HRM, strategic climate and employee outcomes in hospitals

HRM care for cure?

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HRM, strategisch klimaat en medewerkeruitkomsten in ziekenhuizen: HRM als remedie?

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Chapter 1: Introduction

1.1 Introduction

The hospital sector and more broadly the health care sector is increasingly under pressure to operate more efficiently and effectively and has to respond to the challenges of increased market orientation, changed legislation and providing demand driven care. The most crucial factor in taking up these challenges involves the human resources (managers, professionals, specialists, nurses etc.) working in the health care sector. The way people are being managed, motivated and rewarded and the way in which they develop themselves can make the difference between a well-performing organization and a poor or mediocre performing organization. Therefore, human resource management (HRM) is a key management task in health care and other service sectors, where clients experience what employees experience. Or as Kabene, Orchard, Howard, Soriano, and Leduc, (2006) argued "since all health care is ultimately delivered by people, effective HRM will play a vital role in the success of health sector reform" (pp. 4). Although policy makers in health care increasingly recognize that a well-motivated, appropriate skilled and deployed workforce is crucial for the success of health system delivery (Buchan, 2004), empirical research focused on the added value of HRM in health care remains scarce.

Based on empirical evidence stemming largely from the profit sectors of the economy, we can conclude that HR practices, be it separately or bundled in a system, are related to firm performance (e.g. Combs, Liu, Hall, & Ketchen, 2006; Zacharatos, Hershcovis, Turner, & Barling, 2007). However, lack of research in the hospital sector raises difficulties because it remains unclear how and why HRM matters in this specific context. In this thesis we therefore aim to enhance our understanding of the process through which HRM influences performance in hospitals.

1.1.1 HRM and performance

Recently, Guest (2011) concluded, based on a review, that after over two decades of extensive research on the relationship between HRM and performance there are still some core questions to be answered. The first question is: *'what is the process whereby HRM can have an impact on performance?'.* The second question concerns the issue of taking context into account and asks *'Under what circumstances does HRM*

have an impact on performance?'. These questions are in line with the issues raised by several other scholars, like Paauwe (2009), Nishii and Wright (2008) and Boxall and Macky (2009).

The first question is concerned with the process through which HRM influences performance. Notwithstanding the fact that a large pile of empirical evidence (e.g. Arthur, 1994; Eaton, 2000; Huselid, 1995; MacDuffie, 1995), as well as reviews and meta-analysis of this literature (e.g. Boselie, Dietz, & Boon, 2005; Combs et al., 2006; Wright, Gardner, Moynihan, & Allen, 2005; Zacharatos et al., 2007) supports the claim that HRM influences performance, there is less agreement regarding the causal mechanisms through which HRM influences performance outcomes. From a human capital perspective, HRM contributes to performance by increasing the knowledge and skills of employees (e.g. Huselid, 1995). In addition, others have argued that HRM enhances the motivation and commitment of employees (high-commitment HRM), resulting in employee behavior which is in line with organizational goals (e.g. Appelbaum, Bailey, Berg, & Kalleberg, 2000). More recently, a relational perspective has been proposed, suggesting that HRM can enhance performance through the pathway of employee-employee relationships (e.g. Gittell, Seidner, & Wimbush, 2010). Although these, and other models (see for an overview Peccei, Van de Voorde, & Van Veldhoven, forthcoming), suggest different causal mechanisms through which HRM contributes to performance, they all imply that these mechanisms work through employee attitudes and behavior. In this thesis we therefore incorporate an employee perspective, which is according to Paauwe (2009) a 'conditio sine qua non' for advancing the field as a respected discipline (pp. 134).

The theoretical framework in this thesis is based on different process models (e.g. Boxall & Purcell, 2008; Nishii & Wright, 2008; Ostroff & Bowen, 2000; Purcell & Kinnie, 2007) and recognizes the many ways in which individuals as well as groups may experience and respond different to HR systems within hospitals. The idea that individuals differ in their perceptions of their environment and that these subjective perceptions drives their behavior is the cornerstone of climate research. Scholars in this area see climate perceptions as the mediating link between organizational characteristics in terms of practices, policies, procedures on the one hand, and various

attitudinal and performance based outcomes such as employee motivation, safety and service quality on the other hand (e.g. Bowen & Ostroff, 2004; Kopelman, Brief, & Guzzo, 1990). In this research we will therefore focus on climate and explore the role that this potential mechanism plays in mediating the relationship between HRM and performance outcomes. Specifically, we focus on strategic climate, which refers to employees' perceptions and experience of the organization's strategic goals and of the relevance of these goals in their daily work environment (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005).

The second core question that needs to be answered is *'Under what circumstances does HRM have an impact on performance?'.* This second question is concerned with taking contextual factors into account when examining the HRM performance linkage. When we look at previous research on HRM and performance we often see that concepts are applied without taking the characteristics of a specific context into account. Not taking these characteristics into account would lead to flawed results (Boxall & Macky, 2009) that might be explained away by the influence of contextual factors or, worse, fail to hold once certain factors are added to statistical analysis (Boselie et al., 2005). Hence, in order to be able to find out what really happens in hospitals (or in any other specific setting), researchers should try to 'contextualize' models and concepts (cf. Boxall, Purcell, & Wright, 2007; Paauwe, 2004) thereby avoiding 'cut, copy, paste' research.

Paauwe (2004) suggests using a contextually based approach to HRM, in order to pay attention to the specific context and managerial intentionality which have an effect on the shaping of HR practices and subsequent performance outcomes. Likewise, Boxall et al. (2007) suggest using an 'analytical approach' to HRM, in order to identify and explain what really happens in organizations. Or as they state it: "*the primary task of analytical HRM is to build theory and gather empirical data in order to account for the way management actually behaves in organizing work and managing people […]" (pp.4).* Specifically, this approach can be seen as a combination of evidence-based research, contextually based research and rigorous research methods.

In line with these suggestions we adopt a contextually based research approach in this thesis, which in fact consists of three parts. First, we start with an extended

exploration of the research context (chapter 2), by conducting a sector level analysis of the Dutch hospital sector. This analysis is based on *the Contextually Based Human Resource Theory* (CBHRT, Paauwe, 2004)*,* and contributes to our understanding of the impact of contextual factors on the management of employees in hospitals. Second, we will seek input of practitioners and managers with first-hand experience and in-depth knowledge of the hospitals in an early stage. This input will be used for identifying key issues which merit further investigation and for the further design of the study (e.g. selection respondents, developing surveys) (see chapter 4 for a more detailed description). The final step is focused on translating the research results into information that can be used in the hospitals. The process of "translating principles based on best evidence into organizational practices" is referred to as evidence-based management (Rousseau, 2006, pp. 256). Evidence-based management helps to bridge the gap between research and practices, as managers and policy makers in hospitals can use the empirical evidence to solve organizational problems. Additionally, it provides researchers with the opportunity to get feedback on the reasons why certain results are found within a hospital.

1.2 Research questions

The aim of this thesis is to gain insight in the relationship between HRM and performance in Dutch hospitals. As described in the previous section, we focus on strategic climate as a possible mediator between HRM and performance. Hence, the main research question for this thesis is formulated as:

How and to what extent does HRM contribute to performance in hospitals at different levels (individual and ward level) of the organization and to what extent does strategic climate have a mediating role in this relationship?

In order to answer this research question the following questions first needs to be answered:

- *Which types of strategic climate can be distinguished in hospitals?*
- *To what extent does HRM contribute to different strategic climate types?*
- *To what extent does strategic climate have an influence on performance?*

1.3 Relevance

Theoretical relevance - From a theoretical perspective, this thesis contributes to previous knowledge in a number of ways. First, it provides insight in the process between HRM and outcomes. More specifically, the main focus is on the process between HRM perceptions, strategic climate and employee outcomes. Second, this thesis contributes to the discussion on whether HR should be measured at the employee level instead of the organizational level. The majority of studies on HRM and performance are focused on the organizational level of analysis, asking managers to rate the HR practices in place. However, these studies ignore the idea that variation might exist within organizations. By including an employee perspective in this thesis, we acknowledge that variation might exist within organizations. Third, by using a contextually based approach we are able to take the specific characteristics of the research context into account. So far, most studies on the HRM and performance linkage ignore the specific characteristics of the organizational context. Finally, this thesis also adds to the climate literature by focusing on multiple strategic climate dimensions. Since the introduction of a facet specific climate approach, a lot of research has been conducted on the linkage between a *climate for something* (a facet) and a related facet specific outcome. Although this research has been fruitful in showing that a facet specific climate influences employees' attitudes and behaviors regarding that facet, it ignores the fact that multiple facet climates are likely to exist in one organization. Besides, hardly any research has been conducted on the antecedents of different climate types. This thesis contributes to both gaps in knowledge. First, multiple strategic climate dimensions will be included in this thesis. Second, the relationship between HRM perceptions and strategic climate will be tested, using both a systems and a practice approach.

Practical relevance - This thesis adds to bridging the gap between theory and practice. Using a contextually based approach allows us to work in close conjunction with managers and practitioners during the project. In an early stage this will help to the further design of the study, i.e. adapt it to the specific context if necessary. After the data collection, the research results will be translated into information that is useful for the participating hospitals. First, we will provide them with information about

challenges in the internal and external context and how these are related to relevant HR issues by means of conducting a force field analysis at the sector level. Managers and policy makers within hospitals can use this information as a starting point and basis for a strategic conversation about the (re)shaping of their HR system. Additionally, the results of this thesis can lead to recommendations about which HRM practices are relevant for creating strategic climate perceptions, and which HRM practices are relevant for the enhancement of performance. By means of focusing on the relationship between HRM, climate and outcomes at the ward level of analysis, we are able to provide direct supervisors with information about how they can affect employee perceptions about relevant strategic goals and how they can enhance positive employee outcomes within their ward.

1.4 Structure thesis

In order to gain a better understanding of the Dutch hospital context, this thesis starts with a force field analysis of the Dutch hospital sector (chapter 2). The aim of chapter 2 is to address the gap in knowledge about the influence of health sector reforms on the management of employees. The force field analysis conducted in this chapter is based on a theoretical framework (*contextually based human resource theory)* and takes different dimensions into account (market, institutional etc.) which have an influence upon the management of human resources.

Chapter 3 covers the theoretical framework. The theoretical framework in this thesis builds on the strategic HRM literature, HRM process models and climate literature. Combining these perspectives provides insight in how employees experience the strategic goals of the hospital in their daily work at the ward level. Next, attention will be paid on how HRM systems can communicate these strategic goals, and how HRM can be used to make sure that employees are able to and motivated to behave and act in line with these goals. The theoretical framework recognizes the many ways in which individuals as well as groups (i.e. wards) may experience and respond different to HR systems within an organization.

Chapter 4 describes the research design, the methods used, and the operationalization of the three main concepts (i.e. HRM perceptions, strategic climate and performance). The research design in this thesis is largely based on a contextually based approach.

This approach is focused on the questions how and why HRM might work and for whom (taking account of both employee and managerial interests). In order to understand how and to what extent HRM contributes to performance in hospitals (or in any other specific organization) one should take the context into account and identify and explain what happens in an organization.

The following four chapters are a collection of four articles (chapters 5-8) and are based on empirical data, collected in four large Dutch hospitals. These chapters are structured in the form of four research papers. Both qualitative (31 respondents were interviewed, documents were analyzed) and quantitative methods (4660 questionnaires were distributed with an overall response rate of 45.6%) were used to collect data. The data were analyzed using different analytical techniques (i.e. ward level, longitudinal and cross-level analysis).

Chapter 5 is aimed at testing the underlying climate construct, by means of combining qualitative and quantitative data from four hospitals. The qualitative data are used to find out which strategic goals are relevant for the participating hospitals, and if these strategic goals are translated in their HR policies and practices. The quantitative data are used to find out which strategic climate dimensions can be distinguished at the ward level of analysis.

Chapter 6 examines how employees perceive intended strategic goals and HRM at the ward level, and if these perceptions generate the desired effects. Both qualitative (i.e. document analysis and interviews) and quantitative data (employee surveys) from one hospital are used in this chapter.

The aim of chapter 7 is to test the mediating role of strategic climate in the relationship between HRM and ward commitment. This chapter adds to the insights of chapter 6, by using a cross-level design. Moreover, we test the mediating role of strategic climate using two-wave panel survey data collected in one hospital.

Chapter 8 examines the influence of different subsystems of HRM on strategic climate and employee outcomes which are relevant in our hospital context (i.e. ward commitment, organizational commitment, occupational commitment, job satisfaction, intention to leave and organizational citizenship behavior). We test this model using quantitative data from four hospitals.

The final chapter in this thesis (chapter 9) provides answers to the research questions, as well as an in-depth discussion of the empirical findings in this thesis. Strengths and weaknesses of the research are discussed, along with its practical and theoretical implications. Finally, suggestions for future research are provided.

Table 1.1 presents an overview of the aim of the chapters in this thesis.

Table 1.1 Overview chapters

Chapter	Aim
2	Getting to know the context: sector level analysis
3	Presentation conceptual framework
4	Description contextually based research design
5	Empirical test underlying climate construct
6-8	Empirical test mediating role strategic climate at different levels of analysis (individual, cross-level and ward level)
9	Conclusion and discussion

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Chapter 2: Mapping the context: Different scenarios for managing human resources in a changing hospital context

This chapter will be (partially) published in: Paauwe, J. & Farndale, E. (forthcoming). HRM and performance: Achieving long term viability (2nd edition).

2.1 Introduction

Across many countries health care systems are in a state of flux, as governments struggle with increasing demands arising from an ageing population and medical innovations, in conjunction with a more demanding public (Dubois, Nolte, & McKee, 2006) and cost containment issues (Buchan, 2000).

Health sector reforms have a major impact on health organizations and the employees working in these organizations (Buchan & O'May, 2002; Franco, Bennett, & Kanfer, 2002). General health reform on national level pushes health organizations towards change, for example with regard to increased attention for cost-effectiveness, service quality, safety, flexibility and innovation. Organizational change is most likely to affect employee outcomes with regard to employee commitment, satisfaction, motivation, job stress, trust, absence due to illness and turnover (Martin, Jones, & Callan, 2005). Low employee morale, general employee dissatisfaction, lack of trust in management, high employee turnover levels and job stress can be the direct result of organizational change when the (inevitable) change itself is not managed properly (Boxall & Purcell, 2008). Although many aspects of health care reform have been researched worldwide, there has been a surprising lack of attention to the human (worker) elements of reforms (Franco et al., 2002). The implications of reforms in terms of changes in the requirements of human resources have only been superficially addressed (Durán-Arenas & López-Cervantes, 1996). Moreover, health care reforms have rarely been translated into consequences for the management of employees in health care. This is remarkable, given the fact that employees are at the cutting edge in reconciling a whole range of pressures as a resultant from the reorganization and restructuring initiatives (Bach, 2000). Hence, more systematic research is needed on the added value of Human Resource Management in health care, as the right staffing mix (both in quality as well as in numbers) can make the difference between successful and less successful organizations.

In this chapter we will provide a framework (based on Paauwe, 2004), which can be used to systematically link contextual characteristics (including reforms) to the implications for the management of human resources in health care. Not taking context into account would lead to flawed results (Boxall & Macky, 2009), that might

be explained away by the influence of contextual factors or, worse, fail to hold once certain factors are added to statistical analysis (Boselie, Dietz, & Boon, 2005). Hence, before we start examining the relationship between HRM and performance in Dutch hospitals, we will explore the research context in more detail.

The aim of this chapter is twofold. First of all, we will use the framework in order to conduct a contextual analysis in the Dutch hospital sector. The use of the framework contributes to our understanding of the impact of contextual factors on the management of employees in a changing context. The second aim of this chapter is to provide different scenarios focused on alternative strategic choices managers and policy makers can opt for. These scenarios are used to further refine our model from a sector level perspective towards an organizational level perspective.

The chapter starts with a closer look at the field of HRM research. Do different HRM models take into account the significance of context? Then we will introduce the Contextual Based Human Resource Theory (CBHRT). This section is followed by a description of the methodology, and the application of the CBHRT model in the Dutch hospital sector. The chapter ends with different scenarios, focusing on alternative strategies for managing employees within hospitals.

2.2 The contextually based approach

The HRM and performance studies from 1994 onwards (e.g. Arthur, 1994; Huselid, 1995) show a general pattern that organizations can benefit from excellent people management called human resource management or high performance work practices. How and why HRM matters in specific contexts is often unclear. Two disciplines have mainly focused on this added value debate:

- Strategic human resource management (SHRM);
- Organizational behavior (OB).

The strategic HRM research is typically at the organization level including multiple HR practices, while the OB research (building on work and organizational psychology) is mainly at the individual level, while focusing on a single HR practice. Wright & Boswell (2002) argue that the strength of the strategic HRM research is the contextual awareness, its relevance for practitioners and the weakness is its lack of rigorous research techniques, whereas for OB research it is quite the opposite. Boxall, Purcell

and Wright (2007) therefore introduce the analytical approach that combines evidence based research with contextually based research (taking into account the contextual factors at organization, sector and national level) and more rigorous research methods.

To avoid 'cut, copy, paste' of high performance work practices that have shown value in the private sector we argue that a contextual analysis of the health care sector in a specific country is required.

2.3 The Contextually Based Human Resource Theory

Context matters, but what have we got? The early strategic contingency approaches in management (e.g. Pugh & Hickson, 1976; Woodward, 1965) highlight the relevance of both internal and external contextual factors for the shaping of an organization, for example with regard to the strategy, the organizational structure, the systems in place and the organizational culture. The popularity of the strategic contingency approaches decreased with the rise of a new theoretical school in strategic management: The resource based view (RBV) (Barney, 1991). The RBV is a reaction on the typical outside-in approaches that characterize strategic contingency models. The RBV is often labeled an inside-out approach emphasizing the potential value of internal resources (for example human resources) for organizational success. The RBV gained popularity in the 1990s and was further strengthened by the inclusion of human and social capital notions early 2000 (e.g. Wright, Dunford, & Snell, 2005). The RBV is build on the notions that internal resources can be a source of competitive advantage when the resources are scarce, valuable, difficult to imitate and difficult to replace. From an HR perspective it is thought that these internal resources (in particular human resources) can be managed and developed through so called high performance work practices (Boxall & Macky, 2009). In other words, organizations can outperform competitors through a special type of HRM called high performance work practices or systems. The RBV does acknowledge the relevance of the internal organizational context (configuration), however the external context is largely ignored (Paauwe & Boselie, 2003).

Oliver (1997), Deephouse (1999) and Paauwe and Boselie (2007) make a plea for restoring the balance between outside-in approaches (e.g. strategic contingency

approaches) and inside-out approaches (e.g. RBV). They emphasize the relevance of the internal and external organizational context by introducing new institutionalism (e.g. DiMaggio & Powell, 1983; Scott, 1995) in order to specify the external context of organizations. In their approaches the external organizational context incorporates market mechanisms (for example new products, technology and market developments) and institutional mechanisms (for example legislation, the role of trade unions, the role of the government, the impact of professional norms and societal norms and values). Oliver (1997) stresses the necessary blending of the outside-in and inside-out model for a better understanding of an organization in its specific context. In other words, both the internal and external organizational context affect the decision making and the shaping of people management in an organization. Distinguishing both market mechanisms (e.g. increased competition, need for innovation and increased customer demands) as well as institutional mechanisms (e.g. health care legislation, role of national government and medical professions) in these approaches appears to be highly relevant in contemporary health care settings. Figure 2.1 provides an overview of the role of context in management research in the past decades.

Paauwe (2004) introduces a theoretical framework that combines the outside-in and inside-out perspectives and takes into account both market mechanisms and institutional mechanisms. The framework incorporates elements of the contingency and configurational mode (Delery & Doty, 1996), new institutionalism (DiMaggio & Powell, 1983), and the Resource Based View (Barney, 1991), and is inspired by the Harvard model (Beer, Spector, Lawrence, Quinn-Mills, & Walton, 1984).

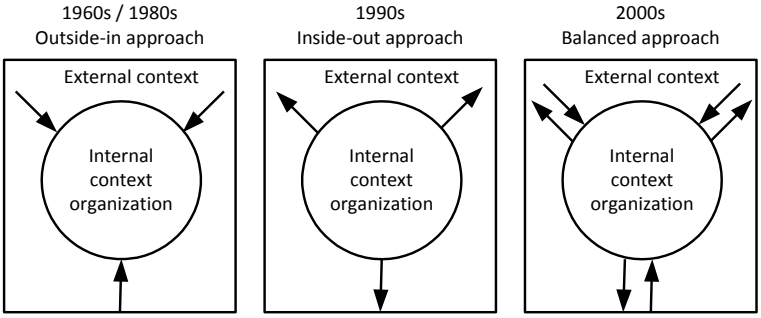

Figure 2.1 Paradigm shifts: the role of context in management research

The CBHRT model (see figure 2.2) distinguishes two different dimensions in the environment which more or less dominate the crafting of HRM. The first dimension is the *Product / Market / Technology dimension* (PMT). This competitive dimension shows how HRM is determined to a certain degree by demands arising from relevant product market combinations and the appropriate technology. These demands are usually expressed in terms of criteria like efficiency, effectiveness, quality, innovativeness. This dimension represents the tough economic rationality (added value). However, it is important to be aware of the fact that this dimension is embedded in or corrected by a second dimension, which -instead of emphasizing competitive mechanisms, - focuses on institutional mechanisms. This second dimension is the *Social / Cultural / Legal dimension* (SCL dimension) and embodies normative (Oliver, 1997) or relational rationality by focusing on moral values such as fairness and legitimacy. The outcomes of market forces are guided and corrected by prevailing values and norms (Paauwe, 2004: 90). So, more or less widely accepted societal values like fairness (a fair balance in the exchange relationship between individual and organization) and legitimacy (the acceptance of the behavior of organizations in the wider society in which they operate) will also have an impact on the shaping of HRM policies and practices (Paauwe, 2004: 90).

In addition to these two dimensions, the unique historical grown *configuration* of a firm also has a bearing on shaping and structuring HRM. This organizational/administrative heritage is the outcome of past choices and constraints which the organization has endured and the kind of culture this has engendered (Paauwe, 2004: 91).

