

Human Resource Management in Project-Based Organisations

- Challenges, Changes, and Capabilities

Karin Bredin



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Abstract: This doctoral thesis addresses human resource management in project-based organisations. The aim is to explore the challenges for HRM in project-based organisations and the changes in people management systems to meet these challenges. The thesis consists of a compilation of six papers and an extended summary. The research reported in the thesis is based on a combination of multiple-, comparative, and single-case studies of project-based organisations. The core case studies have been conducted at Saab Aerosystems, AstraZeneca, Volvo Car Corporation, and Tetra Pak. The results indicate central challenges regarding competence development and career structures, performance-review processes and reputation of project workers, and the increased responsibility and pressured work environment for project workers. They further indicate that many of these challenges are handled through a more HR-oriented line manager role, while HR departments are downsized and centralised. The thesis hence emphasises the need to understand HRM as an area of management in which various players share the responsibility for its design and performance. To conclude, the thesis applies a capabilities perspective on project-based organisations and develops a conceptual framework that embraces *people capability*: the organisational capability to manage the relation between people and their organisational context. In this framework, people management systems improve people capability when they integrate it with strategic, functional, and project capabilities. It is suggested that the people capability framework provides new possibilities to analyse HRM in project-based organisations and to explain the changes in people management systems that are needed to align them to the project-based context.

Keywords: HRM, project-based organisations, people management systems, people capability, project management, line management, HR department, project capability

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I did not want to become a doctor in Business Administration. I had no intention to stay at the university, to 'get stuck' in academia. Or, that was what I thought. Somehow, I was persuaded and inspired to give this a try and, little by little, I realised that I really appreciate it. The freedom in work, the inspiring work environment and colleagues, the joy that teaching can give you, the intriguing and challenging research process, the international networks, the flexible working hours... So, what was supposed to be a temporary assignment turned into a process of becoming a doctor. And here it is. The thesis. There are many who have contributed to the process in various ways, and I would like to mention some of these people specifically:

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*Karin Bredin
Linköping, 4 April 2008*

PREFACE

This doctoral thesis is based on a compilation of six papers and an extended summary. This preface gives a brief explanation to the extended summary and its function, and it presents the six papers with titles and information about publication.

The extended summary

The objective of the extended summary, included in Part I, is to integrate the six papers into the broader research process for the thesis. Its main function is hence not only to summarise the papers, but also to elaborate on the research topic, its theoretical and methodological foundations, and the main empirical and theoretical contributions.

First, the extended summary introduces the topic and the general aim of the thesis, to which the papers contribute. Second, since the paper form implies a strict word limit, the extended summary provides more in-depth discussions of the theoretical fields involved, as well as of definitions and terminology. Third, methodological approaches are discussed, and the research process is described in further detail, in order to provide an understanding of how the studies for each paper and the findings from these studies are integrated in the general research process of the thesis. Fourth, summaries of the six papers are provided, but more importantly, it elaborates on the findings of the papers in an integrated discussion that draws on all the papers to make conclusions that contribute to the general aim of the thesis. Finally, four of the papers are co-authored. An important function of the extended summary is therefore to give me the opportunity to clarify my standpoints and my choices, as well as to elaborate on the contributions that go beyond the findings of each separate paper.

The papers

The papers are included in their complete versions in Part II. In the extended summary, the papers will be referred to by their roman numbers as outlined on the next page:

PAPER I

Bredin, K., & Söderlund, J. (2006): "Perspectives on Human Resource Management: An explorative study of the consequences of projectification in four firms". *International Journal of Human Resources Development and Management*, Vol. 6, No. 1: 92-113.

PAPER II

Bredin, K., & Söderlund, J. (2006): "HRM and project intensification in R&D-based companies: A study of Volvo Car Corporation and AstraZeneca". *R&D Management*, Vol. 36, No. 5: 467-485.

PAPER III

Bredin, K., & Söderlund, J. (2007): "Reconceptualising line management in project-based organisations: The case of competence coaches at Tetra Pak". *Personnel Review*, Vol. 36, No. 5: 815-833

PAPER IV

Bredin, K., & Söderlund, J. (2008): "Fit for purpose? HR organisation and configurations of HR departments in project-based organisations". Under review.

PAPER V

Bredin, K. (2008): "People capability of project based organisations: a conceptual framework". *International Journal of Project Management*, forthcoming.

PAPER VI

Bredin, K. (2008): "Improving people capability of project-based organisations: A study of the change of HRM in two engineering-intensive firms". Revised version of paper presented at the IRNOP VIII Project Research Conference, Brighton, UK, 2007. Under review.

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Part II: Papers

The articles have been removed due to copyright restrictions.

Paper I

PERSPECTIVES ON HUMAN RESOURCE MANAGEMENT: AN EXPLORATIVE STUDY OF THE CONSEQUENCES OF PROJECTIFICATION IN FOUR FIRMS. Bredin, K., & Söderlund, J. (2006): *International Journal of Human Resources Development and Management*, Vol. 6, No. 1: 92-113.

Paper II

HRM AND PROJECT INTENSIFICATION IN R&D-BASED COMPANIES: A STUDY OF VOLVO CAR CORPORATION AND ASTRAZENECA. Bredin, K., & Söderlund, J. (2006): *R&D Management*, Vol. 36, No. 5: 467-485.

Paper III

RECONCEPTUALISING LINE MANAGEMENT IN PROJECT-BASED ORGANISATIONS: THE CASE OF COMPETENCE COACHES AT TETRA PAK. Bredin, K., & Söderlund, J. (2007): *Personnel Review*, Vol. 36, No. 5: 815-833

Paper IV

FIT FOR PURPOSE? HR ORGANISATION AND CONFIGURATIONS OF HR DEPARTMENTS IN PROJECT-BASED ORGANISATIONS. Bredin, K., & Söderlund J (2008): Under review.

Paper V

PEOPLE CAPABILITY OF PROJECT BASED ORGANISATIONS. A CONCEPTUAL FRAMEWORK: Bredin, K. (2008). *International Journal of Project Management*, forthcoming.

Paper VI

IMPROVING PEOPLE CAPABILITY OF PROJECT-BASED ORGANISATIONS: A STUDY OF THE CHANGE OF HRM IN TWO ENGINEERING-INTENSIVE FIRMS. Bredin, K. (2008): Revised version of paper presented at the *IRNOP VIII Project Research Conference, Brighton, UK, 2007*. Under review.

PART I

EXTENDED SUMMARY

Chapter 1

HRM IN PROJECT-BASED ORGANISATIONS: INTRODUCING THE TOPIC AND THE AIM

INTRODUCTION

Projects, flexibility, cross-functional teams, and deadlines are buzzwords in today's workplaces. Mainstream management rhetoric refers to the ideal 'project worker' as competent and knowledgeable, flexible, a team worker, and responsible for staying employable. Projects are the everyday work environment for these individuals. Their competence and careers are built upon project participation; their performance in the projects is what gives them reputation and makes them wanted for future projects. Several studies suggest that contemporary firms to a greater extent perform their operations by the means of projects, project management and various types of project-like structures in order to increase flexibility and integrate knowledge resources in a more efficient way. For example, Whitley (2006) argues that temporary work systems and project-based organisations can be interpreted as representing a 'new logic of organising'. Similarly, Midler (1995) refers to fundamental changes in companies, where the number of projects to be

managed is multiplied, and the broad study by Whittington, *et al.* (1999) gives empirical support to the increased use of project-based structures among European firms.

This trend of ‘projectification’ in modern industry has been accompanied by an increased research interest. Over the past 20 years, research into project management and project organising has developed considerably, and it has dealt with a wide range of topics concerning, for example, alternatives to functional structures, knowledge management processes, multi-project management, and the problems of inter-project learning and innovation processes (Söderlund, 2004). The increased use of project-based structures is by many interpreted as being part of a general shift from bureaucratic to post-bureaucratic organisations, which are ‘knowledge-based’, in constant change, in which the organisational borders are more indistinct, and in which people work in decentralised structures of autonomous project teams (e.g., Hatch, 1997; Heydebrand, 1989). Others question whether project management is actually used to increase flexibility and autonomy, and argue instead that the development of project structures rather is a sign of a ‘rebureaucratisation’ of contemporary organisations. For example, Hodgson (2004) suggests that “project management can be seen as an essentially bureaucratic system of control” (p. 86), and that “much of the recent expansion of the field of project management, particularly within the ‘post-bureaucratic’ organization, reflects its asserted ability to impose traditional ‘bureaucratic’ virtues of predictability, accountability, surveillance and control over the ‘knowledge workers’ of the ‘New Economy’” (p.98). Whether the development of project management is a way to promote flexibility and autonomous teamwork or if it is a way to control it, the increased use of project-based structures implies that projects have become an increasingly common work environment. This means that more time is spent on project work (Packendorff, 2002; Whittington, *et al.*, 1999), more people build their careers through projects (e.g., Arthur & Parker, 2002), and projects become the basic unit for core activities in contemporary organisational forms (Hobday, 2000; Sydow, *et al.*, 2004).

Moreover, a number of authors argue that the move towards project-based structures has implications for management, employee relations, and employment contracts – some positive and others negative. For example, the study by Hovmark & Nordkvist (1996) of engineers in companies where project matrixes have been implemented, demonstrates that these engineers perceive a number of positive changes in terms of increased commitment, dynamism, support and solidarity, communication and group autonomy. But, there are also more critical voices that plead for a more balanced view of project-work that also takes negative factors into account. For example,

Packendorff (2002) argues that projects rarely take previous experience and workload of an individual into account, which creates a continuously high-intensive work environment. Similarly, Zika-Viktorsson, *et al.* (2006) discuss the problem of 'project overload'. Their survey reveals that project work, particularly in multi-project environments, enhances the risk of excessive workload with little time for reflection, learning and recuperation between the projects. The study also shows that these issues lead to stress reactions and might hamper competence development. Engwall, *et al.* (2003:130) put forth similar concerns, and furthermore, they state that this calls for more empirical studies into HRM:

“As organizations move into project-based structures, human resource management, hiring of staff, and competence development all seem to be affected. This is, however, a virtually unexplored area of empirical research. Furthermore, issues concerning working life must be readdressed in this new corporate context design. From the perspective of the individual employee, factors like motivation, commitment, empowerment, job satisfaction, time pressure, and medical stress seem to be reconceptualized in the projectified context. Working life issues also include accounts of project work as a new career path and as ways of linking project organizations to individual goals.”

Therefore, the project-based organisation stands out as being a highly relevant organisational context for research into human resource management (HRM). Firstly, it is an organisational form that is becoming increasingly common, particularly in contemporary knowledge-intensive industries. This means that project-based settings are common work environments for many employees in today's workplaces. Secondly, it seems to have certain characteristics that emphasise the importance of HRM, but that at the same time challenge existing models and practices of HRM. This was, for example, shown in the broad survey by Whittington *et al.* (1999:591): “Decentralised and more intensely interacting organizations need new kinds of human resource practices /.../ Thus, there seemed to be considerable increases in the emphasis put on human resource management to provide the skills and the glue to make the flatter and more horizontal structures work.”

Accordingly, this thesis explores how HRM is challenged by the project-based organisation and how organisations change their ways of performing HRM to handle these challenges. In the following, I will discuss three important trends in contemporary working-life and HRM that are particularly relevant in relation to the increased use of project-based

structures. After that, the argument for studying HRM in project-based organisations will be further elaborated upon, and an overview of existing research related to the topic is presented. Finally, the aim of the thesis is presented and discussed, and an outline of the thesis is provided.

CONTEMPORARY TRENDS IN WORKING LIFE AND HRM

The focus of this thesis is HRM in project-based organisations. However, the development of HRM in such organisations is, of course, part of a more general development of HRM and of trends linked to HRM issues in a wider industry context. In the following, I will therefore give a brief background and introduction to three important working life and HRM trends: knowledge intensity, individualisation, and decentralisation of HR responsibilities. These trends are put forth by practitioners as well as by researchers, and they are particularly interesting and relevant in relation to the increased use of project-based structures and work systems. With these trends as a background, I will further develop the argument for the relevance of studies that address HRM in the project-based organisational context.

Knowledge intensity and competence development

The trend of knowledge intensity refers to the focus on knowledge as “the most strategically-significant resource of the firm” (Grant, 1996: 110). Knowledge is then considered to be the fundamental source of competitive advantage and there is also a stream of research that addresses the ‘knowledge economy’ and ‘knowledge workers’ (Legge, 2005; Alvesson, 2001; Scarbrough, 1999; Garrick & Clegg, 2001). Moreover, several researchers argue that knowledge intensity is tightly coupled with the increased use of project-based structures. For example, Sydow, *et al.* (2004:1475) suggest that “Recent interest in the emerging knowledge economy has reinforced the view that project organizations in their many varieties are a fast and flexible mode of organizing knowledge resources.” For knowledge-intensive organisations and their survival in highly competitive markets, the skills and competencies of individual employees are then crucial (Garrick & Clegg, 2001), so competence and competence development are important issues. This is reflected in the results from the Cranet Survey 2004¹, which indicate that firms invest more than ever in competence development of their employees (Lindeberg & Månson, 2006). Reports from Statistics Sweden (SCB) support the positive trend in staff training since 1995, and the increased importance of competence development is further highlighted by the former chairman of

¹ The Cranet Survey is an international comparative survey of organisational policies and practices in HRM in Europe. For more information, see www.cranet.org

the Swedish HR society, Sune Karlsson. He argues that today's working life, in which employees change employer and assignments increasingly often, requires a solid competence base and an individual responsibility for developing that base (Hedlund, 2004). Karlsson claims that the only realistic alternative for companies who want to stay competitive is to focus on competence issues.

However, even though companies claim to invest more in competence-development programmes, several studies demonstrate the increased responsibility for individuals themselves to 'stay employable'. The question is to what extent it is the company's responsibility to provide competence development, and to what extent it is up to each individual him or herself? Damm & Tengblad (2000) argue that contemporary working life promotes loyalty to the own competence area, rather than to an organisation, which leads to a break up of the traditional concept of employment. According to the authors, this might imply that organisations no longer have to take on the responsibility for competence development, and that it is instead each individual's own responsibility to develop his or her competencies in order to be attractive for future assignments (see also Horwitz, *et al.*, 2003).

Several authors have also discussed changes in traditional competence development approaches within contemporary organisations, due to the increasingly knowledge-intensive work, changing organisational structures, and project-based work (Arthur, *et al.*, 2001; Garrick & Clegg, 2001). For example, Garrick & Clegg (2001) analyses project-based learning – learning in/through work in projects – and argue that “traditional forms of formal (campus or classroom-based) education and competency-based approaches to training are often sorely out of touch with contemporary organizations and the changing demands workers face daily. In this context, project-based learning is a product of the times – postmodern times” (p. 122).

Individualisation and employability

Another trend, closely related to the first one, is the 'individualisation' of working life and society which has had, and keeps having, a great influence on HRM (cf. Damm & Tengblad, 2000). The Cranet Survey 2004 reveals that employment contracts are increasingly being closed on an individual level; the importance of central union negotiations has decreased. Moreover, individuals seek less support from central unions and more frequently act independently. Lindgren, *et al.* (2001), argue that work and career have become a 'life project' with the purpose of self-realisation and that loyalty therefore is closer attached to the own person than to any collective forms of loyalty bases. The authors claim that jumping between organisations is becoming a natural part of working life. This is a trend that is also

acknowledged internationally by, e.g., Arthur *et al.* (2001), who discuss people's 'project-based learning' as a 'career capital' that can be invested in current and future project activities (see also Garrick & Clegg, 2001). These future project activities might take place within or outside the same organisation, as people's careers develop. As also argued by Horwitz *et al.* (2003), an individual will need to retool and develop a portfolio of careers over time to stay employable.

On the one hand, the individualisation places higher requirements on organisations to create attractive and developing working environments in order to attract and keep valuable employees (Damm & Tengblad, 2000; Horwitz, *et al.*, 2003). On the other hand, it also involves an increased responsibility of co-workers in the employee-employer relationship. Several authors, for instance, refer to a growing importance of 'co-workship' in post-modern organisations. For example, Tengblad (2003) analyses the concept and practice of co-workship and argues that decentralised and flexible organisational structures, and decentralised personnel responsibilities, seem to go hand in hand with an increased importance of co-workship. This development implies an empowerment of the individuals in their working life, and an important source of motivation, but there might also be a backside of the coin. For example, Garrick & Clegg (2001) are critical of the increased requirements on 'stressed-out knowledge workers' to reflect on their own learning and development through project-based 'curricula'. The authors argue that this constitutes a 'virtual trap' of the post-industrial society (compared to the 'iron cage' of bureaucracy), where knowledge workers are supposed to draw on both private and work experience in order to become 'project-based learners' and 'problem solvers'. Similarly, in the case of the Danish hearing-aid company Oticon, with its flexible and project-based work systems and career paths, Larsen (2002) describes what he calls a "survival of the fittest" culture. Here, knowledge, initiative, and the capability to employ oneself is what constitutes one's position and "career success is exclusively a matter of one's ability to create one's own career path, not just follow a path that has been established by the organization". (p. 37). Larsen says that this type of organisation was perceived as motivating and challenging for the career-dynamic people, who were not worried about career advancement. However, for many at Oticon, it was also a source of stress and worries about their careers and developments.

Decentralisation of HR responsibilities

A third trend that I will address is more directly related to HRM in modern companies: the decentralisation of HR responsibilities and centralisation of HR support. In a large number of companies, HR departments are being

downsized and centralised, and more HR responsibilities are being transferred to line managers. There seems to be something of a 'wave' in Swedish companies of adopting an HR departmental structure including a 'service centre', to which line managers can call for support, while the local HR departments are downsized. Tina Lindeberg, responsible for the Swedish part of the Cranet Survey, argues that even if HR departments are downsized, HRM seems to become increasingly important (Åberg Aas, 2005). One sign of such a development is the increased influence of HR directors in strategic business processes, a development supported by (and probably influenced by) recent research into how HR specialists could and should add value to the business and act as 'strategic business partners' (e.g., Jamrog & Overholt, 2004; Ulrich & Beatty, 2001). In their analysis of the results of the Cranet Survey, Mayrhofer, *et al.* (2004) particularly highlight 'new organisational forms' as an important reason for a greater autonomy and increased HR responsibilities for line managers as well as changes for HR departments. They argue that "centralised bureaucratic and hierarchical structures are replaced by more flexible, decentralised, project-oriented forms, where information networks and the 'cultural glue' are more important than formal rules and regulations" (p. 418). The authors further argue that:

"/.../ there is no doubt that both the rhetoric and the practice of HRM is influenced by these developments. /.../ For example, if organisations are moving away from large, centralised (staff) units and assign more responsibility and resources to 'local' or 'front line' managers, this has a direct effect on the HR department: it has to think about new ways of supplying the necessary services, performing its functions and equipping line managers with the necessary skills and competencies to handle the new HR tasks that they are confronted with" (Mayrhofer, *et al.*, 2004:419).

I would argue that in many ways, these three trends are brought to their head in project-based organisations. Projects are often considered as an efficient way of organising and integrating knowledge resources (Sydow, *et al.*, 2004), and the success of the projects is very much dependent upon the competence of single employees contributing to the team. This emphasises the importance of adequate practices to support the competence development of project workers. However, as shown by, e.g., Garrick & Clegg (2001) and Arthur, *et al.* (2001), these competence development processes might take different forms in project-based organisations. Moreover, the increased use of project-based work systems can also be related to the increasingly individualised working life where individuals seek to build their careers on a series of short-

term assignments. The support to project workers in managing their career development should hence be crucial for project-based organisations in order to attract the people they need. In addition, the project-based structures are likely to have an impact on traditional management roles and support systems, and the division of HR responsibilities. In sum, project-based organisations intensify these three trends, and this highlights the need to address HRM in such organisations. At the same time, the project-based organisation has features which *per se* create challenges for HRM. In the following, I will introduce the main concepts used in this thesis, and elaborate further on the relevance of studying HRM in relation to the project-based organisational context.

FOCUSING ON HRM AND PEOPLE MANAGEMENT SYSTEMS IN PROJECT-BASED ORGANISATIONS

This thesis centres on HRM in project-based organisations. A project-based organisation is here defined as an organisation that privileges strongly the project dimension concerning its core activities and carry out most of these activities in projects (cf. Hobday, 2000; Lindkvist, 2004, see Chapter 2 for more details). This means that in such organisations, people mainly work in temporary project constellations. HRM is defined as the area of management that concerns the management of the relation between people and their organisational context (cf. Beer, *et al.*, 1984; Brewster & Larsen, 2000, see Chapter 3 for more details). HRM is accordingly seen as a descriptive label of a particular area of management.

Furthermore, in this thesis, the term 'people management system' is used to signify the system of processes, role structures, and activities, through which HRM is performed. The people management system therefore refers to *how* the organisation operationalises HRM. In HRM writings, a plethora of different terms are used with similar meanings. Apart from people management systems, HR systems and HRM systems are examples of other common terms used. In this thesis, the choice to rely on the term people management system draws on Wright *et al.* (2001:705), who argue for using the term 'people' instead of 'HR' in order to "expand the relevant practices to those beyond the control of the HR function [i.e. the HR department]". The choice of terms hence reflects a wish to move away from traditional HR terminology in order to promote a more holistic approach to the system of people management practices. In this thesis, I will argue that this approach is particularly relevant for the study of the horizontal, flexible, and decentralised project-based organisations (see e.g., Larsen, 2002). But, since the terms HR systems and HRM systems also are common terms in literature

on HRM, they will appear in discussions of authors who use that terminology. These are, nevertheless, treated as being interchangeable with people management systems.

The relevance of studies that address HRM and people management systems in their organisational context is strengthened by the work of Begin (1993). He departs from Mintzberg's (1983) 'ideal types' of organisation and distinguishes different patterns in HRM systems across different types of organisation. Begin's discussions of HRM systems in adhocracies are particularly interesting for the topic of this thesis, since the adhocracy is by Mintzberg (1983:256) described as being highly organic and depending on highly knowledgeable and skilled professionals who are "grouped in functional units /.../ but then are deployed in project teams to carry out their basic work of innovation". Begin argues that the flexibility, complexity, and knowledge intensity of this organisational form requires the HRM system to be congruent with its contingencies. More specifically, he argues that adhocracies need to learn to use flexible employment practices and that "the policies in an ideal adhocratic HRMS [HRM system] are rationally designed and integrated to create organizational flexibility, to provide an integrated organization with minimal conflict, and to provide highly competent, committed workers" (Begin, 1993:10). The work of Begin highlights the relevance of studying HRM and the design of people management systems with a focus on their contextualisation in different types of organisational structures. However, Begin does not make any extensive analysis or empirical studies of HRM in adhocracies, nor does he address the particular features that characterise the project-based organisation.

In essence, this thesis explores the challenges that HRM meet in project-based organisations and the changes that are made in people management systems in order to align them to the project-based organisational context. This explorative research also provides a foundation for new concepts and theoretical constructs that can be used for the analysis of HRM in project-based organisations. The thesis contributes primarily to research and practice into HRM, since it puts existing HRM concepts and management practices in a particular organisational context under scrutiny. However, the thesis also contributes to research and practice into project management and project-based organising, since it puts the spotlight on a 'virtually unexplored area of empirical research' into project-based organising (see Engwall, *et al.*, 2003, quoted above).

RESEARCH INTO HRM IN PROJECT-BASED ORGANISATIONS: AN OVERVIEW

Although the impact of project-based organising on HRM is acknowledged in several studies, research that focuses particularly on HRM in project-based organisations still constitutes an area with only a limited number of published writings. There are, however, some important contributions. Among the earlier studies are Fabi & Pettersen (1992), who reviewed project management literature to see what this field of research discussed with regard to HRM practices. They concluded that the project management literature had not paid much attention to HRM at all, which surprised the authors, since “HRM is considered to be the most important supporting management function in PM [project management]” (p. 86). Later on, Anne Belout paid attention to the effect of HRM on project success (Belout, 1998; Belout & Gauvreau, 2004). Interestingly, the quantitative analysis presented in Belout & Gauvreau (2004) showed that the ‘personnel factor’ did not have any significant impact on project success, something that surprised the authors. They ask themselves:

“How do we explain that an administrative function which is described in the literature as fundamental to achieving success in organisations does not have an impact on project success? Does HRM in the context of project management have specific characteristics that make its role, social responsibility and operation different from so-called traditional HRM? Does the difficulty in measuring the impact of HRM on organisational success (widely described in the HRM literature) explain that finding?” (Belout & Gauvreau, 2004:8)

The authors further argue that the lack of consensus on a coherent definition and the ‘diffuse nature’ and increasingly strategic role of HRM makes it difficult to measure, especially in a complex project-based context where there might be confusion concerning various actors’ roles in combination with project risks and time, cost, and quality constraints. Hence, Belout & Gavreau (2004:8) conclude that “it is thus difficult to establish a direct link between an HR department’s actions and tangible results, in terms of their impact on a specific programme or project. This is all the more true in the case of matrix type or project-based structures.” However, as acknowledged by Belout & Gavreau (2004) themselves, their construct of ‘the personnel factor’ builds on traditional conceptions of HRM in functional organisations and might not be relevant for project-based organisations. Furthermore, they express HRM in terms of the HR department’s actions, which demonstrates a quite limited view of HRM and people management systems in any

organisation since it excludes the actions of, for example, line managers, project managers and other important actors.

The research by Belout & Gavreau contributes to the research into HRM in project-based organisations, and it also suggests that a different approach might be more relevant. For example, their research focuses on success factors for the individual project, while research referred to in previous sections suggest a need for broader studies of HRM in organisational environments where projects make up the basic work systems. Accordingly, this thesis does not centre on the individual project level, but on project-based organisations that have purposes beyond those of the individual project, and hence need access to competent, motivated, and healthy co-workers for their project operations on the long term.

When it comes to research that focuses on HRM in project-based organisations instead of on the performance of individual projects, the research team Turner, Keegan, and Huemann has recently published a series of studies. (Turner, 2003; Huemann, *et al.*, 2004; Huemann, *et al.*, 2007). In their multiple-case studies, they have in particular addressed personnel flows; human resource processes from hiring to release of personnel in project-based organisations. They propose a model of project-based organisations' internal processes of assignment to, employment in, and dispersement from projects. Their studies add to the empirical patterns of important challenges for HRM in project-based organisations. However, it gives only partial understanding of the circumstances around these challenges, what they stem from, and how they are handled. A more in-depth study is provided by Clark & Colling (2005), in their comparative case study of HRM in two "project-led engineering contractors". Their study aims at examining the operational impact of project management structures on the management of human resources. This is an important contribution, since the case studies provide rich details concerning certain HRM issues such as the importance of competence development through 'portfolio-training' by projects. However, their analysis centres on the activities of the HR department, and particularly discusses the efforts to improve the relationship and cooperation between the HR department (i.e. HR-specialists) and line management in the studied firms. Thereby, similarly to Belout & Gauvreau (2004), discussed above, they implicitly define HRM as being a responsibility for HR specialists. However, in their conclusions, they argue that successful HR practices in project-based organisations "become embedded structural features that reproduce and strengthen the affiliation of individuals to such practices" (Clark & Colling, 2005:190).

Apart from the few studies that have HRM in project-based organisations as their focus, several studies within the HRM field touch upon issues that are related to project-based structures, but without focusing on the project-based organisation as the basic context for the studies. For instance, in their study of changes in line management in Europe, Larsen & Brewster (2003) observed an increased use of matrix or project-based structures in high-tech, knowledge-intensive organisations. According to the authors, this affects the possibilities to handle long-term development of individuals or deal with other people issues. Other HRM studies include case studies of project-based organisations or project-based industries, but their focus is to examine relatively delimited parts of HRM-related areas, such as the development of core competencies and career development (DeFillippi & Arthur, 1998; Larsen, 2002), and work arrangements and work-life balance of knowledge workers (Donnelly, 2006),

Similarly, in the literature on project management and project-based organising, several studies show that HRM needs further attention, but they do not address this issue further. One early example of such studies is Galbraith & Nathanson (1978), who discuss the development towards flexible, project-based structures and suggest that this should imply changes in performance measurement and career structures, and that there is a need for strong HR departments to aid in such development processes. Similar suggestions are made by Knight (1977), who also argues that, in matrix and project-like organisations, 'the sphere of personnel management' is an area in which there is a danger that the systems applied are more of a hindrance than a support.

