams appropriate to handle upcoming economic challenges.
   - *Value driver* – transforming HR departments in companies from cost-producers to value-drivers of human capital.

The importance of human capital as an indicator and integral part of production capacity and corporate competitiveness is on the rise. Personnel management activities and human engineering as a means to manage competitive business dynamics and the subsequent challenges have to be further enhanced, since today's managers

> *must compete not just for product markets or technical expertise, but for the 'hearts and minds' of talented and capable people and (…) ensure that those valuable individuals become engaged in the organisation's ongoing learning processes and stay committed to the company's aspirations*
>
> (Bartlett and Ghoshal, 2002)

"[managers] must compete not just for product markets or technical expertise, but for the 'hearts and minds' of talented and capable people ..."
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Conclusion

This chapter has shown that knowledge creation and innovation are always a social as well as an individual process. Moreover, every company has various organisational, social and individual barriers that obstruct knowledge creation and process performance. Hence, the most important organisational challenges in a knowledge-network economy are to lead and guide knowledge workers, to make effective use of technology for improving productivity and communication, to guide heterogeneous teams, and to adapt organisational structures to fit the needs of different businesses. Especially important is how organisations create links through business processes and project-based assignments to address the need for innovation, speed and effective execution. Following a serious period of fundamental down-sizing and restructuring, most corporations need to revitalise their human side in order to make better use of their inherent potentials and rise to challenges.

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