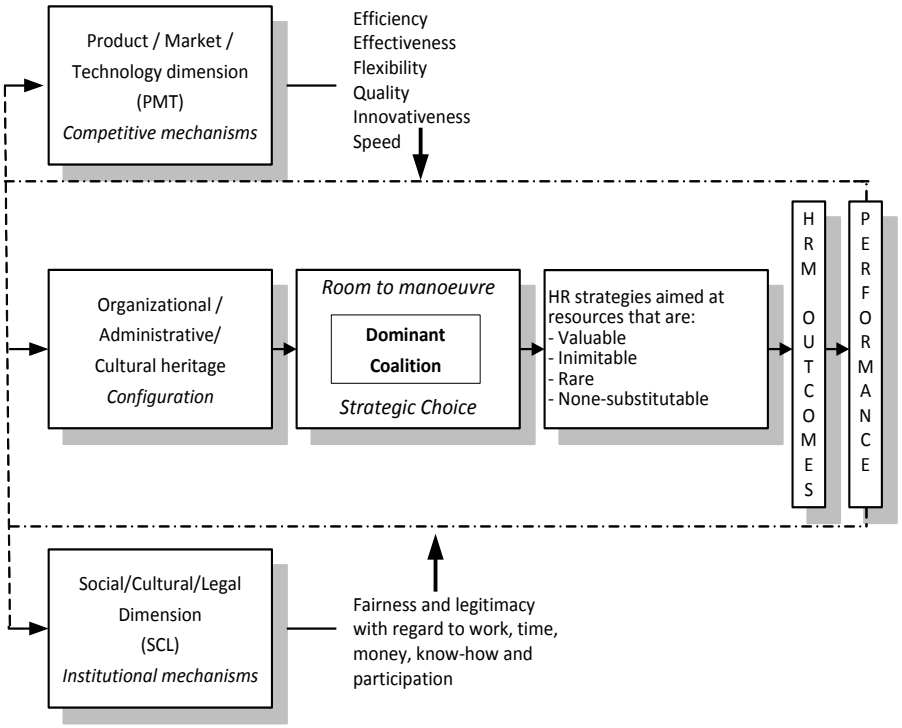

Figure 2.2 The contextually based human resource theory. Source: Paauwe (2004)

Next to a systems perspective the framework also takes into account an actors' perspective by including the so-called *dominant coalition*. The dominant coalition includes the people who hold the decision making power regarding HRM in the organization. Examples of these are a Board of Directors, Management team, Chief HR officer, works council etc. The dominant coalition is involved in shaping and selecting HRM policies and practices. These decisions are made within a certain *degree of leeway,* implying that the aforementioned three contextual dimensions are not fully determinative in shaping HR policies. To a certain degree there is room for manoeuvre, enabling the dominant coalition to make choices amidst of market and institutional forces/influences.

The right part of the CBHRT model shows that the unique shaping of HRM strategies is aimed at generating HRM outcomes (e.g. commitment, motivation, retention, and employee presence) which in their turn contribute to the performance of the organization (e.g. Boselie, 2010).

2.4 Methodology

In this chapter the CBHRT approach was used to map the Dutch hospital context. In order to do this we run through three different stages of data collection. During the first stage we conducted a document analysis and a literature review. The primary focus in this first stage was to gain insight in the role and relevance of different contextual influences on the shaping of HRM. In addition we performed an extensive review of publicly available information sources including websites of CBS[1], RIVM[2], and the Dutch Ministry of Health. This publicly available information provided relevant information about the sector (e.g. characteristics of the hospital workforce).

During the second stage we collected data by means of interviewing experts in the field of HRM in hospitals (n=31). Respondents were selected through purposive sampling (Miles & Huberman, 1994). The interviews were semi-structured based on a schedule designed by the authors, and covering questions about HR strategies in hospitals, relevant changes regarding the HR policies and practices, and changes within the hospital context that might influence HRM. The interviews were all recorded and transcribed. The researchers content-analyzed the interview transcripts (Miles & Huberman, 1994) to track relevant changes and issues with respect to HRM. Issues were considered relevant if reference was made to them during two or more of the interviews.

The information collected with the document analysis, the reviews and the interviews made it possible to map the Dutch hospital context, resulting in a completed CBHRT framework. In the last stage we presented this framework during a seminar, in which different health care and HRM experts (both scientists and practitioners) participated. During the seminar a very few and only minor changes were being suggested by the experts, which were then incorporated into the final framework. This final checkup made it possible to check for accuracy of our context analysis. The following sections describe the insights generated by applying the CBHRT framework to the Dutch hospital context.

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[1] CBS: Statistics Netherlands (Centraal Bureau voor de Statistiek).

[2] RIVM: National Institute for Public Health and the Environment (Rijksinstituut voor Volksgezondheid en Milieu)

2.5 The contextual based HR model in the Dutch hospital sector

2.5.1 Configuration/administrative heritage

Hospital care in the Netherlands is delivered almost exclusively in private not-for-profit institutions. Before the 1980s Dutch hospitals could be characterized by their inward-looking narrow focus. This inward focus was mainly reinforced and strengthened by the system of open-ended funding, i.e. there were no budget limits either on a global level or for certain health care expenses as health insurers paid all costs incurred by every health care organization (Paauwe, 2004). However, a crucial change in hospital finance happened in 1983, with the introduction of prospective, fixed hospital budgets. This means that, from that moment on, hospital reimbursement was based on different parameters (e.g. the number of authorized beds and medical specialist units, inpatient days, outpatient visits and hospital admissions) (Custers, Arah, & Klazinga, 2007). As a result 'efficiency' became the magic word in those days, leading up to many mergers between hospitals to achieve economies of scale. The Ministry of Health, Welfare and Sport actively encouraged and initiated these mergers, with the aim of improving quality of care and reducing the overcapacity in hospital beds (Maarse, Mur-Veeman, & Spreeuwenberg, 1997). These mergers and reorganizations have led to a major reduction of the number of hospitals. Since 1982 the number of hospitals reduced from 172 organizations (Meegdes, 1992), to 91 organizations in 2009. These 91 organizations comprise 141 locations and 60 external outpatients' clinics (Deuning, 2009).

The historical grown configuration of hospitals is based on a functional structure. This means that similar capacities are grouped in departments (units), for example, surgeons in the surgery department, and medical lab technicians in the diagnostics department. The main reason for this functional design is the task differentiation and specialization of physicians and to a lesser degree also nurses (Vos, van Oostenbrugge, Limburg, van Merode, & Groothuis, 2009). Given the fact that in a functional design each department strives to optimize its level of functioning, coordination between departments is often a difficult task. As a result, departments are not able to tune their processes to those in other departments. Currently, Dutch hospitals are in the middle

of a transition towards a more process-oriented and customer focused organization (see next section for more information about the reasons for this transition). In a process-oriented and customer focused organization, divisions are centered around the processing of well-designed categories of patients including both inpatient and outpatient services (Maarse et al., 1997). This means in practice that functional (and sometimes even organizational) boundaries are crossed, and members of different departments (or organizations) are encouraged to collaborate and achieve common goals (Vanhaverbeke & Torremans, 1999). Notwithstanding the fact that most of the hospitals actively pursue to redesign their organizational structure into a process oriented organization, most of the hospitals are still characterized by their functional design.

Governance of hospitals in the Netherlands is based on a "two-tier" board model. To be precise they have a board of directors, which is responsible for the day to day running of the hospital, and an independent board of supervisors (Eecklo, Delesie, & Vleugels, 2007). This independent board of supervisors, made up by co-opted volunteers, is responsible for checking and approving of the major decisions made by the board of directors (Hoek, 1999). Medical specialists do not have a full role in the hospital management and governance structure (Scholten & Van Der Grinten, 2002). Instead, most of the medical specialists are 'self-employed entrepreneurs' and work in so called partnerships *(maatschappen).* In spite of the fact that medical specialists are strongly dependent on hospital management for being able to treat their patients, they occupy a rather autonomous position in the hospital, directly affecting the management and policy making of the hospital as a whole (Boselie, 2010). That is to say, the hospital board is dependent on the medical staff in order to achieve its objectives. Given the fact that hospitals need the commitment of medical specialists towards these objectives, hospitals try to pursue the integration of medical specialists in their governance structure (Scholten & Van Der Grinten, 2002). A number of options are available for doing this: increasing the power of doctors at the top of hospital organizations or adopting the idea of "comakership", i.e. the dual management by doctors and professional managers (Ong & Schepers, 1998). Whatever direction is taken, it does have implications for decision making in hospitals, and so the

management of human resources in hospitals.

The core of hospital staff is comprised of professionals. In fact, one can distinguish between four groups of professionals, i.e. physicians, nurses, allied health (such as respiratory therapists, occupational therapists, dietitians and pharmacists) and the health administrators (Garman, Leach, & Spector, 2006). Management of professional employees has traditionally involved high levels of employee discretion. Employees in professional service firms typically have advanced educational qualifications (Boxall & Purcell, 2008). Professional networks and communities often provide training and education, both before and after organizational entry (Kalleberg, Marsden, Reynolds, & Knoke, 2006). In addition, these networks also create a shared sense of identity and common norms and values among their members (Golden, Dukerich, & Fabian, 2000). Based on these specific characteristics, professional employees do have different needs than non-professionals. Hence, managing HR in a professional organization, like hospitals, requires a customized approach which takes into account the needs of the professional employees.

Looking at other characteristics of the hospital workforce, one can say that it is a typical feminine sector (80.8% women), characterized by many part-time workers (70% of the employees work less than 34 hours per week) (RVZ, 2006). This pattern can be especially found among the non-physician employees, such as nursing and supporting staff. The profession of medical specialists is traditionally male dominated (in 2007 66% of the physicians was male) (Velden, Hingstman, Windt, & Arnold, 2008), mainly characterized by a lot of full-time workers. Nowadays this pattern slightly changes with the growing number of women physicians (in 2025 55% of the population of physicians will consist of women) (Velden et al., 2008), who prefer to work part-time (J. D. De Jong, Heiligers, Groenewegen, & Hingstman, 2006).

Lastly, the hospital workforce is traditionally characterized by status differences. A well-entrenched status hierarchy exists in medicine, making it difficult to speak across professional boundaries (e.g. physicians vs. nurses). This status difference can diminish professionals' tendencies to communicate, share authority and collaborate in problem solving and quality improvement (Nembhard & Edmondson, 2006), which might adversely affect patient care. Schmitt (1990) for example has shown that malpractice

in care was the result of hierarchical status differences. Physicians (high status) tended to ignore important information communicated by nurses (low status), and nurses held back relevant information from physicians.

Other status differentials between groups exist between management on the one hand and health care professionals on the other hand. Traditionally, decision making in hospitals has been dominated by physicians which have often pursued goals critical to their status as professional but which are not congruent with organizational goals (Lega & DePietro, 2005). Management functions were often handled by the health care providers themselves in collaboration with some non-professional help. Still, health care professionals often report up to other health care professionals within their discipline, rather than to the managers in their unit or hospital (Garman et al., 2006). Related to the introduction of more market competition (see next section for more details), managers have become more important for hospitals nowadays. Because of the high status of health professionals, hospital management faces the difficult task of engaging health professionals in managerial issues aligning their interests as much as possible with the organizational goals.

The hierarchy and related status differences not only exist between professional groups, but also exist within professional groups. Looking at the group of physicians, surgeons gain more prestige than other specialty physicians like internists. In turn these specialty physicians rank above primary care physicians (Oaker & Brown, 1986). The status differentials within groups are less salient than the status differentials between professional groups. However, the introduction of clinical pathways, in which different medical specialties collaborate with each other on behalf of the patient, might lead to more salience of this type of status difference.

In summary, the historical configuration is mainly characterized by: a large amount of mergers and reorganizations, the “two-tier” board, a bureaucratic way of organizing, autonomous position medical specialists, a functional based organizational structure, a hospital staff which is mainly comprised of professionals, a feminine workforce, and status differentials.

2.5.2 PMT dimension

The product-market-technology dimension is focused on the demands arising from relevant product market combinations and the appropriate technology. The main product (actually service) of hospitals is delivering care to patients. Traditionally the delivery of care was based on supply driven principles. However, the Dutch health care sector is changing from a supply oriented system towards a more demand and patient oriented system with a focus on more market competition. Nevertheless, this does not mean that policymakers seek to abandon planning and regulation. Rather, the aim is to combine some market incentives with a framework of rules to guide competition and the capability to intervene in case of market failures (Ham & Brommels, 1994). More market incentives should in the end lead to cost containment, higher productivity, better quality of care, and care that is tailored to customer preferences (Helderman, Schut, Van Der Grinten, & Van De Ven, 2005).

An important step to introduce more market competition was the introduction, in 2005, of a new reimbursement system based on output pricing, which should lead to more transparency and market orientation. In this new system a set of diagnosis-treatment combinations (DTC) form the basis for the introduction of product prices. A DTC includes all the activities and actions performed by the hospital and medical specialist in response to a patient's specific need for care, from the first consultation or examination to the final check-up (Custers et al., 2007). Hospitals receive money for each DTC they deliver. Most prices of these DTCs are set by the government, but freely negotiable prices are allowed for a number of routine operations, such as hip and knee operations. These freely negotiable prices account for about 34% of all DTCs (Van De Ven & Schut, 2009). This system enables insurers to purchase care based on price and, potentially, on quality — forcing hospitals to make prices transparent and increasing competition among them (Grol, 2006).

Another element of competition that is introduced was the new Health Insurance Act (HIA) in 2006, under which every person who legally lives or works in the Netherlands is obliged to buy, from a private insurance company, a basic benefit package (Enthoven & Van De Ven, 2007). Health insurers are intended to be buyers of care and for that

reason they were given possibilities to selectively contract with care providers. The government expects the reform of the health insurance system to result in a more equitable and cost efficient health care market and preserve individual freedom of choice in care providers (P. R. De Jong & Mosca, 2006).

Due to the introduction of more market competition hospitals are stimulated to strengthen their market profile toward their customers to maintain and expand their service area (Maarse et al., 1997). Various instruments are used to accomplish this, for example benchmarking, publishing annual public reports on hospital facilities and performance, publishing performance indicators on websites (e.g. Maarse et al., 1997), and measuring patient satisfaction continuously.

A more far-reaching intervention introduced, is the introduction of (integrated) care pathways. These care pathways are clinical management tools used to develop systematic and multidisciplinary care of patients (Verdú et al., 2009). Multidisciplinary cooperation and collaboration are required to facilitate these clinical pathways.

More market orientation does not only have an impact on the internal design of hospitals, it also stimulates cooperation with other health care providers outside the organization resulting in the creation of provider networks (chain care, *ketenzorg).* So both within as well as across organizational boundaries we see more teamwork of a multidisciplinary nature, which requires more insight into the nature of changing patterns of cooperation, teamwork and the necessary HR architecture to support and enable these new ways of working together across both functional and organizational boundaries.

Recently, the Dutch Minister of Health, Welfare and Sports, signed an agreement which allows hospitals to further specialize their care delivery processes. Up till now, most Dutch hospitals offer the same specializations, so that going to one hospital is as good as going to the next. However, the Dutch government want to stimulate further specialization of the types of care delivered, as it should lead to better quality of care, and cost reductions.

With respect to the technological developments in the Dutch hospital sector, a lot of attention is paid to electronic processing of patient data, such as online consultation or electronic prescription. At present, a major development that is taking place in the

Netherlands as well as in several other countries worldwide, is the introduction of electronic exchange of medical information at the regional or even national level (Ploem & Gevers, 2011). More specifically, the Dutch government currently works on the realization of a national electronic patient record, with the intention to exchange medical information between hospitals, general practitioners and pharmacy. At the organizational level, some hospitals started to create a "paper-free" organization (e.g. Bernhoven ziekenhuis, Atrium Medisch Centrum, Jeroen Bosch ziekenhuis), meaning that all necessary patient information is digitally recorded and medical exams are requested electronically. Moreover, these hospitals provide electronic patient portals where patients can make their own appointment or where they can check their own health records. These technological developments imply a new way of structuring work. Professionals must have acces to computers, and more importantly they must be able and willing to work with computers.

In summary, the PMT dimension is mainly characterized by the following key issues: the introduction of more market competition; the pressure to reduce costs, improve productivity, and to create high service quality which is tailored to customers' preferences; the creation of network organizations; and the need for innovation (e.g. technological developments).

2.5.3 SCL dimension

The SCL dimension is focused on characteristics of the present and future hospital workforce and the related institutional mechanisms that have a direct impact on the shaping of HRM.

The health care sector is very labor intensive. It is even one of the most labor intensive sectors of the Dutch economy. More than 1.3 million people are employed in the health care sector (15% out of a total workforce of 8.3 million employees). Almost 20% of the employees in health care work in the hospital sector. Consequently, labor costs are substantial; more than half of the total costs in hospitals consist of labor costs (e.g. in 2005 total costs in Dutch general hospitals were 14.1 billion Euros; labor costs were 8.7 billion Euros) (CBS, 2009). These labor costs are expected to increase even further as a result of an ageing workforce. Other implications of an ageing workforce are the

need for changing work patterns, and the replacement of staff. The ageing of society also affects health care, since elderly people need more care. The combination of an increasing demand for care and a diminishing capacity of manpower, bears the risk of higher work pressures. Hence, the ageing of the Dutch population is a major issue for HR in health care. First of all, it will become more difficult to attract and retain highly qualified personnel. Plus a further increase in work load is expected (which is high already) and this is most likely to lead to higher accident and sickness rates.

Another characteristic of the hospital workforce is that the majority of staff is well trained and specialized. In the Dutch hospital sector only 13% of the hospital staff is lower educated, or is not educated at all (Van der Velde & Verijdt, 2010). Hence, the majority of the hospital staff is comprised of professionals. Professionals often identify primarily with their profession, which may conflict with identification with the wider organizational context. Besides, employees often feel more committed towards their profession than towards the organization they work for (Johnson, Selenta, & Lord, 2006). A further characteristic of a professional workforce is their educational level, which is typically determined by professional standards of education and training. This training and education usually involves more than teaching specialist expertise. It also encompasses intensive socialization into the (often strong) norms and values of a professional network and its standards of integrity, judgment and loyalty (George, 2009). Given the fact that hospitals employ different groups of professionals and non-professionals, there is a lot of skill variation between different employee groups.

Looking at the institutional features of the SCL dimension, one can say that hospitals operate in a highly institutionalized context. This is mainly the result of a complex set of rules and procedures (e.g. for safety) in combination with the professionalization of specific employee groups (Boselie, 2010). In spite of the introduction of more market competition, the Dutch government still regulates the health care system by means of control over doctors' fees, the price determination of a large number of the DTCs, hospital budgets and quality and safety issues. Next to the government, other stakeholders, like the Dutch health care inspectorate and patient organizations, do have a major influence on hospitals. Hospitals need to report annual quality records to these different stakeholder groups. In addition these stakeholders have become more

intensively involved in improvement initiatives, like the program “faster better” (Grol, 2006).

Another aspect of the institutionalization is the existence of a National Collective Bargaining Agreement (CBA) for hospitals. The employer federation and the trade unions negotiate on this CBA. On behalf of all Dutch general hospitals (100% membership rate), the Dutch Hospitals Association (*Nederlandse Vereniging voor Ziekenhuizen)*, acts as employer's federation. On behalf of the employees, five trade unions are active in the hospital sector. With an average unionization rate of 30%, Dutch hospitals are relatively highly unionized, at least compared to other sectors of the Dutch economy.

In the CBA for general hospitals (academic hospitals do have their own CBA), many HR practices are pre-determined. For example, compensation (wages) and employee benefits are determined by the CBA. Typical for the CBA for general hospitals are the obligations to do overtime, and the inclusion of a provision (a so called ‘spare’ provision, *ontzie maatregel)* under which older workers (above the age of 55) are exempted from working night shifts and weekend shifts.

In 2009, a renewed CBA was agreed on. This new CBA is especially focused on attracting and retaining more employees. Special attention is paid to equal treatment of employees, irrespective of their age, by means of implementing personal “life stage” budgets. This individualized approach offers employees the opportunity to save time off, which can be used during different life stages. The age for the exemption of night shifts and weekend shifts is increased to 57 years. Furthermore, employees with a pensionable age (65 years) are now allowed to continue to work after they reach the age of 65. All these regulations should lead to a better division of work among younger and older employees, and a better work life balance as well as trying to extend the amount of available manpower for the near future.

In summary, the SCL dimension is characterized by: a highly institutionalized context, a tight labor market, an ageing workforce, a lot of skill variation between different employee groups, and strong professional norms and values. These features bring about the following issues: high professional but low organizational commitment, the

need for differentiation between employee groups in terms of HR policies and practices, high sick and accident rates and work-life balance issues.

2.5.4 Dominant coalition & the degree of leeway

The dominant coalition of most Dutch hospitals consists of a Board of Directors, a Supervisory Board, members of the works council (in which the unions have a strong representation), the HR manager / director and the unit managers. All of these actors have their own values, norms and attitudes, shared with others to a greater or lesser degree. In this respect, it is important to note that a good interaction and a shared ideology are crucial elements in creating understanding and credibility (Paauwe, 2004). This is highly relevant, given the fact that the actors together are responsible for the shaping, structuring and implementation of HRM.

The dominant coalition does have little leeway for shaping HRM policies and practices, mainly due to the relatively high degree of unionization and the sector wide CBA. These factors hinder the degree to which hospitals can differentiate themselves from competitors.

Additionally, hospitals have little financial leeway as they are dependent on government subsidies and face budgetary constraints. On the other hand, hospitals can nowadays create a bit more room for manoeuvre, since they can negotiate with health care insurers about the prices of some DTCs.

2.6 Focal HR themes for hospitals

The force field analysis in the previous sections has provided us with a useful overview of the major challenges and key issues in the environment of Dutch hospitals. In this section we will discuss and describe how the key issues arising out of the PMT and SCL dimension give rise to a number of focal HR themes, which are badly in need of attention in order to contribute to an optimal functioning of hospitals in the near future.

As a result of the ageing of the population the attraction and retention of qualified personnel is a highly relevant HR theme for hospitals nowadays. The ageing is expected to cause an increase in the demand for care, while on the other hand it leads to a shrinking workforce. In addition, hospitals face a weak competitive position in the

labor market due to a negative image, which is characterized by high work load, relatively low salaries, limited growth opportunities in terms of personal development and salaries, and the hierarchical structure mainly due to the position of medical specialists (Boselie, 2010). Consequently, hospitals have problems attracting and retaining qualified personnel, especially nurses.

Hospitals currently take various initiatives to attract and retain people. One of these initiatives to attract and retain people is the cooperation with regional training centers and other hospitals. A good example is the agreement reached by 13 hospitals in the southern part of the Netherlands. In this agreement they explicitly state that they will not actively recruit personnel from the hospitals who signed the covenant. The hospitals have also promised to help each other out in case of short term labor shortages. Most importantly, the hospitals will cooperate in order to create more training opportunities for specialized jobs (e.g. anesthesiologists and surgical nurses) both within as well as outside the hospitals.