Several, more recent, project management studies make empirical observations associated with HRM, even though HRM is not their main focus. For example, in Midler's (1995) case study of the projectification process of Renault, one of the main concerns was the difficulty to maintain the long-term technical learning process when the organisational structure promotes short-term objectives. Midler also mentions the need for changes in assessment processes and career management. In addition, Hobday's (2000) study of the effectiveness of project-based organisations in managing complex products and systems demonstrated that project-based organisations with weak coordination across projects and an often high pressured work environment leave little space for formal training or staff development. The lack of structures for cross-project coordination, Hobday argues, constitutes a problem for the long-term effectiveness and learning of project-based organisations due to a "lack of incentives for human resource development" (p. 885). This, he says, can also breed insecurity over career development and

professional progress. Midler and Hobday are not alone in their concerns about career development; also the study of “the project-oriented engineer” by Allen & Katz (1995) as well as the study of the Danish project-based company Oticon (Larsen, 2002; Eskerod, 1995) reveal changes in career structures in project-based organisations. Other researchers identify problematic issues concerning staffing and resource allocation (e.g., Clark & Wheelwright, 1992; Engwall & Jerbrant, 2003) and, as mentioned previously, recent studies have also paid attention to the question of work situation and stress for individuals that work in project-based organisations. These studies argue that such organisations often imply high work intensity and an increased individual responsibility, combined with many parallel activities, which can lead to health problems and feelings of ‘project-overload’ among project workers (Packendorff, 2002; Zika-Viktorsson, *et al.*, 2006).

In many ways, project-based organising brings the general trends of knowledge intensity, individualisation and decentralisation of HR responsibilities to a head. Moreover, existing research suggests that project-based organising challenges traditional HRM and puts people management systems to the test. Companies that to a greater extent rely on project-based structures might therefore need to learn new ways of handling HRM that are coherent with an organisational setting in which individuals perform most of their activities and spend most of their time in a series of temporary projects.

Above, I have shown that existing research highlights the existence of important challenges for HRM in project-based organisations. However, so far, no detailed empirical studies have been conducted that identify what these challenges are or how they relate to the salient features of project-based organisations. Moreover, research into HRM in project-based organisations provides only limited empirical evidence of changes in management systems to address these challenges. More in-depth studies that identify and explore central challenges for HRM and empirical patterns in changes of people management systems in project-based organisations would increase the understanding of the relation between HRM and project-based structures. This would also allow for a more elaborate understanding of how to conceptualise and analyse HRM in project-based organisations.

THE AIM OF THE THESIS

The general aim of this thesis is to explore the challenges and changes for HRM in project-based organisations and, based on that, to suggest how HRM in project-based organisations can be conceptualised and analysed. This aim can be divided into three main parts that will be further introduced in this section:

1. To explore the challenges for HRM in project-based organisations.
2. To explore the changes in people management systems of project-based organisations.
3. To develop concepts and theoretical constructs for the understanding and analysis of HRM and people management systems in project-based organisations.

These three parts of the aim have developed over the course of the research process, as the different studies have been carried out and the papers have been written. Since this is a thesis based on a compilation of papers, the aim presented here is accordingly not to be seen as an ‘a priori’ aim where all parts were established at the beginning of the research process. Instead, it should be understood as a description of what the six papers achieve together. Each paper has its own focus and its own aim, and they have been written in different stages of the research process. Thereby, they build on each other in the sense that the research focus of the papers that were written in later stages of the process build on the findings of papers that were written earlier in the process. The three parts of the general aim hence also reflect the research process. In the following, I will elaborate on each part.

Challenges for HRM in project-based organisations

The first part of the aim is to explore the challenges for HRM in project-based organisations. This aim builds on research into HRM as well as into project management and project-based organising that has indicated that the project-based organisational form in various ways challenges conventional ideas of performing HRM. A challenge is in this thesis considered to be a difficulty that an organisation can learn how to handle in a better way, but that usually does not have one final solution. In that sense, a challenge is not an obstacle that can be overcome or finally solved. It is rather something that by its nature calls for special efforts and that is a source for improvement.

Several studies have made observations and suggestions that relate to challenges for HRM in project-based organisations. Such studies have mentioned issues concerning for example performance measurements and career structures (Larsen, 2002; DeFillippi & Arthur, 1998; Midler, 1995; Allen & Katz, 1995), staffing and resource allocation (Clark & Wheelwright, 1992; Engwall & Jerbrant, 2003), long-term competence development and learning (Hobday, 2000; Midler, 1995), and individual work situation (Packendorff, 2002; Donnelly, 2006; Zika-Viktorsson, *et al.*, 2006). However, most of these studies have come across HRM-related issues when studying other aspects of the project-based organisation, or they have centred on particular parts of HRM without making a distinct connection to the project-

based context in which they operate. Interesting questions related to this part of the aim are for example: Which are the key HRM challenges that project-based organisations face? How do the characteristics of the project-based organisation generate these challenges? In response to this, this thesis contributes with focused explorative empirical studies of HRM in project-based organisations in order to increase our knowledge about what the central HRM challenges are perceived to be in such organisations, and how the special characteristics of project-based organisations bring them about.

Changes in people management systems of project-based organisations

The second part of the aim is to explore the changes in people management systems of project-based organisations. The challenges for HRM in project-based organisations, discussed in previous research and further explored in the first part of the aim, indicate that the processes, role structures, and activities that constitute the people management systems need to be coherent with the project-based organisational context. However, various researchers argue that people management systems are to a large extent moulded following a logic for traditional, functional organisations and not for the project-based (e.g., Packendorff, 2002; Engwall, *et al.*, 2003). In general, there is a lack of empirical evidence with regards to people management systems of project-based organisations. However, given the HRM challenges that project-based organisations face, it is important to explore the responses in people management systems to these challenges. In this thesis, particular attention is therefore paid to the changes that can be understood as special efforts to handle the HRM challenges of project-based organisations in a better way. These efforts can take the form of top-down management decisions to introduce, for example new tools, processes, roles, and structures. The efforts can also take the form of more bottom-up changes, such as changes in work routines, development of new approaches, redistribution of responsibilities, and shifts in emphasis among activities in the people management system. Important questions are then, for example: As organisations become increasingly project-based and face certain HRM challenges, do they also change their people management systems? What are they changing? How can we understand the changes they make? Are there different solutions to meet similar challenges?

The thesis accordingly reports on empirical studies of changes in people management systems in project-based organisations. The initial studies of this thesis showed important changes in certain parts of the role structure of people management systems. Accordingly, the thesis also reports on studies that focus particularly on the changing HR roles of line managers and HR departments in project-based organisations.

Developing concepts and theoretical constructs for HRM in project-based organisations

The third part of the aim is to develop concepts and theoretical constructs for the understanding and analysis of HRM and people management systems in project-based organisations. While the first two parts of the aim are of an explorative character and provide empirical patterns of HRM challenges and changes in people management systems, the third part of the aim is to build on these empirical foundations and explorative findings in order to make a contribution to how HRM in project-based organisations can be conceptualised and analysed. The findings related to the first two parts of the aim revolve much around how the studied firms in different ways try to learn new ways of organising and performing HRM in order to improve the long-term effectiveness and sustainability of their project operations. In the thesis it is suggested that a capabilities perspective on project-based firms would provide a generative conceptual foundation that helps to explain how project-based organisations build the capabilities required to meet the HRM challenges.

Research into organisational capabilities emphasises the experience, practiced routines and skills built into an organisation that differentiate it from other firms, and that enable it to carry out its core activities (Nelson, 1991). The capabilities perspective used in this thesis draws heavily on recent research into project-based organising that have argued for the usefulness of frameworks of organisational capabilities in order to explain how project-based organisations build the capabilities required to generate and execute successful projects over time (Davies & Brady, 2000; Brady & Davies, 2004; Davies & Hobday, 2005; Söderlund, 2005). For studies in which the project-based organisation constitutes the organisational context, a capabilities perspective hence contributes to the conception of what constitutes the 'permanent' feature in an otherwise flexible, adhocratic organisation. Researchers that apply a capabilities perspective on project-based organising have primarily focused on project capabilities of project-based organisations, but they have so far not fully covered the capability required to organise and perform HRM in a way that is coherent with the project-based organisational context. In response to this, I will in this thesis propose the concept of 'people capability' and use this to extend the existing project capability frameworks. I suggest that the 'people capability framework' is useful for the analysis of HRM in project-based organisations, and for explaining how such organisations build the capabilities required to organise and perform HRM.

OUTLINE OF THE THESIS

The thesis consists of two main parts: (I) Extended summary and (II) Papers.

The extended summary consists of six chapters. The objective of the extended summary is to provide a context for the six papers, to clarify definitions and approaches used, and to bring their results together in order to show how they in combination contribute to achieving the general aim of the thesis. Moreover, since four of the papers are co-authored, the extended summary gives me the opportunity to clarify my standpoints, my choices, and the main contributions of this research. In addition, since the paper form implies a strict word limit, the extended summary provides more in-depth discussions of the theoretical fields involved, of definitions, and of methodological approaches. Hence, in chapters 2 and 3, the core research fields – project-based organisation and human resource management – are addressed. In Chapter 4, I account for my methodological approach and the choices I have made during the research process. I also provide a detailed description of the phases in the research process. Chapter 5 includes a summary of the six papers, and in Chapter 6, the contributions of the papers are discussed in a synthesis. Chapter 6 also presents the main conclusions of the thesis, and gives suggestions for future research.

Part II includes the six papers in their complete versions. These papers address different parts of the aim, and they also reflect the chronological process of the research. The first four papers have an explorative character with a clear focus on empirical findings related to the first two parts of the aim. Paper V, on the other hand, is a conceptual paper in which a conceptual framework is developed, and in Paper VI, the framework is applied for the analysis of HRM in two knowledge-intensive and project-based organisations. The empirical foundations for the papers are in total eight case studies, of which four are core cases: AstraZeneca, Volvo, Tetra Pak, and Saab. Apart from these core cases, one case study was part of a pre-study for this thesis project (reported in Paper I), and material from three case studies that were carried out mainly by others in this research project was used for a broader cross-case analysis in one of the papers (Paper IV).

Chapter 2

THE PROJECT-BASED ORGANISATION: DEFINITION AND CHARACTERISTICS

INTRODUCTION

In this thesis, project-based organisations (PBOs) are in the centre as an increasingly common organisational context for contemporary HRM. This chapter gives an introduction to the trend of projectification in modern industry, as well as to research into project-based organising. Definitions and types of PBOs are discussed, and the definition subscribed to in this thesis is introduced. Moreover, I will describe the features and characteristics that, according to this definition, are associated with the PBO context, and that would be particularly important for studies into HRM.

PROJECTIFICATION AND PROJECT-BASED ORGANISATIONS

The interest for the growing importance of flexible organisational structures is not new. Researchers paid attention to this development already in the 1970s and 1980s. This research did not study the nature of project-based structures *per se*, but rather identified the emergence of more flexible and temporary

organisational forms in terms of, for instance, matrix structures (Galbraith & Nathanson, 1978; Kingdon, 1973; Gunz & Pearson, 1977; Knight, 1977; Larson & Gobeli, 1987) and adhocracies (Mintzberg, 1983).

Many of the researchers who analyse the general organisational development refer to a need to face the challenges of a higher degree of globalisation, uncertainty and complexity, and a fast technological advancement. The historical overview of the literature that deals with organisational change, by Mary Jo Hatch (1997), for example, refers to these changes. It also puts forward the organisational responses; increased organisational flexibility and increased employee commitment and responsibility. According to Hatch, this development leads to the creation of 'postindustrial organisations' where the organisational borders are indistinct, or have disappeared, and where employees to an increasing extent work in temporary teams where they represent a certain area of expertise. The development described by Hatch has also been discussed by, for example, the sociologist and organisational theorist Wolf Heydebrand (1989). Heydebrand put projects at the centre for the analysis of modern firms and societal structures and argued that project-based structures were a prominent feature of many modern organisational forms. He stated that modern organisations "are staffed by specialists, professionals, and experts who work in an organic, decentralised structure of project teams, task forces, and relatively autonomous groups" (p. 337). Similarly, Sydow *et al.* (2004) argue that the project-based organisation is an organisational form that has gained ground for its ability to integrate specialised competencies and expertise. According to the authors, "recent interest in the emerging knowledge economy has reinforced the view that project organizations in their many varieties are a fast and flexible mode of organizing knowledge resources" (p. 1475).

There are also broader empirical studies that have given evidence to a general projectification trend over the past 15-20 years. For instance, the survey by Whittington, *et al.* (1999) shows that a wider use of project-based structures was one of the most evident changes in large European firms during the 1990s. It is therefore not surprising that a significant number of researchers have focused on studies of projectification processes, project-based forms of organisation, and individual project operations, in order to expand the knowledge about these types of organisational forms.

The project field of research can broadly be divided into three streams depending on the level of analysis. One stream can be described as research into *the project-based society*. This stream analyses projectification on a macro-level, that is to say the general trend in modern industry to increasingly use various forms of project-based structures and the general

implications of this on an industry-level, employee contracts and working life. Ekstedt, *et al.* (1999) is an example of studies within this stream.

The second stream of research is concerned with *projects* as temporary organisations. This stream focuses on the project-level and is generally concerned with factors and project management techniques that influence project success (e.g., Cooke-Davies, 2002). For example, Dvir, *et al.* (2006) and Turner (2005) focus on project managers, their personality and leadership style as a factor for project success. Others have discussed project teams (Eslerod & Blichfeldt, 2005) and the locus of power in the matrix (Katz & Allen, 1997) as important factors, and Belout & Gauvreau (2004) pay particular attention to the influence of HRM or “the personnel factor” for project success.

The third stream concerns research into *project-based organisations*. This stream analyses projectification processes and project-based organising on an organisational level, which means that the focus is on organisations that are adopting or have adopted project-based structures (e.g., Lindkvist, 2004; Hobday, 2000; Midler, 1995). This is also the level of analysis for this thesis and therefore research into project-based organisations will be further discussed in the next sections, along with definitions and types of project-based organisations.

DEFINING PROJECT-BASED ORGANISATIONS

The research reported in this thesis centres on the project-based organisation as an organisational context for HRM. In this section, I will therefore clarify my definition of PBOs and suggest a number of main characteristics that demark such organisations. There are a number of different definitions and approaches in the literature of PBOs, and I will in the following introduce some of these and then explain and argue for the approach taken in this thesis.

In the research into PBOs, several typologies of organisational forms are suggested that are based on the degree of project orientation. Some of the earlier works were made by Galbraith (1973) and Larson & Gobeli (1987), which were later on developed by Clark & Wheelwright (1992) and Hobday (2000). These authors position different ‘ideal types’ of organisational forms along a scale with the pure functional organisation at one extreme, the pure project-based organisation at the other, and matrix organisations with various degrees of project orientation in between. The main factor for deciding on the project orientation in these typologies is the level of authority over personnel, finance, and other resources (e.g., Hobday, 2000). In the typology of Hobday, the PBO is accordingly defined as “one in which the project is the primary

unit for production, innovation, and competition”, and where “there is no formal functional coordination across project lines” (p. 878).

In this type of definition, which is based on a ‘scale of extremes’ with PBO at one end and the functional organisation at the other, ‘project-based’ inherently implies the total abolishment of functional coordination. However, it is rather unclear if this concerns functional coordination of core activities such as production and innovation, or if it rules out all forms of functional coordination across the projects. Lindkvist (2004:5) suggests a broader definition: “Firms that privilege strongly the project dimension and carry out most of their activities in projects may generally be referred to as project-based firms.” Similarly, Whitley (2006:79) describes the ‘project-based firm’ as a firm that “organize work around relatively discrete projects that bring particular groups of skilled staff together to work on complex, innovative tasks for a variety of clients and purposes”. However, these definitions are rather vague, particularly concerning the nature of the activities that are being carried out in projects.

For researchers, like myself, whose main focus is on HRM and people management systems in project-based organisations, these definitions seem to miss out on important aspects. Project-based structures, from my point of view, do not necessarily equal to a total dominance of the project structure over the functional structure. I would argue that a more relevant approach to interpreting ‘project-based’ is that core activities, i.e. the activities that are primarily directed towards the creation of products or services, which form the base for the organisation’s revenues (c.f. Prahalad & Hamel, 1990), are performed by the means of projects. When it comes to the organisation of other activities, for example those related to HRM, some form of functional coordination across projects might still be highly relevant.

Other typologies take factors such as employment contracts, affiliation and the level of repetitiveness of project work, into consideration when identifying different types of organisational forms that include projects. For example, Söderlund (2000) distinguishes four ideal types of organisations depending on the one hand on the permanency/temporality of the structure, and on the other hand on the permanency/temporality of the employment contracts. In Söderlund’s typology, ‘project organisation’ describes a situation where people have permanent employment contracts in an organisation that is characterised by work in temporary project constellations. Ekstedt (2002) presents a similar typology. Packendorff (2002) discusses four types of ‘project work’ depending on whether project workers have their primary affiliation to the individual project or to the organisational context, and on whether project work is considered to be routine or the exception. In this typology, ‘project-

based work' is regarded as one in which project workers have their primary affiliation to the organisational context, and in which project work is routine.

Following this line of argument, PBOs consequently do not include 'single-project organisations' (DeFillippi & Arthur, 1998; Whitley, 2006), where the entire organisation is dissolved after completion of a project. The PBO by the definition subscribed to here, instead concerns a permanent organisational framework in which temporary projects are embedded (see also Sydow, *et al.*, 2004).

The definitions and approaches discussed above suggest that the structures used for carrying out core activities, the repetitiveness of project work, the permanency of the organisational framework, and the nature of employment are matters that stand out as being particularly important for what defines a project-based organisation. Hence, in this thesis, the following four features, in combination, are considered to define the project-based organisation:

1. The PBO is an organisation that privileges strongly the project dimension concerning its core activities and carry out most of these activities in projects.
2. In a PBO, project work is routine rather than the exception.
3. The PBO is a permanent organisational framework in which temporary projects are embedded.
4. In a PBO, people are employed or hired by the organisation, not by individual projects.

In this thesis, I choose to use the term 'project-based organisation', instead of 'project-based firm', for two main reasons. Firstly, a firm can consist of both project-based departments as well as functional departments, so there might exist PBOs inside a firm, even though the whole firm is not project-based. Secondly, the term 'firm' implies that the concept is delimited to business oriented firms, but PBOs are likely to exist also within the public sector and within public and non-profit organisations. This thesis is delimited to studies of PBOs within the private sector, but I see no reason for delimiting the concept as such to include only firms with a purpose of profit-making.

It is also important to recognise that the term PBO should be seen as a general term for a variety of organisational solutions that have the four features described above in common. As also argued by Whitley (2006) future research into project-based organisations should distinguish between different kinds of PBOs, since they "vary considerably in the kinds of products and services they produce, the level of market and technical uncertainty they have to deal with, and their organizational complexity" (p. 80). Making such

distinctions is not the main focus for this thesis, so I leave that for other researchers to explore further. However, I will distinguish between two types of PBOs, depending on their origins, in order to clarify what type of PBOs I have chosen to include in the case studies.

Original PBOs and Projectified organisations

The general projectification trend in the modern economy can be described as consisting of two principal patterns of change in relation to the structuring of firms; (1) that new firms increasingly start off as project-based organisations and (2) that traditionally functional organisations change into relying more on project-based structures. These two change patterns give rise to two different types of project-based organisations, depending on their origins. The first type is *original PBOs*, which are organisations created as project-based from the start and that hence have no history of organising their core activities in functional structures. Consultancy firms and advertising agencies could be examples of such organisations. The second type of PBOs is *projectified organisations*, which implies that the organisations have gone through (or are still going through) a development from more functionally-oriented to project-based structures. Many engineering and high-technology, product developing firms could be examples of such organisations. In this thesis, I will pay particular attention to projectified organisations. My argument for doing so is that since they have a history of functional structures and of HRM in such contexts, the implications that the characteristics of the PBO have on HRM should be particularly visible in projectified organisations. Hence, my main empirical focus for this study is not on the projectification process *per se*, but on PBOs that have an experience of the projectification process.

CHARACTERISTICS OF THE PBO

The definition of the PBO presented above suggests that PBOs have a set of common features that define them; core activities are performed in projects, project work is routine, the projects are embedded in a permanent organisational context, and people are hired by the permanent organisation, not directly by individual projects. These defining features bring about a number of organisational characteristics that should be particularly common among PBOs and that therefore are important for the analysis of HRM in such organisations. The characteristics are not completely separable from each other; on the contrary there are several interdependencies among them. However, for analytical reasons, they are presented separately. Moreover, these characteristics are not necessarily unique for PBOs, but I would argue

that they are more common and more salient in PBOs due to their defining features.

Knowledge intensity

A PBO carries out most of its core activities in projects. This means that the project form is considered to be the most effective one for its operations. Most studies that discuss the reasons for organising by projects highlight the 'knowledge economy' and the need to integrate knowledge resources in a fast and flexible way in order to reach a defined goal in a certain time (Davies & Hobday, 2005; Whitley, 2006). Therefore, PBOs are likely to be characterised by *knowledge intensity*, meaning that competence and skills of employees have more importance than other inputs, that the majority of employees are highly qualified, and that the work involves complex problem-solving (Swart & Kinnie, 2003; Alvesson, 2001).

Cross-functionality

The use of project-based structures for carrying out the core operations also means that much work is being carried out in cross-functional teams. Projects integrate competencies across functional lines – they comprise members that represent different specialities and different competence bases (e.g., Sydow, *et al.*, 2004). The choice of project-based work systems hence implies a focus on cross-functional work in projects instead of functional departments for carrying out core activities. A PBO should consequently be characterised by *cross-functionality*. According to Bresnen, *et al.* (2005), this type of work often relies on decentralised team working and relatively autonomous project managers.

Temporality

In a PBO, project work is routine rather than the exception, which implies that people perform most of their work in time-limited temporary projects. As stated by Packendorff (2002) in his description of 'project-based work', "individuals working by projects experience a long-term trajectory consisting of a long series of projects" (p. 44). Since the projects are temporary organisations, which can be "characterised by the temporary constellation of people they entail" (Prencipe & Tell, 2001:1374), PBOs are generally characterised by a short-term logic in which "new human encounters and relationships take place whenever a new project is started" (*ibid.*). A PBO is therefore characterised by *temporality*. In a similar vein, Bresnen, *et al.* (2005, 1541) refer to "the intended and finite nature of projects" as a key characteristic of PBOs, which often leads to a short-term emphasis on project performance.

Tension between permanent and temporary systems and logics

A PBO is a permanent organisational framework in which temporary projects are embedded. Sydow *et al.* (2004:1477) emphasise the importance of acknowledging this “contextual embeddedness of temporary systems in the more permanent”, and the inherent tension between permanent and temporary systems and logics in such organisations. On the one hand, projects enable the organisation to integrate competencies across functional lines, focus the efforts towards reaching the project goal in a set amount of time, and maintain organisational flexibility to respond to changing environmental requirements. On the other hand, as the study by Hobday (2000) shows, a PBO with weak or no functional coordination is “inherently weak in coordinating processes, resources and capabilities across the organisation as a whole” (p. 892). Hence, the PBO incorporates the dilemma of the conflicting needs of the temporary projects and the permanent organisational setting that defends long-term development as well as routines and interorganisational coordination (Sydow, *et al.*, 2004). Therefore, a PBO is characterised by an inherent *tension between permanent and temporary systems and logics*.

Heterogeneity in employment relations

In a PBO, people are employed by the organisation and not by individual projects. This implies that the relation between employees and the organisation generally goes beyond the time scope of an individual project. However, in this context, being ‘employed’ does not necessarily equals having a permanent employment contract in the PBO. Whitley (2006), for example, argues that PBOs that organise work around a series of recurrent projects “often rely on outsiders for completing individual tasks, but retain a core group of employees for initiating, organizing, and conducting separate projects” (p. 81). Similarly, Ekstedt (2002) discusses work contracts in the project-based economy and in PBOs, and points out that consulting activities increase as firms projectify their core activities. Ekstedt argues that in organisations where most of the ‘action’ takes place in projects, “small permanent organizations with strategic functions and a strong brand name harbour project teams for both development and production consisting of persons affiliated to a lot of different organizations.” (p. 66) Therefore, the work force that contributes to the organisation’s activities consists of ‘permanent’ employees, but also of a significant number of more ‘temporary’ employees such as consultants, self-employed professionals and others with temporary contracts. In other words, the PBO is often characterised by *heterogeneity in employment relations*.

INTRODUCING HRM IN RESEARCH INTO PROJECT-BASED ORGANISING

As mentioned earlier, a number of researchers started to discuss the growing importance of matrix and project-like structures in the 1970s and 1980s (e.g., Knight, 1977; Larson & Gobeli, 1987; Galbraith, 1973; Gunz & Pearson, 1977; Kingdon, 1973). Several of these early studies suggested that there are challenges associated with adjusting the management systems in the organisation to the new structures. For example, Knight (1977:181), referred to earlier, argued that many project-like organisations “struggle along under the handicap of inappropriate systems which are more of a hindrance than a support”. Knight continues:

“There are two main areas where this danger arises. One is the field of managing information and control systems /.../. The other is the sphere of personnel management. While it is possible to point out the problems that can arise in the latter sphere and while the answers to most of them do not even seem particularly difficult, I am afraid that very little hard information on company practices has come my way and I am reduced to speculating about the subject.” (Knight, 1977:181)

Despite the suggestions of some of the early scholars with an interest for project-based organising to address HRM, this research stream has primarily focused other aspects. Particular attention as for example been paid to issues revolving around coordination and prioritisation among projects (e.g., Engwall & Jerbrant, 2003; Lindkvist, 2004). Recently, the research stream of project-based organising has developed an interest for the knowledge and learning abilities of PBOs. For example, Lindkvist (2005) analyses the cross-functionality of PBOs and discusses project-based organisations as ‘knowledge collectivities’ in which knowledge is distributed and resides within the individual ‘free-agent’ knowledge workers in cross-functional teams, instead of being shared among community members within a knowledge base. Other studies show that such distributed knowledge bases require other forms and routines for achieving coordination and collaboration among members within the same discipline (e.g., Midler, 1995; Sapsed, 2005), as well as for learning across projects and for long-term organisational learning (e.g., Prencipe & Tell, 2001; Bresnen, *et al.*, 2005; Newell, 2004). Prencipe & Tell (2001) analyse the ‘learning abilities’ of project-based firms and argue that notwithstanding the temporary nature of the tasks performed by project-based firms, these firms do develop a set of routines to manage inter-project learning.

In many ways, the above discussion suggests that studies into project-based organising would benefit from a perspective that focuses on what makes the PBO capable of long-term and sustainable project operations. In similar vein, recent research into project-based organising has applied a capabilities perspective for the analysis of project-based organisations (Davies & Brady, 2000; Brady & Davies, 2004; Davies & Hobday, 2005; Söderlund, 2005). This implies that they emphasise the knowledge of the firm; the practiced routines and skills built into an organisation that differentiate it from other firms and that embody what the organisation can do well (cf. Nelson, 1991). One of the most cited works on organisational capabilities in project-based organisations is that of Davies & Brady (2000), which was later further developed by Brady & Davies (2004) and Davies & Hobday (2005). They argue that in firms that rely on project-based structures, 'project capabilities' constitute an essential part of the organisational capabilities. Project capabilities are then defined as: "the appropriate knowledge, experience and skills necessary to perform pre-bid, bid, project and post-project activities" (Davies & Hobday, 2005, p 62). Söderlund (2005) addresses this framework and argues for a more holistic approach on 'project competence' that not only considers the sequential activities from pre-bid to post-project phases, but also includes sub-processes and their interrelation. Söderlund suggests that project generation, project organising, project leadership, and project teamwork, constitute important sub-processes for the development of project competence.

Within the research stream of project-based organising, a capabilities perspective contributes to an understanding of the more permanent feature in an otherwise flexible, adhocratic organisation. When structures, work force, and teams are changing in the short-run, organisational capabilities become important as constituting long-term, more permanent features of a PBO. Research with a capabilities perspective on PBOs has centred on project capability for sustainable project operations in the long-run. In this thesis, I argue that there are strong reasons to pay attention to the capabilities of a PBO that are related to the management of human resources. Several recent studies of project-intensive firms have revealed the need for more studies into HRM (e.g., Engwall, *et al.*, 2003; Huemann, *et al.*, 2007; Hobday, 2000; Midler, 1995). A number of the referred studies also emphasise the need for HRM and people management systems to constitute a 'glue' that would provide the increasingly temporary and flexible project-based structures with necessary elements of permanency.

Chapter 3

HUMAN RESOURCE MANAGEMENT: DEVELOPMENTS, DEFINITIONS, AND APPROACHES

INTRODUCTION

The focus of attention for this thesis is human resource management (HRM) in project-based organisations. This chapter aims at giving an introduction to HRM as an area of management and as a research area. The cases that constitute the empirical foundation for this thesis are units at Swedish-based companies. Therefore, this chapter will provide an overview of the empirical development of personnel administration and HRM in Sweden, as a general background and introduction to the field. Moreover, the international breakthrough of HRM in practice as well as in management research will be discussed. After that, main approaches to HRM are discussed and the definition of HRM relied on in this thesis is presented. Finally, I discuss the content and structure of people management systems, and I particularly address the changes in the roles of line managers and HR departments.

Particular focus will be paid to aspects that are relevant in relation to the increased use of project-based structures.

AN OVERVIEW OF THE DEVELOPMENTS OF HRM

The roots to personnel administration in Sweden came, according to Damm & Tengblad (2000), from a reaction in the beginning of the 20th century against the poor working conditions in the recently industrialised society. A 'social welfare perspective' (Berglund, 2002) developed, and many companies hired so-called 'personnel officers'. These worked mainly with supervision of general hygienic conditions, assistance in selection and hiring of new personnel, and support to employees with information, advice and administration within areas such as loans, education, housing, and child care (Damm & Tengblad, 2000:29). Parallel to this social welfare perspective, a more efficiency-based perspective developed in Swedish industry, which was influenced by, among other things, the ideas of scientific management (Berglund, 2002). At the end of the 1940s, there were wide discussions about the role of personnel officers, on the academic as well as in the industrial arena in Sweden. Many argued that the social function and the personnel function needed to be separated from each other. Personnel officers needed to become more integrated in the business; they should not only be the allies of workers and defend their rights but also support the management of the firms (Damm & Tengblad, 2000). This led to a significant shift in the role of personnel officers, from social commitment to company commitment.

Over the following decades, there was a dramatic increase in the number of personnel officers in Swedish companies, and these were now increasingly called 'personnel administrators' (Damm & Tengblad, 2000). The administrators started to take over much of the responsibilities concerning recruitment, introduction and training; activities that traditionally had been the responsibility of foremen and middle managers. Many companies also started to organise their personnel administrators in centralised personnel departments, new academic education programmes for personnel specialists were created, and the new profession started to get established (Berglund, 2002; Damm & Tengblad, 2000).

However, in the 1970s, the area of personnel administration was once again subject to discussions and critics. In Sweden, there were strong disagreements between unions and employers. The unions demanded legal changes to promote 'industrial democracy', a break down of bureaucratic structures, and an increase of employees' right to participation. (Berglund, 2002). In this debate, the ambiguous role of the personnel specialists became evident; whose side were they really on? The strong industrial democracy

movement argued that the personnel departments were too bureaucratic and centralistic and not competent enough with regard to business issues. These should therefore be decentralised and personnel responsibilities needed to be devolved to the line (Damm & Tengblad, 2000).

This debate was followed by a wave of decentralisation of personnel departments in Sweden. The work of personnel specialists started to become supportive instead of operative, and oriented towards supporting line managers with personnel responsibilities and meeting their demands. Some scholars argued that the personnel departments indeed had to become more service oriented and that they should not see themselves as specialists but rather as generalists with the role of internal consultants (Hansson, 1988). In the 1980's, the importance of considering employees to be strategic resources instead of a cost – a strategic management perspective - had a great influence on the debate, and the term 'human resource management' entered the personnel discussions in Sweden. These discussions were inspired by modern management trends and debates that were taking place on the international arena. The following section gives a brief historical overview of the development and international breakthrough of the HRM concept.

The breakthrough of human resource management

The concept of human resource management (HRM) had its big breakthrough in the 1980s in North American management literature, but it can be traced back much longer than that. Already in his famous *The practice of management* from 1954, published around the time when ideas of 'Scientific Management' were on a peak, Peter Drucker used the term 'human resources' to emphasise the difference of workers from any other economic resource. Drucker advocated for a view of the worker as a 'whole man', a human resource which, unlike other resources, has control over whether he works, how well he works and how much he works, and which is "of all resources entrusted to man, the most productive, the most versatile, the most resourceful" (pp. 262-263). Hence, Drucker argues, "the improvement of human effectiveness in work is the greatest opportunity for improvement of performance and results" (p. 262). Drucker posed severe critique against the two then existing generally accepted concepts of managing the worker - Personnel Administration and Human Relations – for suffering from 'lack of progress', 'sterility', and 'severe intellectual aridity'. According to Drucker, Human Relations did however, as opposed to Personnel Administration, build on the right basic assumptions, for example, that people do have a will to work and that fear is not a good motivation technique. Therefore, Drucker considered Human Relations, alongside with important insights from scientific management, to be important parts of a fundament for a future

development of the basic principles of managing work and workers. However, he argued that the field had stagnated and that it seemed to rely on a false belief that people would be motivated just by being 'happy'; it did not offer alternative ideas for positive motivation. Moreover, Drucker criticised its complete focus on inter-personal relationships and lack of adequate focus on work and economic dimensions.

Similar critiques against the Human Relations model were posed by Raymond Miles, ten years later (Miles, 1965). According to Miles, the Human Relations model rightfully argued for participative leadership and making employees feel useful and important. However, the logic behind this, he argued, was not that the employees might make important contributions to the decisions process, but instead that an increased satisfaction and morale would lower the resistance and improve the compliance with managerial authority. Instead, Miles suggested a '*Human Resources Model*', based on the assumption that all organisational members are "reservoirs of untapped resources", and that a manager's primary task is that of "creating an environment in which the total resources of his department can be utilized" (Miles, 1965:150). The logic behind bringing the employees into the decision-making process should hence be to *improve* the decisions and the total performance of the organisation. Increased satisfaction and morale was, according to Mile's Human Resources Model, a by-product of the process, which in turn would create an atmosphere for even more creative problem-solving.

Over the ten following years, after Miles' (1965) contribution, the human resource management concept was rarely discussed in academic writings, but the term started to get increasingly used in practice in the mid-seventies and little by little, it begun to replace the Personnel Management terminology (Berglund, 2002). However, in many cases, the change in terminology did not really imply a changed approach or content. For example, Guest (1987) argues that many personnel departments became human resource departments without any real change in roles. For some time, the two terms were often used interchangeably, even though the HRM terminology was considered to be more up to date (Kaufman, 2007).

In the 1980's, the discussions of personnel management vs. human resource management were intensified, and one line of thought argued that the HRM terminology actually represented a new management philosophy, a new paradigm which was fundamentally different from the traditional approach to Personnel Management (Kaufman, 2007). The debate was particularly influenced by the Japanese quality models and the ideas of 'excellence' (e.g., Peters & Waterman, 1982), which encouraged new ways of

thinking in management. At this time, the North American industry was threatened by competition of the rapidly expanding and highly efficient Japanese industry. Japanese management traditions, based on a strong relation between employees and employer, life-long work contracts and working methods directed at quality rather than cost management, strongly contributed to the rising interest in the HRM approach at this particular time (e.g., Guest, 1987; Hendry & Pettigrew, 1990). The proponents of HRM proclaimed a more strategic approach to the management of personnel. Employees should be seen as valuable strategic resources, not as costs that should be minimized, and personnel/HR departments should get more integrated in firm operations.

The development of the HRM concept was highly influenced by two intellectual developments: strategic management on the one hand and human relations/organisational behaviour on the other (Hendry & Pettigrew, 1990; Kaufman, 2007). The strategic management literature had since the 1950s, developed a concern for regarding the 'human resources' as an underutilized organisational asset and a source of competitive advantage. The main argument for this stream was the need to maximise the contribution of people to the organisation. Fombrun's, Tichy's & Devanna's *Strategic Human Resource Management* (1984) is considered to be a key text in the development of this view. The authors argued that the "untapped contributions of the human resources in organizations could make the difference between efficiency and inefficiency, death and survival in the marketplace" (Fombrun, *et al.*, 1984, preface) and that HR systems needed to be aligned so that they would drive the strategic objectives of the organisation.

The human relations stream on the other hand had more of a 'developmental-humanist' standpoint (Hendry & Pettigrew, 1990; Legge, 2005). One of the key texts representing this stream – *Managing Human Assets* (Beer, *et al.*, 1984) – emphasised the importance of innovating in HRM practices in order to "build a relationship between the organization and its employees that will pass the tests of greater competition and the shrinking economic pie" (Beer, *et al.*, 1984:7). Beer, *et al.* also stressed that due to the demand for a more strategic perspective on the organisation's human resources, HRM should be a vital concern for general management rather than being seen as narrowly defined personnel responsibilities that can be delegated to personnel specialists.

The HRM concept rapidly gained ground outside North America and with it the academic discussions on the subject grew wider. Sisson (1993:201) argues that HRM was "the industrial relations issue of the 1980s and early

1990s”, and Kaufman (2007:36) speaks of a “veritable explosion of writing and research on strategic aspects of HRM” in the 1980’s and 1990’s. Guest (1987) brings up several driving forces for the large impact of the HRM concept at this time. He particularly highlights the development towards a work force with higher educational level that would have higher expectations and demands, as well as changing technology and structural trends which would lead to more flexible jobs. Together, this required a new form of personnel management (see also Sisson & Storey, 2003).

Several researchers also see the increased focus on knowledge and other immaterial resources as a strong driving force for the development of HRM. For example, Brewster & Larsen (2000:ix) argue that:

“This qualitative shift was caused – and made possible – by changes in societal structure, in particular the transition from a mainly industrial, manufacturing economy to a service- and knowledge-based society. Providing service, knowledge, skills and know-how (at the individual and organizational level) implies an hitherto unseen focus on immaterial resources, core competencies, commitment and other features related to the individuals (that is, human resources) of the organization. The competitive strength of an organization is determined by its ability to attract and develop human resources, rather than optimizing the use of raw materials, machinery and financial resources.”

HRM in Sweden

The HRM terminology has had a large impact also in Sweden, but mainly in the practical field. According to Damm & Tengblad (2000) and Berglund (2002), there were intense discussions in Sweden during the 1990s about the concept of HRM and the ‘to be or not to be’ of HR departments as separate units. Part of the debate was about the meaning and relevance of the concept and critical voices were raised, claiming either that the economic focus of HRM stood against humanitarian ideals or that the concept already was outdated (Berglund, 2002). Berglund reflects these arguments by describing the vivid debate that took place in 1997 in one of Sweden’s largest magazines for personnel specialists (*Personals & Ledarskap*) between a consultant in personnel/leadership development, a university professor, and a union representative.

However, according to Berglund (2002) and Berglund & Löwstedt (1996), the academic interest of HRM has been rather low in Sweden and it still is. There is for example no professorial chair in HRM, even though there have been discussions of establishing one for several years. The most

established research groups within the area are the HRM group at Göteborg University (e.g., Bergström & Sandoff, 2000; Stjernberg, 2006; Tengblad, 2003; Hällsten, 2003) and IPF² at Uppsala University (e.g., Söderström & Lindström, 1994; Lindeberg & Månson, 2006). IPF is also the Swedish partner in the Cranet Survey on HR trends in Europe³. Apart from these groups, there are a few academics at business administration departments at other universities with a growing interest for the subject (e.g., Alvesson & Kärreman, 2007). There are also more established researchers within behavioural sciences that deal with sub fields of HRM, such as competence development and learning issues (e.g., Söderström, 1990; Kock, 2002; Ellström & Hultman, 2004).

The interest for HRM as a research field of its own seems to be growing, though. An increasing number of business administration departments teach courses in Human Resource Management and collaborations between personnel administration programmes and business administration programs start to get more established. The number of researchers within the area also increases. Nevertheless, the activity on the practitioner side is still much more intense and there seems to be an increasing interest and wish from that side of strengthened research into HRM in Swedish companies.

APPROACHES TO HRM

The academic discussions during the 1980s and the beginning of 1990s mainly regarded definitions, approaches and conceptual models of HRM, as well as critiques and questioning of its relevance and fundamental standpoints. Key themes were for example whether HRM is really different from personnel management or if it is just a 'new label' for the same activities (e.g., Guest, 1987; Storey, 1993), whether there is an 'a priori' definition of what constitutes HRM, or if it should be more broadly defined as a range of activities that affect the employment and contribution of people (Hendry & Pettigrew, 1990), and whether HRM is a management model suitable for all types of companies or not (Guest, 1987). Another key theme was the link between HRM and firm performance (e.g., Guest, 1997; Huselid, 1995; Purcell, 1999),

The strategic approach to managing people contributed the theory of people management systems as potential sources for sustainable competitive advantage (Wright, *et al.*, 1994; Lado & Wilson, 1994; Kamoche, 1996). This stream of research was inspired of and strengthened by theories on resource-

² Institutet för personal- & företagsutveckling (Institute for Personnel and Corporate Development, author's translation)

³ The Cranet Survey is an international comparative survey of organisational policies and practices in HRM in Europe. For more information, see www.cranet.org

based view of the firm (RBV) which were first articulated by Penrose (1959) and Wernerfelt (1984), but was popularised particularly within the strategy field of research by Barney (1991). Drawing on resource-based theories, HRM can be understood in terms of how it contributes to an organisation's growth and competitive advantage. Generally, the resource-based view (RBV) has played an important part in providing a conceptual basis for asserting that people, and hence HRM, are of strategic importance (Boxall, 1996; Wright, *et al.*, 2001). The reason for this is that the RBV shifted the focus from external factors toward internal firm resources as sources of competitive advantage, which justified the strategic value of HRM (Wright, *et al.*, 2001). According to Boxall (1996), the resource-based thinking enhances the possibilities to value HRM for "its potential to create firms which are more intelligent and flexible than their competitors over the long haul, firms which exhibit superior levels of co-ordination and co-operation" (p. 66).

In research into HRM and how it can contribute to the competitive advantage of the firm, two main schools has dominated the debate: one advocating 'best-practice' models and another advocating 'best-fit' models (e.g., Delery & Doty, 1996; Boxall & Purcell, 2000). The 'best-practice' school is often also described as having a 'universalistic' approach (Delery & Doty, 1996; Martín-Alcázar, *et al.*, 2005), particularly by its critics. It is then described as based on the assumption that there are generally applicable HR practices or systems of HR practices that always lead to improved performance. Jeffrey Pfeffer and his suggestion of 'high performance work practices' (Pfeffer, 1994, 1998) is probably the most cited author related to this school. Best-practice models are generally criticised for their 'simplistic' view which does not regard the context in which the practices are applied, the variations in goals among firms, or the integration and interdependence of practices (Martín-Alcázar, *et al.*, 2005; Boxall & Purcell, 2000). It should however be noted that also the critique tends to be a bit 'simplistic' at times. For example, Pfeffer (1995) does point out that "it is important to recognize that the practices are interrelated – it is difficult to do one thing by itself with a positive result" (p. 58). He also suggests that very few companies can implement all the suggested practices, and that "which practice is most critical does depend in part on the companies particular technology and market strategy" (p. 67). So, a more nuanced description of this approach would be that it puts less emphasis on context and internal synergies among practices and more focus on the parts of HR management practices that seem to be more generally applicable than others. As argued by for example Boxall & Purcell (2000), there are aspects of 'best practice' that are widely acknowledged by practitioners and researchers.

The best-fit school, also referred to as the contingency school, instead emphasises the need of HR practices to be aligned and integrated with the overall business strategy, as well as with the organisational and environmental contingencies (see e.g., Delery & Doty, 1996). Authors within this school typically suggest different kinds of models for how a firm can achieve this best-fit. One of the most cited works in this school is Schuler & Jackson (1987), who link HR practices to Porter's (1985) generic competitive strategies and suggest three 'archetypes' of HR practices-strategy combinations. Another is that of Guest (1987), in which he argued that HRM policies must be integrated into the strategic plan and that they must cohere within themselves. Followers developed this line of argument and suggested models of 'horizontal' and 'vertical' fit. Vertical fit refers to the fit between HR policies and practices and firm strategy, while horizontal fit refers to the internal fit among individual HR policies and practices (see overviews by, e.g., Boxall & Purcell, 2000; and Legge, 2005). Interestingly, the fit between firm structure and HRM is rarely discussed. One of the few contributions is that of Begin (1993, discussed in Chapter 1), who suggested configurations of HRM systems depending on organisational structure (based on the 'ideal types' of organisation suggested by Mintzberg, 1983).

According to Boxall & Purcell (2000), the first best-fit models were fairly 'thin' since they failed to recognise the importance of aligning employee interests with the firm and tended to be too static. Furthermore, they had a tendency to search for correlations between two variables, "missing much of the interactive, multivariate complexity of strategic management in the real world" (Boxall & Purcell, 2000:188). In response to this, the best-fit school developed towards 'configurational' approaches, concerned with unique patterns of individual HR policies and practices and how they are related to firm performance (see e.g., Delery & Doty, 1996). The configurational approach is accordingly concerned with 'unique-fit' models, instead of 'best-fit' models. One example of this approach is MacDuffie (1995), who argues that "research that focuses on the impact of individual HR practices on performance may produce misleading results, with a single practice capturing the effect of the entire HR system" (p. 200). MacDuffie instead suggests that it is more relevant to analyse a firm's HR practices as an internally consistent 'bundle' or system of interrelated elements that contributes to productivity and quality. Unlike many other contributions, MacDuffie also emphasise the integration of the 'HR bundle' with the 'bundle of manufacturing practices'. He argues that research "has overemphasized either the technical system or the HR system without fully exploring the interaction of the two systems and how it can affect performance" (MacDuffie, 1995:217).

More recent writings have criticised the HRM-performance models for being too focused on profitability, productivity and cost efficiency, and hence neglecting other dimensions of performance such as individual-relational values and social responsibility. Therefore, Paauwe's (2004) 'contextually based human resource theory' aims at highlighting the tension between economic rationality and relational rationality in the shaping of HRM policies and practices. Paauwe also discusses the grown configuration of the organisation and its 'administrative heritage' as an important factor that influences the shaping of HRM and contributes to a 'unique fit' that is imperfectly imitable by competitors (cf. Barney, 1991).

The research reported in this thesis draws on the 'unique-fit' approach to HRM. The aim is to explore how HRM and people management systems are challenged and changed in organisations with project-based structures and work systems. This does not involve explaining relations between HRM and performance. Nevertheless, a basic assumption and a driving force for conducting such research is that people management systems, if successfully integrated and aligned with the organisational structure and work systems, could improve performance and long-term viability for project-based organisations. This approach also implies that even if each organisation is unique, with its own 'administrative heritage', there are still some common characteristics for project-based organisations. Hence project-based organisations should experience similar challenges when it comes to HRM.

DEFINING HRM

As the review presented above shows, the concept of HRM has its fundamentals in various theoretical and practical fields, and the development of the HRM field of research also reflects a large variety in definitions and approaches. As Boxall *et. al* (2007) point out, "Judging by the literature HRM refuses to be any one thing" (p. 2). In this section, I will present and argue for the definition of HRM that is subscribed to in the studies presented in this thesis.

Managing the relation between people and their organisational context

As mentioned earlier, some of the initial discussions about the definition of HRM regarded whether it was a new management philosophy or merely a new label for personnel management (cf. Guest, 1987; Legge, 2005; Sisson & Storey, 2003). Did not, in fact, HRM basically concern the same activities as traditional personnel management, even though it had been retitled to capture new trends and the modernisation needed due to a changing environment? The proponents of HRM argued that the concept of HRM actually implied a new management philosophy that offered a completely

different approach to management. This implied that HRM did not necessarily replace personnel management; it was rather an alternative to it. For example, in his article from 1987, Guest stated that HRM was usually contrasted to personnel management with the assumption that HRM is better, but without taking variations in context into consideration. Guest suggested that there might be organisational contexts in which traditional personnel management could be more successful, arguing:

“Until convincing evidence to the contrary is available, this suggests that human resource management can most sensibly be viewed as one approach to managing work force. Other approaches are equally legitimate and likely in certain contexts to be more successful” (Guest, 1987:508)

This view hence considered HRM to be “a ‘special variant’ of personnel management, reflecting a particular discipline or ideology about how employees should be treated” (Legge, 2005:107). It seems quite reasonable that this view was dominating in the 1980s, when the ideas were new and posed a clear contrast to traditional personnel management. However, since then this management philosophy has come to dominate and today it is regarded more or less as general knowledge about how to run a company. HRM can in that sense be seen as part of a shift in paradigm regarding the management of work and employees. Employees and human resources and the way they are managed have become recognised as key elements for success and, as Brewster & Larsen (2000:2) put it: “It is, therefore, no surprise that the importance of HRM as an institutionalized way of handling the central issues of selecting, appraising and developing people has grown in prominence over the past few years.”

Brewster & Larsen further argue that one important aspect of the definition of HRM is that it is based on the assumption of an interaction between people and their organisational context:

“An assumption in traditional personnel management activities has been the perception of the organization as an extraneous, given and stable context for these activities – without actually interacting with them. Such a view on the personnel activities has lost credibility and legitimacy, because it disregards the contextual impact on human resource issues. By contrast, HRM rests on the assumption of an organizational interplay between individuals and their organizational contexts” (Brewster & Larsen, 2000:2-3).

Actually, this interplay is at the core for HRM as defined in this thesis. More specifically, HRM is here defined as an area of management that concerns the management of the relation between people and their organisational context. HRM is therefore seen as a descriptive label for a specific area of management. However, while traditional views of personnel management defined this area to concern the management of employees, the definition of HRM subscribed to here regards the area to concern the management of *relation* between people and the organisation they work in.

Apart from Brewster & Larsen, quoted above, this definition builds on, for example, Beer, *et al.* (1984:1), who refer to HRM as “all management decisions and actions that affect the nature of the relation between the organization and employees – their human resources”. In the following, I will address three important implications that this definition brings, and that make it adequate, particularly for studies of HRM in PBOs. After that, I will provide an overview of the core areas of HRM, as perceived in mainstream HRM literature,

Implications of the definition

As stated, HRM is here defined as an area of management that is directed towards the management of the relation between people and their organisational context. ‘Relation’ in this context refers to a mutual work relation of professional character, in which the individual provides the organisation with labour force, competence, knowledge and experience. In return, the organisation compensates the individual in different ways; with money, career opportunities, challenges, motivation, a nice work environment, personal development, competence development, etc. It is also important to clarify that my definition of HRM rests on the assumption that the main purpose for HRM is to contribute to building a successful organisation comprised of healthy and motivated individuals. This definition of HRM brings three important implications which make it highly relevant for the purposes of this thesis.

Firstly, the organisational context is critical for the relation and thereby also for the management of the relation. The definition rests on the assumption of an active relation between people and their organisational context and logically, both parties in the relation influence the nature of the relation (see also Paauwe, 2004 on contextually based human resource theory). The broad survey of organisational change reported by Whittington *et al.* (1999) suggests that organisations are becoming increasingly decentralised and project-based and the authors argue that “there seemed to be considerable increases in the emphasis put on human resource management to provide the skills and the glue to make the flatter and more

horizontal organizational structures work” (p. 591). As was discussed in previous chapters, the PBO has a number of characteristics that should have an impact on the ways to manage the relation between people and their organisational context. Hence, this definition of HRM is highly adequate for the purposes of this thesis, since it assumes the importance of the organisational context.

Secondly, all the people that contribute to the organisation take part in performing HRM. The definition of Beer, *et al.* (1984) quoted above equates ‘employees’ with ‘human resources’. However, ‘human resources’, defined as “the training, experience, judgement, intelligence, relationships, and insight of individual managers and workers in a firm” (Barney, 1991:101), implies that it refers to the immaterial capital provided by people to an organisation, not to the people themselves. Managing these human resources then becomes basically about managing the interplay between the people that provide the human resources and the organisation that utilises the human resources. This approach seeks to move away from the view of HRM as being delimited to activities that are being carried out by a personnel department or by managers with personnel responsibilities. Recalling the discussion in the first chapter, where individualisation, empowerment, and co-workership are important trends in HRM and working life (see also Tengblad, 2003), it seems more adequate to regard all individuals who contribute to an organisation as partly responsible for managing the ‘human resources’ that they provide. They need to ensure that they possess and develop the competencies that their organisation needs, and maintain efficient relations with the organisation. On the other hand, the individuals also have the power to take their resources and provide them to another organisation that offers better opportunities, so it is very much in the interest of the organisation to manage the relation with the people who can provide what the organisation needs. In other words, this definition opens up for including employees as active participants in managing the human resources instead of regarding them to be passive receivers of HRM practices.

Thirdly, HRM is about managing the relation between the organisation and the people who contribute to the organisation, which might include more than permanent employees. This is an important distinction for the purposes of this thesis, since several studies reveal that organisations that rely on flexible and project-based structures also tend to rely to a greater extent on short-term and flexible employment contracts (e.g., Whitley, 2006; Ekstedt, 2002). The definition of who provides the human resources then becomes central. Whittington *et al.* (1999:587) discuss the ‘changing boundaries’ of organisations and argue that increased competitive pressures force companies

to “focus on ‘core competencies’, redrawing their boundaries around what constitutes or supports their true competitive advantage”. Moreover, they state that “/.../ firms appear to drawing in their boundaries around narrower spheres of activity” (p. 587). However, while the boundaries around permanent employees are narrowed, the boundaries around individuals that in various ways contribute to the organisation are extended. Hence, from the organisation’s perspective, delimiting HRM to concern only the management of the relation to permanent employees is too narrow to capture the management of all human resources contributing the organisation. This seems to be particularly important in flexible organisational forms, such as project-based organisations.

To summarise, the definition of HRM subscribed to in this thesis states that the organisation as well as the people that contribute to it, actively influence, and have a joint responsibility for managing, their mutual relation. Moreover, this relation refers to the relation between the organisation and all individuals contributing with their human resources, not only the permanent employees.

Core areas of HRM

One of the seminal suggestions of the core areas of HRM is the one suggested by Devanna, Fombrun & Tichy (1984). They refer to four generic functions for HRM; selection, appraisal, development and rewards. According to the authors, these functions “are ideally designed to have an impact on performance at both the individual and the organizational levels” (Devanna, *et al.*, 1984:41). In contemporary HRM literature, these functions are still considered to be at the core, but a review of mainstream HRM writings over the past 20 years depicts a more elaborate image of areas that are considered to be key for HRM. In order to get a picture of what HRM researchers concern to be the core areas for HRM, a range of well-cited sources that covers the time period from 1984-2007⁴ was consulted. I listed the HRM processes and activities focused by these researchers and categorised them according to their main functions and purposes. As a result, HRM, as perceived by the HRM field of research, can be described as including five core areas as depicted in Table 1.

⁴ Beer *et al.* (1984), Devanna, Fombrun & Tichy (1984), Hendry & Pettigrew (1992), Mohrman & Lawler (1997), Ulrich (1997), Brewster & Larsen (2000), Redman & Wilkinson (2001), McKenna & Beech (2002), Sisson & Storey (2003), Lengnick-Hall & Lengnick-Hall (2003), Boxall *et al.* (2007)

Managing human resource flows	Selection, recruitment and deployment of human resources. Basically about managing in- and out flows of human resources.
Managing performance	Design of work systems Facilitate knowledge utilisation/sharing/creation. Appraisal and reward systems.
Managing participation and communication	Directed towards the individuals' influence on the organisation's operations. Communication and motivation Relations with trade unions.
Managing and developing competencies	Competence planning, mapping, and development. Careers and career structures.
Managing change	Identifying needs for change and contribute to business strategy development. Facilitating change implementation.

Table 1: Core areas of HRM in mainstream HRM literature

The purpose of this categorisation is to give an overview of what the core areas of practice of HRM are perceived to be, in order to provide a useful starting point for the analysis of the challenges and changes for HRM and people management systems in PBOs. However, it is important to recognise a few issues. Firstly, this overview does not attempt to be all-embracing. There may be several aspects that are not covered by existing literature, particularly in relation to the context of project-based organisations.

Secondly, it is important to recognise that the practices are interrelated. To take one example among many, managing performance is very much related to managing and developing competencies, since appraisal and reward systems are most likely related to careers and competence development. The categorisation should therefore not be perceived an attempt to distinguish different HRM practices from each other, but rather as a way of depicting generic functions for the HRM area of management.

Finally, the core areas of HRM listed above are descriptive, not normative or prescriptive. The categorisation is not meant to determine the importance of the respective areas, nor how they should be performed.