A different initiative is the creation of more attractive growth opportunities by extending the role of nursing staff, through clinical nurse specialists, nurse anesthetists, physician assistants and nurse practitioners. Nurses with an extended role are involved in direct care and combine care from both nursing and medicine. The introduction of these extended roles should offer more attractive career opportunities to nurses and should contribute to continuity of care and substitution of scarce physicians (Van Offenbeek & Knip, 2004). An additional advantage of substitution for hospitals is the cost savings, as nurses are less expensive than physicians. Hence, substitution is not only a way to create more attractive growth opportunities but can also be seen as a relevant cost containment strategy (Schut, 1995). Given the fact that hospitals are facing an increasing need for cost containment, it seems to be common practice to use substitution as a cost containment strategy. This is especially the case at lower levels in the organization, where more expensive nurses are substituted for less expensive care assistants and aides (e.g. nutritionist's assistants). This type of substitution is not aimed at the creation of growth opportunities, but is mainly focused on reducing costs. Another way to reduce costs is by means of outsourcing ancillary and support services. These cost containment strategies seems to be at odds with the

need for the attraction and retention of qualified personnel, and contributes to a negative image in the hospital sector. This negative image, mainly based on the high work load, the relatively low compensation and limited growth opportunities, are serious issues to which HRM has to pay attention to. Furthermore, in terms of retaining employees, hospitals should focus on creating more organizational commitment. Like in other health care sectors, employees in hospitals are most likely committed to and motivated by their work (professional commitment) and their colleagues (ward or team commitment) (e.g. Cohen, 1998), but they are not primarily committed to the organization (Johnson et al., 2006). In particular employees are not committed to an organization that, as a result of mergers and reorganizations, has grown from a local and relatively small sized organization to a regional, complex organization. Factors that have been shown to increase organizational commitment in hospitals are adequate nurse staffing, organizational / managerial support for nursing, reduction of workload, leadership and adequate time for professional development (e.g. Aiken, Clarke, & Sloane, 2002).

Another focal HR theme is related to the design of the hospital organization and the work design within hospitals. As described in the PMT section, due to the need for more market competition, the design of hospitals is shifting from a functional based design towards a process-oriented and patient-focused organization. Such restructuring and reorientation is characterized by efforts to replicate private-sector management principles in hospital settings. This has been reflected in the introduction of commercially derived marketing concepts and management principles, like Total Quality Management (TQM), SixSigma, Investors in People, and the use of balanced score cards. This refocusing does have direct implications for professionals in health care, as the introduction of consumerism and managerial principles can be seen as fundamentally challenging the (long) established positions of health care professionals (Laing & Hogg, 2002). Traditionally, patients were seen as “grateful and passive recipients” of the services offered, as they deferred to the expert role and judgment of health care professionals (Currie, 2009). These health care professionals were guided by normative logics of medical professionalism. Recently, the role of patients has been recast as the “customer” (Geiger & Prothero, 2007), resulting in different expectations

from health care professionals. Given the fact that patients nowadays are better informed and expect more services, health care professionals are expected to act as service providers. This implies that they should look from a different angle to their relationship with the patients, and that they need to rethink their long established positions.

The restructuring not only has implications for the positions of health care professionals, it also does have an impact on the design of work processes. The introduction of (integrated) care pathways does imply that professionals more often need to cooperate and collaborate with other disciplines, both inside and outside the organization, resulting in more multidisciplinary team work. In terms of HRM this means that employees are expected to be able and motivated to work together across both functional and organizational boundaries.

Summarizing, the focal HR themes arising out of the PMT and SCL dimension are: attraction and retention, substitution, task redesign and working conditions. Based on the context analysis, we can conclude that these themes are badly in need of attention in order to create sustained competitive advantage in the nearby future. However, focusing on these themes is not enough. It should be noticed that the development and selection of HR policies and practices should address the sets of key issues related to both the PMT and SCL dimension. A lot of attention is (still) paid to the SCL dimension, as hospitals struggle with the expected labor shortages caused by the aging workforce. However, the PMT dimension cannot be ignored, as a result of the introduction of more market competition and cost containment programs. It is not clear how much attention HR managers in hospitals are paying to these market dynamics, but it might be clear that there is a need to make sure that professionals in health care are able and willing to focus on further improving the relationship with their “customers”.

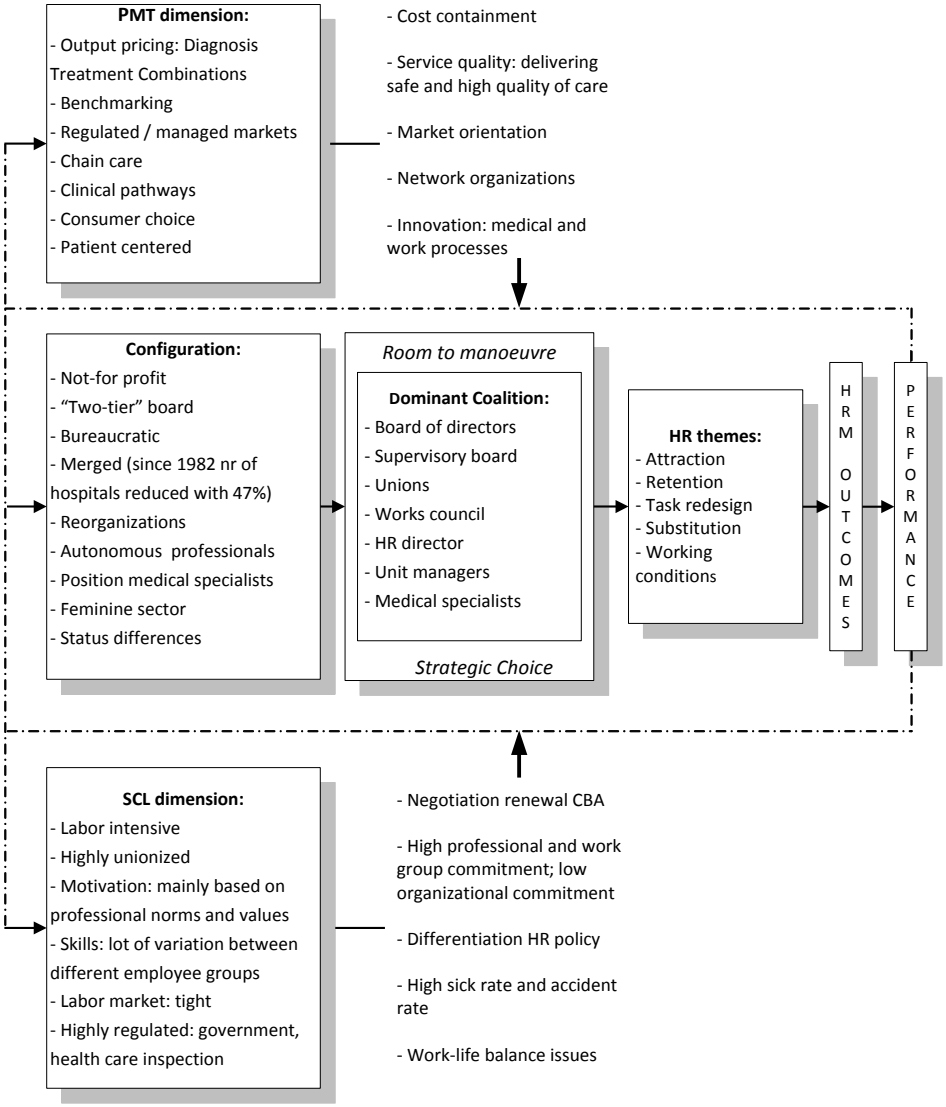

Figure 2.3 Summary sector level analysis based on CBHRT framework. Source: Paauwe (2004)

2.7 Scenarios: different strategies for a changing context

So far, we have described the different dimensions and the focal HR themes related to these dimensions (see figure 2.3 for a summary of these issues).

Based on this information we have a good overview of the present situation in the Dutch hospital sector, including the (upcoming) focal HR themes. The dominant coalition in hospitals is challenged to deal with these contextual factors and the focal

HR themes, in order to make a genuine contribution to continuity and preferably competitive advantage. Our analysis has been carried out at the sector level. So the next step is to consider what these themes might imply for each individual hospital. What kind of strategic choices are possible, given the available room for manoeuvre for making choices by the dominant coalition? Whereas the context analysis can be seen as an analysis and overview of the current situation ('Ist' situation) at the sector level, the next step can best be described as focusing on different strategic choices the dominant coalition can opt for in the nearby future ('Soll' situation).

Given the fact that the future is unpredictable, we will use a scenario method. This scenario method can best be described as a disciplined method for imagining possible futures (Schoemaker, 1995), and provides a tool that encourages policy professionals, planners and managers to establish strategies for alternative futures that allow for a clearer understanding of the uncertainties involved (Leney, Coles, Grollman, & Vilu, 2004). In this chapter the scenario method is used to further refine our framework from a sector level perspective towards the level of the individual organization. Three different scenarios will be described. Each of these scenarios is focused on a specific course of action the dominant coalition can opt for (i.e. 'the customer is king', 'a wonderful place to work', 'muddling through') and what this means in terms of selecting and shaping HRM policies and practices in hospitals. The scenarios are based on the general sector developments as described in the CBHRT framework.

2.7.1 Scenario 1: The customer is king

In *the customer is king* scenario, hospitals adapt to the need for more market orientation and the creation of added market value by means of delivering high quality and customized care for a reasonable price. The strategy of hospitals is focused on delivering and optimizing service quality, and hospitals act in such a way that the added value to their customers will be optimized. The organizational structure of hospitals is characterized by a process-oriented and customer focused design, including clinical pathways and chain care processes. The dominant coalition within hospitals is challenged to align the HRM policies and practices with the strategic goal of the hospital, in this case delivering high quality customized care. To be more specific

the dominant coalition is confronted with two focal HR challenges. The first challenge is task redesign. The drive for quality, patient centeredness and continuity of care is pulling towards a more organic way of organizing, in which work roles are integrated and combined and authority is decentralized to enable local decision making (Van Offenbeek, Sorge, & Knip, 2009). Examples of this form of organizing are chain care and clinical pathways, in which work is grouped around patients instead of professions. The work design around these processes asks for multidisciplinary teamwork, in which different occupations and medical disciplines work together. Open communication and information sharing between these different groups can be seen as important preconditions for this type of work design.

The second HR challenge is substitution of scarce physicians for nurses with extended roles. The introduction of extended nursing roles, like nurse practitioners, nurse consultants and physician assistants, responds to the demands for quality of care since these new roles help to reduce discontinuities in the care process and to reduce waiting times for patients (Van Offenbeek et al., 2009).

A possible drawback of opting for the *customer is king* scenario is that professionals working in the hospital might experience that they lose their professional autonomy. Due to the fact that they are expected to act as service providers, they need to deal with articulate consumers wishes and demands, leaving less space to be guided by normative logics of their medical profession.

2.7.2 Scenario 2: A wonderful place to work

In this second scenario hospitals adapt to the need for creating a better labor market reputation and position as well as creating a wonderful place to work. So the focus is on creating an excellent employee value proposition, which will be needed in the near future due to an ageing population in the Netherlands. An ageing population creates on the one hand a larger demand for care and cure and on the other hand implies the threat of a tighter labor market. The strategy of the hospital in this scenario is based on the fear of lack/shortage of staff in the near future, so they do their utmost to offer an attractive employee value proposition with a focus on the following HR challenges, namely attraction, retention, development and improvement of working conditions.

Different tools will be used in this scenario to attract more employees. One can think of labor market communication, and offering employee development and training programs (e.g. dual learning programs) in cooperation with regional training centers and schools.

In terms of retaining employees hospitals will focus on creating more organizational commitment. HR tools that have been shown to increase organizational commitment are adequate nurse staffing, organizational support for nursing, reduction of work load, leadership and adequate time for professional development (e.g. Aiken et al., 2002). The challenges of attraction and retention are intertwined with the challenge of improving working conditions. These will help to retain employees and lead to a better reputation at the labor market, resulting in attracting potential employees. Working conditions can be improved by reducing physical and emotional workload, improving the work-life balance, offering improved career opportunities, professional development, and better payment (Van Raaij, Vinken, & Dun, 2002).

A possible drawback of this strategy is that labor costs will increase in the short run. Reducing workload, offering good employment conditions and fringe benefits require more investments in employees. However these initial additional costs will be offset by lower staff turnover, better retention and lower cost for recruitment and selection once the hospital has established itself a reputation as the 'preferred' health care employer to work for in the region.

2.7.3 Scenario 3: muddling through

In *muddling through* hospitals do not make a deliberate choice in adapting to any of the external conditions. They do not choose to delight the customer, nor do they make a sincere effort to become the preferred employer in their region. Time, sense of urgency and (HR) professionalism are lacking to develop a clear strategy and link it to a well developed set of HR practices in order to make the chosen strategy a living reality, which becomes noticeable either among clients/patients as is the case in the first scenario or among present and future staff in the labor market, as is the case in the second scenario. Many hospitals nowadays find themselves pressed by the developments and pressures as outlined in our analysis. Top management fails to

make a clear choice and is constantly lagging behind in finding the right answers to meet with the demands arising out of the PMT and SCL dimension. Very often this is due to the lack of agreement among the dominant coalition. Professional top and mid level managers fail to reach an agreement with the medical specialists. Optimal solutions are not within reach due to the need for compromising based on diverging interests.

The resulting haphazard approach does not provide a clear sense of direction to employees, commitment reduces and clients perceive the hospital to be 'middle of the range'. Rankings drop and so does the attractiveness of the hospital in recruiting new staff. In the end this stuck in the middle scenario might even become a *doom* scenario.

2.7.4 Joint optimization

Reflecting on the three scenarios as outlined above, we notice that these are ideal-types in the sense that reality is not as clear-cut as depicted in our scenario analysis. So far we have also overlooked the most promising scenario, which fits the very nature of the contextually based human resource theory. The thesis put forward by Paauwe (2004) is that organizations can achieve a unique and sustainable competitive advantage by simultaneously optimizing the demands arising both out of the PMT dimension as well as the ones arising out of the SCL dimensions. Actually this implies *joint optimization*, as it focuses on meeting with the demands stemming from both competitive market pressures as well as institutional pressures for acting in a socially responsible way (i.e. fairness and legitimacy claims as put forward by legislation, governance bodies, and stakeholders like insurance companies, patients' associations, trade unions etc.).

More specifically related to HRM this means that policies and practices are focused on the one hand at creating more market value (i.e. delivering customized care) and on the other hand at improving the well-being of employees and the resulting employee value proposition. This is a difficult, yet challenging and feasible task for the dominant coalition and especially a professionally equipped HR function and department. The basic premise, underlying joint optimization here is that employees who are satisfied and loyal will provide better quality of care, leading to more patient satisfaction and

loyalty. Accomplishing this balance will result in a so called 'satisfaction mirror effect' (Heskett, Sasser, & Schlesinger, 1997). Customer's satisfaction with the delivered health care service reinforces the job satisfaction of the front-line service providers and vice versa.

2.8 Conclusion

This chapter started with a short overview of the use of context in research on HRM and performance. Based on the renewed attention for taking context into account and the relevance of identifying and explaining what happens in practice, we decided to use a contextually based approach in this thesis. In order to gain a better understanding of the Dutch hospital sector, we have conducted a force field analysis, using the CBHRT framework developed by Paauwe (2004). This framework of the CBHRT helps to map and explain the interaction between different dimensions, like the PMT and SCL dimension.

A few lessons can be learned from the force field analysis. First of all, the hospital sector is in a state of flux. The introduction of more market orientation, patient centeredness and cost containment (PMT dimension) initiate a growing focus on creating added market value. Nevertheless, issues like the ageing of the workforce in combination with a tight labor market, low organizational commitment, high professional and workgroup commitment and a highly institutionalized context (SCL dimension) cannot be ignored. Hence, the framework highlights the tensions between added value on the one hand (PMT dimension) and moral value on the other hand (SCL dimension). This 'pluralistic context' in which hospitals operate is not only characterized by multiple objectives, but also by diffuse power and knowledge-based work processes (Denis, Langley, & Rouleau, 2007). The diffuse power refers to the multiple stakeholders involved in strategic decisions (the dominant coalition). The knowledge based work processes imply the professional autonomy of employees, providing a broad scope of individual action instead of collective action.

Based on the different scenarios, as described in this chapter, one can expect that hospitals can opt for (a combination of) different strategic goals, like delivering high quality care, being innovative and / or to cut costs in order to gain a better market position (customer is king scenario), and / or improve working conditions (a wonderful

place to work scenario). In the next chapters we try to gain insight in the strategic goals of the hospitals under investigation. Moreover, we will focus on the relevance of shared perceptions among employees about these strategic goals, and how HRM can help to create these shared perceptions. Gaining insight in shared perceptions is highly relevant as these might help to achieve the multiple strategic goals of hospitals.

So far, we have only focused on the left side of the CBHRT framework. The right part of the model, which is focused on the link between HRM and performance outcomes at different levels (i.e. individual, ward and hospital level), has been underexposed. However, understanding the context before trying to gain insight in the question how HRM might influence performance in hospitals helps to gain insight in what really happens in practice. In the next chapter we will present a theoretical framework on the linkage between HRM and performance in hospitals. Special attention will be paid to the influence of HRM on employee perceptions, and how these (shared) perceptions will have an influence on performance at different levels (individual and ward level).

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Chapter 3: Theoretical framework: HRM, strategic climate & performance

3.1 Introduction

The main goal of this chapter is to build a conceptual framework in order to gain a better understanding of the HRM – performance linkage. In order to do this we focus on the strategic HRM literature, HRM process models, and climate literature. Combining these theoretical perspectives bridges 'macro' and 'micro' research, which is highly recommended (Bowen & Ostroff, 2004; Guest, 2001; Wright & Boswell, 2002). 'Macro' research reflects the more strategic HRM view and is mainly focused on the linkage between HRM and organizational performance. 'Micro' research reflects a more functional view, and focuses on the effect of HRM on individuals (Wright & Boswell, 2002). This thesis breaks down the barriers between the 'macro' and 'micro' research, by means of integrating the concept of strategic climate ('micro') within the strategic HRM perspective ('macro'). Combining these perspectives provides insight in how employees experience the strategic goals of the hospital in their daily work at the ward level. Furthermore, attention will be paid on how HRM systems can communicate these strategic goals, and how HRM can be used to make sure that employees are able to and motivated to behave and act in line with these goals. Finally, we present our conceptual framework and propositions, which will be empirically tested in this thesis (chapter 5, 6, 7 and 8).

3.2 From HRM to performance

In 1997 Guest (pp. 236) argued that in order to understand the impact of HRM on performance we need:

- A theory on HRM (what do we mean by it?)
- A theory on performance (what kind of performance and at which level of analysis?)
- A theory on how they are linked.

This summation of requirements is still relevant. In the literature on HRM and performance there is still no consensus on the conceptualization and operationalization of both concepts. A first step in understanding the linkage between the two concepts is to have a clear definition of both HRM and performance. Hence, we will start with defining both HRM and performance, followed by a description of the HRM – performance linkage.

3.2.1 HRM

Since the introduction of the term HRM in the 1980's, there have been debates about the meaning and conceptualization of HRM. To date, there appears to be no consensus on the nature of HRM (Paauwe & Boselie, 2005, pp. 69) and there is not a fixed list of generally applicable HR practices and management activities. Academics in the field of HRM seem to have their own way of defining and operationalizing HRM. An extensive review study by Boselie, Dietz and Boon (2005) based on 104 articles highlights the confusing picture regarding what constitutes HRM. Boselie et al. (2005) not only examined which HRM practices or principles were used in the different studies (in total 26 were distinguished), they also explored the theoretical frameworks that were used in the articles under review. The results of this analysis show that three dominant theoretical frameworks can be distinguished within the HRM field, namely the contingency framework, the resource based view and the 'AMO' theory. Early contingency theorists (e.g. Mintzberg, 1979; Pugh & Hickson, 1976) state that the effectiveness of HRM is dependent on influences such as company size, age, technology, strategy, capital intensity, the degree of unionization, industry / sector, ownership and location (i.e. contingencies). In other words, in order for HRM to be effective, it should be aligned with the internal and external organizational context (Delery & Doty, 1996). The popularity of the contingency approach decreased with the rise of a new theoretical school in management: the resource based view of the firm (RBV) (see also chapter 2). The RBV gained popularity in the 1990s and can be seen as a reaction on the typical outside-in approach that characterizes the contingency models. The RBV is often labeled an inside-out approach emphasizing the potential value of internal resources (for example human resources) for organizational success. The RBV is built on the notion that internal resources can be a source of competitive advantage when the resources are scarce, valuable, difficult to imitate and difficult to replace. From an HRM perspective it is thought that these internal resources (in particular human resources) can be managed and developed through the use of HR practices (Boxall & Purcell, 2008).

Both the contingency theories and the RBV are situated at the organizational level of analysis, using respectively an outside-in and an inside-out approach. The third dominant theoretical framework in the HRM field, the AMO-model, is focused on individual level factors, and can be seen as complementary to both the contingency theory and the RBV (Kaufman, 2010). According to the AMO-model people perform well when (Boxall & Purcell, 2008, pp. 5):

- they are able to do so (they can do the job because they possess the necessary knowledge and skills);
- they have the motivation to do so (they will do the job because they want to and are adequately incentivized);
- their work environment provides the necessary support and avenues for expression (e.g. functioning technology and the opportunity to be heard when problems occur).

In terms of HRM this means that HR practices can be bundled to enhance ability, motivation and opportunity.

Nowadays, researchers increasingly blend these (and sometimes other) theoretical frameworks in an overall theory (Boselie et al., 2005).These three dominant theoretical frameworks in the HRM field can be seen as a good starting point for further theorizing on HRM. Based on these frameworks we will define HRM in this thesis as: "*HRM involves management decisions related to policies and practices which together shape the employment relationship and are aimed at achieving individual, organizational and societal goals"* (Boselie, 2010, pp. 5).

This definition acknowledges that HRM is aimed at managing human resources (i.e. the employment relationship) in order to achieve multiple goals at different levels (i.e. individual, organization and societal level). Furthermore, it implies that HRM consists of multiple management activities. In this thesis we will include both work related activities and employment related activities, as both types are relevant for the shaping of the employment relationship. The work related activities are to do with the way the work itself is organized, including job design practices (e.g. autonomous work teams and job enrichment) and formal participatory practices (e.g. quality circles and problem-solving groups) (Godard, 2004). Employment related activities include all the activities used to recruit, deploy, motivate, consult, negotiate with, develop and retain

employees, and to terminate the employment relationship (Boxall & Macky, 2009). These different types of activities can be seen as an integrated and coherent 'bundle' of mutually reinforcing practices (Gerhart, 2007). Illustrative for this systems view is that it takes into account that practices are interrelated and that these practices should interact or work together in achieving their effects. However, one can also view HRM as a collection of multiple, separate practices without any mutually reinforcing effects (Boselie et al., 2005). The use of a practice approach highlights which practices are most relevant for the creation of desired outcomes. Based on previous research it is not clear which approach is best. Boselie et al. (2005) reviewed 104 articles on HRM and performance. 58 articles applied a practice approach, and the remaining 46 explicitly used a systems approach. Given the pervasive empirical evidence and the diffuse literature, both 'a systems approach' and a 'practice approach' will be tested in this thesis (chapter 6).