PEOPLE MANAGEMENT SYSTEMS: CONTENT AND STRUCTURE

People management systems refer to *how* HRM is operationalised in an organisation, and the term is in this thesis defined as the system of processes, activities and role structures directed towards managing the relation between people and their organisational context. As stated in the introduction chapter, the people management terminology is based on Wright *et al.* (2001:705), who argue for the use of the term *system* to “turn focus to the importance of understanding the multiple practices that impact employees rather than single practices”, and for the use of the term *people*, rather than HR in order to “expand the relevant practices to those beyond the control of the HR

function”. In the following, I will propose two dimensions of the people management system, namely *content* and *structure*. The content of people management systems refers to the system of HRM processes and activities of an organisation, while the structure of a people management system refers to the role structure of key players that perform HRM in an organisation.

The content of people management systems: processes and activities

Turning back to the core areas of HRM (Table 1), these areas could be performed in a variety of ways. The content of people management structures refers to which processes and activities that an organisation uses to perform HRM. For example, what kind of recruitment and selection processes is used? Which processes and activities are used in the appraisal and reward system? Which processes and activities are critical for the organisation’s competence development system? What kind of career structures is applied? As discussed in previous sections, one approach to HRM is that there is a number of “best practices” or best solutions regarding people management that generally lead to increased success regardless of the organisation’s strategy or structure (e.g., Pfeffer, 1995). However, drawing on the configurational and ‘unique-fit’, approaches to HRM and given the definition subscribed to in this thesis, I suggest that the content of people management systems should depend on factors such as the characteristics of organisational context, of employees and their human resources, and of the employment relationship. Accordingly, this thesis seeks to identify changes in the content of people management systems that constitute efforts to improve the coherence between people management systems and the PBO context.

The structure of people management systems: the HR organisation

The structure of people management systems refer to the role structure of players that are key to the performance of HRM. This is a topic that has not been fully covered in HRM literature, something that seems to reflect a general weakness in HRM research. Even though most HRM researchers and mainstream HRM textbooks generally agree on the important role of for example line managers and general managers in performing HRM, existing HRM research tends to focus on the role of HR specialists and the HR department. The argument seems to be that since HRM is becoming increasingly recognised as central for the competitiveness of a firm, the HR department must change. For example, Lawler (2005:165) uses the term ‘HR’ synonymously to HR department when he argues that “HR can and should add more value to corporations. ... It needs to move beyond performing the many administrative and legally mandated tasks that traditional personnel functions have performed...”

However, the approach to HRM subscribed to in this thesis implies that there are other players that could be (and probably are) critical participants in the people management system. I already mentioned the active role of all individuals who contribute with their human resources in managing the relation to their organisational context. Depending on the character of the organisation, other players might also be crucial. For example, in PBOs, project managers will probably assume a greater responsibility for some of the HRM practices. My point is that the people management systems are organised in different ways and include different key players, depending on the needs of the organisation and the people in it.

Hence, I suggest the analytical distinction of the terms 'HR department' and 'HR organisation'. While the HR organisation refers to the role structure of players that are central in the people management system, the HR department refers to a unit of HR specialists within the organisation. The HR department is a player that might have, but does not necessarily have, an important role in the HR organisation. For example, the Danish hearing-aid company Oticon, studied by Larsen (2002) had no HR department at all when the new purely project-based structures were first implemented. Instead, project team leaders, coaches, and the employees themselves were the central players in performing HRM. This implies that an efficient and well-functioning people management system is not only dependent of an effective HR department, but of an effective HR organisation (this separation is further discussed in Paper II and Paper IV). It is an important distinction for the purposes of this thesis, since the PBO as an organisational context might imply challenges for HRM that would not be captured solely by a study of the HR department.

The initial studies in this thesis demonstrated changes in content as well as in structure of the HR organisations of the studied firms. However, the most prominent changes were related to the HR organisation, and these changes were also in many ways associated with the changes in HRM processes and activities. Hence, particular attention is paid to the changes in HR organisation.

CHANGING ROLES IN THE HR ORGANISATION

My discussions so far have suggested that HRM is an area of management that is directed towards the management of the relation between people and their organisational context. HRM is performed through a people management system that includes a content of HRM processes and activities and a role structure referred to as the HR organisation. Furthermore, I have emphasised the importance of regarding HR specialists/the HR department to be one of

several players in the HR organisation; not the only one and maybe not even the most important one. As described in Chapter 1, there seems to be general trend of decentralising HR responsibilities to line managers, and of downsizing and centralising HR departments. This trend can certainly be questioned concerning its foundation in the specific needs of the organisations. Is it based on the needs to cut costs, or on the needs to improve the quality of the HR organisation and what it delivers? Either way, it definitely changes the division of roles and responsibilities among the players in the HR organisation. In the thesis, I have paid particular attention to the changes in roles of two players in the HR organisation: line managers and HR departments. This choice was made after the two initial studies (Paper I and Paper II), in which these changes were significant and seemed to be closely related to the projectification of the organisations. However, my definition of HRM, which includes all employees as potentially active players in the HR organisation, combined with the trend of individualisation, implies that the role of employees in the HR organisation would also be highly relevant to study. Similarly, future studies of HRM in project-based organisations could particularly address the role of project managers in the HR organisation. The studies presented in this thesis demonstrate the relevance for such studies, but are delimited to the roles of line managers and the HR department.

Line managers: from managing technology to managing people

In this thesis, 'line manager' refers to the management role traditionally responsible for a functional unit which specialises in a specific discipline or area of expertise in an organisation (cf. Clark & Wheelwright, 1992). As mentioned in Chapter 1, one contemporary trend in HRM practice and research is the devolution of HR responsibilities from HR departments to line managers (e.g., Larsen & Brewster, 2003; Cunningham & Hyman, 1999; Thornhill & Saunders, 1998). Responsibilities that were formerly assigned to specialised personnel departments are now said to be devolved to line managers. This development is very much in line with the HRM proponents of the 1980s who argued that HRM is a general management responsibility and cannot be handed over to personnel specialists (e.g., Beer, *et al.*, 1984). More recent research also suggests that increased knowledge intensity and organisational change are important driving forces for this process of devolution. For example, Larsen & Brewster (2003:234) argue:

“Major changes within organisations will influence the allocation of roles in even more fundamental ways. As organisations become more knowledge intensive, dependent on know-how and service, HR

becomes a more critical part of the operation and a more critical role for the immediate manager”

The case study by Thornhill & Saunders (1998) also suggests that the organisational structure might influence the devolution process. In their case, a management buyout and privatisation implied new, flatter, non bureaucratic structures, and a requirement for more flexible employees. After the buyout, the organisation did not have access to the corporate HR department of the former owner and no new HR department was set up. Instead, HR responsibilities were entirely assigned to line managers, who had already started taking on more responsibilities for HRM prior to the buyout.

However, devolution is not without difficulties. Various HRM researchers express a concern that the devolution poses a threat to HR departments. If line managers take over HR responsibilities, what will be the role of HR specialists and HR departments? A number of studies strive to justify HR specialists’ prominent role in organisations. For example, in the case study by Thornhill & Saunders (1998:474), the authors claim that line managers have a limited strategic focus and argue that “The absence of a designated human resource specialist role may therefore be argued to have had a significant negative effect on the organization’s ability to achieve strategic integration in relation to the management of its human resources, with further negative consequences for commitment to the organization, flexibility and quality”. Similarly, Cunningham & Hyman (1999:25) argue that devolution of HR responsibilities to the line makes HR departments vulnerable, but that “the acknowledged shortcomings of line management, particularly with regard to the management of subordinates, may help to confirm a continued presence for personnel as a discrete, if less than strategic, function”.

The studies referred to above do not only express concerns about the possible threat to HR departments; they also articulate concerns about shortcomings of line management with regard to their HR responsibilities. Similarly, Larsen & Brewster (2003) question whether line managers have the time, the ability, or even the wish to take on this responsibility. The case study by Cunningham & Hyman (1999) also suggests that line managers feel frustration at not having sufficient time to deal with HR issues because of the dominance of ‘hard’ objectives, such as output and reducing costs.

Larsen & Brewster (2003) discuss the impact of new organisational forms, such as matrix, network, and project organisations, on the line management’s involvement in performing people management activities. For example, they state that the link between the HR department and the line managers loses relevance in organisations that rely on autonomous teams,

where project managers and the project workers themselves handle recruitment, pay, discipline, and resource allocation. The authors argue that:

”the line manager roles in organisations become increasingly complex because new organisational structures (e.g. virtual and network organisations) have less well-defined line manager roles than the traditional hierarchical, bureaucratic organisation which moulded the line manager role in the first place.” (Larsen & Brewster, 2003:230)

Larsen & Brewster (2003) do not provide any empirical studies of the changes in line management roles in such organisations. Nevertheless, their suggestion is partly supported by project researchers. For example, in the ‘heavyweight team structure’ discussed by Clark & Wheelwright (1992), the line manager is no longer the technical expert, but rather responsible for the competencies going into the project and for the long-term career development of the individual project workers. As discussed earlier, there are a number of project researchers that have highlighted some shortcomings of the cross-functional and temporary character of PBOs. These shortcomings are often related to the abolishment of the functional line as a home base for technological as well as for competence development (e.g., Hobday, 2000; Midler, 1995). The study by Lindkvist (2004) suggests the emergence of “competence networks” with informal leaders, compensating for some of the losses of abolishing the line units and line managers. Accordingly, the role of line managers should take other forms in PBOs than in traditional, functional organisations, and probably will need to deal with long-term HR issues that neither the temporary project manager, nor the project workers themselves can handle.

The design of modern HR departments

The HR department is the player in the HR organisation that has received the most attention in research into HRM. This research reveals a picture of HR departments struggling to find their role and defend their existence (Brockbank, 1999; Jamrog & Overholt, 2004; Torrington & Hall, 1996). Similarly, Berglund (2002) argues that HR professionals in Sweden struggle with gaining legitimacy and have difficulties in establishing themselves as an important profession.

The general trend of HR orientation of the line manager role is definitely closely related to the changing design and role of the HR department. As more HR responsibilities are decentralised to the line, the role of the HR department inevitably changes. The question is what the ‘new role’ for the HR department implies, and how HR specialists should be organised to contribute to a well-functioning HR organisation. There is a large number of

books and articles that make suggestions about how HR departments should change in order to contribute to the success of the firm. The majority of these researchers use the terminology of various 'roles' that HR departments (or HR professionals) need to assume in modern organisations. One of the most cited sources is Ulrich (1997), who suggests that HR professionals should assume the roles of change agent, employee champion, strategic partner and administrative expert to contribute to the firm's success. Other researchers have suggested similar frameworks (e.g., Beatty & Schneier, 1997; Mohrman & Lawler, 1997).

One key problem with these frameworks is, however, that only a limited amount of research within this area is supported by solid empirical evidence. There is one important exception, namely the broad longitudinal study of the development of HRM in 15 British organisations conducted by Storey (1992). Storey identifies patterns in the roles taken by HR departments, and suggests a conceptual framework of 'types of personnel practitioner', based on the two dimensions *strategic vs. tactical* and *interventionary vs. non-interventionary*. Storey (1992) further argues that the strategic and interventionary 'changemaker type' of personnel practitioners in particular, was coherent with the modern HRM model in which personnel responsibilities needed to be 'devolved to the line' and HR specialists should make a proactive and strategic contribution. However, his empirical work showed that this type of HR specialists was very uncommon among the studied firms. Storey does not explicitly analyse the reason for this, but he makes a suggestion:

"It appeared then that the attachment to the traditional paradigm in the mainstream companies had something to do with the characteristic features of these organizations. It was in these large, unionized and proceduralized organizations that for a variety of reasons personnel had remained more attached to the traditional mode." (Storey, 1992:187)

This leads to another shortcoming of the suggested role typologies: they do not consider the possibility that different organisational contexts might require different 'roles' (or at least different emphasis on the roles) for the HR department. Moreover, very few of these scholars discuss how these roles are put into practice. How can you design an HR department that delivers these roles? After having discussed various roles for the HR department, Mohrman & Lawler (1997:161) conclude:

"Clearly one of the most important challenges every human resource function faces is to reinvent its structure and organization so that it

can deliver in the future the kinds of systems and business partnership behaviour that will make its organisation more effective.”

Alternative structures and designs of HR departments is not a well-covered topic in HRM research, but there are some exceptions. One early discussion on the subject was presented in an article that was published in *California Management Review* in 1969, with the title “Reorganize the Personnel Department?” by Stanly L. Sokolik. Sokolik argued that personnel specialists had been too concerned with their own task-specialisation and thereby had failed to meet their obligations to the firm and to the challenges posed by society. He further suggested that:

“...corrective action is needed to enable personnel departments to make the unique contribution which can be theirs. A first step – surely a major one – would be giving them a more viable organization structure. Structure must be clearly attuned to purpose. Unless it is, it cannot be expected that personnel specialists will reach out for more creative programs, let alone respond in such a way as to surmount the increasing pressures which beset them today.” (Sokolik, 1969:44).

His suggestion was to design the personnel department based on personnel segmentation in order to effectively meet the different hygiene and motivation needs (based on Herzberg, 1966) of different segments. The idea was to identify temporary or more permanent subgroups of workers based on a number of dimensions such as type of work, job requirements, and various social factors. This would make it possible for the personnel department to specialise its support to meet to the needs of the different personnel segments. As the segments would change over time, so would also the personnel department need to change and develop. Sokolik argued that this could encourage personnel specialists to continuously modify their structural arrangements to facilitate the work with the personnel segments that are of greatest importance to the current targets of the firm. As interesting as the idea might seem, it did not have much impact on the structure of personnel departments and after this publication, academic interest in this particular subject has been rather limited.

More recent contributions are made by Beer (1997) and Sisson & Storey (2003), who make suggestions about how HR departments can be organised, and what they might develop into. However, they do take organisational contingencies into account in their analysis, even though Sisson & Storey (2003) acknowledge that there such contingencies should be critical for the understanding of what is happening to the HR department.

Ulrich & Brockbank (2005), on the other hand, speak of three generic patterns of HR departmental structure, depending on the strategic business organisation of the firm (single business, unrelated or related diversification, or holding company). According to Ulrich & Brockbank, single businesses tend to have a 'functional HR department': a strong central HR department at the headquarters that designs HR practices which match the needs of the entire business, and HR generalists at the local department-level who apply corporate-wide policies. Holding companies would, according to Ulrich & Brockbank have 'dedicated HR': dedicated HR departments that are embedded in the business units. These dedicated HR departments get tools and support from a central, corporate wide HR department, but they are responsible for designing business-specific HRM. Finally, diversified businesses (that are neither pure single-businesses, nor holding companies) have, according to the authors, developed a model of 'shared-services HR' that is described as a way of balancing centralisation and standardisation with decentralisation and flexibility. Here, the transactional and administrative HR activities are provided through service centres, technology, and/or outsourcing solutions. The transformational and strategic HR activities are delivered by corporate HR professionals, by embedded 'HR partners' that work directly with line managers and business unit teams, by centres of expertise that operate as consulting firms inside the organisation, and by line managers.

These generic patterns are important as descriptions of different HR departmental structures applied in modern companies, and the authors also provide empirical examples of the different types. However, one might question if the strategic business organisation is the most relevant factor for determining which form of HR departmental structure is the most suitable. This approach disregards the structure of work systems within the company and its possible implications for HRM in the organisation. MacDuffie (1995) argues that studies of HRM practices and their relationship with performance tend to rely on measures at the corporate level "far removed from the settings in which many HR practices are implemented" (p.217). Thereby they miss out on context-specific dimensions like work systems and technical systems. I would argue that this argument is relevant also for studies of the role and design of HR departments. Recalling the earlier discussion of HR organisation vs. HR department, it seems reasonable to design the HR department taking into consideration which role it should have in the HR organisation. Moreover, this role should meet the requirements of the organisational context and the people in it. It would therefore be relevant to make focused

studies of HR departments in PBOs in order to explore the relation between its structure and its role in the HR organisation.

Chapter 4

RESEARCH PROCESS AND METHODOLOGY

INTRODUCTION

In this chapter, the methodological choices and the overall research process, which has resulted in the papers presented in the thesis, will be described. The chapter is divided into two main parts. The first part describes the research approach, the overall design of the study, and the methodology used for the reported studies. The second part is devoted to detailed descriptions of the research process, focusing on three main phases that explain and describe how the research has been carried out as well as how the topics of the papers have been generated.

First, however, I will clarify the focus of the research reported in this thesis, since this constitutes the foundation for the aim, and is hence also crucial for the design of the research methodology: *HRM in project-based organisations*. This standpoint singles out that HRM is the primary phenomenon under study, and the PBO is the organisational context in which HRM is studied. This means that the contributions of this research is to be seen as being directed primarily to the HRM field of research and practice, since it seeks to elaborate and improve our understanding of HRM in this

particular setting. However, I argue, the studies presented in this thesis also reveal new aspects of the PBO, through studies that centre on HRM. During the research process, the focus has shifted back and forth between HRM and PBOs in order to explore the relation between the two. This process has contributed to an increased understanding of HRM in project-based organisations, and it has also developed knowledge about aspects of the PBO that, I believe, have been overlooked in previous research. This integration of two fields of research and practice has hence been generative for the development of concepts and theoretical constructs that can be useful within both fields. Concerning the HRM field, the research develops concepts and frameworks that more adequately captures HRM and people management systems in relation to the project-based context. For the PBO field, the concepts and frameworks developed in this thesis provides new possibilities to analyse the project-based organisation by including aspects of HRM.

To start exploring this area I decided to conduct qualitative case studies of projectified organisations, based primarily on interviews with senior managers, project managers, line managers, HR directors, and other HR specialists. In the following sections, the reasons for these decisions will be stated and further explained. First, the qualitative approach taken in this thesis is discussed. Thereafter, I discuss the case study methodology: why this particular method is appropriate, descriptions of the cases, and explanations of the logic behind the selection of cases. After that, the decision to use interviews as a primary source of information and my choice of interviewees is explained. In addition, the interview process will be described and reflected upon.

A QUALITATIVE APPROACH

The basic reason for choosing a qualitative approach springs from the nature of the research aim. First of all, the aim has an explorative character. In order to explore the challenges for HRM in PBOs and the changes in people management systems to make them coherent with the characteristics of the PBO, statistical procedures and mathematical processes of interpretation seem inadequate. As also argued by, e.g., Strauss & Corbin (1998), a qualitative approach is particularly adequate for explorative aims. Secondly, the aim is directed towards increasing the “contextual understanding”, which implies the qualitative assumption that the researcher needs to gain “more or less intimate knowledge of a research setting” (Van Maanen, 1983:10). The thesis seeks to increase our knowledge about complex organisational functioning, including the interaction and integration of activities and role structures, which implies that a qualitative approach is favourable (e.g., Merriam, 1994;

Strauss & Corbin, 1998). Thirdly, in order to explore how HRM is challenged by the PBO setting and how people management systems are changed in response to these changes, the experiences and opinions of the people in the organisations is of great value. According to among others Merriam (1994), this also calls for qualitative studies.

In qualitative research, the role of the researcher cannot, and should not be ignored (Van Maanen, 1983; Strauss & Corbin, 1998). Obviously, my personal interest and preferences have influenced my choice of focus and aim for this thesis, and so it is not surprising that the aim is of a character that rather suggests a qualitative approach. I get intrigued by processes and experiences, rather than by numbers and statistical analysis. My curiosity is driven by trying to discover concepts and relationships in rich descriptions in order to develop existing theories or create new theories, rather than by testing existing theories. Moreover, I find the conduct of qualitative research challenging, interesting and stimulating since it usually involves social interaction with people within the area of study (see also Merriam, 1994). My ambition has been that this research process would not only generate useful contributions to the field of research, but that it would also provide time for reflection and learning for other people involved in the process.

According to Strauss & Corbin (1998), qualitative research often involves and benefits from interaction, discussions and play of ideas within a research team. The research reported in this thesis has been carried out in interaction between individual work and analysis, tight teamwork with my co-author on four of the papers, and research discussions and seminars with other scholars at research conferences and other research environments. This has not only been fruitful for my own creativity and learning process. I would also argue that it strengthens the research reported in the thesis. As Eisenhardt (1989:538) suggests, multiple investigators “enhances the creative potential of the study” and “the convergence of observations from multiple investigators enhances confidence in the findings”. Moreover, the reflections and discussions at research seminars and conferences have given me inspiration and ideas, as well as an opportunity to try out the findings of the papers and get external reviews on the research.

CASE STUDIES TO COVER CONTEXTUAL CONDITIONS

In this type of explorative and qualitative studies, in which the relation between the phenomenon under study and its context is at the fore, the case study methodology is by many considered to be particularly appropriate (Yin, 1994; Flyvbjerg, 2006; Eisenhardt, 1989; Merriam, 1994). In this thesis, a case is defined as the empirical unit that constitutes the context for the study

(Ragin & Becker, 1992). This unit is further considered to be ‘empirically real’, i.e., it is not established in the course of the research process or a consequence of theories (ibid.). In this thesis, the cases are project-based units that are parts of companies that have become increasingly project-based.

Yin (1994:13) describes the case study as an empirical inquiry that “investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident”. Similarly, Eisenhardt (1989:534) states that “the case study is a research strategy which focuses on understanding the dynamics within single settings”. Therefore, Yin argues, as a researcher, “you would use the case study method because you deliberately wanted to cover contextual conditions – believing that they might be highly pertinent to your phenomenon of study” (Yin, 1994:13, see also Flyvbjerg, 2006, for similar discussions). This fits well with the core of the research reported in this thesis: to cover the project-based contextual conditions for HRM in project-based organisations. Moreover, Eisenhardt (1989) also emphasises the usefulness of case studies in explorative studies, stating that it is “most appropriate in the early stages of research on a topic or to provide freshness in perspective to an already researched topic” (p. 548).

The multiple-case study as an ‘umbrella strategy’

The case studies have been guided by the multiple-case study logic as suggested by Eisenhardt (1989; 1991). Eisenhardt’s main argument for multiple-case studies as a powerful means to create theory is that “they permit replication and extension between individual cases” (Eisenhardt, 1991:620). With replication, Eisenhardt means that individual cases can be used for independent corroboration of specific propositions, while extension refers to the use of multiple cases to develop more elaborate theory. The research reported in this thesis is based on, in total, eight case studies. Some of the eight cases are used for replication and some of them are used for extension. Actually, the best way to describe my research strategy is that I have used the multiple-case study as an ‘umbrella strategy’, aimed at achieving the general aim of the thesis. This umbrella strategy however embraces a combination of multiple-, comparative, and single-case studies reported in five of the six papers.

As described in the introduction chapter, the papers also show the chronology of the research process, a process that will be described in detail in later sections. Here, I will describe the various forms of multiple-comparative, and single-case study methodologies used and the basic logic behind my choices. The four case studies in the pre-study (reported in Paper I) are used to allow the findings to be replicated among various cases, as

suggested by Eisenhardt (1989) and Yin (1994). I did not want to delimit the empirical foundation to a single-case study in this initial phase, since that might have caused the findings to be too dependent on the particularities of the specific organisation, reducing the possibilities for generalisation among similar PBOs. On the other hand, with a large number of cases the qualitative studies would lose in richness and depth, which would decrease the possibilities to develop patterns and propositions that would form the basis for the following studies. This called for a relatively limited number of cases. Thus, four case studies were conducted in the initial phase, which gave possibilities to find a reasonable balance between rich descriptions and opportunities for replication.

The pre-study formed an initial empirical foundation concerning the challenges and changes of PBOs, and analysed HRM from various perspectives. This study revealed patterns that I decided to extend the knowledge about by revisiting and enriching two of the case studies; Volvo and AstraZeneca. This comparison of a smaller number of cases allowed for more detailed contextual descriptions, as suggested by Dyer & Wilkins (1991). In their quite severe critique of Eisenhardt's multiple-case study approach, Dyer & Wilkins (1991) argue that multiple-case studies do not allow for deep contextual insights, which is the essence of case study research: "The central issue is whether the researcher is able to understand and describe the context of the social dynamics of the scene in question to such a degree as to make the context intelligible to the reader and to generate theory in relationship to that context" (Dyer & Wilkins, 1991:616). In order to balance the multiple case logic as suggested by Eisenhardt and gain more depth and "rich story-telling" as argued for by Dyer & Wilkins (1991), Paper II is based on a comparative case study of units at Volvo and AstraZeneca, cases that were revisited and enriched after the pre-study. Paper II elaborates on the HRM challenges that were identified in the pre-study, and it also indicates changes in people management systems related to the increased use of project-based work.

The following two papers (Paper III and Paper IV) follow up on findings in Paper II regarding changes in the role structures of the people management system: the changed line management role and the design of HR organisations and HR departments. Hence the cases studies added for these papers are rather used for extension, completing the theoretical picture sketched in earlier papers (Eisenhardt, 1989). In Paper III, a single-case study of a project-based unit at Tetra Pak contributed to a deeper understanding of the emerging HR-oriented line manager role in PBOs. This extends the findings concerning line manager roles in project-based organisations by providing an 'extreme case' (Flyvbjerg, 2006) of an HR-oriented manager role. According

to Flyvbjerg (2006:229) “the extreme case can be well-suited for getting a point across in an especially dramatic way”. In Paper IV on the other hand, studies that had been conducted within my research team of three project-based organisations were used in combination to the five cases I had carried out, in order to accomplish what I would call internal replication. This means that the study aimed at extension in relation to Paper I and II, but for the purposes of Paper IV there was a need for replication among a larger number of cases instead of rich and detailed case studies in order to identify empirical patterns of HR-departmental structures.

Paper V is conceptual and does not include empirical studies. However, the concepts and constructs proposed in Paper V are used for a comparative case study, reported in Paper VI. A unit at Saab (one of the pre-study cases) was revisited and studied in greater detail, and compared with the case study at Tetra Pak that had been partly reported in Paper III. In relation to the multiple case strategy of the thesis, the Saab case is used primarily for extension. The comparison between the two cases allowed for trying out and elaborating on the concepts and conceptual framework proposed in Paper V.

To combine multiple-, comparative, and single-case studies in a thesis based on a compilation of papers might be advantageous for the findings of the thesis since it resembles a form of methodological triangulation (see e.g., Merriam, 1994). Even though the different papers have separate aims, these aims are founded in the overall aim of the thesis. The first four are particularly directed towards the first two parts of the aim, to explore in what ways the PBO challenges HRM and how people management systems are changed to be aligned with the characteristics of PBOs. Paper V and Paper VI focus on the last part of the aim: to develop concepts and theoretical constructs for the understanding and analysis of HRM and people management systems in PBOs. Through the various papers and their divergent case methodologies, the area of focus is highlighted in various ways. The multiple-case study strategy is weak where the single-case study is strong and the other way around. The ambition was to combine multiple-comparative and single-case studies in the thesis, in order to take advantage of the positive aspects of each methodology and balance the negative aspects.

Another aspect of the umbrella strategy is the procedure of ‘revisiting’ cases. This implies that some case studies that were carried out in early stages of the research process are revisited in later stages and brought up again for analysis, in light of new insights. The Saab case is the clearest example of such a strategy. As a qualitative case-study researcher, I have moved between different organisational contexts, and I have gained increased knowledge from each context. Accordingly, I have brought my experience from case studies

conducted at early stages in the process to case studies conducted at later stages in the process, and this has sometimes triggered the interest to revisit cases to further explore and analyse interesting patterns or discrepancies.

THE CASES: KNOWLEDGE-INTENSIVE AND PROJECT-BASED UNITS

As described, the research reported in this thesis is based on four core case studies and four ‘peripheral’ case studies of which three are only used to broaden the empirical foundation in Paper IV. Table 1 displays the companies where the case studies were conducted, the parts of the companies that are in focus for the case studies, and some general information about number of employees and basic type of project operations. The table also displays in which of the six papers the cases have served as the empirical base (a shaded area indicates that the case contributes to the study reported in that paper).

The reason for choosing these cases as the empirical bases for my research is that they are PBOs in which the common characteristics for PBOs, described in chapter 2, are particularly clear. They are knowledge-intensive units with a focus on R&D and complex problem-solving. They operate in temporary cross-functional teams to integrate their knowledge resources in an effective and flexible way. In addition, over the past years, they have increased the use of temporary workers and consultants, making the work force more heterogeneous with regard to employment relations.

Moreover, in the studied organisations, the focus on projects has not always been as strong as today. The four core cases have traditionally carried out more of the core activities in a functional organisation. In other words, they are projectified rather than original PBOs, and they all emphasise the need to improve their project operations. This need is also underlined in the case-study companies. For instance, in strategy documents and business plans, the companies state that projects are a key component of their daily operations and further that they need to develop their capability to carry out projects. Successful project operations are considered to be key in gaining competitive advantage and the companies have spent much time on elaborating on various types of support systems such as project management models and project management training programmes.

As described, the case studies do not cover the entire companies, but rather focus departments or units that are highly dependent on projects in their operations, such as development sites and R&D units (see Table 2). However, the companies are in general moving towards increasingly project-based structures, and the units in focus for the case studies can in that regard be seen as representing the project-based work settings at the case-study companies.

Case companies (No. of employees at the time of the study)	Focus for case study (No. of employees at the time of the study)	Type of projects	Papers					
			I	II	III	IV	V	VI
Core Cases:								
Volvo Car Corporation Car manufacturer 27,500 employees	R&D site 4,000 employees	Product development						
AstraZeneca Pharmaceutical company 64,000 employees	R&D site 2,000 employees	Product development						
Tetra Pak Developer of food processing technology 20,000 employees	Unit for advanced plant design and automation solutions for customer projects 155 employees	Customer projects/product development						
Saab Aerosystems (former Saab Aerospace) Developer of defence, aviation, and space technology 2,000 employees	Unit for R&D and systems development 600 employees	Product/systems development						
Peripheral cases:								
Posten Postal and logistics company 35,700 employees	Product development and organisational development operations 2,000 employees	Product development/organisational development						
Developer of medical systems 370 employees	Unit for product development and sales. 90 employees	Product development/implementation						
Provider of enterprise solutions 2,200 employees	Development site 300 employees	Product/systems development						
Telecom company 50,500 employees	Development site 1,000 employees	Customer projects /product development						

Table 2: Case companies and focus for case studies (shaded areas indicate to which papers the cases contribute)

Core cases

The primary case studies reported in this thesis were conducted at an R&D unit at Volvo Car Corporation, an R&D unit at AstraZeneca, a unit for plant design and automation systems for food processing at Tetra Pak, and a unit for R&D and systems development at Saab Aerosystems. For the sake of simplicity, the cases are referred to as the Volvo case, the AstraZeneca case, the Tetra Pak case, and the Saab case.

These four cases are treated as being the core cases of this thesis for three reasons: Firstly, because these case studies are substantially more deep and rich in detail. Secondly, because they have all contributed to the empirical foundation in at least three of the papers and hence they make up a large part of the total empirical foundation for the thesis. Thirdly, because those are the cases for which I myself have been overall responsible. My co-author has of course participated in the gathering of material in order to get an own image of the core cases and not only rely on my interpretations. He has participated in several of the interviews and management meetings. My co-author could also provide background information and general knowledge about the firms, since they had been part of the research program for several years. However, I have been responsible for gathering the empirical material relevant for the purposes of this thesis. I have also been responsible for processing, structuring and interpreting the material, as well as for case study write-ups. The studies at Volvo and AstraZeneca were carried out in 2003-2004 and the study at Tetra Pak was carried out in 2005. The case study at Saab was carried out in two steps. The first study was carried out in 2002-2003, as part of the pre-study for the thesis project. At that time, the focus for the study was the development unit at Saab Aerospace, a former business unit in the Saab group. In 2003, Saab Aerospace was split in two units and one of them is Saab Aerosystems, which to a great extent consists of the former development unit studied in the first step. The second part of the case study was conducted at a unit for R&D and systems development at Saab Aerosystems in 2007.

Peripheral cases

Apart from the four core cases, four peripheral cases contribute to the empirical foundation of the thesis. The case of Posten (The Swedish Post) was a part of the pre-study, and was interesting for the general research topic because the company had put a lot of effort in increasing and improving its project operations. From being a traditional, functional company with the image of being static and bureaucratic, the company wanted to become more flexible and effective, and it wanted to do it through working more in projects and networks. However, Posten does not fall under the definition of a PBO,

and is therefore not treated as a core case in the thesis. The case study included in Paper I and Paper IV was carried out in 2002-2003.

In the three cases added for Paper IV, the material was gathered and structured mainly by others than myself. These case studies were carried out in 2005. One of the case studies (Provider of Enterprise Solutions) was conducted mainly by my co-author and a research assistant in a related research project. The chief aim of that research concerned 'project competence' rather than HRM in project-based organisations. However, information that specifically concerned HRM was also gathered, and the general material from the case study was overall informative and useful for the purposes of Paper IV. The basic studies of the other two cases were carried out by research assistants within the same research programme as this thesis. The aim of these case studies was to contribute to the knowledge about how project-oriented companies choose to organise their HRM-practice, which makes them highly relevant for the study presented in Paper IV. This means that the case studies *per se* are not superficial. However, as to my involvement in the case studies and to their total contribution to the thesis, they are not among the core cases.

The fact that I have not been fully responsible from the start in these three case studies can obviously be considered to be a weakness in confidence for the material. However, the material needed for that particular study was more of a descriptive character and the case studies were carried out with similar methods as the four core case studies. The main reason for including them was to achieve a broader and more varied empirical foundation, which would allow for distinguishing patterns of HR-departmental structures among the cases. There was rather a need for additional cases in order to replicate the findings among a larger number of cases, than for rich and detailed examples of only a few. Hence, I decided to add these three cases, two of them which already gave good descriptions of the overall organisation, the HR department, the structure of the HR organisation, and the division of responsibilities among line managers, HR department and project managers. In the third case, I conducted an additional interview in order to fill some of the gaps needed for the study.

As is presented in Table 2, these three additional cases are treated anonymously; the company names are not displayed. There are two main reasons for this. Firstly, in one of the case studies, the company has been promised anonymity. Secondly, these three cases are only used in Paper IV, where the empirical foundation is broad rather than deep. In this study it is not of particular relevance to know which specific companies that are involved. It rather aims at giving a broad view of a number of organisational

dimensions central for the HR-departmental structure in project-based organisations. Hence, I have chosen not to display any of the company names in Paper IV. The four core cases are in this paper also anonymised, for reasons of readability.

THE INTERVIEWS: INTERACTIVE LEARNING OPPORTUNITIES

The main source of information for the empirical studies of the cases is interviews with senior managers, project managers, line managers, and HR staff. However, it is not the only source. Between me and my co-author, we had general knowledge about the organisational functioning and recent developments, particularly concerning the core case-companies, due to earlier research projects. Moreover, managers from these firms participated in management training sessions and seminars where similar questions were discussed. In addition, I have studied written documentation such as annual reports, newspaper articles, books written about the companies, company home pages and other types of external information. I have also had access to internal material, such as job postings, presentation material, and other types of internal information. The interviews, on the other hand, focused explicitly on HRM in the studied firms and, therefore, they constitute the main source of information for the thesis.

The interview process is described in more detail in the next section, which describes the research process. Here, I want to clarify 1) why I chose interviews as the main source of information and the logic behind the choice of interviewees, and 2) the choice of conducting open-ended interviews of a conversation character.

Interviews with managers as main source of information

As to the first point, the decision to use interviews as the principal source for data gathering is of course explained by the kind of information needed. One of the main challenges for this research is that it is hard to isolate the relation between the project-based organisational context and HRM. Of course, the challenges that HRM faces in the cases are not only due to the project-based context. There is a large amount of both internal and external factors that influence and serve as driving forces for changes in HRM. By talking to people who work in the organisations, I could get to know about their experiences of, and perspectives on, the challenges brought about by the projectification. I could also get to know about their perceptions of the organisational context. My purpose is of a kind that, as Alvesson (2003:28) states, “call[s] for getting the voices of those targeted for understanding”.

However, as mentioned, the information from the interviews has been completed with additional sources. These sources have been valuable for developing a contextual understanding of the companies, their history and their current developments.

As to the choice of interviewees, I made the decision to focus on the management level. Not because the experiences and perspectives of other employees are not relevant for the purposes of this thesis. On the contrary, the individual perspective is highly interesting and relevant and is therefore worthy of particular attention in future studies. For delimitation reasons, I mainly focus on the organisation's part in the relation between the individuals and their organisational context. The studies included here are therefore based on the experiences and opinions of people in the organisation that have an explicit responsibility for this relation. Of course, these people are not only managers; they are also employees, each with their own individual relation to the organisation. Furthermore, I was interested of including people that had worked some time within the companies among the interviewees, since they could be expected to have knowledge and reflections concerning organisational changes over time. Moreover, many of them have experience from working in different parts of the firms and from various offices. Table 3 summarises the total number of interviews conducted in each core case study and the positions of the interviewees.

Interviews as conversations and steps in the analysis process

The interviews constitute the main source of information, and as such, they were conducted as open-ended interviews of a conversational character. Moreover, they make up important first steps in the analysis process, so they are partly analytical (Kreiner & Mouritsen, 2005). In the following, I will further discuss the interview process, for which these two aspects are important.

The interviews had the character of conversations, in which the interviewees had possibilities to elaborate on what they found most interesting and important. I had a preliminary interview guide, which listed themes to discuss that had been developed from literature studies and pre-studies. However, as Miles & Huberman (1994:35) point out: "If you are running an exploratory, largely descriptive study, you do not really know the parameters or dynamics of a social setting. So heavy instrumentation or closed-ended devices are inappropriate." Hence, my interview guide was not very detailed; it was rather designed to give a basic direction and support to the conversation. My aim for the interviews was to take part of the interviewees' reflections about the project-based organisation, and the challenges and changes with regard to HRM and people management systems

that they perceived. Their perspective on these issues was important for the study, and a pre-designed interview structure could have hampered their own reflections and imposed my own ideas from the beginning (see e.g., Ryen, 2004). Furthermore, as stated by both Ryen (2004) and Miles & Huberman (1994), very elaborated interview questions downplay the importance of the context, which is highly relevant for qualitative studies in general, and case studies in particular (see e.g., Yin, 1994). For the aim of this thesis, the organisational context is of major concern, and allowing the interviewees to reflect openly gave me possibilities to understand the contextual characteristics.

Moreover, the interviews make up an important first step of the analysis. The interviewees were in a way invited to create theoretical constructs together with me. This approach to interviews is discussed by Kreiner & Mortensen (2005), then referred to as 'the analytical interview'. The authors propose a "particular type of interview practice (or interviewing strategy) that emphasizes collaborative analysis and construction of knowledge between an interviewer and a respondent" (p. 153, brackets in original). The discussions by Kreiner & Mortensen reflect in many ways what I have tried to achieve with the interviews, even though the concept analytical interview was not familiar to me when I designed the study. Through my questions, I tested the theoretical 'fragments' that I had started to construct from earlier interviews, or during the same interview. In the discussion with the interviewee I could discard or affirm and in many cases develop these constructs together with the interviewee. As proposed by Kreiner & Mortensen (2005) the aim with the questions in an analytical interview is to "provide an interesting and stimulating beginning to the dialogue", rather than to find the 'final answer' (p 158).

The role of the interviewer in such conversational and analytical interviews is important and complex in several ways. Firstly, to make the interviewees feel comfortable enough to reflect openly puts some pressure on the interviewer to set the stage and create an open and trusting atmosphere. Hence, for example the informal procedures outside the interview have in many cases been of great importance. In some cases, I have gotten more depth in the information given during coffee breaks, or over lunch, which has complemented the information from the formal interview. Each interviewee has also been informed that the interview material will be handled with caution and that they would get the opportunity to approve the quotes I intended to use. Secondly, as discussed by Kreiner & Mortensen (2005), the conversational character suggests that the knowledge and creativity of the interviewer is important for the social exchange and may provide learning

opportunities for the interviewee: “He or she may easily realise new connections and linkages, not necessarily the ones introduced by the interviewer, but ones he or she produces in response to the interviewer’s input and conjectures” (p. 159). Therefore, the ability of a researcher to conduct analytical interviews is dependent on social skills and creativity, on broad knowledge in order to give fruitful input to the interview, and on experience of interviewing. Obviously, this is an ability that develops over time, and it requires both development of knowledge and practice of interview situations. Hence, the analytical level of the interviews in this thesis is probably higher in interviews conducted in later phases of the research process, as I have developed experience and knowledge within the area of study as well as of conducting interviews.

In this type of interview then, it is not merely about one person handing over information to another; it is much more complex than that. Also the role of the interviewees should be taken into account. Alvesson (2003:19) describes the qualitative interview as:

“/.../ complex interaction in which the participants make efforts to produce a particular order, drawing upon cultural knowledge to structure the situation and minimize embarrassments and frustrations, feelings of asymmetrical relations of status and power, and so forth.”

Hence, there is a danger that the interviewees tell what they think that the researcher expects to hear, what they think would give a good image of the company, what they think would make them appear in a good way, etc. As Alvesson (2003) points out, this is not necessarily conscious, but it is still important to be aware of. During the interviews, I have asked follow-up questions that make the interviewees reflect upon what they just told me, in order to get behind the first informative answers.

In previous sections, I have described and discussed my methodological approach, the case study methodology and the cases, and the interview process. In the following sections, I will describe the actual research process, how one thing led to another and my reflections along the way.

<i>Case</i>	<i>Interviews</i>	<i>Additional sources</i>
Volvo	Total no. of interviews: 5 HR managers and specialists (3) Manager at the Technical Project Management Office (2)	External company information material. Internal company presentations and information material. Several master thesis projects with focus on different parts of the company. Email and telephone conversations with the manager at the Technical Project Management Office.
AstraZeneca	Total no. of interviews: 5 HR business partner (1) Manager at the Project Management Support Office (2) Global Project Manager with experience as line manager (1)	External company information material. Internal company presentations and information material. Email and telephone conversations with a global project manager.
Tetra Pak	Total no. of interviews: 7 Managing Director (1) HR director and manager (2) Process Owner/ Coach for the Competence Coaches (1) Competence Coaches, one with experience as project director (3)	External company information material. Internal company presentations and information material. Internal job posings. Written material on company historic and developments (Leander, 1996). Email and telephone conversations with the HR manager. Diary for one week, kept by a competence coach.
Saab	Total no. of interviews: 20 Stage 1 (5): Local HR director and manager (3) Line managers with project management experience (2) Stage 2 (15): Corporate HR director (1) Deputy Unit Manager (1) Local HR director and manager (2) Area and line managers (11)	External company information material. Internal company presentations and information material. Informal discussions with two senior project managers. Participation at two unit management meetings. Master thesis about the unit, authored by the deputy unit manager. Email conversations with the deputy unit manager. Several master thesis projects with focus on different parts of the unit operations.

Table 3: Interviews and additional sources: core cases

THE RESEARCH PROCESS IN THREE PHASES

Given the explorative and qualitative character of the research reported in the thesis, a detailed description of the research process gives the reader possibilities to understand the logic of the studies and to judge the trustworthiness of the results. First of all, I am the first to acknowledge that a research process is anything but a paved highway from idea to results. It is often hard to set a clear direction from the start; the focus and interesting

questions might shift along the research process as you gain new knowledge within the area of study. As have been stated earlier, qualitative research is a learning process, which means that as one learns new things along the way, one might also have to change the direction of research.

My research process, from the first broad research aim to the papers presented in this thesis, can broadly be divided into three phases, where each phase has resulted in two papers and has set the direction for the next phase. I will here go through each of the three phases in order to give an insight into the work process. The description of my process also gives a brief introduction to the empirical findings from the studies in each phase and how these findings formed the basis for the studies in the following phases. The ambition is also to clarify how the concepts and constructs are built up along the way. Table 4 displays the four papers, their aims, the case studies that make up the basis for each study, and the total number of interviews for each study.

Phase I: Exploring HRM in project-based organisations: challenges and changes

The first phase included a pre-study of four cases, which aimed to provide a first set of empirical patterns concerning HRM challenges in PBOs. The pre-study generated results that were followed up in a more in-depth comparative study of two of the pre-study cases.

I chose to start exploring HRM in four cases of projectified organisations; development units at Posten, Saab, AstraZeneca, and Volvo. The pre-study started as a master thesis project which included studies at Posten and Saab Aerospace during the autumn 2002 (Bredin & Forsström, 2003). In order to broaden the empirical foundation and follow up on some of the results from this study, two additional case studies were conducted at R&D units at Volvo and AstraZeneca during summer and fall 2003. In addition, complementary interviews were conducted at Posten and Saab. A first analysis of these case studies is presented in Paper I.

The cases under study are different in several respects, but in all of them, the increased focus on project operations and on changes in support structures is obvious. In all four cases, interviews were conducted with HR directors, HR managers, project managers and line managers (or with experience from these roles), and with managers at support units for the project operations when such units existed. In total, five interviews were conducted at Posten and Saab respectively. The studies at Volvo and AstraZeneca were launched at a later stage, and the number of interviews for the pre-study in each of these cases was three and four respectively. The fairly limited number of interviews at

each company can be seen as a weakness with the pre-study; a larger number of interviews might have contributed to more complete, detailed, and trustworthy descriptions of the PBOs. This was a way to start exploring the area, balancing the number of cases with rich descriptions. However, as mentioned previously, all four companies have participated in previous research projects, so within the research team we had a fairly large amount of material and knowledge on general management and organisational aspects of the firms. The interviews that I refer to here focused specifically on HRM and the perceptions of which changes and challenges the projectification had implied for this dimension of management. Furthermore, the interviewees in both cases had long experience from various positions within their respective firms. Hence they had a deep general knowledge about their organisation and its development as well as insights from their current positions, HR specialists and other management positions. Moreover, in all four cases, I also studied external and internal information material, annual reports, internal reports, etc.

The interviews lasted on average two hours. All the interviews were recorded and transcribed and the transcriptions were then used, together with internal and external information material from the companies, for the first step of analysis. I analysed one company at a time, making within-case analysis and detailed case study write-ups as suggested by Eisenhardt (1989). As Eisenhardt puts it, the overall idea with this process was to:

“...become intimately familiar with each case as a stand-alone entity. This process allows the unique patterns of each case to emerge before investigators push to generalize patterns across cases. In addition, it gives investigators a rich familiarity with each case which, in turn, accelerates cross case comparison.” (p. 540)

The case study write-ups were presented to the interviewees in order to make sure that there were no errors regarding numbers and facts and to sort out possible misunderstandings. The write-ups also lay the foundation for the case descriptions included in Paper I.⁵ The cross case analysis mainly involved looking for replicating patterns in the four cases. The patterns revealed four overall themes of inquiry that seemed to be central for the challenges facing HRM in the studied cases: *competence*, *trust*, *change* and *individuals*. In Paper I, these themes are developed into an analytical framework of four perspectives for the analysis of HRM in projectified firms. This analytical

⁵ One of the downsides with writing papers is the limited amount of space for interesting and rich case descriptions. More extensive versions of these four case studies (in Swedish) can be found in Söderlund & Bredin (2005).

framework is one of the most important contributions of Paper I alone. However, for this thesis, it is rather the empirical patterns *per se*, and the results from analysing the cases from the four suggested perspectives, that are used to guide the direction and focus of Paper II. The analysis suggested a set of overall challenges for HRM concerning for example competence development, role structures, management roles, identifying needs for changes in competence and organisation, careers for project workers, matching individuals' competence with future projects etc. After the pre-study, the cases of AstraZeneca and Volvo were chosen for a comparative analysis in order to further explore HRM challenges on a more detailed and operative level and follow up on some of the patterns. Also, as explained in earlier sections, revisiting cases, and reducing the number of cases would enhance the possibilities to accomplish richer case studies for the thesis in general.

The cases of AstraZeneca and Volvo were especially interesting to revisit for two reasons. Firstly, they seemed to face similar challenges, but they also seemed to tackle these challenges in slightly different ways. Secondly, the R&D units studied at Volvo and AstraZeneca appeared to be the cases with the strongest emphasis on the development of project structures. In fact, in this particular study, we refer to a '*project intensification process*' including 1) what I in this thesis refer to as projectification (increased use of project-based structures) and 2) the shortening of lead times, compressing the work in projects, forcing the firm to restructure its project operations.

Hence, during the spring 2004, I went through the interview transcriptions and the case write-ups of these two cases over again in order to create a picture of each firm, this time focusing on the people management systems. How was it organised? How was the work in line and projects respectively organised? Which were the central players taking responsibility for HR issues? What changes had been done to meet the challenges of the intensification of project operations?

Much of these issues had been covered in earlier interviews and this information now became the centre of attention for my within-case analysis. In order to fill in some gaps in the case studies and to get an opportunity to discuss these issues explicitly, I conducted follow-up interviews at both firms. At AstraZeneca, I interviewed a manager at the Project Management Support Office at the R&D unit. At Volvo, I conducted a second interview with a manager at the Technical Project Management Office and with an HR manager. These interviews had the same character as the interviews in the first phase and they were also recorded and transcribed.

The comparative analysis, which mirrored the Volvo and AstraZeneca cases with each other, revealed patterns concerning the effects on people management systems. In Paper II, these effects are proposed to involve structural effects on the HR organisation and content effects on the HRM practices. As to structural effects, the HR departments seemed to have problems finding their role in relation to other players in the HR organisation in the project-based context. The HR departments in both cases had been restructured, however, not following the same logic. Furthermore, the responsibilities within the HR organisation were going through a transition where line managers were assuming increased HR responsibilities and leaving much of their former technical responsibilities to project workers and project teams.

As to the content effects regarding HRM practices, the analysis of the cases revealed five areas where the projectification had implied the most significant effects. However, the majority of these areas were in one way or another linked to a transformation of the line management role towards being more HR oriented.

Through the analysis of structural and content effects, Paper II alone contributes with identifying five areas within the people management system where special attention is needed due to projectification. The paper also suggests two logics for HR specialists in the HR organisation, contributing to the knowledge about the design and structure of the HR organisation and the HR department, and brings attention to the significance of the balance between the line managers' task vs. HR orientation. Moreover, the findings indicated two relevant subjects for further investigation: 1) The transformation of the traditional functional specialist line manager into somewhat of an HR agent, a purely HR-oriented role. 2) The structure and design of HR departments in order to efficiently support a PBO.

Phase II: Exploring the design of people management systems for PBOs

The second phase implied building on the findings from phase I, in order to further explore two changes in the people management systems that seemed to be closely interrelated with the project organisation: the transformation of line management roles, and the structure and design of HR organisations and HR departments.

For some time I had been thinking about the value of adding a single-case study to my thesis project. As reflected upon earlier, this would create a form of methodological triangulation, balancing the possible weaknesses concerning depth and richness inherent in multiple-case studies. During literature studies and in discussions with colleagues, Tetra Pak had emerged as

a possible candidate. Similar to the other cases, Tetra Pak is a traditional Swedish company, highly dependent on R&D and product development projects. The case study by Lindkvist (2004) of an R&D unit at Tetra Pak that transformed into a strongly project-based organisation illustrated a case where functional units had been abolished and changed into “competence networks” with no formal managers. This strengthened my conception of the transformation of the line manager role as being tightly linked to projectification. The case also underlined the need for someone to assume HR responsibility for the competence networks, such as securing the development of deep enough competencies. Hence, the study presented in Paper III deals with the role of line managers in project-based organisations concerning HRM.

Already in my first contacts with the firm, Tetra Pak seemed to be an interesting company. The global HR director at Tetra Pak told me that one of the most project-based units recently had been restructured. The line units had been abolished and the line management role had been replaced with so-called ‘competence coaches’. This seemed like a good opportunity for making a single-case study of a highly interesting context, which replicates the findings from previous studies (that projectification promotes an increased HR orientation of line managers) and which in addition extends the constructs of the HR-oriented manager in PBOs. The Tetra Pak case was therefore chosen based on ‘strategic sampling’ (Flyvbjerg, 2006).

In total, seven interviews were conducted for the Tetra Pak study during fall 2004 and spring 2005 (see Table 3). In this case, we decided that both my co-author and I should participate on all interviews. In that way, we could complement each other during the interviews, making sure that we got the most possible out of the discussion. Combining our experience and knowledge within to some extent different fields enhanced our possibilities to achieve analytical interviews as discussed previously in this chapter (cf. Kreiner & Mouritsen, 2005). Also, after the interviews, our experiences and impressions from the interviews could complement each other, and thereby enhance confidence in the empirical foundation (Eisenhardt, 1989). Moreover, I studied internal and external information concerning the unit in focus for the case study as well as the global company (e.g., Leander, 1996). I also asked one of the competence coaches to keep a diary for one week, in order to get a direct insight in the daily work of a competence coach. In Paper III, much of the contribution lies within the case description, which in itself increases our understanding of a pure HR-oriented management role in a PBO. However, for the sake of the research process of the thesis, the case study also broadens

the empirical patterns concerning HRM challenges and changes in people management systems.

The second finding from the first phase of the research process concerned the structure and design of the HR department. What different types of HR-departmental structures can be found in the cases? Is it possible to see any patterns that could suggest logics behind the choice of HR-departmental structure in relation to the project-based setting it is supposed to support? Those questions had followed my work for some time. As a matter of fact, the initial work with this study started already after Paper I and an early version of Paper IV was presented at an HRM conference in spring 2004 (Bredin & Söderlund, 2004). At that stage, the study was based on the four initial case studies of Posten, Saab, Volvo, and AstraZeneca, and the initial aim was to further explore the HR organisations of the firms. However, the findings from Paper II, combined with discussions at the conference and important comments from anonymous reviewers of a journal, led to the decision to focus on HR departments and their structure. However, in order to distinguish patterns in HR-departmental structures and compare these across PBOs, a broader and more varying empirical foundation was needed.

At this stage, I had conducted one additional case study that could be included, namely the Tetra Pak study. I also had access to the material from three case studies of PBOs conducted by my co-author and research assistants. I decided to add those three cases and started with getting to know them intimately by reading the case material that was available to me. In two of the cases, I studied the case study write-ups and I also conducted a follow-up interview with an employee at one of the companies in order to fill the gaps concerning some basic organisational information. In the third case I mainly studied the interview transcriptions.

In this study, given the increased number of cases, I chose a more structured cross-case analysis method. Based on the findings of previous studies, a number of parameters were chosen across which the cases could be compared. The dimensions were: 1) the HR-departmental structure, 2) work organisation, and 3) the HR organisation, i.e. the roles and responsibilities of line managers, project managers and HR departments. This analysis led to a categorisation of the cases, based on the structure of their HR department. Each category could then be analysed by looking for within-group similarities and intergroup differences (Eisenhardt, 1989). Based on the analysis of the categories, we make four propositions concerning the relation between the roles of key players in the HR organisation, work organisation, and HR departmental structures.

Phase III: Developing concepts and theoretical constructs

The research conducted in the first two phases had suggested particular challenges for HRM in PBOs, and the case studies also provided insights into how these were related to the salient characteristics of the PBO context. In many ways, the results demonstrated how the studied organisations, due to their increased project-orientation, made efforts to improve their ways of handling the long-term processes and the permanent organisational context, as the temporary projects became core units for the firm's operations. The permanent organisational context did not get less important, but the organisations needed to find new approaches to it. In the interplay between reading and making sense of the empirical data, it started to become clear to me that the changes could be interpreted as attempts of the organisations under study to learn how to perform HRM in a project-based setting. They needed to become more capable of handling the challenges generated by the PBO characteristics.

Obviously, the research process included literature studies within the areas that emerged as relevant. At this stage, the analysis was inspired by recent research into project-based organisations, and that argues for the usefulness of organisational capabilities frameworks in order to explain how project-based organisations build the capabilities required to generate and execute successful projects over time (Davies & Brady, 2000; Brady & Davies, 2004; Davies & Hobday, 2005; Söderlund, 2005). This capabilities perspective on PBOs has had a large impact within the research field of project-based organising, and it contributes to the understanding of what constitutes the 'permanent' feature in an otherwise flexible, adhocratic organisation. This perspective hence provided me with tools and concepts that helped me make sense of my findings. The change efforts observed in the studied organisations could be interpreted as attempts to improve their capability to manage human resources in a project-based organisational context. Moreover, these changes were not only explicit management decisions, but also implicit changes in approaches, ways of thinking, and everyday work.

Turning to the HRM literature, I found inspiration in a number of researchers that have discussed HRM as important for supporting organisational capabilities (e.g., De Saá-Pérez & García-Falcón, 2002; Lado & Wilson, 1994). The most explicit attempt to actually include HRM in frameworks of organisational capabilities is perhaps made by Kamoche (1996:216), who argues that "Human resource policies and practices must be seen not merely as administrative procedures for managing human resource flows, but as the behavioural patterns that underpin the HR capabilities". The capabilities perspective on PBOs, in combination with the ideas of Kamoche,

provided a new perspective and an inspiration for how to conceptualise the findings and elaborate on a theoretical framework that could be useful for the analysis of HRM in PBOs. The findings of the research at this stage could extend the existing frameworks for organisational capabilities of PBOs to include ‘people capability’ – the organisational capability to manage the relation between people and their organisational context.