3.2.2 Performance

In the HR field different types of outcomes are relevant. Dyer and Reeves (1995) make a distinction between three types, i.e. financial outcomes (e.g. profits, sales, return on invested capital), organizational outcomes (e.g. product and service quality, innovation, effectiveness), and HR-related outcomes (e.g. attitudinal, cognitive and behavioral outcomes among employees). Research examining the added value of HRM in the profit sector is often focused on distal financial and organizational outcomes (Paauwe, 2004), also referred to as the shareholders approach. The use of this unitarist shareholders perspective is problematic, as it takes for granted that profitability and financial performance are the end goals of HRM (Purcell & Kinnie, 2007). Notwithstanding the fact that adequate financial performance is relevant for organizations (even for organizations like hospitals), performance should reflect multiple stakeholders like employees, line and top management, customers / clients and society at large (Paauwe, 2004). This stakeholder's perspective can be directly linked to the concept of 'goals'. Each different stakeholder (group) does have its own goals and objectives. Nurses for example want a proper work-life balance, while hospitals for example opt for more efficiency. Using a stakeholder's perspective

automatically implies the acknowledgement of multiple goals. Several authors recognize the existence of multiple HRM goals. Boxall and Purcell (2003) for example, refer to three critical HR goals, i.e. labor productivity, organizational flexibility (capacity to change and / or adapt) and social legitimacy (legitimacy towards the outside environment, e.g. in relation to society, government and customers). Paauwe (2004) makes a somewhat different, but related distinction, namely strategic performance (close alignment of HRM with business strategy), professional performance (professional rendering of services by the HRM function) and societal performance (fairness and legitimacy). This pluralistic perspective on performance takes into account the economic side of organizing (labor productivity and creating added value) and the human side of organizing (legitimacy, fairness and creating moral value). A critical remark should be made here: there is a natural tension between these perspectives. Organizations that mainly focus on the goal of added value may lose the moral values out of sight. This can be problematic, since these organizations may face legitimacy challenges. That is, potential exchange partners do not approve of the organization's strategy and as a result do not consider doing business with the organization. Consequently these organizations will not be superior performers. Conversely, organizations that mainly focus on the moral values will act in the same legitimate way as other organizations. As a result they compete with many other organizations in a similar way for similar resources. Although these organizations act in a legitimate way, the competition with other organizations is too strong to be a superior performer. Hence, both added value and moral value should be taken into account when measuring the added value of HRM. These dimensions of performance are often measured using distal indicators, like mortality rates (e.g. West et al., 2002), service quality (e.g. Scotti, Harmon, Behson, & Messina, 2007) or profit (e.g. Huselid, 1995) However, the use of distal indicators is problematic because these outcomes are potentially also affected by other non-HRM factors. Guest (1997) makes a plea for using more proximal indicators when examining the added value of HRM. The HR-related outcomes (e.g. attitudinal, cognitive and behavioral outcomes among employees) can be seen as proximal indicators, as these are directly or almost directly affected by HR interventions or HR practices. Moreover, it is expected that employee

attitudes and behaviors affect the more distal outcomes (e.g. Nishii & Wright, 2008). Given the risk of overestimating the HR effect on distal outcomes we will use different proximal HR-related performance outcomes. In the next section we will discuss in more detail how HRM is linked to these outcomes.

3.2.3 The HRM - performance chain

In recent years, HR scholars and practitioners have recognized that HR practices are at least weakly related to firm performance (Paauwe & Boselie, 2005; Wall & Wood, 2005; Wright & Gardner, 2003). In particular, the strategic HRM perspective suggests that organizations can use high performance or high commitment work practices to drive organizational performance (e.g. Becker & Gerhart, 1996; Guthrie, Flood, Liu, & MacCurtain, 2009). This claim is now supported by a large pile of empirical evidence (e.g. Arthur, 1994; Eaton, 2000; Huselid, 1995; MacDuffie, 1995), as well as reviews and meta-analysis of this literature (e.g. Boselie et al., 2005; Combs, Liu, Hall, & Ketchen, 2006; Wright, Gardner, Moynihan, & Allen, 2005; Zacharatos, Hershcovis, Turner, & Barling, 2007). Models describing the HR-performance chain have advanced from rather simplistic models, linking HR practices directly to rather distant indicators of (financial) performance, to far more sophisticated ways of thinking about the relationship between HRM and performance (Paauwe, 2009). Ostroff and Bowen (2000) were one of the first researchers describing a more sophisticated model on the HRM-performance linkage. They introduced a meso-framework, proposing that a strong HR system results in the emergence of shared employee perceptions which subsequently are responsible for performance improvement. Nishii and Wright (2008) also introduced a multilevel process model of HRM (see figure 3.1). The model makes a distinction between intended, actual and perceived HR practices. The intended practices refer to the HR policy and strategy, often written down in official documents or HR handbooks. The actual HR practices are those practices that are really put into practice. Making this distinction is highly relevant, as it recognizes that the intended HR practices are not always put into practice, and those that are may often be implemented (mainly by line managers) in ways that differ from the initial intention. The actual practices are perceived by employees in a certain way (perceived HR

practices) and employees react to them (employee outcomes). The employee outcomes are expected to have a positive influence on organizational performance. This process model provides some valuable insights in the relationship between HRM and performance. First of all, the model recognizes that variability in HRM exists not only between organizations, but also within organizations (i.e. individual and group levels). Taking this variability into account is highly relevant when examining the relationship between HRM and performance, since the actual effect of HR practices may differ from the expected effect of these practices as a function of employees' perceptions of the HR practices to which they are subjected (Nishii & Wright, 2008, pp. 229).

Second, it brings employees back into the equation between HRM and performance, which is according to Paauwe (2009), a 'conditio sine qua non' for advancing the field as a respected discipline (pp. 134). In the end, HRM is focused on the effective management of employees, and so it is interesting to find out how employees react to this.

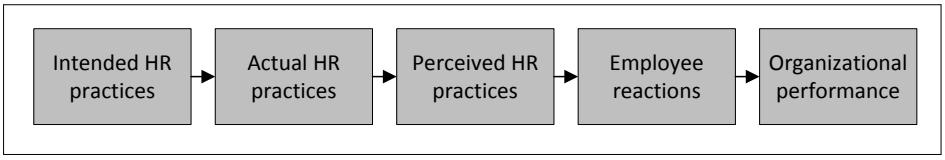

Figure 3.1 Simplified version process model of HRM. Source: Nishii & Wright (2008, pp. 227)

Different authors (e.g. Boxall & Purcell, 2008; Purcell, Kinnie, Swart, Rayton, & Hutchinson, 2009) draw ideas from Bowen and Ostroff and the process model by Nishii and Wright. This type of modeling can be seen as a contribution to the theoretical refinement of existing theories through conceptual insights (e.g. making the distinction between intended, actual and perceived HR practices). Worth noticing here, is the fact that the frameworks and theories used assume that HRM is beneficial for both the organization and the employees (so-called mutual-gains perspective) (Appelbaum, Bailey, Berg, & Kalleberg, 2000). In figure 3.1 the assumption is made that HRM leads to positive employee reactions, and in turn these will positively affect organizational performance. However, this assumption is not as straightforward as it seems. From a more critical perspective, also referred to as conflicting outcomes perspective (see Van

De Voorde, 2010), one could argue that HRM might pay off in terms of organizational performance, but at the same time has no (skeptical view) or even a negative effect on employee outcomes (pessimistic view) (Peccei, 2004). Yet, given the fact that most of the empirical evidence is in favor of the mutual gains perspective (see for a recent review Van De Voorde, 2010), the assumption made in the process model seems to hold. We will therefore use the process model as a building block in this thesis.

As discussed before, the process model recognizes the many ways in which individuals as well as groups may experience and respond different to HR systems within an organization. The idea that individuals differ in their perceptions of their environment and that these subjective perceptions drives their behavior is the cornerstone of climate research (James, James, & Ashe, 1990; Rentsch, 1990). Scholars in this area see climate perceptions as the mediating link between organizational characteristics in terms of practices, policies, procedures on the one hand, and various attitudinal and performance based outcomes such as employee motivation, safety and service quality on the other hand (Ostroff, Kinicki, & Tamkins, 2003). In this research we will therefore focus on climate as a possible mediator between HRM and performance. By integrating the concept of climate in the HRM and performance literature this thesis breaks down the barriers between the 'macro' (strategic HRM) and 'micro' (organizational psychology / behavior) perspective.

After discussing the concept of climate in more detail in the next section, we will specify a causal chain for understanding how HRM can contribute to performance by motivating employees to adopt desired behaviors and attitudes which will, collectively, help achieve the organization's strategic goals.

3.3 The concept of climate

Climate can be described as an experientially based description of what people see and report happening to them in an organizational setting (Schneider, 2000), and is widely defined as employees' perceptions of what the organization is like in terms of practices, policies and procedures (Reichers & Schneider, 1990). Although there is a whole stream of climate research there is still confusion about the climate concept.

First of all, there is a debate about the measurement level of the climate concept. Climate can be measured at the individual level, referred to as psychological climate.

Psychological climate reflects an individual assessment of the work environment in terms of the meaning to and significance for individual employees (James & Jones, 1974). These psychological climate perceptions can be shared within a unit (e.g. team, ward, department or organization). Most of the research based on shared climate perceptions, is focused at the organizational level of analysis. This type of climate, also called *organizational climate,* refers to employees shared perceptions of the types of behaviors and actions that are rewarded and supported by the organization's policies, practices and procedures (Schneider, 1990). The rationale behind the aggregation of individual data to a unit level is the assumption that organizational collectives have their own climate. These different climates, also called sub-climates, can be identified through the demonstration of significant differences in climates between units and significant agreement within units (Patterson et al., 2005). In this thesis we will focus at the ward level of analysis. Hospitals are very large, complex and departmentalized organizations (Dawson, González-Romá, Davis, & West, 2008), and most of the interactions and socialization processes will take place at the ward level, where employees work together on a day-to-day base. As a result we expect that climate perceptions will be shared at the ward level, but not per definition on the organizational level.

Secondly, researchers have begun to explore the multiple characteristics of climate such as climate *level* (the mean value of individual perceptions of the climate) and climate *strength* (the degree of within-unit agreement among unit members' climate perceptions) (Kuenzi & Schminke, 2009). By means of focusing on these different characteristics researchers try to integrate constructs and approaches at the individual and unit levels of climate. The main focus in this thesis will be on climate level. Notwithstanding the relevance of climate strength, the use of this construct is not without problems. Climate level and climate strength are interdependent of each other (see Dickson, Resick, & Hanges, 2006; Lindell & Brandt, 2000). A precondition for aggregating climate level scores to the ward level is that there is sufficient within-group agreement (i.e. climate strength) (González-Romá, Peiró, & Tordera, 2002). Given the fact that we want to analyze the climate perceptions at the ward level, the within-unit agreement criterion must be met, that is there must be moderate to high

levels of agreement within wards. In other words, these wards should show moderate to strong climate strength. Meeting this prerequisite implies that there will be a lack of variation within the climate strength measure across wards. For this reason we will only focus on the concept of climate level in this research.

3.3.1 Climate research: achievements so far

For more than half a century, scholars have sought to understand the concept of organizational work climate, its antecedents and consequences. During these years, the focus in climate research has changed, as researchers recently have switched their focus from viewing climate as a global construct to a facet specific construct (Kuenzi & Schminke, 2009). The global perspective includes everything that happens in an organization (Ostroff et al., 2003). Early work within this global perspective attempted to understand the total situational influences within organizations and their effects on employees (e.g. James & Jones, 1974; Litwin & Stringer, 1968). However, no consensus existed about how to define global climate, and a sound theoretical base was missing. As a result each time a researcher wanted to measure some interesting organizational phenomenon new dimensions were being added to the conceptualization of climate, without theoretical rationale (Schneider, 2000). Consequently, the global climate concept became too amorphous, inclusive and multifaceted to be useful in organizational studies (Schneider, 1975). Schneider therefore suggested switching the focus from global to facet-specific climates. According to this approach climate should represent a specific construct with a particular referent such that climate should be a climate *for* something, like a climate for innovation (e.g. Anderson & West, 1996), a climate for safety (e.g. Katz-Navon, Naveh, & Stern, 2005; Neal, Griffin, & Hart, 2000; Zohar, 2010) or a climate for service (Schneider, 1990). The underlying premise within the facet specific approach is that facet climates are related to facet outcomes. Different studies have demonstrated that a facet climate influences employees' attitudes and behaviors regarding that facet. For example, a research conducted by Schneider, White and Paul (1998) illustrated that a climate for service yields service oriented behaviors by employees toward customers, resulting in positive customer perceptions of service quality.

Compared to the global climate measures that contain many dimensions that are not relevant when studying the relationship with performance, the facet approach contributes more precise and targeted information about relevant influencing factors (Schneider, 2000). Up till now, most of the facet-specific climate research is focused on one specific climate type at a time (see for a recent and extended overview Kuenzi & Schminke, 2009), which is remarkable as it is generally acknowledge that multiple types of climate exist within an organization (Ostroff et al., 2003). In this thesis we will therefore focus on multiple facet specific climates. Exploring multiple facets together helps to create a full and accurate understanding of how climate affects individual and collective outcomes within organizations. In the next section this approach will be discussed in more detail.

3.4 Propositions: the role of strategic climate

The concept of climate has its foundations in organizational psychology and organizational behavior (OB), as it is focused on how individual employees perceive what happens in their work environment. As described in the previous section, the global climate perspective was mainly concerned with understanding the total situational influences in organizations and their effects on individual employees. A major challenge in this approach is that it is difficult to pinpoint which dimensions of climate are predictive of desired outcomes (i.e. employee attitudes and behavior; performance). Due to this lack in predictability it is not possible to create better outcomes by means of changing the climate. The introduction of the facet-specific approach by Schneider (1990) seems to solve this problem, and can even be used for strategic purposes by means of linking shared climate perceptions towards specific strategic goals (i.e. facets). According to this approach a strategic climate should encourage employees to respond and behave in ways that support the strategic objectives (Ostroff & Bowen, 2000). Measuring strategic climate provides insight in the degree to which employees are behaving consistent with a given formulated strategy. Focusing on strategic climate acknowledges the centrality of employees to the success of accomplishing the organizational strategy (Schneider, Bowen, Ehrhart, & Holcombe, 2000). Different studies have demonstrated that a climate for a specific strategic goal indeed influences employees' attitudes and behaviors regarding that goal. For

example, a research conducted by Naveh, Katz-Navon and Stern (2005), illustrated a direct linkage between positive perceptions of a safety climate and a reduction of the number of medical treatment errors. Hence, in this thesis the focus will be on the strategic climate approach.

In the subsequent sections we will describe in more detail the role of strategic climate in the HRM performance linkage. Based on the current literature we develop some propositions, on which our conceptual framework is build.

3.4.1 Strategic climate dimensions

So far, most of the research on strategic climate and other facet-specific climates has been focused on one specific climate type at a time. However, we expect that multiple strategic climates are relevant for organizations, as they act in multiple performance domains and need to deal with different stakeholders, resulting in different strategic goals to be accomplished. It may be fruitful to simultaneously examine multiple strategic climate types. Indeed, Kuenzi et al. (2009) argue that "exploring single climates in isolation is unlikely to be the most productive path to creating a full and accurate understanding of how work climates affect individual and collective outcomes within organizations" (pp. 73).

In this thesis we also expect that multiple strategic climate types can be distinguished within the participating hospitals, given the fact that hospitals operate in multiple performance domains and need to deal with different stakeholders. The sector level analysis (see chapter 2), for example, showed that hospitals operate in a market which is nowadays more focused on delivering high quality care, while at the same time there is an increasing pressure to work more efficiently.

3.4.2 The role of strategic climate in the HRM-performance linkage

Scholars in climate research see climate as the mediating link between organizational characteristics in terms of practices, policies, procedures on the one hand, and various attitudinal and performance based outcomes such as employee motivation, safety and service quality on the other hand (Ostroff et al., 2003). Derived from this, one could argue that strategic climate can be seen as a mediator in the linkage between HRM and performance. First, HRM can be seen as a relevant antecedent of strategic climate.

Bowen and Ostroff (2004) argue that HRM can have an influence on strategic climate through sending signals about what strategic goals are most relevant and what kind of employee behaviors are expected, supported, and rewarded relative to these goals. Hence, HRM can be seen as a relevant communication device, or as Guzzo and Noonan (1994) state: "HRM practices are communications from the employer to the employee" (pp. 447). Research examining the linkage between HRM and climate indeed shows that HRM does have a positive influence on the creation of different climate types (e.g. Collins & Smith, 2006; Gelade & Ivery, 2003; Schneider & Bowen, 1985; Schneider, Wheeler, & Cox, 1992). In turn, strategic climate perceptions are expected to have a positive influence on various outcomes. First, according to the process models as described in section 3.2.3, employee perceptions are expected to have an influence on employee attitudes and behavior, i.e. proximal performance outcomes. A lot of research has been conducted on the linkage between climate perceptions and individual level attitudes such as satisfaction, commitment and turnover intentions and behaviors such as OCB and absenteeism. Moreover, different empirical studies have shown strong direct relationships between facet-specific climates (e.g. climates for service, safety and innovation) and equivalent facet-specific outcomes (e.g. customer satisfaction, needle stick injuries and innovation events) (see for an extended overview Kuenzi & Schminke, 2009). In this research we will mainly focus on the proximal outcomes, that is employee attitudes and behaviors. Based on the findings that strategic climate influences employee reactions and the assumption that HRM will have an influence on climate perceptions, we suggest to extent the process model of HRM, by including strategic climate as a possible mediator between perceived HRM and employee reactions (see figure 3.2)

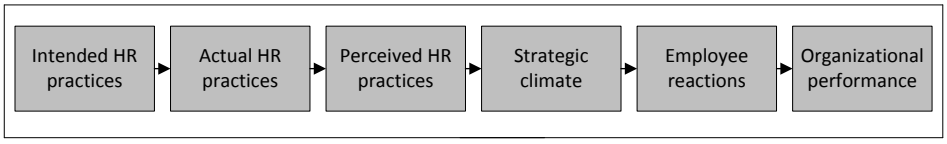

Figure 3.2 Adapted version process model of HRM. Based on: Nishii & Wright (2008, pp. 227)

Summarizing, HRM can be seen as a relevant antecedent of strategic climate, and subsequently strategic climate is expected to have a positive influence on employee attitudes and behaviors. Based on this, we expect that:

Proposition 1: Strategic climate will mediate the relationship between perceptions of HRM and employee attitudes and behaviors.

In this thesis proposition 1 will be tested using different levels of analysis. First of all, the proposition will be empirically tested at the ward level of analysis. Both strategic climate and individual HRM perceptions are expected to differ between wards, but to be shared within wards. The HR practices perceived by employees are those delivered or enacted by line managers with direct supervisor responsibility. It is often observed that there is a gap between what is formally required in the intended HR policy and what is actually delivered by the line managers (e.g. Purcell & Hutchinson, 2007; Stanton, Young, Bartram, & Leggat, 2010). Given the fact that supervisors do have leeway at the ward level in enacting the intended HR policy, we expect that part of the variance in HRM perceptions can be explained by the fact that not all employees do receive the same HRM treatment. Furthermore, empirical evidence indicates that behavior of direct supervisors does have considerable potential to affect climates (Kuenzi & Schminke, 2009). In view of the fact that direct supervisors in hospitals often interact with their employees, they can use these interactions to inform ward members about new practices and strategies, the goals to be reached, the work to be carried out and other ward level related issues. Exposing employees to the same policies, practices, procedures and information at the ward level, is expected to contribute to the development of common climate perceptions (i.e. in this case at the ward level) (Kozlowski & Doherty, 1989).

Additionally, one could expect that the attitudes and behaviors of individuals within a ward may become to be shared because of common experiences (Ryan, Schmit, & Johnson, 1996). Ward members are subject to many of the same situational influences, and as a result similarity of attitudes and behaviors within a ward is expected. This expectation can be empirically tested by means of conducting analysis at the ward level.

Notwithstanding the fact that organizations tend to create shared perceptions and, subsequently shared attitudes and behaviors, employees not always react in the same way to the same situational influences. Perceptions and evaluations of HR systems and ward climate will depend on employees' values, personalities, goals and needs, social roles and identities, as well as their past experiences, competencies and expectancies (Nishii & Wright, 2008, pp. 232). As a result, employees may respond differently to the enacted HR practices and the perceived ward climate. These differences in individual responses reflect individual experiences, but are also likely to be affected by attributes of both the individuals and the context in which individuals work (Takeuchi, Chen, & Lepak, 2009). In order to take the variability in individual responses (i.e. HRM outcomes) into account we will test proposition 1 not only at the ward level of analysis, but also by means of a cross-level analysis. In order to do this, HR perceptions and strategic climate perceptions will be measured at the ward level, and employee outcomes at the individual level. Hierarchical linear modeling (HLM) will be used in order to conduct this cross-level analysis. According to Snijders and Bosker (1999) this type of modeling is necessary when interested in relationships between constructs at different levels, as it allows one to investigate both lower-level and higher-level variance in the outcome variable.

3.4.3 Time precedence

So far, we have assumed that HRM will have an influence on strategic climate, and that strategic climate will have an important effect on employee outcomes (proposition 1). This process is often described as follows: HRM practices influence employee attitudes and behavior, as well as organizational outcomes, through employee interpretations of the work climate (e.g. Borucki & Burke, 1999; Bowen & Ostroff, 2004; Ferris, Arthur, Berkson, & Kaplan, 1998). Up till now, empirical studies testing the linkage between HRM, climate and performance are based on cross-sectional designs. Based on this type of design it is not possible to draw conclusions on the direction of causality, as the necessary condition for causal inference is not met; i.e. the 'causal' variable must precede the 'effect' variable in time (Cook & Campbell, 1979). Only a few exceptions can be found for the relationship between climate and performance (González-Romá,

Fortes-Ferreira, & Peiró, 2009; Ryan et al., 1996; Schneider et al., 1998; Van De Voorde, Van Veldhoven, & Paauwe, 2010). There are no studies testing the effect of HRM on climate by means of a longitudinal or cross-lagged research design. To overcome this problem, we will use a cross-lagged design to test the assumed causal direction between HRM, climate and outcomes:

Proposition 2: HRM perceptions at time point 1 have a positive effect on strategic climate and employee outcomes at time point 2 (forward causation).

3.5 Conceptual framework

The exploration of both the strategic HRM and strategic climate literature resulted in 2 propositions, which can be seen as important building blocks for our conceptual framework (figure 3.3). This framework represents the process through which HRM will have an influence on performance, and builds on the process model by Nishii and Wright (2008), which assumes that HR perceptions influence employee attitudes and behavior, as well as unit level and organizational outcomes. Based on the strategic climate literature we expect that strategic climate mediates the relationship between HRM perceptions and outcomes at both the individual level and the ward level of analysis (proposition 1). The black arrow represents the forward causation as described in proposition 2.

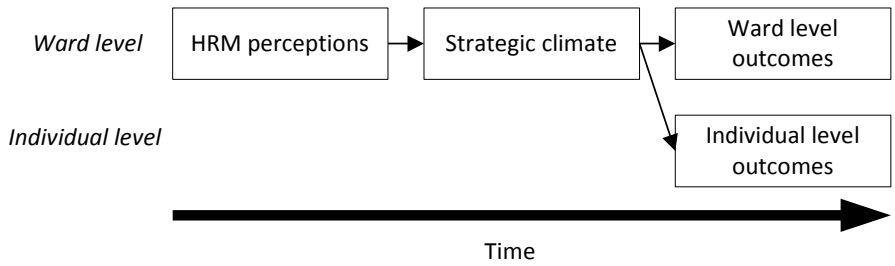

Figure 3.3 Conceptual model

3.6 Conclusion

The aim of this chapter was to develop a conceptual framework that can be used for testing the relationship between HRM and performance in our Dutch hospital context. The framework builds on the strategic HRM literature, the process model as introduced by Nishii and Wright (2008) and the strategic climate literature. More specifically, we introduced strategic climate as an additional step in the process model, by suggesting that employee perceptions of HRM do have an influence on strategic

climate perceptions, which subsequently will have an influence on employee attitudes and behaviors. The framework is focused on employee perceptions (of HRM and relevant strategic goals) and employee outcomes, and is thereby in line with the plea made by different scholars (e.g. Guest, 2011; Paauwe, 2009) that, in order to understand the HRM performance linkage, research should include an employee perspective.