The research process at this stage involved revisiting the previous case studies and findings and returning to the research that includes observations concerning HRM in project-based organisations. These readings were now made with a capabilities perspective on PBOs in order to find patterns in which activities that are core for a people management system that builds people capability of PBOs. During the research process, I had stayed in contact with a top manager at Saab Aerosystems, and the changes that the organisation was going through seemed highly relevant to study from a capabilities perspective, focusing on HRM. I therefore returned to Saab in spring 2007. The idea was to centre on the people management system embedded in the work systems, close to the co-workers. Hence most of the interviews were conducted with line managers. In addition, I interviewed the deputy unit manager, area managers, and HR managers. I also participated in two department management meetings. On the first meeting, I introduced my ideas in order to make an input to a discussion and fruitful dialogue on the meeting. On the second meeting, I presented a first interpretation of the case study, and in that way, I tested my constructs. The result of this work is reported in Paper V and Paper VI.

Paper V is a conceptual paper, in which the concept of ‘people capability’ and a conceptual framework for people capability in PBOs are proposed. This implies that Paper V *per se* does not explicitly draw on empirical findings. However, acknowledging the paper as part of the research process of this thesis, the suggested concept and framework build on an interaction between (1) the aggregation of the empirical findings and results from previous papers, (2) research that has made observations in relation to HRM in project-based organisations, and (3) research into organisational capabilities of project-based organisations. In Paper VI, the case study at Tetra Pak is revisited for a new reading and interpretation, and the framework proposed in Paper V is applied to compare the efforts to build people capability in the cases of Tetra Pak and Saab.

Table 4 displays the six papers, their aims, and the empirical studies they draw on, and the main contributions of each paper.

<i>Aim</i>	<i>Type of study</i>	<i>Interviews</i>	<i>Main contributions</i>
Paper I: Perspectives on Human Resource Management: An explorative study of the consequences of projectification in four firms.			
To describe and analyse the changes and challenges facing HRM in projectified firms.	<i>Multiple-case study</i> Posten AstraZeneca Saab Aerospace Volvo Car Corporation	17	Analytical four-perspective framework: Competence, Trust, Change, Individual
Paper II: HRM and project intensification in R&D based companies: A study of Volvo Car Corporation and AstraZeneca.			
To examine the effects of project intensification on HRM practices in two R&D based units.	<i>Comparative case study</i> AstraZeneca Volvo Car Corporation	10	Structural and content effects. Logics for HR specialists. Line management roles.
Paper III: Reconceptualising line management in project-based organisations: the case of competence coaches at Tetra Pak			
To analyse HR devolution from HR departments to line managers, focusing on the changes in line management roles in project-based organisations.	<i>Single-case study</i> Tetra Pak	7	Four challenges related to HRM in PBOs, related to the line management role. Argues for a new approach to line management in PBOs, which includes line managers in the HR organisation.
Paper IV: Fit for purpose? HR organisation and configurations of HR departments in project-based organisations			
To analyse and discuss different forms of HR organisation and HR-departmental structures in project-based organisations.	<i>Multiple-case study</i> Eight cases of project-based organisations.	27 own interviews, plus interviews conducted by others in three of the case studies.	Categories of HR-departmental structures. Propositions concerning the relation between work organisation, line managers' role in HR organisation, and HR-departmental structures.
Paper V: People capability of project-based organisations: a conceptual framework			
To extend existing frameworks of organisational capabilities in project-based organisations for the analysis of HRM in such organisations.	A conceptual paper that integrates the research fields of HRM and project-based organising by drawing on a capabilities perspective on project-based organisations.		The concept of people capability. Proposes a conceptual framework of people capability in project-based organisations.
Paper VI: Developing people capability of project-based organisations: a study of the change of HRM in two engineering-intensive firms.			
To analyse and discuss the changes of HRM in two PBOs based on the conceptual framework of people capability.	<i>Comparative case study</i> Tetra Pak Saab Aerosystems	27	Indicates similarities and variations in the development of people capability. Discusses the impact of the type of projects and the design of work organisation on this development.

Table 4: Papers, empirical studies, and main contributions

Chapter 5

SUMMARY OF THE PAPERS

INTRODUCTION

In this chapter, the six papers and their main contributions are summarised. The summary has four primary functions. Firstly, it provides an overview of the studies reported in the different papers, as well as of the individual contributions of each paper. Secondly, it gives the reader the possibilities to, in a more direct way, see the chronological logic described in the research process in the previous chapter. Third, it provides comments about the division of responsibilities and my role with regards to the papers that are co-authored. Fourth, the summary gives a starting point for the concluding synthesis in the next chapter, which will integrate and elaborate upon the findings of the papers. All the papers are included in their complete versions in Part II.

PAPER I

Perspectives on Human Resource Management: An explorative study of the consequences of projectification in four firms

Bredin, K., & Söderlund, J. (2006), International Journal of Human Resources Development and Management, Vol. 6, No. 1: 92-113.

This paper zeros in on the challenges facing HRM in four companies that are increasingly operating in project-based structures. The paper addresses the following questions: How has HRM changed due to the increasing projectification observed in the firms under study? What are the major challenges to the HRM practice observed in the case studies? In the paper, a four-perspective model is suggested for the analysis of the identified changes of, and challenges for, current HRM practice. The perspectives include competence, trust, change and individuals. Based on these perspectives, we identify some key questions for HRM and suggest an analytical framework for the analysis of the change of HRM and the new roles of HRM given the increased projectification observed in the case-study companies.

Comment: For the purposes of the thesis, Paper I is regarded as a pre-study. My core responsibility was to conduct the case studies, make case write-ups, and a first-level analysis. My co-author had the main responsibility for the core analysis and the main conclusions, even though these were developed in discussions between the two of us. Hence, the analytical framework of perspectives suggested in this paper is not seen as core findings for this thesis. The study as such should rather be regarded as an important pre-study, which indicated central areas to be focused in the thesis work.

PAPER II

HRM and project intensification in R&D-based companies: a study of Volvo Car Corporation and AstraZeneca

Bredin, K., & Söderlund, J. (2006):R&D Management, Vol. 36, No. 5: 467-485.

The main focus of this paper is to analyse the relationship between the project operations of the R&D-based firm and Human Resource Management (HRM). The paper draws on a comparative case study of AstraZeneca and Volvo Car Corporation. It is argued that the project intensification currently under way

has some important structural and content effects on the HRM practice of the firms. As to the content effects, we identify five critical areas within the HRM practice where special attention is needed due to project intensification. As to the structural effects, we identify two separate logics for HR specialists: the HR-based logic and the task-based logic. These logics give new knowledge about the design of the HR organisation and how the HR departmental structures should be adapted in a project-intensive setting. The case studies also illustrate three alternative roles for line managers when they assume increased HR responsibility.

Comment: In this paper, I had the main responsibility for the case studies, for analysing the empirical material, and for outlining the fundamental ideas for the analysis. I also had the main responsibility for the analysis, but it was conducted and developed in close discussions and cooperation between the two authors.

PAPER III

Reconceptualising line management in project-based organisations: The case of competence coaches at Tetra Pak

Bredin, K., & Söderlund, J. (2007). Personnel Review, Vol. 36, No. 5: 815-833.

The aim of this paper is to analyse HR devolution from HR departments to the line. Two important problems are addressed. The first problem concerns the disregard for the changes in line management that comes with HR devolution. The second problem addressed deals with the lack of studies of organisational contingencies. The paper presents and analyses an in-depth case study of a radically projected firm within the Tetra Park group where a new HR-oriented management role has been created to replace the traditional line management role. Based on the case-study findings, the paper elaborates on the new approach to line management and how a new management role is moulded in the context of project-based organisations. Based on literature studies, the paper identifies four key challenges for HRM in project-based organisations that are critical for the development of the new approach to line management in such settings. Based on case study observations, it analyses the creation of a new management role – the so called “competence coach” – in project-based organisation within the Tetra Pak group. It argues that the new approach adopted demonstrates the need for breaking out of traditional conceptions of line management, and of developing the concept of an HR-

oriented management role that is a legitimate player in the HR organisation of a firm. The paper provides a rich case description of a project-based firm in a HRM perspective. The descriptions and the analysis give practical, as well as theoretical, implications of HRM issues that arise in project-based firms, and of changes in line management as a way of developing the capabilities to handle these issues.

Comment: In this paper, both authors participated equally in conducting the case study. I had then the responsibility for transcription, case-study write-up and analysis, even if this was made in discussions with my co-author. I also had the main responsibility for writing the actual paper. My co-author made important contributions in the final steps of analysis and conclusions in order to improve and clarify certain parts.

PAPER IV

Fit for purpose: HR organisation and configurations of HR departments in project-based organisations

Bredin, K., & Söderlund, J. (2008). Under review.

This paper centres on the HR organisations of project-based organisations, and particular attention is paid to the role and structure of HR departments. The empirical material is built on a multiple-case study at eight firms that are increasingly relying on project-based structures. The paper draws on research that indicates that project-based organising has important implications for how HRM is performed and the roles of the key players that perform HRM. In response to these findings, this paper seeks to contribute to our understanding of the way that project-based organisations design their HR organisations and how the HR department is structured. The paper makes three main contributions: 1) it suggests a conceptual separation between HR organisation and HR departments to better comprehend the challenges facing HRM in project-based firms, 2) it identifies different configurations of HR departments to improve the comparative possibilities between firms, and 3) it offers avenues for future research by highlighting important contingency parameters for the analysis of HR organisation and HR-departmental structure in project-based organisations.

Comment: In this paper, I was mainly responsible for five of the case studies, while my co-author was actively involved in the other three case studies. I

had the main responsibility for conducting the multiple-case analysis, and write a first draft of analysis and conclusions. The analysis and paper-writing activities have then been performed in a step-wise interplay between the two authors.

PAPER V

People capability of project-based organisations: a conceptual framework

Bredin, K. (2008): International Journal of Project Management, forthcoming.

This paper develops a conceptual framework intended to increase the understanding of human resource management (HRM) in project-based organisations. Drawing on the capabilities perspective on project-based organisations, it makes two main contributions. Firstly, it proposes the concept of ‘people capability’ to broaden the conceptualisation of HRM in project-based organisations. Secondly, building on the framework proposed by Davies & Brady (2000, see also; Brady & Davies, 2004; Davies & Hobday, 2005; Söderlund, 2005), an extended conceptual framework for people capability of project-based organisations is suggested. In this framework, people management systems are perceived to be the expression of an integration of people capability with strategic, functional and project capabilities. Based on this framework, three sets of activities for the people management system in project-based organisations are identified. Finally, the paper discusses possible avenues for future research within the area of organisational capabilities of project-based organisations.

PAPER VI

Developing people capability of project-based organisations: A study of the change of HRM in two engineering-intensive firms

Bredin, K. (2008). Revised version of paper presented at the IRNOP VIII Project Research Conference, Brighton, UK. Under review.

This paper contributes to the research into HRM in project-based organisations. Drawing on a capabilities perspective on project-based organisations, the paper elaborates on a conceptual framework for people capability of project-based organisations. This framework is used for a

comparative analysis of the efforts of two engineering-intensive and project-based organisations to change their people management systems in order to improve their people capability. The comparison demonstrates important activities that the firms undertake to improve their people capability, and it also indicates similarities and differences that are discussed based on the framework. Finally, the paper discusses suggestions for future research.

Chapter 6

CONCLUDING SYNTHESIS: CHALLENGES, CHANGES, AND CAPABILITIES

INTRODUCTION

In this final chapter of the extended summary, the contributions of my research will be presented and synthesised. The findings of the six papers are integrated and developed further, in order to make contributions that go beyond those of each paper. Following the three parts of the aim, the chapter is divided into three main sections, starting with the findings on the challenges for HRM in project-based organisations. Here, the main challenges identified are presented and elaborated upon. Moreover, the challenges are discussed in relation to the salient characteristics of project-based organisations to improve our knowledge about how these characteristics create the observed HRM challenges.

Thereafter, the findings concerning changes in people management systems will be discussed. Main changes in the content and structure of people management systems are described, and particular attention is paid to

changes in the HR organisation concerning the roles of line managers and HR departments.

Finally, the third main section introduces the concept of people capability and the conceptual framework for people capability in project-based organisations. Furthermore, the section discusses how the findings concerning challenges for HRM and changes in people management systems are conceptualised in the proposed framework. The chapter ends with concluding remarks and suggestions for future research.

CHALLENGES FOR HRM IN PROJECT-BASED ORGANISATIONS

The first part of the aim is to explore the challenges for HRM in project-based organisations. As mentioned, this part of the aim is more specifically addressed in Paper I and Paper II. However, in this concluding synthesis, the discussions will include observations made in Paper III and Paper VI, since the single- and comparative case studies of these papers provide more details concerning the HRM challenges in project-based organisations.

The challenges identified in this thesis, in many ways support observations in previous studies of PBOs regarding long-term competence development (Hobday, 2000; Midler, 1995), career structures and performance measurements (Larsen, 2002; Midler, 1995; Allen & Katz, 1995), staffing and resource allocation (Clark & Wheelwright, 1992; Engwall & Jerbrant, 2003), and the work situation of individuals in project-based contexts (Packendorff, 2002; Zika-Viktorsson, *et al.*, 2006). However, while many of the earlier studies point out the existence of such challenges, the research reported here provides empirical patterns of the main challenges and also an enhanced understanding of how these challenges relate to the salient characteristics of the PBO. Accordingly, the challenges are here discussed in the light of the characteristics of the PBO presented in Chapter 2: knowledge intensity, cross-functionality, temporality, tension between permanent and temporary systems and logics, and heterogeneity in employment relations.

Competence-, performance- and individual-related challenges

The research reported in this thesis indicates three areas of HRM challenges: (1) *Managing and developing competencies*: competence planning, competence development, career structures, (2) *Managing performance*: effective integration of competencies in project teams and performance-review systems, and, (3) *Managing individual participation*: project workers' influence and responsibilities, work situation and well-being.

These three areas correspond to three of the core areas of HRM described in Chapter 3: *managing performance, managing participation and*

communication, and *managing and developing competencies*. For two primary reasons that will be further explained below, the remaining two areas: *managing change* and *managing human resource flows*, are here not seen as areas that in themselves face important challenges due to the PBO context.

Firstly, the area of managing change concerns identifying needs for change and facilitating change implementation. The research reported here does not indicate this to be an HRM area that faces important challenges of its own because of the PBO context. However, in Paper I, the ‘change perspective’ is suggested as core for understanding the challenges for HRM in PBOs. This means that a perspective that centres on change is important since it emphasises that HRM and people management systems need to be integrated in the organisation’s change processes. In Paper I, an analysis from this perspective highlights certain challenges which call for special efforts regarding, for example, managing competencies and managing performance.

Secondly, I regard the area of managing human resource flows to be directly linked to a key characteristic of PBOs: the heterogeneity of employment relations. Drawing on Ekstedt (2002) and Whitley (2006), I have suggested that the group of people that are employed by the PBO consist of a core group of permanent employees, but also of a significant number of more temporary employees such as consultants, self-employed professionals and others with temporary contracts. This is hence considered to be a characteristic of how PBOs manage human resource flows in order to meet the demands of flexibility, rather than a challenge for the area. This characteristic, in turn, is involved in creating competence-, performance-, and individual-related challenges.

Competence-related challenges: competence development, career structures, and retaining knowledge

As pointed out in Chapter 1, there is a general trend to focus on the competence of employees in contemporary business environments, not only in PBOs. In all four cases analysed in Paper I and Paper II, the companies emphasise issues of how to handle the building of strategic competencies, competence tracking, competence development, etc. The case studies suggest that this general trend is brought to its head in PBOs due to the increased knowledge intensity in combination with the tension between permanent and temporary systems and logics. The knowledge intensity puts a great emphasis on the importance of attaining and developing the competencies needed in current and future projects. The tension between permanent and temporary systems and logics highlights the need to balance the short-term competence needs of the projects with the long-term development of strategic

competencies for the PBO. At the same time, the increased temporality and cross-functionality of the projectified organisations under study complicate these processes since they create a more intensive and dispersed organisation where competencies are difficult to track and monitor. The case studies reported in this thesis suggest primarily three competence-related challenges.

The first challenge concerns how to manage long-term competence development within a project-based organisation. The case studies suggest that the high work intensity in the organisations made it hard to find the time for formal competence development and training. The increased temporality has put a greater emphasis on deadlines and time limits, project workers often rush from one project to another, and project plans and deadlines are often changed. Even if there is a large number of competence-development programs available, it is difficult to plan for and follow through such programs, since project deadlines are usually prioritised over long-term development plans. The case studies indicate that project workers often have very tight schedules with hardly any space between the projects. This is also recognised in the case study presented in Hobday (2000), in which the high pressured work environment in projects caused a lack of time, as well as of incentives, for training and development (see also Lindgren, *et al.*, 2001). In several of my studies, line managers refer to the never-ending 'puzzle-solving' to provide the right competencies to the projects on the short term, while at the same time try to make the project participation fit with each project member's competence development needs. Accordingly, I suggest that the temporality is a characteristic that helps to explain the challenge of managing long-term competence development in the studied organisations. In addition, the cases show that the increased cross-functionality weakens the former affiliation to a line unit and hence tends to fragmentise disciplinary communities where much of the deep disciplinary competencies are developed in cooperation among the specialists. For example, in the Volvo case, the creation of cross-functional teams as the basic work units instead of line departments led to a loss in depth of specialist competencies. This organisational form was therefore abandoned to strengthen the project workers' affiliation to disciplinary-based line units.

A second competence-related challenge has to do with adequate career structures. In a PBO, the work is performed in projects, but the employment relation is primarily tied to the permanent organisation and goes beyond the individual project. This implies that employees in a PBO build their careers on a series of projects. The case-study organisations in this thesis are all projectified organisations. In other words, they have gone from functionally-oriented structures to project-oriented structures. Traditional career paths are

challenged since these, in most of the cases, have been designed as a one-road career path, aiming at higher levels of general management positions within the permanent organisational dimension. The increased cross-functionality and temporality has created needs for career paths for the management of the cross-functional integration of competencies and the focus on deadlines (project management). Moreover, the increased knowledge intensity in combination with the increased cross-functionality requires highly competent project workers that can defend their disciplinary competencies in a cross-functional project team. However, the existing career paths as line managers or project managers both involve leaving some of the disciplinary expertise behind.

A third competence-related challenge concerns reassuring the access to strategic competencies in the long run, while maintaining work-force flexibility. This is obviously a challenge that most modern firms have to deal with. However, the knowledge intensity, which emphasises employee competence, in combination with the tension between permanent and temporary systems and logics, which incorporates the conflicting needs of flexibility and long-term development, put the spotlight on this issue. The heterogeneity in employment relations that comes with the efforts to increase work-force flexibility is hence a solution, but also a complicating circumstance.

In all the studied organisations, external consultants are becoming a common feature of the project teams. On the one hand, the use of temporary employees increases the work-force flexibility of the organisation (see e.g., Handy, 1989). On the other hand, the case studies generally display the organisations' concerns about getting too dependent on consultants, and thereby failing to build and sustain critical competencies. This challenge is also identified by, e.g., DeFillippi & Arthur, (1998:1), who pose the question: "How can project-based enterprises create competitive advantage when its knowledge-based resources are embodied in highly mobile project participants". In all the cases, the question of how to improve the strategic use of consultants while maintaining a constant access to the competencies needed and diminishing the risk of losing critical competencies within the company is an important topic. This fundamentally involves the problem of making temporary affiliations have enduring positive impact on the permanent organisation. Arthur & Parker (2002) present an illustrative comparison to a Broadway musical where the 'star' that plays the lead part quits the show. The authors argue that even without the lead actor, the show will be better than it was on its opening night, since the rest of the cast will have learned from having worked with him or her. Of course, engineering

work and musicals are very different lines of business, but the underlying idea in the analogy might still be applicable: “that people can move while knowledge stays, that temporary associations can have enduring consequences” (Arthur & Parker, 2002). The challenge is, accordingly, to find ways to make these enduring consequences come about, particularly when a large proportion of the people that work in the projects have temporary affiliations to the PBO.

To summarise, the increased knowledge intensity of the studied PBOs has put the spotlight on competence issues, and the project form is increasingly used as a way to integrate competencies in an effective way (cf. Sydow, *et al.*, 2004). Projects are temporary organisations that are embedded into the permanent organisational context and this puts an emphasis on the need to balance the short-term competence requirements of single projects, with the long-term competence requirements of the PBO. However, the possibilities to plan and implement competence-development programs are affected by the increased temporality that comes with the projectification of the studied firms, since it promotes a greater focus on short-term deadlines that often lead to a high-intensive work environment. Moreover, the increased cross-functionality tends to reduce the time spent on work together with people from the same discipline. This has challenged the disciplinary competence-development processes in the organisations under study. The increased cross-functionality and knowledge intensity has also challenged the traditional career structures. In addition, the increased heterogeneity in employment relations, in a way, challenges the entire idea of who the ‘employees’ of a PBO really are, and how to retain knowledge and competencies when people increasingly move across organisational boundaries.

Performance-related challenges: performance reviews, trust and reputation

The performance-related challenges are basically associated with the evaluation and assessment of project workers’ performance, as well as to the importance of trust and reputation for knowledge sharing in the project teams. The case studies reveal that this HRM area is emphasised due to the greater tension between permanent and temporary systems and logics, which leads to a need to learn how to balance short-term performance in the projects with long-term performance of the PBO and the project workers. However, the case studies also suggest that the increased cross-functionality, temporality, and heterogeneity of employment relations pose certain challenges. Based on the research reported in this thesis, I suggest that there are two main performance-management related challenges.

The first one has to do with performance-review systems. This is specifically dealt with in Paper II, but also the other case studies in the thesis give evidence to this challenge. The embeddedness of the temporary projects in the permanent organisational context, where the employment relation is tied to the permanent organisation and not to the projects, implies that the employment relation goes beyond the individual project. The systems and practices for assessment and performance reviews are therefore part of the permanent organisation, while the actual performance takes place in the projects. In the case studies, line managers have the responsibility for evaluating and assessing the performance of the people that belong to their departments or competence centres. However, the cross-functionality of the PBOs creates a situation in which line managers do not always have a direct experience of the employees' performance, particularly when project teams are co-located. In many ways, this characteristic leads to a situation where assessment is separated from the setting in which work is carried out. Similar observations have been made in, for example, the case study by McMeekin & Coombs (1999). In several of the cases reported here, HR directors and line managers were concerned about project workers' frustration at being evaluated by a manager that they felt did not know enough about their performance. In the interviews, line managers talked about the difficulties of, on the one hand, staying up-to-date with what and how the project workers at the department were doing and, on the other hand, avoiding getting too much involved in the technical solutions. Hence, the cross-functionality challenges the performance-review systems for project workers.

The second performance-related challenge is associated with trust and reputation of project workers. The temporality and cross-functionality illuminate the image of the PBO as a structure of loosely integrated teams consisting of people who have not worked together before and who will, most likely, not work together again in the future (cf. Lindkvist, 2005; DeFillippi & Arthur, 1998; Meyerson, *et al.*, 1996). In response to that, various researchers have identified trust as a success factor for projects. For example, Herzog (2001:32) argues that "successful projects are delivered in environments where high levels of trust exist among the collaborators, and in which they may openly share their problems, concerns, and opinions without fear of reprisal". However, according to Meyerson, *et al.* (1996), that kind of trust is hard to accomplish in temporary project teams. They argue that project teams instead rely on 'swift trust' in the sense that trust among project workers is primarily built on interaction with roles rather than personalities.

Herzog (2001) and Meyerson, *et al.* (1996) focus on trust on a project-team level. However, in this thesis, the individual project is not the level of

analysis, but instead the organisational context in which the projects are embedded, and which has objectives that go beyond each individual project. This is important for the understanding of trust in project-teams, since the permanent organisational context of a PBO increases the possibility that people will work together again in future projects. This very fact also increases the possibility that people will have knowledge about the other people in the team through other colleagues. In that sense, PBOs not only rely on 'swift trust' (Meyerson, *et al.*, 1996), but also on long-term relationships to form the cooperation between participants in the projects. This also creates a greater concern for the reputation of the project workers (see also Grabher, 2001). This concern was evident in the organisations under study, where line managers stressed the need to defend project workers' possibilities of getting more interesting assignments, and to help them 'build a name' in order to be assigned to challenging and developing projects. At the same time, the heterogeneity in employment relations of the PBO means that a significant part of the people in the project teams have temporary contracts. This, of course, affects the possibilities to build long-term relationships, reputations and trust among project-workers throughout the organisation.

In sum, the tension between permanent and temporary systems and logics emphasises the need to learn how to support and develop the performance of project workers in temporary projects, as well as in the long run. Based on the case studies reported in this thesis, I submit that cross-functionality challenges traditional appraisal and reward systems, since the performance takes place in cross-functional projects while performance evaluation is carried out in the line. Moreover, the case studies show that the combination of an increased temporality, cross-functionality and heterogeneity in employment relations challenges the possibilities to build trust in the transient project teams. This puts an emphasis on the permanent dimension of the PBO to learn how to support the long-term reputation of project workers, and facilitate team setups.

Individual-related challenges: professional project workers and high-intensive project work

The individual-related challenges are primarily linked to the individual project workers' part in the employment relation, their work situation, and their well-being. In Paper I, the 'individual perspective' is highlighted as key for capturing the requirements and expectations on the professional, project-oriented employee. In the approach to HRM suggested in this thesis, employees are put forward as potentially active players in managing the relation to their organisational context. Individuals are perceived as being providers of 'human resources' and thereby also as partly responsible for the

management of these resources. The case studies do not include direct studies of project workers and their perceptions of project-based work. However, the interviews included questions concerning the work situation and responsibilities of project workers, a topic that the interviewees had much to say about. The growing role and responsibility of each individual employee concerning development, initiative and employability was a theme that came up repeatedly in the case studies. Based on the case studies, I suggest primarily two individual-related HRM challenges for PBOs.

The first challenge deals with the increased requirements on the 'professional project workers', i.e., people who build their careers almost entirely on project participation. Overall, the cross-functionality of the PBO has the potential to create tight teams that work together towards a common goal. The case studies also show that this reinforces the general trend of individualisation, since project workers need to individually represent and defend their competence area in the project team. All in all, this leads to greater possibilities for each individual in the project team to directly influence the result. As argued by, e.g., Hovmark & Nordkvist (1996), this type of work often involves high levels of commitment and motivation. In addition, the cross-functionality creates opportunities for the project workers to broaden their competencies and take on new challenges. At the same time, the temporality of the PBO inherently makes project workers' work based on a series of time-limited projects where each project adds to their professional reputation. In the companies under study, it was generally stressed that project workers need to keep themselves 'employable' and 'attractive' for future project assignments, and that they have a responsibility for managing their own competence development. For example, it was often stressed that the project-based way of working requires individuals who are more outgoing and more active in creating their own careers.

Hence, the temporality and cross-functionality challenge the organisation's traditional conceptions of the employment relation. In many ways, individuals working in project-based organisations – with or without permanent contracts – can be considered to be 'professional project workers'. Their careers and development depend on the projects that they have worked in and the project assignments they might be offered in the future. Moreover, the PBO is dependent on flexible and innovative individuals who have the competence and the initiative to act upon the situations and problems that might arise. However, as Lindgren (1999) points out, if individuals are supposed to take more responsibility, the support structures in these types of organisation need to be re-designed.

The second individual-related challenge concerns the high levels of work intensity. As mentioned earlier, the higher levels of temporality puts a focus on deadlines, which seems to increase the work intensity (see also Hobday, 2000). The survey by Zika-Viktorsson, *et al* (2006) reveals that multiple-project environments in particular, increases the risk for excessive work intensity with no time for reflection, learning and recuperation between the projects. The case studies reported here give evidence of similar problems. For example, in several of the cases, the interviewees referred to 'bad schedules' for project workers, meaning that they often have to rush into new projects, sometimes before the ongoing project has ended. As Lindgren (1999) stresses, this situation tends to have negative consequences for the personal life outside work, since work in projects aims at reaching a set goal, rather than towards complying with the 'eight-hour day'.