The integration of the theoretical approach of facet specific climates (Schneider, 1975) in the process model of HRM can shed new light on the relationship between HRM and performance, as it bridges the gap between 'macro' and 'micro' research. The strategic HRM approach ('macro' perspective) has largely ignored the fact that strategic success of organizations can only be achieved if the contributions made by employees are in line with the strategic goals of the organization. The strategic climate approach ('micro perspective') takes into account that employee awareness about the relevance of strategic goals results in strategic oriented behaviors and attitudes. Hence, creating strategic climate by means of HRM can be seen as a relevant step towards strategic goal alignment.

Important to note is that our framework is mainly based on theoretical and empirical insights largely stemming from the profit sector. In order to make sure that this model can be empirically tested in a hospital context, we first need to further operationalize and translate the three main concepts into indicators and measurements which are relevant for this specific context. Hence, in the next chapter (chapter 4) a detailed description of this translation is provided, as well as a description of the research design used to conduct the empirical study.

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Chapter 4: Research design

4.1 Introduction

In the previous chapters the main research questions guiding this thesis, a force field analysis of the Dutch hospital sector and a conceptual framework were presented. This chapter is focused on a description of the research design that was used in order to answer the research questions. The research questions are as follows:

- How and to what extent does HRM contribute to performance in hospitals at different levels (individual and ward level) of the organization and to what extent does strategic climate have a mediating role in this relationship?
- Which types of strategic climate can be distinguished in hospitals?
- To what extent does HRM contribute to different strategic climate types?
- To what extent does strategic climate have an influence on performance?

An appropriate research design is needed, in order to be able to answer these research questions and to test the conceptual framework as presented in chapter 3. In this chapter we will give a detailed explanation of the research design and its underlying principles. In addition, a detailed description of the methods will be presented.

4.2 Research design

4.2.1 Research design: exploring different options

The main research question in this thesis, i.e. "how and to what extent does HRM contribute to performance in hospitals at different levels (individual and ward level) of the organization and to what extent does strategic climate have a mediating role in this relationship" is actually comprised of two types of questions: "how?" and "to what extent?". These different types of questions ask for different research designs. The "how" question can best be answered by using a case study design, because it allows to collect data in close proximity to a specific situation. Events can be observed directly, and persons involved in the event can be interviewed. This type of data collection provides background information about processes taking place in a specific case (Miles & Huberman, 1994), and can be seen as a useful research strategy when context is very important (Dul & Hak, 2008). The great strength of a case study design is that it allows concentrating on a specific instance or situation in which various interactive processes at work can be identified. These processes may remain hidden in a large-scale survey, but may be crucial to the success or failure of organizations (Bell,

1999). The aim of this qualitative research design is to explore the research context in a comprehensive way.

The "to what extent" question can best be answered using quantitative methods (Miles & Huberman, 1994). This quantitative design is aimed at testing the conceptual framework (see chapter 3) and its underlying hypothesis. As the main concepts (i.e. HRM, climate and employee outcomes) deal with perceptions of employees, the employee survey can be seen as an appropriate research strategy. Using a survey allows to measure the individual perceptions of many employees, instead of the opinion of only a few employees (e.g. Gerhart, 2007). In order to be able to answer the main research question in this thesis, we need to combine both research strategies (i.e. case study design and employee survey). This decision about the research strategy leads to three possible research approaches.

Single case study design. A single case study design implies that only one case would be included (i.e. one hospital). This type of design is often used if the case seems to represent a rare or unique event (Yin, 1994). In this thesis we do not expect that a single hospital would represent a rare or unique event, as they are all bound to the same institutional and contextual forces (e.g. CBA).

Multiple case study design: comparison of hospitals. A multiple case study design provides the opportunity to compare different cases (i.e. in this thesis multiple hospitals), and improves the likelihood of accurate and reliable findings (Eisenhardt, 1989; Miles & Huberman, 1994). Furthermore, it helps to deepen understanding and explanation. Seeing processes and outcomes across cases helps to understand how these cases are qualified by local conditions. This information can be used to develop more sophisticated descriptions and more powerful explanations (Miles & Huberman, 1994). Hence, comparing hospitals provides the opportunity to find out if the relationship between HRM and performance is the same across hospitals or not. Moreover, the inclusion of multiple cases also allows for comparing "polar cases". Including "extreme" cases (e.g. high versus low performing hospitals) makes it easier to observe contrasting patterns in the data (Eisenhardt & Graebner, 2007). Inclusion of high and low performing hospitals for example, allows to find out if high and low performing hospitals differ in their strategic focus and HRM policies and practices.

Comparison of wards within hospitals. Research on the HRM and performance linkage is often focused on the organizational level. However, this overreliance on organizational levels of analysis is problematic for a couple of reasons (Kehoe & Wright, forthcoming; e.g. Wright & Gardner, 2003). First, different organizations are often confronted with different internal and external contextual conditions. Examining the linkage between HRM and performance at the organizational level runs the risk of neglecting these specific conditions, leading to ambiguous conclusions. Second, relying on an organizational level perspective assumes that all employees working in the same organization will receive the same HRM treatment. However, differences might exist between the intended practices at the organizational level and the actual implemented practices across units or departments (Nishii & Wright, 2008). In practice, especially in large and complex organizations such as hospitals, line managers do have leeway to enact the intended HR practices. This devolvement of HR responsibilities to line managers often results in a gap between what is formally required in the intended HR policy at the organizational level and what is actually delivered by the line managers at the unit level (e.g. Purcell & Hutchinson, 2007; Townsend, Wilkinson, & Allen, 2011). In other words, employees within a single organization might receive a different HRM treatment due to differences in the actual implementation at the unit level (in this thesis the ward level). Conducting analysis at the organizational level does not allow taking into account this variability inside organizations.

In light of these extant issues on the level of analysis, it is highly recommended to compare units inside organizations instead of merely examining the HR and performance linkage at the organizational level (e.g. Nishii & Wright, 2008; Wright & Haggerty, 2005). This, in turn, implies a need to apply more sophisticated analytical techniques like hierarchical linear modeling (e.g. Klein & Kozlowski, 2000; Wright & Boswell, 2002), in order to take into account the differences between and within units. Hence, in this thesis wards within hospitals will be compared, with the purpose of taking into account the variance inside hospitals (i.e. between and within wards).

In this thesis we will use a multiple case study design, as it improves the likelihood of accurate and reliable findings (Eisenhardt, 1989; Miles & Huberman, 1994). The main focus will be on the comparison of wards within different hospitals, as it allows taking

into account the variability of processes within an organization. This approach also enables comparing different hospitals. In the next section we will provide more details on the actual design used in this thesis.

4.2.2 Characteristics research design

So far, the choice for a research strategy has led to a multiple case study design in combination with a large scale employee survey. This combination of research strategies can be seen as an important step towards more contextually based research. Different authors (e.g. Boxall, Purcell, & Wright, 2007; Hesketh & Fleetwood, 2006; Paauwe, 2004) make a plea for a more contextual approach to the analysis of HRM. Hesketh and Fleetwood (2006) for example state that quantitative research on the HRM and performance linkage does not reach far enough inside organizations to explain what happens in practice. They argue that more attention should be paid to the influential and complex underlying causal mechanisms in the social processes underpinning the HR practices. This is in line with the plea made by Paauwe (2004) that attention should be paid to the specific context and managerial intentionality which both have an effect on the shaping of HR systems. Likewise Boxall, Purcell and Wright (2007) suggest using an 'analytical approach' to HRM, in order to identify and explain what happens in practice. This approach is focused on the questions how and why HRM might work and for whom (taking account of both employee and managerial interests). Based on these arguments one can argue that in order to understand how and to what extent HRM contributes to performance in hospitals (or in any other specific organization) one should take the context into account and identify and explain what happens in an organization. Hence, in this thesis we will use a contextually based research design.

Adopting a contextually based design implies that in-depth research is needed in order to find out *what* actually happens and *why* things happen within hospitals. A case-study design allows conducting this in-depth research. As described in the previous section we will combine a case-study design with a large scale employee survey. The aim of this survey is to gain insight in the HRM and performance linkage (i.e. to what extent these are linked). In order to really understand what happens in practice it is

necessary to narrow the gap between research and practice, which can be seen as an iterative process. Researchers need to seek input of practitioners or managers with first-hand experience and in-depth knowledge of an organization (Cascio, 2007), in order to understand the complex processes and interactions within organizations. Seeking input in an early stage can be used for identifying key issues which merit further investigation, and can help by the further design of the study (e.g. selection respondents, developing surveys). Furthermore, keeping in close contact with organizations is also very helpful during and after the data collection process, as it brings the opportunity to translate the research results into information that can be used within the organizations. This process of translation, also referred to as evidence-based management (Rousseau, 2006), is useful for both the researcher and the organization. Managers and policy makers within organizations can use the information to solve organizational problems (Rousseau, 2006), while researchers can get feedback on the reasons why certain results are found within an organization.

Hence, in this thesis we try to narrow the gap between research and practice by working in close conjunction with managers and practitioners during the research process (i.e. embedded design). A more detailed description of this collaboration is provided in the remainder of this chapter, as well as a description of the specific methods that will be used in this thesis. Section 4.3 provides insight in the selection of the different cases, and the criteria used for this selection. Section 4.4 is focused on the qualitative methods that will be used. This section will be followed by a short intermezzo (section 4.5) in which relevant results of the first stage of data collection will be presented. The quantitative methods are discussed in section 4.6.

4.3 Selection criteria cases

In order to conduct the multiple case study design and to make sure that the collected data are valid and reliable, we established criteria for case selection. The selection of hospitals for my research was largely based on the following criteria:

- The selected hospitals should be general hospitals. Both academic and private hospitals differ from general hospitals in the way they are being financed and managed, resulting in different ways of managing HRM. It is necessary to keep the type of hospitals constant across cases, for the purpose of replication (Miles & Huberman, 1994).

- The selected hospitals should have a specialized HR department. In hospitals with a specialized HR department, the HR policies and practices are likely to be more visible and to have a larger impact.
- Hospital performance: the selected hospitals should differ in their performance according to performance standards used by the Dutch Healthcare Inspectorate. Since performance at different levels is one of the main concepts in the research model, we want to have some variation in the degree of performance. This is in line with the plea made by Pettigrew (1990) to include polar cases in your final selection of cases. Including polar cases (i.e. in this study low vs. high performing hospitals) should make it easier to observe the processes of interest (in this thesis the link between HRM, climate and performance). Furthermore including polar cases limits the risk of an inability to find empirical relationships due to a lack of variance.

The selection of cases according to these criteria should lead to the inclusion of four general hospitals with a specialized HR department, which vary in their performance. Due to some practical issues the actual design differs from the ideal case study design. First, it was difficult to make a reliable distinction in hospital performance. Although there are different publicly available ranking lists (AD top 100 and Elsevier), these lists differ in their ranking of hospitals. The AD top 100 is based on a selection of the indicators used by the Dutch Healthcare Inspectorate. Hospitals are ranked, for example, on patient satisfaction, percentage of patients with bedsores, the number of registered complications with diseases, and the performance of physicians (see for a complete list of indicators www.ad.nl/ziekenhuistop100). A major constraint of the AD top 100 is that it does not take patient case mix into account, resulting in automatically lower rankings for hospitals that provide more 'complex' care to patients. Moreover, most of the indicators used for ranking the hospitals only indicate whether certain activities are conducted, not to what extent these activities are put into practice (Maarse & Van Velden, 2004). The ranking of Elsevier is based on a survey conducted among a sample of informants (N = 4000, including nurses, managers, board of directors and, medical specialists), resulting in a more subjective measurement of hospital performance. The rankings of Elsevier and AD lead to very different results. The best hospital in Elsevier in 2009 is ranked on the 26th place in the AD top 100. The best hospital in the AD ranking is ranked on the 60th place in Elsevier. Hence, based on this publicly available information it was difficult to decide which hospitals performed

above average, on average or below average. Due to the pervasive and diffuse information about the performance of hospitals in the Netherlands, we were not able to select polar cases (i.e. high versus low performing hospitals).

Second, it was difficult to gain access to hospitals. The contextually based approach in this thesis asks for close cooperation between the researcher and the hospital. Although hospitals did agree that this approach would result in valuable information, it was not feasible for some hospitals to participate. Due to many changes in their internal and external environment, they had other priorities to pay attention to. As a result the final inclusion of hospitals was based on existing contacts and willingness to participate, and resulted in the inclusion of four general hospitals (labeled as hospital A, B, C and D). The main characteristics of the four hospitals involved in the case studies are shown in table 4.1. Important to note is that hospitals A and B are general hospitals with a teaching status. This means that both hospital A and B belong to the association of tertiary medical teaching hospitals, also known as STZ (*Samenwerkende Topklinische opleidingsZiekenhuizen*) hospitals. STZ hospitals are characterized by their learning environment, which is based on a variety of training and education programs. Teaching within these hospitals is largely multidisciplinary. STZ hospitals can be regarded as high-cure hospitals. In addition to the required basic medical care the hospitals offer a range of high-quality and complex treatments for their patients (e.g. heart surgery, neurosurgery, IVF). Hospital C and D do not belong to the association, and are therefore not officially labeled as a teaching hospital.

Table 4.1 Case study characteristics

	Hospital A	**Hospital B**	**Hospital C**	**Hospital D**
Number of employees	3175	6142	2895	1382
Number of FTE's	2344	3359	1929	900
Number of beds	653	1113	605	300
Teaching hospital	Yes	Yes	No	No

4.4 Qualitative data collection

Part of the contextually based approach is trying to gain insight in what actually happens in practice. Qualitative research methods can be used to gain insight in the specific hospital context, and the processes that occur. In this study the following techniques were applied to collect the qualitative data:

- *Document analysis.* In order to get background information about the hospitals, their context, the strategic goals and their HR policies and practices, we analyzed strategic plans, HR policy reports and strategy documents, HR folders, documents on intranet, annual reports and other relevant documents. The information gathered with this procedure was used as background information, and to prepare both the interviews and the survey.
- *Interviews.* In each hospital, semi-structured interviews were conducted. The purpose of these interviews was to gain insight in the strategic goals of the participating hospitals (both organizational strategy and HRM strategy), the HRM policies and practices, and the relationship between HR managers and unit managers. Interviews took place in participants' offices and lasted approximately 90 minutes. The respondents included HR advisors, business / unit managers, the board of directors and a works council representative. In each hospital the HR director arranged the interviews with the respondents. The respondents were selected based on their knowledge about HRM and the organization as a whole. Table 4.2 provides an overview of the number of respondents per function.

Table 4.2 Number of respondents per function

	Hospital A	Hospital B	Hospital C	Hospital D	Total
HR advisor	6	2	4	3	15
Business / unit manager	3	2	3	4	12
Member works council	-	1	-	-	1
Board of directors	-	-	1	2	3
Total	9	5	8	9	31

Based on available literature on strategic HRM we developed an interview protocol in order to guide the semi-structured interviews. Questions were asked about the strategy of the organization, the strategy of different (business) units, the HR strategy, HR practices, leitmotiv, major changes in the organization and the relationship between the HR advisors and business / unit managers. Examples of questions are: "What are the three most important strategic goals of your hospital?", "Could you describe important changes that took place during the last three to five years in your organization, regarding the HR policies and practices?", "How does HR get senior executives and line managers to adopt and implement changes in the HR practices?". In order to get more detailed information we asked follow-up questions. Respondents themselves could also raise some additional or complementary issues.

Appendix A shows the interview protocol and provides an overview of the main subjects and questions that were used during the interviews.

Analysis of the interview data. All interviews were tape recorded, transcribed and checked by the interviewer. To analyze the interview transcripts, thematic content analysis was used (Boselie & Koene, 2010; Boyatzis, 1998; Farndale et al., 2010). The process of coding the data is part of this analysis (Miles & Huberman, 1994) as it allows organizing the data into meaningful categories. The coding was based on the structure of the interview schedule, i.e. the data from all cases were grouped by theme to make comparing cases transparent (Farndale et al., 2010). Themes included were: strategy hospital, HR strategy, HR policies and practices, leitmotiv, major changes in the organization and the relationship between the HR advisors and business / unit managers.

After this coding process both a cross-case and a case oriented analysis approach were used. The case-oriented approach allows to become familiar with each case as a standalone entity and to generate insight about the main themes (Eisenhardt, 1989). It allows unique patterns of each case to emerge, instead of pushing generalized patterns across cases. The cross-case analysis was conducted by means of putting the data in a case-ordered variable matrix. This means that the data were ordered based on the relevant themes, and provides a powerful way to understand differences and similarities across cases. The cross-case analysis allows to check whether the findings were relevant in different settings, and to enhance generalizability (Miles & Huberman, 1994). All interviews were held in Dutch. The analyses were conducted on the Dutch data, in order to prevent bias in the data because of translation. Relevant quotes were translated to English after the analysis.

4.5 A short intermezzo: relevant findings qualitative study

The qualitative data collection in this study yielded relevant and useful background information which was used for the further development of the survey. To be more precise, the information gathered with the document analysis and interviews was used to decide which strategic climate types to include in the survey. In order to be able to measure strategic climate, one should gain insight in the strategic goals of the organization. During the interviews attention was paid to the strategic goals of the hospitals. In addition, different documents provided information about the strategic goals. In this short intermezzo, the results that were used for the development of the

survey will be presented. A more detailed analysis of the qualitative data collection can be found in chapter 5.

Strategic goals. The annual report of hospital A provides a mission statement, which is the basis for the strategic program of the hospital, and outlines the core values including delivering "excellent basic care to patients", "continuous innovation" and "being more efficient". The mission statement was used for the development of a long-range strategic HRM plan (2008-2011). According to this plan employees are expected to be devoted to the delivery of safe and high quality care, treating the patient as paramount. An other important element is the focus on innovation. In order to be able to be a good teaching hospital and to provide high quality of care the organization wants to create a climate that is focused on innovation. Finally, contrary to the mission of the organization, there is no focus on being more efficient in the strategic HRM plan. However, the HR advisors and managers all mention during the interviews that being efficient is a highly relevant strategic goal for the organization. Moreover, the respondents endorsed the relevance of quality, safety and innovation as strategic goals.

In the annual report of hospital B the strategic mission of the hospital (period 2008-2012) is described as: *"being a prominent hospital from a medical, innovative and management point of view".* During the interviews it became clear that the strategy of the hospital is focused on "creating a better safety culture", "courtesy (i.e. focus on quality of care and excellent service delivery)", "efficiency (i.e. focus on more efficient use of sources and availability of staff)" and "being innovative".

Hospital C has developed a strategic framework for the period 2009-2012, in which their strategic focus is described as "being market-oriented", "being financial healthy", "focus on the growing demand for care", "delivery of safe care" and "re-professionalization". According to the interviewees being financial healthy and focus on the growing demand for care both require more efficiency. Being market-oriented implies that the delivery of services and care should be more demand driven. Re-professionalization was described as renewed attention for professional norms and values. Hospital C expects that this should lead to more innovations, since professionals actively are encouraged to share their knowledge and experiences.

According to the strategic framework employees are expected to show innovative behavior, to be customer-oriented and at the same time to be efficient.

Finally, the strategic goals of hospital D can be summarized as: continuing growth (treating more patients), deliver high quality and safe care (according to external professional standards), cooperation with other care deliverers in order to ensure quality and efficiency, innovation, and a healthy financial position. During the interviews, different respondents mentioned that the hospital and therefore the employees should become more businesslike.

Based on these preliminary findings, one can conclude that the hospitals under investigation focus on four different strategic goals, namely *quality, safety, innovation* and *efficiency*. Hence, we decided to include four strategic climate types in the survey. Important to note is that these goals are relevant for the four participating hospitals. This is not surprising, as hospitals in the Netherlands are confronted with the same (strong) institutional pressures and changes in their external environment (see also chapter 2). However, during the interviews it became clear that there are differences between hospitals regarding the significance they attach to the different goals. Hospital D for example was strongly focused on efficiency, while hospital B paid a lot of attention to service quality.

Summarizing, four strategic goals were distinguished (i.e. quality of care, safety, innovation and efficiency). This resulted in the inclusion of four climate types in the survey. More details about the scales used in the survey will be provided in the next section.

4.6 Quantitative data collection

One of the aims of this thesis is to test the conceptual framework as presented in chapter 3. This framework includes concepts for which measurement instruments are available in the literature. As the main concepts (i.e. HRM, climate and employee outcomes) deal with perceptions of employees, using a large scale employee survey to collect data can be seen as an appropriate research strategy. The main advantage of using a survey in this research is the ability to collect data from a large sample of employees. Besides, the standardization of the survey ensures that data are comparable across the different cases included in the study.

4.6.1 Selection of respondents

Data for the employee survey was gathered in all the participating case study hospitals. The data collection took place within the years 2008 (Hospital A), 2009 (Hospital A and B) and 2010 (Hospital C & D). Important to note here is that survey data were collected at two time points in hospital A. Using repeated measures is recommended to test whether a change in HRM and / or climate will lead to a change in performance (e.g. Gerhart, 2007; Guest, Michie, Conway, & Sheehan, 2003). Unfortunately, it was not feasible to collect two waves of data in the other hospitals.

Within three hospitals we only collected data at wards that were directly concerned with delivering care to patients (e.g. oncology, intensive care). This means that we excluded the general and technical support services (e.g. kitchen, and cleaning) and the managerial departments. Within the fourth hospital (D) all employees received a survey, that is the general and technical support services and the managerial departments were also included. The reason for this was that hospital D was only willing to participate in the research if all employees would receive a survey.

Inside the involved wards we did send surveys to all employees, except for the medical specialists and the physician assistants. Most of the medical specialists are not employed within the hospitals, but they are self-employed and work in a so called partnership. Consequently HRM practices are not directed towards this group. The physician assistants only work for short periods in the hospital, and as a result of this it is difficult for them to evaluate the HRM practices.

In total, 4660 surveys were distributed at time 1, and 1809 surveys were distributed at time 2. In each of the participating hospitals a tailor-made approach was used for the distribution of the surveys. This flexibility was necessary to make sure that hospitals were willing to participate in this study. Second, a tailor-made approach was expected to lead to higher response rates. In consultation with the key informants we decided which approach would be best for their hospital.