In summary, based on the case studies, I have identified two individual-related challenges that require special efforts among PBOs. The tension between permanent and temporary systems and logics creates a situation in which the project workers themselves need to balance their short-term affiliations and contributions to projects with their affiliation to a permanent organisational context; be it the organisation that harbours the projects, or a consultancy firm. Their work in projects is marked by cross-functionality, which emphasises each project worker's ability to represent a disciplinary field and trust the competencies of new team colleagues. However, at the same time the temporality challenges the possibilities to build long-term work relationships and collegial trust. Moreover, the temporality itself tends to create constantly high levels of work intensity. This leads to a dynamic work environment but, which was also brought up during many of the interviews, this situation may also cause difficulties in work-life balance in the long run.

Understanding the HRM challenges: macro- and micro-level characteristics of the PBO

The case studies reported in this thesis together document how the PBO characteristics affect HRM, particularly when it comes to managing and developing competencies, managing performance, and managing individual participation. However, the earlier mentioned characteristics of the PBO affect HRM in different ways, which will be further discussed below.

Two of the characteristics do not directly create challenges, but they put more emphasis on certain requirements for the organisation. One such characteristic is the increased knowledge intensity of the studied organisations, which emphasises the importance of managing and developing competencies. The other one is the increased tension between permanent and temporary systems and logics, which generally influences HRM since it forces

the organisation to learn how to balance the short-term needs of the temporary projects with the long-term requirements of the PBOs and of the people in them. This has also been an underlying theme in all the challenges observed. I suggest that these two characteristics can be understood as macro-level characteristics; they are overall organisational traits that create an increased focus on competence and on balancing short-term and long-term requirements of different kinds.

The three characteristics temporality, cross-functionality, and heterogeneity in employment relations can be understood as ‘micro-level’ characteristics of the PBO, i.e. characteristics of the work systems and the project work force. These micro-level characteristics create new opportunities for competence development, effective integration of competencies, flexibility, and attractive and motivating work environments for knowledge workers. However, it is also these micro-level characteristics that in different ways complicate the management and development of competencies, performance, and individual participation in the studied organisations. The findings are summarised in Table 5 below.

	Macro-level characteristics	Challenges	Challenging micro-level characteristics
<i>Managing and developing competencies</i>	Knowledge intensity Tension between permanent and temporary systems and logics	Achieving long-term competence development	Temporality Cross-functionality
		Finding adequate career structures	Cross-functionality
		Defining 'employees' and retaining competencies when people move across organisational boundaries	Temporality Heterogeneity in employment relations
<i>Managing performance</i>	Tension between permanent and temporary systems and logics	Designing trustworthy and effective performance-review systems	Cross-functionality
		Facilitating swift trust and defending project worker's reputation	Temporality Cross-functionality Heterogeneity in employment relations
<i>Managing individual participation</i>	Tension between permanent and temporary systems and logics	Managing the requirements of being a 'professional project workers'	Temporality Cross-functionality
		Managing the increased work intensity	Temporality

Table 5: HRM challenges for the project-based organisation: macro- and micro-level characteristics

As Table 5 shows, the temporality and the cross-functionality are characteristics of the project-based work system that, often in combination, are tightly linked to the majority of the observed challenges. The temporality is a challenging characteristic for HRM in the projectified firms under study, since it has increased the work intensity and introduced a more transient logic where project workers continuously move between different project constellations. The increased cross-functionality in the case studies constitutes a challenging characteristic for HRM due to its propensity to disperse the formerly functionally-based line units and introduce cross-functional teams as the main unit for core operations. The heterogeneity in employment relations is primarily involved in creating challenges with regards to defining who the 'employees' are, retaining knowledge, and facilitating trust within the project teams. This characteristic challenges HRM since it creates indistinct borders between 'internal' and 'external' work force.

As mentioned earlier, the case studies do not allow for simplified cause and effect analyses between PBO characteristics and HRM. However, they demonstrate that the combination of work system and work-force characteristics on a micro level of the PBO pose challenges for HRM in the studied organisations. They also suggest that cross-functionality and temporality are linked to most of the challenges. Based on these findings, I argue that studies of HRM should pay particular attention to the relation between people management systems and work systems, with regard to their cross-functional and temporary characteristics.

Moreover, based on the findings, I argue that the tension between permanent and temporary systems and logics in PBOs is an important macro-level characteristic that calls attention to the need of the studied organisations to learn how to manage long-term processes in an organisation where core activities are performed in temporary projects. This statement is very much in line with previous research into project-based organisations that discuss the capabilities of project-based organisations to manage knowledge and learning processes over time (e.g., Prencipe & Tell, 2001; Lindkvist, 2005), long-term technological development processes (e.g., Midler, 1995), and to achieve 'repeatable solutions' for the project operations (Davies & Brady, 2000; Davies & Hobday, 2005; Söderlund, 2005). The research presented in this thesis suggests that PBOs also need permanent systems and processes that make them capable of facing the challenges that the temporality, cross-functionality and heterogeneity in employment relations pose to HRM.

CHANGES IN THE PEOPLE MANAGEMENT SYSTEMS OF PBOs

The second part of the aim of this thesis is to explore the changes in the people management systems of PBOs. This primarily concerns how people management systems are changed and aligned to fit with the project-based context. The comparative case-study analysis in Paper II indicates some central changes in content and structure of the people management system, and it further suggests that the content changes are closely linked to the decentralisation of HR responsibilities and the growing HR orientation of the line manager role. The analysis also demonstrates and discusses a number of differences in terms of how the organisations have chosen to deal with some of the challenges. The following discussion is divided into two main sections. The first one addresses the content changes, and the second one reports on the structural changes.

In the first section, the findings concerning main changes in the content of people management systems are presented and compared to the findings regarding HRM challenges presented in previous sections. This discussion takes its departure in the results of Paper II, but the case studies presented in Paper III and VI provide additional insights and thereby increase the empirical base for the patterns observed.

In the second section, the findings concerning structural changes are discussed. In Paper II, the most important changes identified were associated with structural changes, and hence these have been given more attention in the thesis than the content changes. First, the key players in the HR organisation of PBOs are addressed. After that, the findings on the changes of the line management role will be presented. Here, the reasons for the increased HR orientation of this role are discussed, and I will argue for a new approach to line management in PBOs, which includes developed concepts to capture this role. I then turn to HR specialists and HR departments. Two main logics for HR specialists are suggested, which, I submit, largely explain the choice of HR-departmental structure. In relation to this, I argue for the need to consider the appropriate overall design for the HR organisation and the roles of its different players, when deciding on what role and structure the HR department should have. Finally, I draw upon the findings concerning changes in people management systems of PBOs and propose two main types of HR organisation. These two types depend on the characteristics of the work system, as suggested in the analysis of the micro-level characteristics of PBOs.

Content changes

The content of people management systems refers to the system of processes and activities applied to perform HRM in an organisation. The challenges for HRM in PBOs discussed above suggest that there are particular HRM areas within which the system of HRM processes and activities needs to be re-addressed because of the projectification. The reported case studies indicate three primary types of changes: (1) changes in competence management and development, (2) new and refined career paths, and (3) new tools and processes for performance reviews

Competence management and development: competence networks and collaborations with consultancy firms

The case studies demonstrate changes in processes for competence management and development. One change that has taken place in all the studied organisations is the implementation of new tools and processes for competence mapping. These are primarily tools that have been developed to support line managers in their increased responsibility for assessing and developing the competencies at their unit. However, most of the changes in competence-development processes do not concern 'top-down' decisions of new tools and processes. They are frequently more of bottom-up changes, that take place on a micro-level, in, for example, ways of working, perceptions of work roles and division of responsibilities. For instance, in all firms, the increased cross-functionality and temporality have induced a changed approach to the traditional line units. These are increasingly considered to be 'competence networks' (see also Lindkvist, 2004) that provide platforms for long-term people management issues as well as for collaboration among project workers within the same discipline. In some cases, this has implied concrete changes in organisation and role structures (e.g., the Tetra Pak case). However, in other cases, it is rather a development over time of a more HRM- and competence-oriented approach to the 'line', which has influenced work procedures, routines and divisions of responsibilities. For example, the case studies demonstrate a greater awareness among line managers of the need to actively use the projects as part of the competence-development plans of project workers. There are no formalised tools or processes for doing this, but it is becoming a key concern for managers of project workers.

In addition, it had become increasingly common in the case-study organisations to have close collaborations with a number of consulting firms. This was particularly emphasised in the Saab case, where some of the consulting firms were even owned or partly owned by Saab. The other case-study organisations used similar solutions. This increased the possibilities to access the same people over time, in more than one project, which to some

extent allowed the organisation to balance the positive aspects of a flexible work force with the challenges of retaining competence (see also Arthur & Parker, 2002). Consultants from collaborating consultancy firms are not perceived as being merely temporary project workers in the PBO, but as being 'quasi-employees' with a more long-term relation to the PBO. This could, in turn, facilitate trust and long-term work relationships among project workers.

These changes can hence be considered to be attempts to make the PBOs more capable of handling the competence-related challenges, and to some extent also the performance-related challenges.

Refined career paths – promotion or development?

New career paths have been established as alternatives to traditional line management ladders. In all the case-study organisations, a separate career path for project management as a profession was established some time ago in order to coordinate cross-functional integration and manage project deadlines. Most of the organisations have also started to establish career paths for specialists and experts. These career paths are well recognised in the literature on project-based organising (e.g., Allen & Katz, 1995; Keegan & Turner, 2003). However, such research tends to regard the line management and technical specialist career paths as being the two traditional 'ladders'. The case studies reported here show a somewhat different picture in which the traditional career path involved an integration of line management and technical expertise. In several of the organisations, this career path is now being split in two due to an increased HR orientation of the line management career path. In all of the core cases, the traditional line management career path is subject to profound changes. The line management role will be further addressed in coming sections. Here, it is sufficient to mention that the case studies generally indicate that, as the core operations are increasingly performed in cross-functional projects, managed by project managers, the line management career has shifted from having a focus on technological expertise and supervision, to having a focus on people management and competence issues. The new separate specialist career path in the studied organisations hence allowed for a career that would not include HR responsibilities or project coordination responsibilities and therefore enhance the development of deep specialist competencies.

Thus, while one career path concerns coordinating and integrating competencies across disciplines to reach a certain goal within a fixed time limit (project management), another career path concerns developing people and their competencies within a discipline on the long-term (line management). In several of the case studies, there has been a concern that none of these career paths gives the opportunity to develop deep specialist

competencies. Hence, a third career path for specialists has been developed in several of the cases. The development of new career paths is a direct response to the competence-related challenge to find adequate career structures. Moreover, these changes can be understood as attempts of the PBOs to become more capable of maintaining long-term development of disciplinary competencies in an organisation characterised by cross-functionality and temporality.

However, the changes in career structures observed in the case studies build on a traditional logic of careers as 'promotion', and 'moving up the ladder'. Several researchers argue that such kinds of career structures is not enough to motivate project workers and support their career development. For example, a survey of 'project-oriented engineers' performed by Allen & Katz (1995) showed that many of these were not interested in promotion in the traditional sense of moving up the ladder. What they aspired for was interesting and challenging projects: "These engineers were motivated to perform well on current project assignments in the belief that superior performance would increase the likelihood that their next assignment would be an interesting one. Conversely, there was a belief that poor performance led to a less interesting future assignment" (Allen & Katz, 1995:129). This would mean that a significant part of the project workers are not motivated by traditional promotion systems within an organisation. Many are more interested in keeping up a reputation of being a good performer in order to build an interesting and challenging personal project portfolio for their careers. Similarly, Keegan & Turner (2003) discuss careers in project-based firms and argue that "there is a shift from viewing careers in terms of promotion and subordinates to viewing careers as continuous processes of learning and successful completion of projects" (p. 7). This kind of informal and non-promotional project-based careers hence do not follow established career paths but are, as argued by Larsen (2002:37), "a matter of one's ability to create one's own career path", and "based on knowledge, initiative, and the capability to employ oneself".

As discussed earlier, the research reported in this thesis shows that the case organisations face challenges when it comes to managing and supporting the project workers in building careers as 'professional project workers'. On the one hand, the increased responsibility of the individual project workers to be active in creating their own careers, as suggested by Larsen (2002), is clear. On the other hand, the case studies also reveal that this change has put increased requirements on line managers to actively support the project workers in planning and developing their careers. There are also examples of that new tools or processes have been established to give support in this

process. For example, at AstraZeneca, a new system for 'Management of Individual and Team Performance' had been implemented. This was a tool for employees to set their personal goals and to plan their competence and career development together with their manager. A similar tool had been implemented by Tetra Pak.

However, the observed changes are often not that concrete, but they rather involve a slowly growing consciousness among line managers that they need to support the project workers in getting assigned to interesting and challenging projects that would motivate and develop them. In the empirical accounts, there were also examples of line managers who even encouraged high-performing project workers to temporarily or permanently leave the company to take on project assignments elsewhere if they thought that would be beneficial to the project worker's career.

Changed performance-review processes – input from multiple sources

The case studies highlight changes in tools and processes for evaluation and performance review of project workers. This is a direct response to the challenge of designing trustworthy and effective performance-review systems for work systems that are characterised by cross-functional and temporary work. The main focus for the people involved is the short-term goals of the project; the cross-functional coordination and integration of competencies in the project team to reach a defined goal within a certain time. The case studies also show that when core activities are performed in projects, the responsibility for performance reviews remains with the increasingly HR-oriented line structures, but it is performed in a different way. Generally, the changes that are made in the studied organisations emphasise the responsibility of the line manager to gather information about the project workers' performance, rather than relying on own experience only. They also emphasise the responsibility of project managers to provide input to the performance-review process. The way that line managers get input to the performance-review process varies between the cases. In some of the cases, new tools have been developed to support the line manager's work and in other cases there are no tools. Regardless of whether new tools have been developed or not, line managers have changed their way of working and developed own routines for gaining knowledge about the project workers' performance. The input to the performance-review process is gathered through direct contact with project managers and, in some cases, also with other team members. Many line managers also say that, in their regular resource allocation discussions with project managers, they can draw conclusions about if a project worker has performed well in previous projects or not. The case studies hence indicate that the performance-review process

in PBOs needs to be based on a collection of input from multiple sources, instead of on merely the direct experiences of the line manager.

Structural changes: the HR organisation

The structure of the people management system refers to the organisation of players that have key roles in the performance of HRM. In this thesis, I have suggested the term HR organisation to describe this role structure. The HR organisation consists of the various players that interact and share the responsibility for managing the relation between the individuals and their organisational context. The separation of the terms 'HR department' and 'HR organisation' facilitated the identification of structural changes in the people management system that were not directly associated with the HR department.

Paper II identifies four key players in the HR organisation that were of particular importance with regards to the HRM challenges: the HR department, line managers, project managers, and HR support for projects. However, in the multiple-case study reported in Paper IV, HR support for projects does not emerge as a central player of its own, since AstraZeneca is the only case having it. In light of Paper IV, I would rather include this as part of the general HR support that might or might not be provided. To organise this support in a separate unit is rather a question of HR departmental structure.

The four core case studies in this thesis show that the individual project workers take on an increased responsibility for a variety of HRM processes and activities, such as competence development, career planning, and finding new assignments. This highlights the importance of regarding the individuals in PBOs as potentially active and important participants in the HRM process instead of passive receivers. This development has also been discussed in recent research. For instance, Hällsten (2000) analyses the decentralisation of personnel responsibilities in an organisation where projects play an increasingly important role. Similar to the argument put forth in this thesis, Hällsten argues that HRM essentially refers to a relation among various parties: line managers, project managers, the HR department, and the co-worker, where all parties have a responsibility for maintaining the relation and make it work. For the individual, it is hence not only about keeping oneself employable, i.e., to develop one's competencies and social skills in order to remain attractive for project assignments; it is also about 'co-workship', i.e., managing one's relation to the employer (Tengblad & Hällsten, 2002).

This means that the individual project worker actually holds a critical role in the HR organisation of PBOs, a role that needs to be acknowledged

and clarified. As argued by Tengblad & Hällsten (2002), the unclear assignment of responsibilities among the different players in the HR organisation, especially concerning the individual's role, often leads to issues falling between the cracks. In the end, the issues falling between the cracks are left to the individual to handle.

Based on the case studies and on writings on the increased responsibility of individuals for HRM (e.g., Hällsten, 2000; Packendorff, 2002; Lindgren, 1999 and others), I propose that the 'HR quadriad' of project workers, line/competence managers, HR specialists, and project managers, is a critical part of HR organisations in PBOs. A quadriad is generally understood as a group of four persons with an interest or a task in common. The HR quadriad is illustrated in Figure 1. The shaded area that connects the four players represents the content of people management systems, for which these players have a shared responsibility.

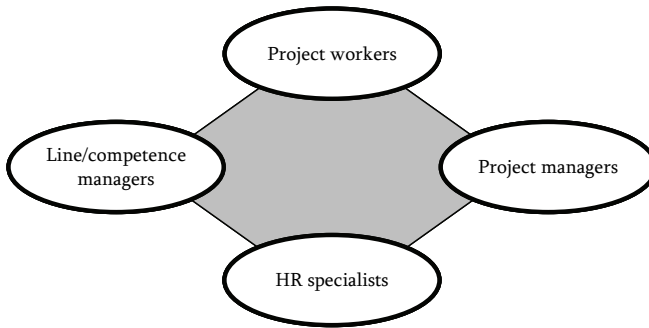


Figure 1: The HR quadriad in project-based organisations

Moreover, the research reported suggests that the relationships and division of responsibilities within the HR quadriad are strongly influenced by the project-based setting. Variations exist among the cases in terms of, for example, the type of projects. Moreover, differences in the types of disciplinary competencies required also lead to variations with regard to how strong the three micro-level characteristics are and hence also to variations in the work systems of the studied organisations. This, in turn, has an impact on the roles of and interaction between the players within the HR quadriad - line managers and HR-specialists in particular. The empirical studies have focused on the roles of line managers and HR specialists, and covered part of the project managers' responsibilities in the HR quadriad. The case studies, however, do not involve an in-depth analysis of the role of project workers in the HR quadriad. Nevertheless, the case studies in several ways support the findings presented in, for instance, Tengblad & Hällsten (2002). Similarly, in my empirical work, I have made the decision to leave out a further analysis of

the role of project managers in the HR quadriad. However, the findings reported in this thesis suggest that such studies would be called for. Project managers are often the project workers' closest manager for an extended period of time, and the project managers have an important responsibility, particularly for giving input to the performance-review process.

There were several reasons for focusing on the roles of HR department and line managers. Firstly, these are traditional roles in the organisations and the case studies suggest that these were the ones going through the most fundamental changes. Secondly, these changes are particularly interesting considering the general trend of decentralising HR responsibilities to the line. Finally, and perhaps most importantly, the case studies show that the changes in the line management role are, in several ways, linked to the content alignments as well as to several of the earlier mentioned challenges. In the following, I will address these two roles separately, starting with the line management role.

From line managers to competence managers

The case studies suggest that HR responsibilities are increasingly decentralised from HR departments to line managers, a trend that is widely recognised in the HRM field of research (e.g., Cunningham & Hyman, 1999; Larsen & Brewster, 2003; Thornhill & Saunders, 1998). This trend is also in line with some of the early writings on HRM, where one of the main arguments was that HRM as opposed to traditional personnel management is a general management responsibility and not a responsibility for personnel specialists only (Beer, *et al.*, 1984). There are many interrelated forces behind this devolution of HR responsibilities and the case studies reported in this thesis strengthen the argument that the increased use of flexible organisational structures, such as project-based organisations, is one such important force (see also Larsen & Brewster, 2003; Thornhill & Saunders, 1998; Hällsten, 2000). The studies point out two primary reasons for this, both of them associated with the cross-functionality and temporality characteristics of PBOs. Firstly, cross-functionality and temporality, by definition, create a more transient and functionally dispersed work structure. This affects the possibilities for traditional, line-oriented HR departments to stay close to and keep track of employee performance and development. Much of this responsibility is instead transferred to line managers. Secondly, these characteristics imply that the management of technological activities and problem-solving in a project-based organisation is to a greater extent a task for project managers. In parallel to this development, the line-management role becomes more and more oriented towards coordinating, developing and

supporting the project workers' contributions to the projects, in the short as well as in the long run.

In Paper II, alternative roles for line managers in a project-based setting are discussed and it is suggested that depending on the level of projectification and the requirements of the technology developed, the line manager role will have different degrees of HR orientation. The case study at Tetra Pak provides an example of a new line management role with high HR orientation. Even though the case of the competence coaches at Tetra Pak is an extreme case of HR-oriented line managers, this change is visible also in the other case studies reported in the thesis. The line manager role in the studied organisations has increasingly come to focus on long-term competence development, performance reviews and assessment, supporting individual project workers and planning their project participation, and work-life balance issues. The line managers are hence important players in the HR organisation of PBOs, and in some of the cases, the term 'line manager' does not seem adequate to capture what this role is about. It is a role that is neither an HR specialist nor a manager of a 'line unit', but instead a role that operates in the intersection of the temporary project operations and the permanent organisational context, responding to several of the HRM challenges described earlier in this chapter.

The increasingly HR-oriented approach to line management is, I submit, explained by the fact that most of the HRM challenges stem from the nature of the work system, the cross-functionality and temporality. Thus, the responses to the challenges observed in the case studies are also found in a role that operates at a level close to the work system. The research presented here also demonstrates that the role of the line manager differs depending on the characteristics of the work system.

I suggest that PBOs that have a strong emphasis on cross-functional work in co-located project teams, similar to the heavy-weight team structure as discussed by Clark & Wheelwright (1992, see also Hobday, 2000, on project-led organisations) will develop a pure HR-oriented management role similar to the competence coaches at Tetra Pak. The temporality and heterogeneity in employment relations in PBOs also make this management role similar to a consultancy manager, with the primary responsibility for managing and developing a pool of project workers with similar competencies. Hence, the line organisation in a traditional sense (e.g., functional departments) does not exist, but this does not mean that functional coordination across projects is non-existing. The functional coordination can rather be compared to the 'competence networks' described by Lindkvist (2004), which constitute the backbone of the project-based organisation and constitute "arenas displaying the specific competencies, experience and

personalities of network members” (Lindkvist, 2004:15). Accordingly, titles such as competence managers, competence coaches, and the like, seem to become increasingly common in firms with a functional coordination in the form of competence networks instead of traditional line departments. Furthermore, the case studies show that even in PBOs where co-location of cross-functional project teams are not that common, and where project workers are physically located in a line department, similar to the project matrix structure suggested by Hobday (2000), line managers play a bigger role in the HR organisation. However, the line management role in such organisations generally does not develop into a pure competence management role.

The case studies suggest that competence managers in project-based organisations indeed have an important task to handle long-term competence planning and to build strategic competencies. As discussed previously, the cross-functionality and temporality complicates this task, given the distance that project work creates between the project workers and their competence manager, and the difficulties involved in finding the time for competence-development programs. They describe a never-ending process of puzzle-solving to provide the projects with the right competencies, while at the same time use the projects as stepping stones in the competence-development processes of project workers. However, competence management and development is not the only task for competence managers.

With regard to the challenges and content changes concerning performance evaluation processes, the cases suggest that competence managers in PBOs act as assessment hubs, with responsibilities to collect the input necessary for a trustworthy performance review. Particularly in settings where projects are co-located, the competence managers have a significant role to gather information from project managers and other colleagues in order to make a well-founded assessment and performance review.

The competence managers in PBOs also have a key role when it comes to supporting the individual project workers. Here, the function is to be an ‘agent’ for the project workers, rather than to be a ‘supervisor’. An analogy could be that of an artist agent, who supports, promotes and finds ‘gigs’ for the artists in their agency. The competence manager in this sense helps the project workers to find the projects that are ‘right’ for their career and to decide when it is time to take some time off to reflect or to slow down after a period of intense project work. The cases also indicate that an important part of the work for competence managers of project workers is to constrain the work intensity for ambitious and ‘popular’ project workers, and to support them in finding work-life balance.

In sum, based on the research reported in this thesis, I argue that the line manager role in PBOs can more adequately be described as a competence manager role, which is a key player in the HR organisation. The competence managers act as competence-puzzle solvers to achieve effective project implementation and competence development, assessment hubs to achieve effective and trustworthy performance reviews, and artist agents to support the careers of professional project workers. However, the case studies also reveal that the reality for many competence managers is that they need to balance the competence management role with a more technically-oriented traditional line management role. On the one hand, this keeps the competence managers up to date with the developments of their competence area and of the technology used. They can therefore also to a greater extent act as technological mentors for the project workers. On the other hand, the technology-related activities tend to get higher priority than the HRM-related activities.

HR departments: logics and configurational patterns

The devolution of HR responsibilities to the line not only implies a changed line management role; it also underlines the need of the HR department to reinvent its role and structure (Larsen & Brewster, 2003). In fact, the increased importance of the role of the competence manager in the HR organisation, in combination with other changes required in people management systems of PBOs, suggests that the responsibilities and interaction among the players in the HR organisation of a PBO should differ from that of a functional organisation. This should hence also affect the requirements on HR specialists and the way that their competencies and activities can be effectively utilized in the PBOs. In all the studied organisations, the HR departments had been subject to changes and restructurings. In most cases, they had been downsized, and there were also examples of new roles and titles for personnel specialists within the firms.

Based on the studies presented in this thesis, I suggest that the changes made in HR-departmental structures can largely be explained by the logic for HR specialists applied. Furthermore, I suggest that there are two main alternative logics. Firstly, the *HR-based logic* for HR specialists refers to a view of the HR specialist role as having the main function to provide specialised support within specific competence areas of HRM, such as staffing, training, union relations, legal issues etc. With this logic, HR specialists are perceived as internal consultants, who provide support-on-demand primarily to line managers. Secondly, the *task-based logic* for HR specialists refers to a view of the HR-specialist role as being mainly about providing general HR support to a specific unit.

However, the question is if the logic applied for HR specialists is adequate for the role that the HR department should play in the HR organisation? Based on the research reported in this thesis, I suggest that the design and structure of HR departments need to consider the following three questions (1) what kind of HR organisation is needed to match the project-based work systems? (2) which logic for HR specialists would fit with the design of the overall HR organisation, (3) what type of structure of the HR department would best fit the logic applied?

The multiple-case study reported in Paper IV provides empirical patterns regarding HR departments in different PBOs. The analysis has identified two main patterns of HR departmental structures, which are labelled 'line-based HR-departments' and 'HR-service centres'. These can be compared to the generic patterns of HR departmental structures proposed by Ulrich & Brockbank (2005). The line-based HR-departments were structured according to the functional line organisation, and can be described as building on a task-based logic of HR-specialists. The PBOs that had such departments were generally characterised by more technology-oriented line units. Here, line managers balanced their line management role with a competence management role. PBOs with HR-service centres, on the other hand, were generally characterised by lower levels of technological orientation, and the line manager role was dedicated to people and competence issues. Here, the organisation had a more HR-based logic for HR specialists, who were organised according to HRM competence areas and often centralised in a corporate-wide HR-service centre.

The multiple-case study also contains results that are somewhat surprising, considering the findings presented in previous sections. In some of the cases, the cross-functionality is relatively low, in the sense that project workers are not co-located in their project teams, and they normally contribute to several projects at the same time. The project participation can hence be described as 'fragmented'. In other cases, cross-functionality is more emphasised in the sense that project workers normally work full-time in a co-located project team, and hence focus on one single project at a time, a project participation that can be described as 'focused'. Based on the aforementioned challenges tied to cross-functionality and temporality, content changes of people management systems, and types of line management, I argue that these two types of project work are important to further develop the analysis of the roles of the various players in the HR quadriad. Hence, one might assume that the type of participation influences the adequate logic for HR specialists and the structure required for the HR department. However, the multiple-case study reported in Paper IV does not demonstrate noticeable relations

regarding this. Based on the research reported here, I suggest that the type of project participation should be an important contingency for the configuration the HR quadriad, as well as for the logic and structure of the HR department. Moreover, this contingency tends to be overlooked in research and practice.

Understanding the changes in people management systems

In previous sections, I have described that the studied organisations have paid particular attention to content changes associated with competence management, career structures, and performance reviews. These content changes include concrete, top-down driven changes, such as the establishment of new structures, new tools or new processes. However, they also include more gradually evolving changes that are harder to grasp. These changes can rather be described as developments of new routines, work procedures, and new ways of thinking among managers and co-workers at all levels.

These more embedded changes are in many ways related to an higher degree of HR orientation of line managers in the studied organisations, and I suggest that conventional concepts of line management is not adequate to capture this management role. In order to mark the distinction between the roles of managing a line unit and managing a competence centre, I use the term competence manager for the latter. Nevertheless, the HR responsibilities of a competence manager include more than competence management. The case studies suggest that this role plays an active part in developing the PBO's abilities to deal with the performance- and individual-related challenges. In many ways, it is a management position that embodies cross-project coordination (Hobday, 2000), both horizontally across project, and vertically between projects over time.