In hospital A data were collected at two time points (2008) and (2009). At both time points, the surveys were distributed by sending them to the home addresses of the employees. The employees received a paper version and a code to log in on an online version (only time 1). By giving employees the choice to fill in either a paper version or

a digital version, we have tried to reach a high response rate. However, a majority of the respondents filled out the paper version at time 1. Therefore we decided to distribute only a paper version at time point 2. The surveys were accompanied by a letter on behalf of the researchers, stating the relevance and purpose of the study as well as the confidentiality of the information being supplied. Besides a return envelope was included in the package so that respondents could send the survey back directly to the researchers at the university, securing confidentiality of the supplied information. The unit managers motivated the employees to fill out the survey and informed them about the purpose of the study and explained that participation was voluntary and that all data would be treated in a confident manner. In order to make sure that all the unit managers were committed to take part in the study, we informed them about the relevance and purpose of our research during an informal session. After three weeks the unit managers reminded all employees to take part in the research. In addition we introduced the research on the intranet and a weekly distributed newsletter for the employees. After three weeks a reminder was placed on the intranet, as well as in the aforementioned newsletter.

In hospital B and C we informed the employees personally about the relevance and purpose of the research, in different informational sessions taking place during coffee breaks or ward meetings. After informing the employees, all employees received an envelope containing the survey, a letter on behalf of the researcher and a return envelope. After three weeks, the head of the ward was asked to remind all employees to take part in the research.

Finally, in hospital D the surveys were distributed via internal mail. As in hospital A, B and C, this mailing was accompanied by a letter on behalf of the researchers and a return envelope. Unit managers and direct supervisors informed the employees about the research. Furthermore, posters were distributed in the hospital in order to announce the research and to inform employees about the surveys. Again, after three weeks the head of the ward was asked to remind all employees to take part in the research.

These procedures resulted in a total of 2127 employees completing the survey (45.6% response rate)[1]. Table 4.3 shows an overview of the number of participating wards per hospital, the number of surveys distributed as well as the response for each hospital.

Table 4.3 Survey Response

	Hospital A (Time 1)	**Hospital A (Time 2)**	**Hospital B**	**Hospital C**	**Hospital D**	**Total (time 1)**
Nr of participating wards	91	91	19	30	95	235
Surveys distributed	1825	1809	856	667	1312	4660
Response rate (absolute)	619	514	414	417	678	2127
Response rate (percentage)	33.9	28.4	48.4	62.5	51.7	45.6

4.6.2 Survey measures

The survey was composed of 4 different types of items:

- Items related to *employee perceptions of HRM* in the organization
- Items related to different types of *strategic climate* at the ward level
- Items related to *employee attitudes and behaviors*
- Items related to the *control variables* that (might) influence the levels of the outcome measures

The survey contained approximately 115 items and filling it in completely would take about 25 to 30 minutes. Before distributing the survey, we have asked some (scholarly) experts in the field and some potential respondents to check the survey on the following points:

- clarity of the questions and response categories
- ambiguity of the questions
- time needed to complete the survey

This group of 'evaluators' consisted of (1) scholarly experts in the field of HRM, OB and social research methodology; (2) nurses with different educational backgrounds; and (3) HR managers. Their feedback and suggestions were found very valuable for the data collection. The final survey was sent to the hospitals according to the procedures

[1] Response for time 1. More details about the two-wave data collection can be found in chapter 7.

as described before. The complete employee survey for this study is presented in Appendix B.

4.6.2.1 Measurement of HRM perceptions

Using employee ratings in order to measure HRM can be seen as a useful way to find out what actually happens in practice. Employee perceptions of HRM can be seen as indicators of the way HRM policies are enacted in organizations (Nishii & Wright, 2008). Gerhart (2007) also makes a plea for using multiple employee ratings, as this will result in higher reliability scores on HRM processes compared to using a single manager's point of view regarding implemented HRM practices. Moreover, what employees perceive, think and feel about HR may also have more theoretical credibility as a cause of business performance (e.g. Bowen & Ostroff, 2004; Nishii & Wright, 2008) than what is described as 'crude' measures of HR practices (Purcell, 1999). Perceptions of HR practices were assessed using 28 items of the scale by Boon, Den Hartog, Boselie and Paauwe (2011), which is based on prior research (Cable & Edwards, 2004; Guest & Conway, 2002; Ten Brink, 2004). Boon et al. (2011), tested the scale in a Dutch division of a furniture business and in a non-profit health care organization (Cronbach's alpha was .95). We included the items that measured the following practices: 1: training and development; 2: participation / autonomy / job design; 3: teamwork / autonomy; 4: performance appraisal; 5: work life balance; 6: employment security. We decided to exclude the reward items, as pay is determined by a Collective Bargaining Agreement (CBA) for general hospitals and there was virtually no variation between hospitals in compensation policies and practices. Hence, from a conceptual point of view it made sense not to include the reward items in the HR scale. Furthermore, we excluded the items that measured recruitment and selection practices for the reason that we expect that employees do not have the information needed to construct an accurate picture of the recruitment and selection processes in the organization. This forms a serious problem for the reliability of the measurement (Gerhart, Wright, & McMahan, 2000). Besides, due to labor shortages for most participating occupational groups at the time of this research, we did not expect much variation in selection strategies at the time the data were gathered. Lack

of variance limits the ability to find empirical relationships, therefore we excluded the staffing items.

Participants were asked to indicate the extent to which the organization offered them certain practices (e.g. periodic evaluation of my performance) on a five point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Sample items are: "The organization offers me coaching which supports my development" and "The organization offers me the opportunity to make my own decisions".

In addition to the above mentioned practices, we included also some items to assess employee perceptions of communication / information sharing and supervisor informing behavior. Information sharing and clear communication about organizational goals, practices and procedures will help to inform employees to determine which behaviors are important, expected, and rewarded. Besides it can lead to collective sense-making and shared climate perceptions. To assess communication / information sharing we developed 4 items based on earlier research (Riordan, Vandenberg, & Richardson, 2005; Ten Brink, 2004; Van Veldhoven & Meijman, 1994). Again the respondents were asked to indicate the extent to which the organization offers them information (e.g. "The organization offers me information regarding important changes in the organization") on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Leaders and supervisors play an important role in creating climates, since they may inform unit members about new practices and strategies, the goals to be reached, the work to be carried out, and other work unit related issues. Bearing in mind that supervisors serve as interpretive filters of relevant organizational practices, processes and features (Kozlowski & Doherty, 1989), it is reasonable to expect that leaders will try to shape unit members' perceptions of the unit, promoting consensus regarding climate perceptions through sharing information with their subordinates (González-Romá, Peiró, & Tordera, 2002). In order to measure this supervisor informing behavior, we used the informational justice scale developed by Colquitt (2001). An example of an item includes "My direct supervisor has communicated details in a timely manner". Answers were given on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5).

The HRM practices mentioned so far are more general in nature. However, one could expect that more specific HRM practices might have a stronger effect on the different types of climate. We therefore developed some additional items to measure these specific HRM practices. 8 items were focused on the content of training and courses. An example of an item includes “To what extent is the content of the training and courses you took focused on quality of services?”. 8 items were focused on the content of performance interviews. The respondents were asked to indicate to what extent certain aspects were discussed during their performance interview. One of the aspects was for example the quality of work. For both the content of training items and the content of performance interview items, answers were given on a five-point scale ranging from “strongly disagree” (1) to “strongly agree” (5).

4.6.2.2 Measurement of strategic climate

In this research we see climate as a strategic construct, a climate for something (Ostroff, Kinicki, & Tamkins, 2003). This means that we only investigated those aspects of climate that deemed to be pertinent to the strategic goals within the participating hospitals. As argued before (see section 4.5), multiple types of climate seem to be highly relevant for hospitals namely climate for quality of care (emphasis on providing good quality patient care), climate for innovation (the expectation, approval and practical support of attempts to introduce new and improved ways of doing things in the work environment) (West, 1990, pp. 38) climate for safety (extent to which employees believe that safety is valued within their organization) (Griffin & Neal, 2000) and climate for efficiency (emphasis on goal orientation, objectives, productivity, functionality and efficiency). Accordingly we focus on these four types of strategic climate.

Climate for quality of care. For measuring the climate for quality of care we used 6 items from a climate scale by Dawson et al. (2008). We translated the original items from an organizational level perspective (e.g. “There is an emphasis on patient-focused care in this organization”) into a ward level perspective (e.g. “There is an emphasis on patient-focused care within my ward”). This translation was necessary because each climate item should clearly focus on the specific collective unit which corresponds to

the climate being studied (i.e. in this case the ward). By specifying a clear frame of reference we preclude the risk that respondents describe perceptions of different parts of the organization (Patterson et al., 2005). Participants were asked to answer on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Dawson et al. (2008) found an internal consistency of .88 (Cronbach's Alpha).

Climate for innovation. The climate for innovation was measured using the subscale support for innovation of the team climate inventory developed by Anderson and West (1996). The subscale consisted of 8 items with an acceptable internal consistency (Cronbach's Alpha was .95). The original team climate inventory was designed to assess team level attributes therefore items were modified using the word 'ward' instead of 'team'. Example items are "People in this ward are always searching for fresh, new ways of looking at problems" and "This ward is open and responsive to change". Respondents were asked to indicate the extent to which each statement was true for their ward on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Climate for safety. For measuring the climate for safety we used 6 items of the short version of the Safety Climate scale developed by Neal, Griffin and Hart (2000) (Cronbach's Alpha was .93). Sample items include "Management places a strong emphasis on workplace health and safety" and "There is sufficient opportunity to discuss and deal with safety issues in meetings". Employees responded on a five-point scale ranging from strongly disagree" (1) to "strongly agree" (5).

Climate for efficiency. Climate for efficiency was measured using a subscale of the FOCUS survey (Van Muijen, Koopman, & De Witte, 1996). (Cronbach's Alpha was .76). This survey is based on the Competing Values Framework by Quinn and Rohrbaugh (1983). A sample item included "It is normal to check if we've reached what we wanted to reach". Again employees could respond on a five-point scale ranging from "strongly disagree" (1) to "strongly agree" (5).

4.6.2.3 Measurement of employee attitudes and behavior

Based on the perceptions of HRM practices or climate perceptions, employees will react in a certain way. Employee perceptions elicit different types of reactions, that is

affective reactions (attitudinal), cognitive (increased knowledge / skills) and / or behavioral reactions (Nishii & Wright, 2008). These reactions in the end could benefit ward and organizational performance.

In this research we focus on the following employee outcomes: organizational commitment, occupational commitment, work group commitment, satisfaction, intention to leave (attitudes) and Organizational Citizenship Behavior (OCB) (behavior).

Commitment. Recent research stresses the relevance of distinguishing among multiple foci of employee commitment in the workplace (e.g. Baruch & Winkelmann-Gleed, 2002; Blau, 2007; Vandenberghe, Bentein, & Stinglhamber, 2004). Individuals in a work setting can simultaneously experience varying degrees of commitment to several aspects of working life. Brewer and Lok (1995) for example argued that nurses have multiple commitments, for instance to the organization and their profession. In this research we also distinguish between different types of commitment, i.e. organizational commitment, occupational commitment and work group commitment.

Organizational commitment has gained the most attention in the academic literature up till now (Baruch & Winkelmann-Gleed, 2002) and refers to identification with and loyalty to the organization and its goals (Blau & Boal, 1987) which Mowday, Steers and Porter (Mowday, Steers, & Porter, 1979) defined as the relative strength of an individual's identification with and involvement in a particular organization. Organizational commitment is of particular importance for health care organizations, because service quality towards customers might be stimulated by high organizational commitment (Hallowel, 1996). Besides that, organizational commitment often leads to lower turnover rates. This is very relevant in a sector where a huge labor shortage is expected. Organizational commitment was measured using a Dutch translation by De Gilder, Van den Heuvel and Ellemers (1997) of Allen and Meyer's (1990) original construct. We excluded one item, based on a later publication of Ellemers, De Gilder and Van den Heuvel (1998), resulting in a four item affective organizational commitment scale. Sample items include "I feel emotionally attached to this organization" and "I feel 'part of the family' in this organization". Responses were given on a five- point Likert scale ranging from "strongly disagree" (1) to "strongly

agree" (5). De Gilder et al. (1997) found an internal consistency of .88 (Cronbach's Alpha).

Occupational commitment can be described as the degree to which a person identifies with his / her profession (Mowday et al., 1979). This form of commitment is highly relevant in the health care sector, since professionals (e.g. nurses) are often first en foremost committed to their professional career. Commitment to the occupation has a strong relationship with work outcomes, even stronger than other work related commitments such as organizational commitment (Cohen, 1998; Mueller, Wallace, & Price, 1992). One possible explanation for this is that professionals may be driven more by their occupational than by their organizational expectations (Cohen, 1998). Mueller et al. (1992) for example found that occupational commitment is an important determinant of nursing professionals' turnover, stronger than other work related commitments such as the organization and work. In this thesis occupational commitment was assessed using four items of the scale of Baruch and Winkelmann-Gleed (2002). An example of an item includes "I am proud to tell others that I am part of this profession". Responses were given on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). Baruch and Winkelmann-Gleed (2002) tested their scale in a large hospital trust and found an internal consistency of 0.72 (Cronbach's Alpha).

Work group commitment is the relative strength of an individual's identification with, and involvement in, a particular team or work group (Bishop, Scott, Goldsby, & Cropanzano, 2005). Employees in health care often work in teams. As a result employees not only identify with the organization or their occupation but also with their team. The feelings that one has toward one's co-workers may or may not parallel one's feelings toward one's employer. For this reason, it is important to separate the commitment that one has for the organization from the commitment that one has for his or her teammates (Bishop et al., 2005). However, as stated before, employees in hospitals may belong to one or several teams. We will therefore not look at the team level, but the ward level of commitment. Ward commitment was measured using a scale of Baruch and Winkelmann-Gleed (2002). This scale consisted of four items and was tested in a large hospital trust (Cronbach's Alpha was 0.79). This scale was

originally designed to measure team commitment, therefore items were modified using the word 'ward' instead of 'work group' or 'team'. Responses were given on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). One of the items included was "I am proud to tell others that I am part of this ward".

Overall job satisfaction. Job satisfaction can be seen as an important attitudinal outcome of HRM. Employees who are satisfied about aspects of their work and their jobs will perform better then employees who are less satisfied (Peccei, 2004). Besides job satisfaction is a highly relevant outcome for health care organizations, because employee satisfaction has been found to be directly related to the satisfaction of clients about the delivered care (Van Wijk, 2007).

In order to measure the overall job satisfaction of employees we used a single-item measure: "Overall how satisfied are you with your job" (Boon, 2008). Previous research has proven the reliability and validity of single-item measures for job satisfaction (e.g. Nagy, 2002; Wanous, Reichers, & Hudy, 1997). Answers were given on a five-point Likert scale ranging from "very dissatisfied" (1) to "very satisfied" (5).

Intention to leave. In light of the current concerns about expected labor shortages in health care , it is important to make sure that employees are willing to stay at the organization. Hence, intention to leave is a relevant outcome for hospitals. Intention to leave was assessed using a three-item subscale of the survey on the experience and evaluation of work (Van Veldhoven & Meijman, 1994). A sample item is: "I think about changing jobs". Responses were given on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Organizational Citizenship Behavior (OCB). OCB can shortly be described as individual contributions in the workplace that go beyond role requirements and contractually rewarded job achievements (Organ & Ryan, 1995). This type of behavior, also referred to as walking the extra mile, is directly linked to customer care and therefore worthwhile pursuing (Boselie, 2010). The concept of OCB was measured using 9 items of MacKenzie, Podsakoff and Fetter's (1991) altruism, civic virtue and courtesy scales. We added one item to the civic virtue scale, based on a later publication of MacKenzie, Podsakoff and Paine (1999). Sample items included "I am willing to help other colleagues who have work related problems" (altruism), "I attend training and

information sessions that are encouraged but not required to attend“ (civic virtue) and “I consider the impact of my actions on others” (courtesy). OCB was measured using a five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

Control variables. In the final part of the survey respondents were asked to provide some personal information, including questions about: age, job tenure, organizational tenure, educational level, occupation, gender, type of labor contract and average number of hours worked per week. This information is useful for two reasons. First, to check whether the sample is representative for the population. Second, to control for possible confounding effects.

4.6.2.4 Measurement ward performance

In order to see whether HRM and strategic climate indeed add value and to overcome the problem of common method bias, different attempts have been made to collect objective performance indicators at the ward level. The main assumption in the strategic climate literature is that facet-specific climates (e.g. climates for service or safety) are related to equivalent facet-specific outcomes (e.g. customer satisfaction and needle stick injuries) (see for an extended overview Kuenzi & Schminke, 2009). In this thesis four different types of performance indicators are needed, since four climate types are measured (i.e. quality, safety, efficiency, innovation). The search for objective performance data started on the internet. Since 2003 hospitals are obliged to provide information about their performance to the Dutch Healthcare Inspectorate (IGZ). This information is publicly available on internet (http://www.ziekenhuizentransparant.nl/; http://www.kiesbeter.nl), and the indicators used are measurable aspects of the delivered care (e.g. quality, safety, efficiency and accessibility). These indicators are registered on a yearly basis, and can be compared across hospitals. Though these indicators might be valuable for comparing hospitals, it does not provide any information about performance at the ward level. We therefore asked the participating hospitals if there were indicators (as defined by the IGZ) available on the ward level. It turned out that in most cases this information was not available. Moreover, if objective indicators were available, they were not comparable across wards due to the fact that each ward does have its own

definition and criteria for performance. For example, quality and safety at a geriatric ward differs from quality and safety at a pediatric ward. Due to these practical constraints, we decided to collect subjective performance indicators. Collecting subjective performance indicators is a good alternative in case that objective performance indicators are unavailable or cannot be used. Previous research has shown that subjective performance indicators are significantly correlated with objective performance indicators (Bae & Lawler, 2000; Powell, 1992; Wall et al., 2004). Wall et al. (2004) compared the use of subjective and objective measures in three different samples and showed that measures of subjective performance were positively associated with corresponding objective measures (convergent validity). The association between these subjective and objective performance indicators were even stronger than those between measures of differing aspects of performance using the same method (discriminant validity) and the relationship between a range of independent variables and subjective measures were equal to the relationships found when objective measures were used (construct validity). In order to collect subjective information about quality, safety, efficiency and innovation we have asked unit managers (responsible for different wards) to rank the wards on these four performance dimensions. We asked to indicate for each performance domain which ward was the best, then which ward was second best and so on.

4.7 Summary main features research design

Table 4.4 provides a summary of the main characteristics of our contextually based research design, how these are applied in this thesis, and the reasons behind it. Important to note is that the research design in this thesis differs from the main stream research designs, which are commonly used in the HRM field. First, we combine qualitative and quantitative methods, including multiple data sources. Second, we use an embedded design in order to take the specific characteristics of the context into account. Furthermore, we worked in close cooperation with the contact persons, which made it possible to adapt the research design (if necessary) to the specific context. This embedded design is also very helpful after the data collection, as it provides the opportunity to get feedback on the reasons why certain results will be found in an organization. Finally, it provides the opportunity to bridge the gap

between research and practice, by means of translating the research results into information that can be used within the participating hospitals, and thus for enabling evidence based management (Rousseau, 2006).

Table 4.4 Summary main features research design

Features	Approach	Rationale
Research strategy:	Multiple case studies, combined with employee surveys	Answering the "how" questions (cases) and the "what" questions (surveys) (Miles & Huberman, 1994).
Selection criteria:	Selection cases based on: • general hospitals • specialized HR department • performance hospitals	Theoretical sampling in order to select polar cases, and to collect reliable and valid cases (Pettigrew, 1990).
Embedded design:	• comparison different wards within hospitals • flexible data collection (e.g. adapt way of collecting surveys according to the hospital's needs)	Context sensitivity (e.g. Boxall et al., 2007; Paauwe, 2004) Allows to take advantage of emergent themes and unique case features (Eisenhardt, 1989)
Rigor methods:	Mixed methods & multiple data sources: • document analysis • interviews • employee surveys • use of objective data	Data triangulation (Jick, 1979) Overcome problems of common method variance and single rater bias (Gerhart, 2007)
Evidence based management:	• Reporting results participating hospitals • Discussions with practitioners about the implications of the results • Workshops: learn managers and supervisors how they can use the research results for further improvements within their ward / unit	Managers and policy makers within organizations can use the information to solve organizational problems (Rousseau, 2006) Get feedback on the reasons why certain results are found within an organization.
Levels of analysis:	Ward-level and cross-level analysis	Taking into account that day-to-day interaction processes mainly take place at the ward level of analysis (i.e. taking into account that variance exists within organizations) (Nishii & Wright, 2008)
Time perspective:	Cross-sectional and longitudinal	Testing both the association as well as the causal relationship between HRM, climate and performance

4.8 Conclusion

In this chapter the research design and operationalization of the three main concepts (i.e. HRM perceptions, strategic climate and performance) was outlined. The research design in this thesis is largely based on a contextually based approach, which is recommended by different authors (e.g. Boxall et al., 2007; Hesketh & Fleetwood, 2006; Paauwe, 2004). The main advantage of this approach is that it allows us to find out what actually happens in practice. We thereby step back from mainstream research designs in the HRM field, which often only control for contextual effects by including some control variables in statistical models. As described in detail in this chapter, understanding what is going on in practice requires more than just adding control variables into statistical models. Rather it asks for an embedded design, close cooperation with practitioners in order to bridge the gap between research and practice, in combination with rigor methods.

Given that conducting contextually based research is a time consuming process, we decided to include four hospitals in this study, so that we did have enough time to pay a lot of attention to the specific context of each case. Table 4.5 provides an overview of which hospital data are used in the empirical chapters of this thesis. Chapter 5 is aimed at testing the underlying climate construct, by means of combining qualitative and quantitative data. In chapter 6, 7, and 8 the conceptual framework will be tested using different ways of analyzing, i.e. ward level (chapter 6), longitudinal (chapter 7) and cross-level analysis (chapter 8).

Table 4.5 Overview of data used in analysis

Chapter	Hospital A	Hospital B	Hospital C	Hospital D
5: test underlying climate construct	X	X	X	X
6: ward level analysis	X			
7. longitudinal analysis	X			
8. cross-level analysis	X	X	X	X

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Chapter 5: Strategic climate types

This chapter is based on: Veld, M., Boselie, P., & Paauwe, J. (2011). *From intended strategy to employee awareness: the relevance of strategic climate.* Paper presented at the Dutch HRM Network conference, Groningen, The Netherlands, November 10-11, 2011.

5.1 Introduction

For more than half a century, scholars have sought to understand the concept of organizational work climate, its antecedents and consequences. During these years, the focus in climate research has changed, as researchers recently have switched their focus from viewing climate as a global construct to a facet specific construct (Kuenzi & Schminke, 2009). The focus in this thesis is on the concept of strategic climate, linking climate perceptions to the strategic goal(s) of an organization, such as a climate for service (Schneider, 1990), and a climate for safety (Zohar, 1980). According to this approach a strategic climate should encourage employees to respond and behave in ways that support these strategic objectives (Ostroff & Bowen, 2000). So far, most of the research on strategic climate and other facet-specific climates has been focused on one specific climate type at a time. This is remarkable, given the fact that it is generally acknowledged that multiple types of climate exist within an organization (Ostroff, Kinicki, & Tamkins, 2003). Organizations act in multiple performance domains and need to deal with different stakeholders, resulting in different strategic goals to be accomplished. As a result multiple strategic climate types are relevant for these organizations. In this thesis we also expect that multiple strategic climate types can be distinguished within the participating hospitals, given the fact that hospitals operate in multiple performance domains and need to deal with different stakeholders.

This chapter is structured as follows. First, we will identify which strategic climate types are relevant for the hospitals under investigation. This part of the chapter is based on a qualitative study, including document analyses and semi-structured interviews. Secondly, we will show how these strategic climate types are operationalized. Subsequently, we test whether different strategic climate types can be distinguished within and across the participating hospitals.

5.2 From strategy to outcomes

The strategy of an organization can be generally defined by an organization's intent to achieve certain goals through planned alignment between the organization and its environment (De Wit & Meyer, 1998). If organizations want to accomplish their goals, employees should be aware that these goals are relevant, and what this means in terms of their daily work. Besides employees need to be able and motivated to act in

line with these goals. A concept that is focused on the way people experience or perceive what happens in their work environment is climate. Climate is widely defined as employees' perceptions of what the organization is like in terms of practices, policies and procedures (Reichers & Schneider, 1990). These climate perceptions can be linked to the strategic goal(s) of an organization, such as a climate for service (Schneider & Bowen, 1985) and a climate for safety (Zohar, 1980). Strategic climate perceptions can be defined as the extent to which employees perceive that a strategic goal, like excellent service delivery, is relevant. Put differently, employee awareness about the relevance of strategic goals is reflected by positive strategic climate perceptions. The underlying premise in this approach is that a strategic climate should encourage employees to respond and behave in ways that support the strategic objectives (Ostroff & Bowen, 2000).

Based on the strategic HRM literature, we expect that HRM is an important linking mechanism between the intended strategy of an organization and employee outcomes. Many researchers have emphasized the relevance of fit between the HR system and the organizational strategy (i.e. strategic fit) for achieving high performance (e.g. Arthur, 1994; Schuler & Jackson, 1987). HRM can contribute to the objectives of an organization by means of focusing on developing employees' skills, knowledge, and motivation such that employees will behave in ways that are instrumental to the implementation of a certain strategy. Moreover, HR systems can communicate which strategic goals are relevant (Bowen & Ostroff, 2004). For example, training, performance appraisal and job descriptions can all be used to communicate the relevance of customer service (Rogg, Schmidt, Shull, & Schmitt, 2001). The more elements of the HR system that connote a need for service excellence, the stronger will be the climate for service and the more likely will employees behave and act in line with the goal of service delivery resulting in higher customer satisfaction (Bowen & Ostroff, 2004; Rogg et al., 2001).

The main focus of this chapter is to find out which strategic climates can be distinguished within the participating hospitals. A few steps were taken to accomplish this. First, we needed to decide what the strategic objectives are of each of the hospitals. Information about the strategy was collected by means of document

analyses (i.e. we analyzed strategic plans, annual reports, and corporate frameworks) and semi-structured interviews. Second, we examined whether there was an alignment between the organizational strategy and the HR strategy / policy. Moreover, we also focused on different elements of the HR policy, as we expect that alignment within the HR system will result in the creation of strategic climate perceptions. Again, both document analyses and semi-structured interviews were used.

5.3 Qualitative methodology and analysis strategy

Four general hospitals were included in this study (see chapter 4 for more details about the selection of these organizations and the respondents). Two hospitals (A and B) do have an official teaching status. This means that these hospitals belong to the association of tertiary medical teaching hospitals, also known as STZ hospitals. STZ hospitals are characterized by their learning environment, which is based on a variety of training and education programs. Teaching within these hospitals is largely multidisciplinary. STZ hospitals can be regarded as high-cure hospitals. In addition to the required basic medical care the hospitals offer a range of high-quality and complex treatments for their patients (e.g. heart surgery, neurosurgery, IVF). Hospital C and D do not belong to the association, and are therefore not officially labeled as a teaching hospital.

Document analyses and semi-structured interviews were used to collect data in the participating hospitals. First, in order to get background information about the hospitals, their context, the strategic goals and their HR policies and practices, we analyzed strategic plans, HR policy reports and strategy documents, HR folders, documents on intranet, annual reports and other relevant documents. The information gathered with this procedure was used as background information and to prepare the interviews.

Second, a total of 31 interviews were conducted in the four hospitals. The respondents included HR advisors, business / unit managers, the board of directors and a works council representative (see for a detailed overview of the respondents per hospital the previous chapter, table 4.2). These respondents were selected because of their knowledge and expertise regarding the strategy of the organization, their knowledge about the hospital's (strategic) HR goals and HR practices and policies. Including

multiple actors within the hospitals provides us with different viewpoints and more valid and reliable data (Gerhart, Wright, & McMahan, 2000). The interviews were semi-structured, based on a schedule designed by the researchers, covering questions about the strategy of the hospital, strategy of different (business) units, the HR strategy, HR policy and practices, and major changes in the organization (appendix A provides the interview schedule). Interviews were carried out face-to-face and lasted approximately 90 minutes. All interviews were recorded (with permission) and transcribed. To analyze the interview data, we used content analysis (Ritchie & Lewis, 2003). All transcripts were coded based on the structure of the interview schedule. Themes included were: strategy hospital, HR strategy, and HR policies and practices. In order to make comparing cases more transparent, data from all cases were grouped by theme (Farndale et al., 2010). Both a cross-case and a case oriented analysis approach were used. The case-oriented approach allows to become familiar with each case as a standalone entity and to generate insight about the main themes (Eisenhardt, 1989). The cross-case analysis allows to check whether the findings are relevant in different settings, and to enhance generalizability (Miles & Huberman, 1994).

5.4 Findings

The data analysis was carried out focusing on two main themes. First, similarities in strategic focus between hospitals are explored, followed by variations in organization strategy. Second, attention is paid to the alignment between the organizational strategy and the HR strategy / policy. Moreover, we paid attention to the focus of the intended HR strategy / policy. Again, we focused on both similarities and variations between hospitals.

5.4.1 Strategic focus

In order to find out what the strategic focus is of the participating hospitals, we used strategic plans, annual reports and corporate frameworks (Boselie, 2010). Besides, during the interviews attention was paid to the strategic goals of the organization.

There are some similarities with respect to the strategic focus of the hospitals. All hospitals are focused on delivering high quality and safe care. Besides, each of the hospitals mentions that efficiency is a necessary precondition for continuity of care.

Finally, being innovative is seen as a relevant strategic goal by the four hospitals. Innovation refers to medical technological innovations and innovation of work processes (e.g. new ways of working). Notwithstanding the fact that the hospitals focus on the same goals, each hospital emphasizes different aspects. The following stage of the analysis was to explore *variations* in strategic focus and emphasis between hospitals.

The annual report of *hospital A* provides a mission statement, which is the basis for the strategic program of the hospital, and outlines the core values including delivering "excellent basic care to patients", "continuous innovation" and "being more efficient". To accomplish this mission, the organization decided to focus on five core themes which can be seen as the guiding principles for the organizational strategy. These core themes are:

- "Own house to be in order": being financial healthy, use of ICT support, and implementation of quality systems.
- "Create a strong and distinctive profile": focused on a relocation of the care delivery process. Due to financial difficulties and the need to provide more patient focused care, the hospital decided to restructure the care delivery processes.
- "Innovation": mainly focused on medical innovations in order to become a preferred partner.
- "External cooperation": search for cooperation with external parties like health insurers.
- "Education, training and research": focused on maintaining their status of teaching hospital.

Hospital B does have a unique position in the Netherlands, as they deliver top clinical care in the area of hart and vascular diseases and pulmonary diseases. In order to remain this excellent position, the strategy of the hospital is focused on becoming a welcoming and excellent care deliverer. This should not only lead to the attraction of more patients, it is also focused on being an attractive employer, meaning that the hospital is able to attract and retain the best employees. To accomplish these goals the hospital focused in their long-range strategic plan on quality, safety, medical innovations, courtesy and efficiency. The latter is necessary in order to be able to invest enough money in medical innovations, and to deal with budget constraints imposed by the government.

The strategic framework (period 2009-2012) of *Hospital C* describes the strategic focus as “being market-oriented”, “being financial healthy”, “focus on the growing demand for care”, “delivery of safe care” and “re-professionalization”. According to the interviewees being financial healthy and focus on the growing demand for care both require more efficiency. Being market-oriented implies that the delivery of services and care should be more demand driven. Moreover, this requires an external orientation and flexibility. Re-professionalization was described as renewed attention for professional norms and values. Hospital C expects that this should lead to more innovations, since professionals actively are encouraged to share their knowledge and experiences. Furthermore, the mission of the hospital has been translated in four core values, i.e. patient focused, professionalism, collective, and enterprising. Patient focused means that the patient is paramount. The hospital wants to provide all basic care to the patients in their region, in a respectful, friendly and committed way. Besides they strive for short waiting lists and short admission times. Professional denotes high medical standards, patient focused care and working in an efficient way. Employees are well-trained professionals and keep oneself informed about developments in their working area. Systematic quality improvements and a safe work climate should support this professionalism. Collective refers to cooperation within and across teams both inside and outside the hospital. It also refers to a good and cooperative working atmosphere across disciplines. Enterprising is focused on result-oriented management. Employees are coached and appraised to take initiatives and to work more efficient.

Finally, one of the main goals of *hospital D* is being a so called ‘general practitioners’ hospital. This implies that the hospital works in close cooperation with primary health care. Furthermore, the hospital is first and foremost focused on delivering all basic care processes. In case that highly complex care is required, the hospital refers patients (if necessary) to medical specialists working in a university medical centre (i.e. the university medical centre and hospital D are complementary). Additionally, in a recently published policy plan (2011-2013) three goals are mentioned, i.e. quality of care, safety and innovation. Innovation refers in this case to medical technological innovations. Finally, the hospital needs to become a more result oriented hospital in

order to mitigate the risk of financial difficulties, meaning that efficiency becomes more important. In an attempt to accomplish this, lean projects were introduced throughout the whole organization, implying that activities which did not add value to the core processes were eliminated.

5.5 Intended HRM strategy / policy

Different authors have suggested that HRM can communicate which strategic goals are relevant, thereby creating strategic climate perceptions (e.g. Bowen & Ostroff, 2004). In order to see whether the intended HR strategy / policy underlined the strategic objectives of the hospital, we looked for a fit between the organization objectives and the HRM objectives (i.e. strategic fit). Moreover, we focused on internal consistency among the HR practices (i.e. internal fit). Much has been written on the relevance of creating internal fit between different practices within the HR system (e.g. Delery, 1998; Schuler & Jackson, 1987). In order to be effective the content of the messages communicated by different practices in the HR system should be consistent (Baron & Kreps, 1999; Bowen & Ostroff, 2004). For example, if training is focused on enhancing service quality, then internal consistency will be ensured if employees are rewarded for delivering high quality service. Internal alignment among different HR practices is expected to lead to strategic climate perceptions, because the different HR practices together send a consistent message about what is expected from employees.

In all participating hospitals we found that various elements of organizational strategy and the HR strategy / policy are clearly linked. Furthermore, we found evidence that HR practices were linked with each other, but the extent of alignment between the HR practices differed across the four hospitals. Below, the variations in strategic and internal fit are described in more detail.

Hospital A does have a long-range strategic HRM plan (2008-2011), which is based on the mission statement and strategy of the hospital. To be more specific, the HR goals are derived from the five core themes described in the previous section. First, “own house to be in order” is translated as making sure that employees are able and willing to deliver high quality. Specific HR practices to accomplish this are performance evaluation (e.g. performance interviews), employee training and development and competence based management. Second, “create a strong and distinctive profile” is

actually translated in two HR goals. First, making sure that employees are replaced during the relocation of the care delivery process. Second, to create a unique position in the (tight) labor market, i.e. being an attractive employer. Special attention will be paid to increasing employee satisfaction in order to retain them. Besides, satisfied employees are expected to act as good ambassadors who will attract new employees. Different practices will be used to realize this: innovative ways of recruitment, attractive compensation and fringe benefits, safe and healthy working conditions, and development and career opportunities. Innovation refers to the development of a so called “innovative work climate”. Employees are expected to be innovative and supervisors are trained to support this. To facilitate external cooperation employee mobility needs to be increased. Finally, HRM intends to contribute to become a learning organization where employees share their knowledge with each other. A lot of attention will be paid to competence based management.

There is no strategic HRM plan available in hospital B. Yet, many elements of strategy and HRM are clearly linked within this hospital. The mission of the organization “the hospital is a leader in the field with respect to care, education and applied research with a passion for excellence. Patient loyalty and employee loyalty are inextricably bound up with each other” is translated into an HR vision which is aimed at “reinforcing hospital interests and employee interests”. The hospital developed in close conjunction with HRM a long-term program which is based on the so called Investors in People (IiP) standard. This standard provides a framework for improving business performance and competitiveness, through a planned approach to setting and communicating business objectives and developing people to meet these objectives. IiP seeks to align the organizational goals, with team goals, and employee goals. Furthermore it is focused on a continuous improvement process, with a central focus on HR practices as training and development, leadership, introduction program new employees, and communication. These practices are developed and implemented based on the content of the other HR practices in place. Hospital B achieved the Investors in People label for the whole organization in 2009. For the near future HRM will focus on the development of strategic education plans, employability and

employer branding. These aspects will be linked to the standards of IiP, thereby ensuring internal fit between different HRM practices.

Hospital C does have a strategic HR policy, which is based on the corporate strategic framework. The main focus of this policy is finding a balance between organizational goals / interests and employee goals / interests. The organization offers respect, open communication, work-life balance, development and career opportunities and a safe and healthy workplace. The organization expects that employees are flexible, innovative and that they take responsibility for their actions. Besides, the organizational core values are translated in employee competencies. Patient focused means that employees should act on behalf of the patients. Collective refers to cooperation; employees are expected to cooperate with other professionals inside and outside the organization. Entrepreneurship means that employees are expected to take initiatives, to work more efficient and to take responsibility for their own results. Finally, professionalism is described as ensuring that your knowledge is up-to-date, that you are well-informed about the latest developments in your field and that you act upon professional norms and standards. In turn, these core values and competencies are translated and used in different HR practices, like competence based management, performance interviews, recruitment and selection instruments and a labor market campaign. Hence, the use of core values aimed at aligning the HR system with the organizational goals, and to create internal fit in the HR system in place.

Hospital D does not have an official HR strategy (like hospital B). In the policy plan (2011 – 2013), organizational goals are translated into specific HR goals. Quality, safety and innovation are translated into investing in employee development and sustainable employability. Furthermore, optimizing the operational processes asks for the attraction and retention of qualified personnel. In terms of HRM this asks for investment in employee health and vitality, employer branding, innovative recruitment activities and a pleasant atmosphere. An important remark is that the HR policy is in the making, as the existing HR practices are mainly focused on day-to-day operational issues with no clear strategic focus. An example of this is economizing on the amount of money spent on hiring of self-employed nurses at the intensive care unit. Due to a labor shortage for these specialized functions, the hospital inevitably needs to hire

expensive self-employed nurses with the aim of guaranteeing the continuity of care. Yet, in order to cut costs HR tries to hire external self-employed nurses for a smaller fee, instead of trying to attract and retain nurses working for the hospital. Hence, based on the document analysis we can conclude that there is some strategic alignment between the organizational strategy and the HR goals. During the interviews, different respondents have underlined that the strategic alignment is not yet put into practice, as the HR policy with a clear focus is still under construction.

Based on these findings (see table 5.1 for a summary of the main findings), one can conclude that the hospitals under investigation focus on four different strategic goals, namely quality, safety, innovation and efficiency. These strategic goals can be linked to the challenges within the internal and external context of hospitals, as described in chapter 2. Based on our force field analysis conducted at the sector level, we concluded that hospitals can opt for a combination of different strategic goals. The results in this chapter indeed confirm that hospitals opt for a combination of strategic goals, which can be linked to a need for more market orientation (i.e. providing high quality and safe care, work efficiently and being innovative). Within the four hospitals we found that many elements of strategy and HRM are clearly linked. Moreover, we found some evidence of integration and consistency among different practices in the HR system. Based on the findings that there is a strategic fit and internal fit of the HR systems (at least to a certain extent) in the different hospitals, we expect that these HR systems will communicate the relevance of the strategic goals of the hospitals, resulting in four strategic climate types (i.e. climate for quality, safety, innovation and efficiency). Hence, we decided to test whether these strategic climate types could be distinguished by the employees in the four hospitals. Important to note is that these goals are relevant for the four participating hospitals. This is not surprising, as hospitals in the Netherlands are confronted with the same (strong) institutional pressures and changes in their external environment (see also chapter 2). This is in line with the idea that organizations in institutionalized environments are pressured to become similar (DiMaggio & Powell, 1983).

Hypothesis 1: four different climate types (quality for care, safety, innovation and efficiency) can be distinguished in the total sample (factorial validity).

Table 5.1 Summary main findings qualitative analyses.

Hospital	Strategic focus hospital	Alignment strategy organization – HRM?	(Strategic) focus HRM policy
A	– Delivering excellent basic care to patients (i.e. high quality and safe care) – Continuous innovation – Being more efficient	– Yes, strategy organization basis for the development of a long-range strategic HRM policy (2008 – 2011) – HR vision is in line with hospital vision – HR goals are derived from organizational goals	– Competence based management – Performance evaluation – Work-life balance – Attractive compensation and fringe benefits – Labor market position – Employee satisfaction – Mobility – Development and career opportunities
B	– Creating a better safety culture – Courtesy (i.e. focus on quality of care and excellent service delivery) – Efficiency (i.e. focus on more efficient use of sources and availability of staff) – Innovation	– Yes, HR vision is in line with hospital vision – Strategic alignment guaranteed in long-term plan organization and HR department	– Investors in People – Introduction program – Strategic education plan – Performance interviews – Employability – Employer branding – Communication relevant goals
C	– Being market-oriented (i.e. providing basic care, focus on specific distinguishing criteria) – Being financial healthy – Focus on the growing demand for care – Delivery of safe and high quality care – Re-professionalization – Nutrition	– Yes, corporate strategic framework translated in strategic HR policy – Core values organization translated in employee competencies and HR practices.	– Commitment – Internal communication – Task and functional differentiation – Competency management – Employee surveys – Attractive benefits – Employee development (personal budget) – Career opportunities – Labor market campaign

Table 5.1 (Continued) Summary main findings qualitative analyses.

Hospital	Strategic focus hospital	Alignment strategy organization – HRM?	(Strategic) focus HRM policy
D	– Continuing growth – 'General practitioners' hospital – Deliver high quality and safe care – Cooperation with other care deliverers to ensure quality, efficiency, innovation, and a healthy financial position – Lean thinking	– Yes, (on paper) translation organizational goals in specific HRM goals – Daily practice HRM policy is under construction.	– Professionalizing employees: formulating a vision, policy and approach for leadership and employee development – Performance interviews – Reduction costs self-employed staff (e.g. intensive care nurses) –

Although we expect that the four strategic climates are relevant for the four hospitals, it is likely that there might be some differences between the hospitals for a couple of reasons. First, hospitals do have strategic choice. According to Paauwe (2004) there is always leeway for strategic choices (room for manoeuvre) even if organizations are confronted with severe legislation and institutional pressures as is the case in the Dutch hospital sector. In our sample we see that the extent to which attention is paid to each of the strategic goals differs. We expect that these differences in strategic focus will be reflected in the climate perceptions in each of the hospitals. Based on the idea that the HRM system communicates the relevance of the strategic goals, one can argue that paying more attention to one specific goal, might lead to a more clear perception of the relevance of this goal.

In hospital A, a lot of attention is paid to efficiency (e.g. relocation of care delivery process). We expect that employees also perceive that this is the most relevant strategic goal, reflected by the highest score on climate for efficiency. Contrary, in hospital B the main focus is on excellent service delivery (e.g. IiP, courtesy). In line with this, we expect that the scores on climate for quality will be higher than on the other climate dimensions. In hospital C there is a more balanced approach, meaning that the hospital strives for the delivery of high quality and safe care by means of being innovative and efficient. We expect that the scores on climate for quality and safety will be higher than the scores on innovation and efficiency, as quality and safety are the main goals and innovation and efficiency are necessary preconditions. According to the strategic plan of hospital D, one would expect that this hospital is focused on three strategic goals, i.e. quality, safety and innovation. However, in practice the main focus seems to be on efficiency (e.g. introduction of lean projects throughout the whole organization and the reduction of labor costs). Based on this we would expect that we can find the highest scores on climate for efficiency.

Second, the HR strategy / policy mentioned in the findings of the qualitative study refer to the intended HR practices. However, Nishii and Wright (2008) emphasize the difference between HR policy formulation and actual implementation. When there is a strong linkage between the HR strategy and the organizational objectives in policy documents, but this intended policy is not implemented, no positive effects on

strategic climate perceptions are expected. Although we did not directly measure the implementation process in our qualitative study, the data provide us with some information about the actual implementation of the organizational and HR strategy. In hospital D, the HR strategy is still under construction, meaning that this was not (fully) implemented in the period that the surveys were conducted. HRM in hospital D is mainly focused on delivering the basic HR practices and services in the organization. Given the fact that there is only a strategic fit on paper, we expect that the climate scores will be lower in hospital D compared to the other hospitals.

In hospital B, we expect that the organizational and HR strategy are implemented. The hospital started in 2005 with the Investors in People (IiP) project, and received the IiP certificate in 2009. This certificate can only be received after an official assessment conducted by an external assessor. One of the criteria for getting a certificate is that there is an alignment between the strategic goals of the organization and the enacted strategic HR policy. The implication for practice is that employees should be aware of the strategic goals of the organization, and they need to know how they can contribute to the organizational goals. Given the fact that the organization received the certificate (i.e. implemented the HR strategy), we expect that the strategic climate scores will be high in this hospital.

In hospital A and C there was hardly any information available about the implementation of the HR strategy. At the time of our research hospital A was in the middle of restructuring their care delivery process. As a result the HR department mainly focused on the allocation of employees to this new care delivery system, and informing the employees about the changes taking place. Given the fact that a lot of time and energy was spent on the organizational change procedure, we expect that there was less time available for the implementation of the strategic HR policy at the time of our data collection.

In hospital C some aspects of the strategic HR policy were enacted (e.g. labor market campaign). Other parts of the strategic HR policy were still under construction or only implemented in parts of the organization (e.g. competence based management and performance interviews).

Summarizing, we expect that each of the strategic climate types can be distinguished in the four hospitals. However, given the differences in strategic focus and differences in implementation, we expect that the scores on each of the dimensions differ across hospitals.

Hypothesis 2: scores on the four climate types (quality, safety, innovation and efficiency) differ across the four hospitals.