However, as argued in Paper IV and Paper VI, the type of projects and the way project work is organised affects the line management role. In some of the case-study organisations, the line management role is predominant, even though these line managers need to increasingly balance their line management tasks with competence management responsibilities. The case studies further suggest that PBOs with project work that is strongly characterised by cross-functionality in the sense that project workers are co-located in their project teams on a full-time basis (focused project participation), tend to have cross-project coordination in the form of competence networks managed by competence managers. PBOs with project work that is characterised by fragmented project participation, on the other hand, in which project teams are rarely co-located and project workers make

contributions in several projects at a time, normally have line units managed by line managers.

In the following, I propose that different types of work organisations and even different types of project-based work systems will develop different configurations of HR quadriads. I argue that existing research on HR roles and HR departments has tended to overemphasise the need for ‘strategic HR players’ in the HR organisation, while the case studies presented here rather emphasise the growing importance of ‘micro-level HR players’ in order to meet the challenging work systems of PBOs. The concept of the HR quadriad, proposed in this thesis, can be considered as an attempt to capture the core micro-level players in PBOs. Building on the case studies reported here, I suggest that depending on the type of projects and character of project work that a PBO has, the players of the HR quadriad will be organised according to principally one of the alternative configurations that are illustrated in Figure 2 and Figure 3.

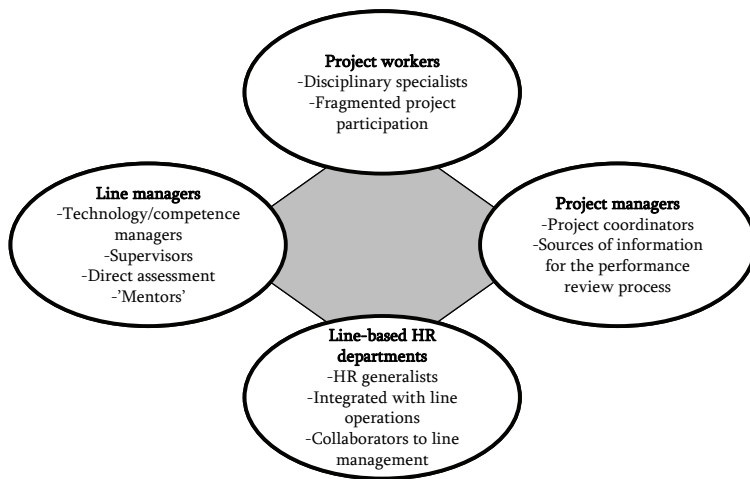


Figure 2: HR quadriad for fragmented project participation

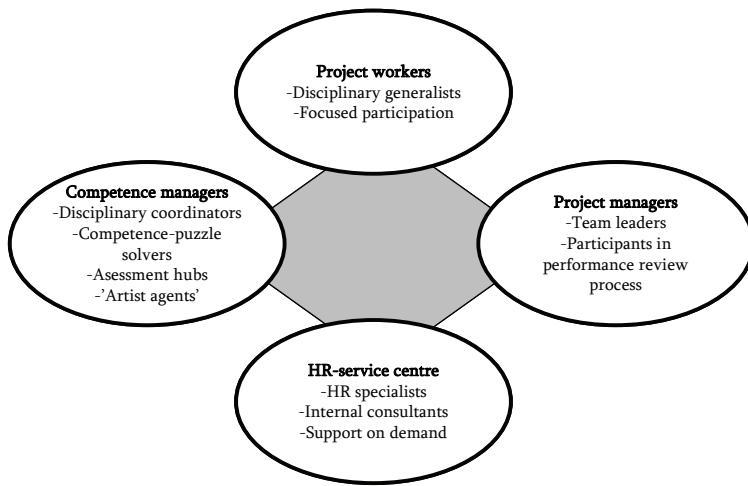


Figure 3: HR quadriad for focused project participation

Figure 2 suggests an HR quadriad for PBOs with project work that is characterised by fragmented project participation. Examples of such organisations could be firms that focus on R&D and product development projects with long project-life cycles, where the reliance on deep specialist competencies is high. In this thesis, Saab and AstraZeneca can be seen as examples of such firms. Figure 3 proposes an HR quadriad for PBOs with project work that is characterised by focused project participation. Companies that focus on customer delivery projects with relatively short project-life cycles can be examples of such organisations. In this thesis, the Tetra Pak case is the clearest example, but also Volvo has experimented with similar solutions for project work.

The two configurations of HR quadriads are explorative suggestions based on the empirical findings. When it comes to HR departmental structures, I argue that the structure should be based on the most adequate logic for HR specialists in the overall HR organisation. The two types of HR departments discussed here are the pure forms associated with the respective logics. In most companies, I argue, the HR departmental structures will probably combine these two types in different ways. However, it is then essential to decide which type should be the dominant one, based on the most adequate logic for HR specialists in the HR organisation. If we look at the four core case-study companies, all of them have now implemented structures for the HR department that is based on a small-sized line-based HR departmental structure combined with a corporate HR-service centre. The question is to what extent these types of decisions are made with consideration to the

requirements of the micro-level of the organisation, particularly when most literature within the field stresses the need for strategic alignments. A complicating circumstance of letting the micro-level work systems influence the design of HR organisations and HR departments is that these work systems are different not only between companies, but also within companies. The same company can have project-based departments with focused project participation, others with fragmented, and still others that are not project-based at all. The different work systems would require different types of HR organisations, and it seems important to find people management systems that are flexible enough to suit all parts of the company.

PEOPLE CAPABILITY: A CONCEPTUAL FRAMEWORK FOR HRM IN PROJECT-BASED ORGANISATIONS

The third part of the aim is directed towards the development of concepts and theoretical constructs that could, in a better way than existing ones, capture the relation between HRM and the project-based organisational context. In this thesis, I suggest that a capabilities perspective on project-based organisations is generative for the conceptualisation and analysis of HRM and people management systems in PBOs. In this section, I will briefly present the capabilities perspective on PBOs and argue for its usefulness for enhancing the understanding of HRM in such settings. In the following, I will elaborate further on the concept of people capability presented in Paper V (see also Paper VI), and propose a conceptual framework for people capability in project-based organisations.

The research reported in this thesis concerning HRM challenges and changes in people management systems of project-based organisations, provides empirical patterns and insights that are relevant for a more general understanding of HRM in project-based organisations. The case studies suggest that the increased tension between permanent and temporary systems and logics emphasises the need of such organisations to learn how to balance short-term requirements of the projects with long-term requirements for the PBOs and the people in them. Moreover, the high levels of knowledge intensity emphasise the requirements of competence management and development processes that achieve long-term competence development and provides adequate career structures. The HRM challenges and changes in people management systems identified demonstrate a need among the case-study organisations to learn how to maintain well-functioning permanent organisational processes and activities in an organisation characterised by cross-functional and temporary projects, and project workers with a variety of organisational affiliations.

The need for changes in the permanent context of organisations that become increasingly project-based is an issue discussed also by Midler (1995). He studied the relationship between the development of temporary project teams and the permanent structures and processes in the projectification process of Renault, and argued that “temporary organisations need not *less* powerful stable social logics but *different* ones” (p. 374, italics in original). This strengthens the argument posed in Chapter 2, where previous definitions of PBOs are criticised for assuming that pure PBOs by definition have weak or even non-existing coordination across project lines (e.g., Hobday, 2000). By highlighting the HRM issues, one might come to different conclusions. Of course, it might be true that the permanent structures, such as line departments, perform less of the actual technological problem-solving activities. However, when the responsibility for these activities are handed over to cross-functional temporary projects, the permanent organisational context remains crucial for hosting people management systems that provide cross-project processes and activities. This involves coordination across parallel projects as well as long-term processes beyond individual project life-cycles. The changes identified in the case-study organisations demonstrate efforts to learn how to design such people management systems. Moreover, the case studies suggest that several of the changes in people management systems are not the results of concrete and planned decisions to deal with well-known challenges. On the contrary, they are often changes that are embedded in a development of routines, approaches, and work methods over time, which stem from a growing body of experiences among people within the organisation. Hence, the players in the HR quadriad: project workers, project managers, line managers and HR specialists, are all involved in changing the people management systems in order to make the PBOs more capable of handling their HRM challenges.

A capabilities perspective on PBOs

The importance of cross-project activities in PBOs is further discussed by e.g., Davies & Brady (2000). They argue that the success of project-based organisations depends largely on their ability to build on previous experiences and develop processes and activities for their project operations that provide ‘repeatable solutions’. Davies & Brady (2000) suggest a capabilities perspective on project-based organisations and launch the concept ‘project capabilities’, which refer to “important activities (e.g. bidding, project design, implementation and de-commissioning)...” (p. 932). The project capability concept has had a large impact within the research field of project management, and some even talk about a general shift in the project management research discourse at the end of the 1990s, from a focus on the

individual project and practitioner to a focus on project management as an organisational capability (Crawford, 2006). This stream of research has paid attention to issues such as the organisational activities that constitute the 'project competence' of a PBO (Söderlund, 2005), 'project management capabilities' (Hillson, 2003; Crawford, 2006), 'learning capabilities' (Prencipe & Tell, 2001; Newell, 2004), dynamic knowledge integration capabilities (Enberg, *et al.*, 2006), distinctive organisational capabilities in different types of PBOs (Whitley, 2006), and aligning 'project delivery capabilities' with corporate strategy (Crawford, *et al.*, 2006). However, research into capabilities of PBOs has hitherto not fully covered the capabilities required to perform HRM, even though several studies have indicated the need of PBOs to improve those capabilities. The studies of HRM challenges and changes in people management systems, presented in this thesis, further emphasise the relevance of applying a capabilities perspective in order to explain how PBOs build the capabilities required to deal with the HRM challenges that the PBO context generates.

Building on earlier analyses of challenges and changes for HRM in PBOs, and on recent research into project-based organising, I suggest that a capabilities perspective on PBOs as proposed by Davies & Brady (2000, see also; Brady & Davies, 2004; Davies & Hobday, 2005; Söderlund, 2005) would be generative for a more adequate conceptualisation and understanding of HRM in such organisations. The capabilities perspective, according to Davies & Brady (2000:932) refers to "the view that organisational capabilities, routines, knowledge, skills and experience provide the internal dynamic behind firm growth" (cf. Dosi, *et al.*, 2000; Chandler, 1990). A capabilities perspective on PBOs, which are characterised by a tension between permanent and temporary systems and logics, hence contributes to the conception of what constitutes the more 'permanent' features in otherwise flexible and adhocratic organisations. Of course, the notion of 'permanency' is only partly true, since even the capabilities need to be dynamic in a sense that they are developed and renewed over time (e.g., Teece, *et al.*, 1997).

People capability

In this thesis, I propose the concept 'people capability', which refers to the organisational capability to manage the relation between people and their organisational context (for more details, see Paper V and Paper VI). Furthermore, people capability is considered to be underpinned by the organisation's people management system through its activities and role structures. In order to clarify the people capability concept, I will in the following explain how it differs from the concepts 'HRM' and 'people management systems'.

In this thesis, ‘HRM’ is defined as a descriptive label for the area of management that focuses on the relation between people and their organisational context. ‘People management systems’ refer to the particular activities and role structures applied by the organisation within this dimension of management. I propose the concept of ‘people capability’, referring to what the organisation knows about how to perform HRM. This capability can hence be understood as the result of the people management system in use. Figure 4 illustrates how the three concepts relate to each other. The findings presented in this thesis highlight the embeddedness of people management system and the interplay between the organisational context and the work systems. Moreover, I argue that a better understanding of the HRM challenges in PBOs and appropriate changes in the people management system to meet these challenges, would improve the people capability of PBOs. An improved people capability could in turn contribute to more successful and sustainable project operations that also support and develop project workers in their project-based careers.

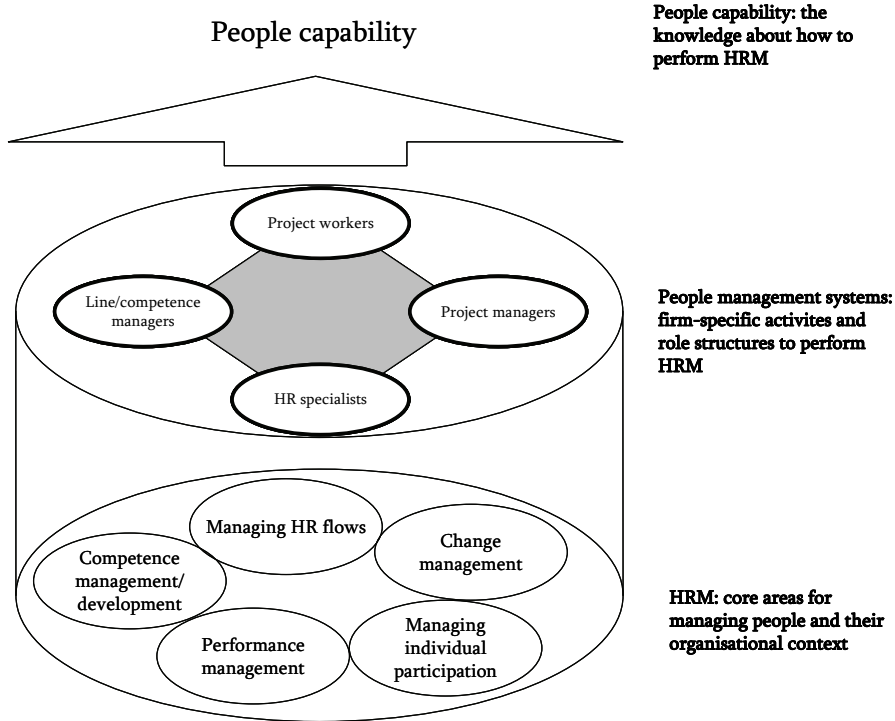


Figure 4: HRM, people management systems, and people capability

In Paper V, particular attention is paid to the core activities required from the people management system to improve and sustain the people capability of a PBO. Building on the framework of project capabilities suggested by Davies & Brady (2000), the paper extends this framework to include people capability. The proposed conceptual framework for people capability of PBOs is used to outline and discuss core activities of a people management system that improves people capability by integrating it with strategic, functional, and strategic capabilities.

A conceptual framework for ‘people capability’

The framework suggested by Davies & Brady (2000, see also; Brady & Davies, 2004; Davies & Hobday, 2005) for the analysis of capability building in PBOs includes strategic, functional, and project capabilities. Strategic capability refers to the capability to identify, create and exploit business opportunities, and leave declining areas more quickly than competitors. Functional capability involves the capability to employ and develop technologies, or functional ‘disciplines’ that are needed for the firm’s operations. Finally, the authors introduce the concept of ‘project capability’ to embrace “the appropriate knowledge, experience and skills necessary to perform pre-bid, bid, project and post-project activities” (Davies & Brady, 2000:62).

I suggest that this framework should be extended to include people capability in order to explain how PBOs build the capabilities required to meet their HRM challenges. In the following, I describe the framework (for a more elaborate description, see Paper V and VI) and show how this framework relates to the HRM challenges identified and the changes made in people management systems. The people capability framework draws on the view of capabilities as being part of an architecture of organisational capabilities, which together enable the organisation to successfully perform its key activities (cf. Jacobides, 2006). Hence, the framework emphasises the relationship between, and integration of, the organisational capabilities that have been suggested as important for PBOs. Moreover, the focus is on people management systems that improve people capability by integrating it with the other capabilities. In Paper V, I suggest a tetrahedron-shaped model to illustrate how three main sets of activities for people management systems of PBOs integrate people capability with strategic, functional, and project capabilities. The people capability framework is outlined in Figure 2, where also the macro- and micro-level PBO characteristics that emphasise and challenge the suggested activities for people management systems in PBOs are included.

The tetrahedron shape has four corners and four faces. Given my interest in people capability of the firm, I focus on the three faces that link people

capability together with the other capabilities in the suggested framework. These three faces represent the people management systems that integrate people capability with the other capabilities. In Figure 5, the core activities for the people management system related to each face are described.

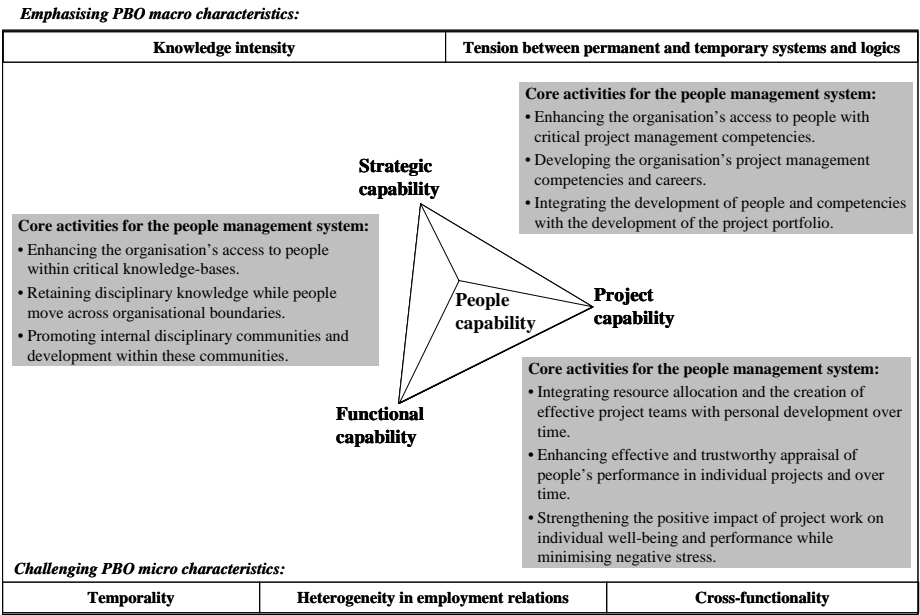


Figure 5 A conceptual framework for people capability of PBOs

Integrating people capability with strategic, functional and project capabilities

The framework for people capability in project-based organisations presented here, suggests that the competence-related challenges for HRM are primarily associated with the need of PBOs to include people capability in the integration of functional and strategic capabilities. Accordingly, PBOs improve their people capability through the development of a people management system that integrates people capability with strategic and functional capabilities. This concerns activities of enhancing the organisation's access to critical disciplinary competencies, through the attraction of people from internal and external knowledge bases, as well as through appropriate competence-development practices. It also concerns facilitating the retention of knowledge while people move across organisational boundaries, and promoting internal disciplinary communities and development within these communities. These become important activities that are required for improving people capability of PBOs, in which

knowledge intensity emphasises the importance of strategic disciplinary competencies, and where work systems are characterised by temporality, cross-functionality, and heterogeneity in employment relations.

The framework illustrates that the performance- and individual-related challenges for HRM are driven by the need for PBOs to include people capability in their integration of functional and strategic capabilities. These challenges concern how to handle the interface between temporary cross-functional projects and disciplinary competence networks or line units. Project workers have, on the one hand, dual affiliations, and, on the other hand, they move between projects and disciplinary communities, as well as between different projects. Based on the studies presented in this thesis, I hence propose that the people capability is improved by people management systems that integrate people capability with functional and project capabilities. This involves integrating resource allocation for effective project teams with the development needs of individual project workers. It also involves designing appropriate and trustworthy forms for performance reviews, and minimising the risks for negative stress due to the high-intensive work environment and increased individual responsibilities.

Finally, the framework suggests that PBOs improve their people capability by including this capability in the integration of strategic and project capabilities. This concerns a people management system related to creating and exploiting business opportunities through the generation and execution of projects. The case studies indicate that most efforts have been directed towards the development of project management competencies, but project capability does not only embrace the competence of project managers. It also embraces the capability to generate, organise, carry out, and manage projects and project teams (see Paper V and Paper VI). One type of activity for a people management system that integrates people capability with project and strategic capabilities would then be directed towards the attraction and development of project management competencies, and the creation of appropriate project management career paths. Another one, which almost seems to be overlooked by existing research, is the activities to match the project portfolio with the 'work force portfolio', i.e. the people and competencies available. This concerns attracting and developing the people and competencies needed for future projects. At the same time, which seems particularly important in a project context, this also concerns creating business opportunities (generating new strategic projects) based on the strengths of the work-force portfolio, and on the need to attract talented project workers that are motivated by challenging assignments.

CONCLUDING REMARKS AND FUTURE STUDIES

In the following, I will outline the main contributions of the research reported in this thesis, based on the six papers and the synthesis of their findings presented in previous sections. In the following section, I focus on the three parts of the general aim presented in Chapter 1.

Challenges for HRM in project-based organisations

This thesis has explored the challenges that HRM face in project-based organisations and has provided deeper insights about how the particular characteristics of the PBO are related to these challenges. The study presented in this thesis, has primarily dealt with the following main areas of challenges for HRM in project-based organisations:

1. Competence-related challenges:
 - a. Achieving long-term competence development.
 - b. Finding adequate career structures.
 - c. Retaining knowledge while people move across organisational boundaries.
2. Performance-related challenges:
 - a. Designing trustworthy and effective performance reviews.
 - b. Facilitating 'swift trust' and defending project workers' reputation.
3. Individual-related challenges:
 - a. Managing the requirements placed upon on 'professional project workers'.
 - b. Managing high work intensity.

Furthermore, I have suggested that the distinction between macro-level and micro-level characteristics helps to explain how these organisational characteristics are linked to the HRM challenges. Based on this distinction, I argue that the main HRM challenges are triggered by the micro-characteristics involving cross-functionality, temporality, and heterogeneity in employment relations. Moreover, the studies have shown that the need for special efforts in order to improve the capability to meet these challenges are further accentuated by the macro-level characteristics of knowledge intensity and tension between permanent and temporary systems and logics.

Changes in people management systems

In response to the second part of the aim, this thesis reports on changes in people management systems of PBOs that constitute efforts to improve their

capability to handle the HRM challenges. As to this part of the aim, the thesis has made three main sorts of findings.

Concepts for the analysis of people management systems in PBOs

The thesis develops concepts for the analysis of people management systems. In this regard, I have suggested the distinction between the content and the structure of people management systems. I submit that this distinction facilitates the analysis of the changes in people management systems, since it clarifies, on the one hand, which activities are performed and, on the other hand, who performs these activities.

In addition, I have suggested a distinction between 'HR department' and 'HR organisation'. This emphasises the view of HRM as being a shared responsibility among various players, of which the HR department is usually one. Furthermore, I argue that existing research has overemphasised the HR department and HR specialists, without taking the overall HR organisation into account. For this thesis, this distinction has facilitated the analysis of the increased HR orientation of line managers and the changing roles and structures of HR departments. It has also emphasised the roles of individual project workers and project managers as active players in HR organisations of PBOs. To capture the importance of these micro-level players in the HR organisation, I have proposed the HR quadriad as a key part of the HR organisation of PBOs. The findings suggest that the HR quadriad and the interaction between its players are particularly relevant for studies of HRM and people management systems of project-based organisations.

Changes in content and structure

The case studies demonstrate important changes in the content, but particularly in the structure of people management systems. The studies reveal that concrete, top-down efforts have been made to develop the content of people management systems through new tools for competence mapping, career structures, and performance-review processes. However, many changes involve more of evolving alterations in working routines, ways of thinking, and an increased consciousness concerning the importance of people issues. In particular, the increased HR orientation of line managers is in this thesis considered to capture many of these embedded and gradually emergent changes. I also argue that this increased HR orientation of line managers should constitute an important parameter for the design of HR-departmental structures.

Conceptualising the findings

The thesis also conceptualises the findings regarding the changes in people management systems. I suggest a developed concept for line management to better capture what the role is about in a project-based context. I also propose alternative logics for HR specialists to explain the role and structure of HR departments.

In this thesis, I have argued that the changes in the line management role are driven by the increased cross-functionality and temporality, which is an important and sometimes even fundamental change of the work system. A direct effect of the increased cross-functionality is that the role of 'line units' is altered, and turned into HR-oriented 'competence networks'. The management role will then take the form of a 'competence manager' role, with a prime responsibility for people management activities related to a competence network of project workers.

Building on this suggestion, I argue that the characteristics of the work system affect the general division of responsibilities within the HR quadriad, which also affects the role of the HR department and the adequate structure to fulfil that role. The roles and structure for HR departments can, I argue, be explained by whether the organisation applies an HR-based or task-based logic for HR specialists. Drawing on the research reported in the thesis, I propose two main configurations of HR quadriads. These two configurations are based on different characteristics of the work system and the kind of project participation for project workers. I have distinguished between focused and fragmented project participation for project workers, which, I argue, influence the different roles taken by the players in the HR quadriad.

The concept of people capability and the people capability framework

In response to the third part of the aim, I have used a capabilities perspective on project-based organisations to conceptualise the findings concerning challenges and changes. Firstly, I suggest the concept of people capability to capture the activities required to make the organisation able to successfully manage the relation between people and their organisational context. In relation to the terms HRM and people management systems, which refer to a particular area of management and the firm-specific activities, processes, and role structures used, the people capability concept emphasises the importance of the organisations to learn how to make these people management systems successful and purposeful.

Secondly, I have proposed that an extension of the project-capability framework would be generative for the analysis of HRM and people management systems. The extended framework includes people capability in the architecture of organisational capabilities that have been identified as core

for the PBO. By doing so, it emphasises the importance of integrating people capability with strategic, functional and project capabilities, and that people management systems that enhance this integration can improve organisations' people capability. I have further suggested a number of activities that are critical for people management systems that set out to improve people capability of project-based organisations, addressing the challenges posed by the PBO context.

Future research

Research into HRM in project-based organisations is an area which still offers several avenues for future studies. In the following, I will address three fields where the research presented in this thesis suggests that future research could be particularly relevant.

One such field concerns studies into the organisational capabilities of PBOs. The research reported here suggests that it is relevant to pay attention to how the different capabilities integrate and interact. Studies across different types of PBOs could increase our knowledge about how their capabilities interact and how the management systems in various ways integrate the capabilities. In this thesis, I have mainly focused on R&D and engineering-intensive PBOs. However, the studies suggest that PBOs with customer-focused projects might build people capability in a different way than R&D-based PBOs, due to differences in work systems, technology used, project-life cycles, etc. Studies across different types of PBOs could hence provide a more elaborate picture of what constitutes people capability of PBOs, taking their different forms and variations into closer consideration. Moreover, the suggested framework for people capability in PBOs highlighted the potentially important activities that are needed to match the organisation's project portfolio with its 'work-force portfolio'. This opens up for studies into how PBOs balance the alignment of the work force to match the project portfolio, with the alignment of the project portfolio to the work-force portfolio, creating business opportunities based on the strengths of the people available to the organisation.

Another important field of research is the HR quadriad. More focused studies into different configurations of HR quadriads in different organisational settings would extend our knowledge about different ways of performing HRM, depending on the organisational context. Based on the studies in this thesis, I would particularly suggest studies of the work systems of different PBOs, focusing on different types of project participation (fragmented or focused). The studies suggest that this is an important parameter for the role of the competence/line managers, and also for their possibilities to perform people management activities. The type of project

participation should also be an important issue for the work situation of project workers, and their career development. The studies of this thesis pay particular attention to the roles of line managers and HR departments, but they also point out the significance of making more focused studies of individual project workers and project managers as active players in the HR quadriad. Such studies would contribute to enhanced knowledge of how HRM is organised and performed through a shared responsibility among various players. This would also contribute to an increased understanding of people management systems on a micro-level, and this is something that needs further attention in mainstream HRM literature, which has, I argue, perhaps overemphasised the strategic levels.

Finally, the research calls attention to several avenues for future studies that are linked to the work situation and careers of 'professional project workers'. There is a growing research interest of such issues, and the research reported here stresses the need for more studies within the field. One main question is how to achieve project-based organisations that provide the project opportunities that are attractive for the project workers that the PBO wants to attract. How do professional project workers manage their increasingly important role as key players in the HR organisation, as their own 'competence managers', as their own 'career strategists'? Here, qualitative studies based on interviews and observations would provide a deeper insight into the project-based working life. More quantitative studies including broad surveys among project workers across different industries would also be highly relevant to provide a broad empirical foundation of the subject.

In sum, drawing on the research reported in this thesis, these three fields would be relevant for expanding our knowledge about HRM in project-based organisations, a topic that, I am sure, will be core for the possibilities of project-based organisations to have sustainable project operations that continue to build competitive advantage, and that provide motivation and attractive stepping stones in the careers of project workers.

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