5.6 Employee survey

Within the four hospitals a total of 4660 surveys were sent to employees working at wards and outpatients' clinics (further referred to as wards). Within each hospital a lot of attention was paid to the introduction of the research. In two hospitals the researcher informed the employees personally about the relevance and purpose of the research, in different informational sessions taking place during coffee breaks or ward meetings. In the other two hospitals employees were informed via a weekly distributed newsletter, intranet and posters. The surveys were accompanied by a letter on behalf of the researchers, stating the relevance and purpose of the study as well as the confidentiality of the information being supplied. Besides a return envelope was included in the package so that respondents could send the survey back directly to the researchers at the university, securing confidentiality of the supplied information. Moreover, the unit managers motivated the employees to fill out the survey and informed them about the purpose of the study. After 3 weeks we placed a reminder on the intranet, as well as in the aforementioned newsletter and the unit managers reminded all employees to take part in the research. This resulted in an overall response rate of 45.6%.

The final sample consisted of 2068 respondents (44.4%) from 168 wards, with an average group size of 12.31. This sample was found to be representative of the initial sample. The average age in our final sample was 40.6 years. The average age in the initial sample was 40.5 years. Of the employee sample 89.4% is female (in the initial sample 89.9% was coded as female). In the sample 40.4% has a higher vocational training or university degree. The average tenure in the hospitals is 10.9 years; the average tenure in the initial sample was 11.6 years. The average tenure in the current

job is 9.0 years. 90.6% of the sample has a permanent employment contract. Only 38% of the sample works full-time (i.e. more than 32 hours).

Table 5.2 Background characteristics final sample per hospital

	Hospital A	Hospital B	Hospital C	Hospital D	Total
Age	41.2 (40.6 initial)	38.9 (40.2 initial)	41.5 (40.7 initial)	40.5 (40.5 initial)	40.6 (initial 40.5)
Organizational tenure	13.3 (12.6 initial)	10.8 (10.3 initial)	13.0 (11.5 initial)	9.7 (9.3 initial)	11.6 (initial 11.6)
Job tenure	10.9	7.5	10.4	7.6	9.0
% female	90.3 (90.1 initial)	89.2 (90.1 initial)	90.6 (91.5 initial)	88.0 (initial 87.8)	89.4 (initial 89.9)
% full-time (> 32 hours)	28.3	37.9	25.2	32.0	38.0
% higher education	42.7	44.8	37.4	37.5	40.4
% permanent contract	95.5	88.3	93.3	86.1	90.6

5.6.1 Climate measures

Climate for quality of care. For measuring the climate for quality of care we used 6 items from a climate scale by Dawson et al. (2008). We translated the original items from an organizational level perspective (e.g. “There is an emphasis on patient-focused care in this organization”) into a ward level perspective (e.g. “There is an emphasis on patient-focused care within my ward”). This translation was necessary because each climate item should clearly focus on the specific collective unit which corresponds to the climate being studied (i.e. in this case the ward). By specifying a clear frame of reference we preclude the risk that respondents describe perceptions of different parts of the organization (Patterson et al., 2005). Dawson et al. (2008) found an internal consistency of .88 (Cronbach’s Alpha).

Climate for innovation. The climate for innovation was measured using the subscale support for innovation of the team climate inventory developed by Anderson and West (1996). The subscale consisted of 8 items with an acceptable internal consistency (Cronbach’s Alpha was .95). The original team climate inventory was designed to assess team level attributes therefore items were modified using the word ‘ward’ instead of ‘team’. Example items are “People in this ward are always searching for fresh, new ways of looking at problems” and “This ward is open and responsive to change”.

Climate for safety. For measuring the climate for safety we used 6 items of the short version of the Safety Climate scale developed by Neal, Griffin and Hart (2000) (Cronbach's Alpha was .93). Sample items include "Management places a strong emphasis on workplace health and safety" and "There is sufficient opportunity to discuss and deal with safety issues in meetings".

Climate for efficiency. Climate for efficiency was measured using a subscale of the FOCUS survey (Van Muijen, Koopman, & De Witte, 1996). (Cronbach's Alpha was .76). This survey is based on the Competing Values Framework by Quinn and Rohrbaugh (1983). A sample item included "It is normal to check if we've reached what we wanted to reach".

For all climate scales, responses were given on a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

5.7 Climate types total sample

Based on the qualitative data analysis we expect that we can distinguish between four strategic climate types, i.e. quality for care, safety, innovation and efficiency. An exploratory factor analysis with oblimin rotation on the climate items indicated a solution with three factors having an eigenvalue higher than 1. However, the screeplot showed a clear bend at both one and three factors, indicating a clear break in eigenvalues between the first and the second, and the third and the fourth component. Based on this screeplot, both a one and three factor solution would be appropriate. The first factor explained 42.3% of the variance, while the three factors explained 57.2%. We computed the three factor solution, as we are interested in the distinction between different strategic climate types. This solution represents three strategic climate types: quality of care, safety and innovation. The efficiency items all loaded on the same factor as the innovation items, but these loadings were not really high compared to the innovation items.

A confirmatory factor analysis was conducted in AMOS 19 to test the suggested three factor model. Besides we computed a one-factor solution and a three-factor solution including the efficiency items, as these solutions were suggested in the exploratory factor analyses.

Results of the CFA revealed that a three-factor model without the efficiency items had a good fit. The chi-square values were very high (normally suggesting a bad fit) in all models, but this might be caused by the large number of observations in the total sample (Kline, 2005). We therefore use multiple indices of fit as recommended by Bollen and Long (1993) as well as Hu and Bentler (1998), including the Comparative Fit Index (CFI), the Goodness of Fit Index (GFI) and the Non-Normed Fit Index (NNFI) (values ≥ .90 for these three indices indicate an acceptable fit) and the Root Mean Square Error of Approximation (RMSEA) (ideally scores should be .08 or lower) (Byrne, 2001). These fit indices indicated a poor fit in the one-factor model. Both the three-factor model including the efficiency items and excluding the efficiency items showed an acceptable fit (table 5.3 provides the fit indices for the different models). However, the fit of the three-factor model excluding the efficiency items does have a significantly better fit. The results of the CFA confirm the findings of the exploratory factor analysis. Hence, hypothesis 1 is partially supported.

Table 5.3 Indices of overall fit for alternative factor structures of strategic climate: results of CFA for the total sample and CFA for the four hospitals separately

Model	χ^2	df	p	GFI	CFI	NNFI	RMSEA
		Total sample					
One-factor model	5519.48	207	.000	.75	.79	.77	.11
Three-factor model + efficiency	2652.43	206	.000	.88	.91	.90	.08
Three-factor model	1079.71	130	.000	.94	.96	.95	.06
		Hospital A					
One-factor model	1861.42	207	.000	.73	.79	.77	.12
Three-factor	536.18	130	.000	.90	.94	.93	.07
		Hospital B					
One-factor model	1310.86	207	.000	.72	.80	.78	.11
Three-factor	326.61	130	.000	.92	.96	.95	.06
Four-factor model	519.93	201	.000	.90	.94	.93	.06
		Hospital C					
One-factor model	1178.24	207	.000	.75	.78	.76	.11
Three-factor model	315.63	130	.000	.92	.95	.94	.06
		Hospital D					
One-factor model	1989.11	207	.000	.73	.77	.74	.11
Three-factor model	491.31	130	.000	.92	.93	.93	.07
Four-factor model	667.40	201	.000	.91	.94	.93	.06

Note. GFI = Goodness of Fit Index; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean Square Error of Approximation

5.8 Climate types across hospitals

So far, we have assumed that four strategic climate types could be distinguished in the total sample. Hypothesis 2 predicted that the scores on the four climate types differed across the hospitals. Before we tested this hypothesis, we first needed to check whether the four climate types could be distinguished across the hospitals. In order to do this, we tested the underlying climate structure separately for each of the hospitals. First, an exploratory factor analysis with oblimin rotation was conducted for each of the subsamples. Second, we used confirmatory factor analyses to test the suggested factor structures in each hospital.

Hospital A

The results of the factor analysis indicated a solution with four factors having an eigenvalue higher than 1 (explained variance 63.2 per cent). The rotated four factor solution was difficult to interpret, and different items (i.e. all climate for efficiency items and one climate for innovation item) showed cross-loadings. After excluding these items, we rerun the analysis, resulting in a solution with three factors which is easily interpretable: quality of care, safety and innovation. A confirmatory factor analysis was conducted to test the suggested three factor model (see table 5.3). The results of the CFA showed an acceptable fit, with a CFI of .94, a GFI of .90 and a NNFI of .93. The three factor model also had a reasonable RMSEA of .07 (compared with a satisfactory value of .06 and an acceptable maximum of .08).

Hospital B

Again, all climate items were included in an exploratory factor analysis. As expected, four factors were extracted from the solution accounting for 66.4% in the variance. The loadings for the four constructs approximated a simple structure, with cross loadings below .40. As such, the exploratory factor analysis suggests that the strategic climate types are distinctive constructs. The four-factor solution was tested with a CFA, showing that this solution had an acceptable fit. The RMSEA (.06) and the other fit indices were all acceptable (CFI of .94; GFI of .90 and NNFI of .93). This four factor solution represents four climate dimensions: quality, safety, innovation and efficiency. Besides we run an additional CFA for the three factor solution, excluding the efficiency items. This model also showed a satisfactory fit with the data.

Hospital C

The factor analysis resulted in the extraction of four factors (explained variance 59.2%). However, the rotated factor structure did not provide a simple structure. We therefore excluded items with cross-loadings (i.e. all climate for efficiency items and 1 climate for innovation item). After excluding these items, we rerun the analysis, resulting in a solution with three factors which is easily interpretable: quality of care, safety and innovation. A CFA confirmed the three-factor solution (RMSEA of .06 CFI of .95; GFI of .92 and NNFI of .94).

Hospital D

A solution with four factors was suggested based on the number of factors having an eigenvalue higher than one. The loadings for the four constructs approximated a simple structure, with most cross loadings below .40. Two items were removed due to high cross-loadings. Hence, the factor analysis suggests that the four climate types are distinctive constructs. Again, A CFA was conducted showing that the suggested four-factor model did have an acceptable fit (RMSEA of .06 CFI of .94; GFI of .91 and NNFI of .93). Moreover, the three-factor solution was also tested with a CFA. This solution also showed an acceptable fit.

Summarizing, three of the four hypothesized climate types could be consistently distinguished across the four hospitals, i.e. climate for quality, climate for safety and climate for innovation. Climate for efficiency could only be distinguished in hospital B and D. In the next section, we will test whether the three-factor solution is invariant across the subsamples, using a Multigroup CFA.

5.9 Multigroup CFA

So far, we can conclude that three factors can be distinguished in the four participating hospitals. In order to test whether this factor structure is invariant across the four hospitals we conducted a Multigroup CFA. We compared the three-factor model with three nested models in which respectively the factor loadings, factor covariances and error variance were set invariant across the hospitals. The models that require equal factor loadings, equal factor variances and equal error variances show a statistically significant worse fit than that of the model which allows all parameters to be different in the subsamples (see table 5.4). This result indicates that the factor loadings, factor

covariances and error variance differ across the four subsamples. Inspection of the factor loadings however, shows that there were only minor differences. Moreover, from a descriptive point of view (indicated by the fit indices) the models with constraints are still acceptable, suggesting that the three factor structure of climate is invariant across the four hospitals.

In conclusion, results of a series of CFA provide partial support for hypothesis 1 by showing that a three-factor structure of climate can be replicated in the total sample, as well as across hospitals.

Table 5.4 Test of the equality of the three-factor structure between the four hospitals: multigroup confirmatory factor analysis

Model	χ^2	df	p	GFI	CFI	NNFI	RMSEA	χ^2 difference test	
								$\Delta\chi^2$	Δ df
Three factor model	1669.71	164	.000	.92	.95	.94	.03		
Factor loadings equal	1834.76	110	.000	.91	.94	.94	.03	165.04	54
Plus factor covariances equal	1854.73	101	.000	.91	.94	.94	.03	185.02	63
Plus error variances equal	2206.31	41	.000	.90	.93	.93	.03	536.60	123

Note. GFI = Goodness of Fit Index; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean Square Error of Approximation;

5.10 Climate scores per hospital

In order to test hypothesis 2 descriptive statistics were computed for each of the climate types (see table 5.5). The results show that the scores on the climate dimensions do have a similar pattern. In all hospitals the climate for quality is perceived as most relevant. This is surprising, given the findings in our qualitative study. Based on these findings we expected that hospital A and D were mainly focused on efficiency. For hospital A, we were not able to distinguish the climate for efficiency dimension. In hospital D, we could distinguish climate for efficiency. However, employees perceived climate for quality as most relevant, instead of climate for efficiency. Only for hospital B the descriptive results are in line with our expectations based on the qualitative study. Here we expected that the focus would be on quality.

The table provides also the standard deviations. For each of the climate types we see relatively high standard deviations. This is a first indication that we need to take into account not only differences across the hospitals, but we should also focus on

differences within hospitals. In the following chapters we will pay more attention to differences inside the hospitals.

Table 5.5 Mean scores and standard deviations climate types

	Climate types			
Hospital	**Quality**	**Safety**	**Innovation**	**Efficiency**
A	3.8 (.67)	3.3 (.73)	3.4 (.72)	-
B	3.9 (.56)	3.5 (.69)	3.4 (.68)	3.4 (.65)
C	3.9 (.49)	3.5 (.62)	3.6 (.58)	-
D	4.1 (.48)	3.5 (.70)	3.5 (.68)	3.5 (.65)

5.11 Conclusion

The main goal of this chapter was to find out which climate types could be distinguished within the four hospitals. The first step to accomplish this was to find out what the strategic goals of the different hospitals were. Subsequently we checked whether the HR strategy / policy were aligned with these goals. In order to do this document analyses and semi-structured interviews were conducted. In all hospitals we found similarities in the strategic focus, that is all hospitals were focused on delivering high quality and safe care. Moreover innovation and efficiency were mentioned as relevant goals to accomplish. This is not surprising as hospitals are confronted with the same institutional pressures and changes in their internal and external context (see chapter 2). Based on this we expected that we could distinguish between four strategic climate types in each of the hospitals, i.e. quality, safety, innovation and efficiency. Yet, based on analyses of our employee surveys we were able to distinguish between three climate types (i.e. efficiency could not be distinguished) in hospital A and C, and four climate types in hospitals B and D.

A possible explanation of this result can be found in the extent to which there is a strategic and internal fit. In each of the hospitals various elements of organizational strategy and the HR strategy / policy were clearly linked (at least on paper), and different HR practices were linked with each other. However, the extent to which these practices were aligned differed between the hospitals. This might be an indication that the HRM system did not send a consistent message towards the employees. Moreover, although there was a clear linkage between the HR policies and strategic goals of the hospitals on paper (i.e. intended strategic fit) there might be a

gap between these intentions and what is actually implemented in the organization. Though we did not empirically test the extent to which the intended HR policy was really enacted, we suspect that there might be a gap between intended and actual HRM. This is in line with previous empirical studies showing that there is often a gap between intended HR practices and those actually implemented and experienced by employees (e.g. Khilji & Wang, 2006). In hospital D, for example the strategic HR policy was still under construction, and as a result this was not yet fully implemented. In hospital A and C some parts of the policy were implemented. Only hospital B started already in 2005 with the implementation of their HR strategy and policy, suggesting that there was at least enough time to enact HRM throughout the organization. The findings of our survey support this result, as the results for hospital B were fully in line with our expectations (i.e. we could distinguish between four climate types, and the expected strategic focus was reflected by relatively high scores on the climate for quality). Future research should not only focus on different types of fit between the organizational strategy and the intended HRM strategy; more attention is needed to check whether the intended strategy is actually implemented.

Though we did expect that the four climate types were relevant for each of the hospitals, we also argued that there might be some differences across the four hospitals with respect to the strategic focus and the actual implementation of HRM. Much to our surprise we did not find real differences regarding the scores on the three climate dimensions across hospitals. In each of the hospitals the score on climate for quality was higher than the scores on the other climate dimensions. A possible explanation for this is the fact that quality of care is a primary institutional logic in health care. Institutional logics refer to the belief systems and related practices that predominate in an organizational field (Scott, Ruef, Mendel, & Caronna, 2000). This assumes that employee perceptions of the climate for quality of care are not only based on the message transmitted by the HRM system, but also by these professional logics.

The findings in this chapter support the idea that multiple strategic climate types can be distinguished across hospitals. This is in line with Kuenzi and Schminke (2009) who argue that much could be gained by simultaneously examining multiple climates, as

examining single climates in isolation is unlikely the best way for a full and accurate understanding of how climate affects individual and collective outcomes within organizations.

The results of this chapter will be used in the next chapters, by examining a possible mediating effect of different strategic climate types in the relationship between HRM perceptions and outcomes.

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Chapter 6: HRM & strategic climates in hospitals: Does the message come across at the ward level?

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Author's note

This chapter is published in Human Resource Management Journal (2010). We decided to include the full paper as a chapter in this dissertation. Given that the audience of the journal is supposed to be able to understand the paper without reading the rest of this dissertation, some parts in this text might overlap with other chapters. Moreover, it is important to note that we focus in this paper on two strategic climate types (quality and safety), instead of three climate types as distinguished in chapter 5. We made this decision upon the request of the reviewers of our paper. Though we were able to distinguish a climate for quality, safety and innovation, the reviewers suggested to drop climate for innovation in our paper as this would help to position our paper better. Moreover, focusing on climate for quality and safety contributes to relevant developments in the hospital sector, as more and more attention is paid to improving quality and safety of care.

6.1 Introduction

Many hospitals face challenges in their environment. They are confronted with reforms focused on structural change, cost containment, the introduction of market mechanisms and consumer choice. At the same time, policy makers in health care increasingly recognize that a well-motivated, appropriate skilled and deployed workforce is crucial for success of the health system delivery (Buchan, 2004). Managing this workforce by means of Human Resource Management (HRM) can therefore be seen as an important key to success in hospitals. Although multiple meta-analysis confirmed a relationship between HRM and performance in the profit sector (e.g. Combs, Liu, Hall, & Ketchen, 2006; Zacharatos, Hershcovis, Turner, & Barling, 2007), research focusing on the added value of HRM in hospitals remain scarce. This lack of research raises difficulties because it remains unclear how and why HRM matters in the specific health care context. Paauwe therefore (2004) suggest to use a contextually based approach in order to pay attention to the specific context which has an effect on the shaping of HR practices. Likewise Boxall and Purcell (2007) introduce the analytical approach which can be seen as a combination of evidence based research, contextually based research and rigor research methods.

Another issue in previous research on HRM and performance is the level of analysis. Most of the research is based on the organizational level of analysis, comparing organizations confronted with different contextual conditions. Furthermore, organizational level studies assume that all employees will receive the same HRM treatment. However, differences might exist between the intended practices at organizational level and the actual implemented practices and employees' perceptions across wards (Nishii & Wright, 2008). This is especially the case in large and complex organizations such as hospitals. Hence, we will focus on the ward level of analysis, in order to gain insight in how employees within a hospital can add value. In order to do this we will focus on the specific context of the hospital, using a combination of qualitative and quantitative research methods.

The paper starts with a short description of the hospital site, providing insight in the most relevant strategic goals of the hospital. Next, the theoretical framework will be discussed including a strategic climate approach, HRM systems and practice approach. The empirical findings of this study are presented in the results section. The paper ends with a discussion of the main findings and implications for both research and practice.

6.1.1 The hospital in its context

Dutch hospitals operate in a highly institutionalized context. This is mainly the result of a complex set of rules and procedures (e.g. for safety) in combination with the professionalization of specific employee groups such as medical specialists and nurses (Boselie, 2002). Furthermore, many HR practices are pre-determined in a national Collective Bargaining Agreement (CBA) for general hospitals. This results in a high level of standardization and formalization in the HR policies used within hospitals. Nonetheless, this does not mean that these policies are implemented in a uniform way. Differences in implementation might exist between hospitals, as well as within a hospital. In this study we will focus on the differences between wards in one hospital. According to the process models of HRM (e.g. Nishii & Wright, 2008) intended practices (as part of the HR strategy and policy on paper) can be implemented in different ways, and as a result this might lead to variance between hospital wards

regarding the HR practices that are put into practice. Line-managers play a crucial role in this process, given the fact that they are the implementers of the intended practices. Besides they communicate to employees the strategy of the organization, their value and the expected behaviors (Purcell & Hutchinson, 2007). Hence, because of the expected variance regarding the actual HR practices and the communication about relevant strategic goals, we will focus on the way how employees perceive the relevance of strategic goals and HRM at the ward level.

Our study was conducted in a large Dutch hospital. The hospital in its current form exists since 2002 and is the result of a merger between two general hospitals. The hospital provides the required basic medical care and a range of high quality and complex treatments for their patients (e.g. heart surgery).

Qualitative and quantitative methods are combined in our research process. In order to get background information about the hospital, the strategic goals and HR policies and practices, we started with a document analysis (including strategic plans, official HR documents, and annual reports). The information gathered with this procedure was used as background information. We conducted semi-structured interviews with nine respondents (i.e. six HR advisors and three unit managers) who were selected because of their knowledge and expertise regarding the hospitals strategic (HR) goals and HR practices.

The annual report provides a mission statement, which is the basis for the strategic program of the hospital, and outlines the core values including delivering “excellent basic care to patients”, and “act on behalf of the patients” The mission statement was used for the development of a long-range strategic HRM plan (2008-2011). According to this plan employees are expected to be devoted to the delivery of safe and high quality care, treating the patient as paramount. During the interviews all respondents endorsed the relevance of both quality and safety as strategic goals. Additionally, the intended HR policy and practices are focused on contributing to these goals.

If the hospital wants to achieve these goals, then management must make sure that employees experience that these strategic goals are relevant. Besides employees need to be able and motivated to behave and act in line with these goals. It is one thing to know what the strategic goals of the hospital are, and another to hear how employees

experience the different strategic goals in their daily work at the ward level. A concept that is focused on the way people experience or perceive what happens in their daily work environment is climate. Climate is widely defined as employees' perceptions of what the organization is like in terms of practices, policies and procedures (Reichers & Schneider, 1990). Schneider (1975) introduced the concept of a strategic climate, linking climate perceptions to the strategic goal(s) of an organization, such as a climate for service (Schneider, 1990), and a climate for safety (Zohar, 1980). According to this approach a strategic climate should encourage employees to respond and behave in ways that support these strategic objectives (Ostroff & Bowen, 2000). In this research we will also use a strategic climate approach. The qualitative data collection revealed that the hospital has two strategic goals, therefore we will focus on two strategic climate dimensions. To be more precise, we expect that we can distinguish a *climate for quality* (emphasis on providing good quality care), and a *climate for safety* (shared perceptions of managerial policies, procedures and practices as indicators of concern for employees' safety and health (Zohar, 1980)). Based on earlier research findings (see for a recent overview Zohar, 2010) we assume that the climate for quality and safety will in the end lead to safer and better quality of care. However, we also expect that there will be an intermediate process between the strategic climates and performance. According to the HRM process models employee perceptions will have an influence on employee behaviors and attitudes, and in the end this will have an impact on performance. This idea is supported by research conducted by Morrow and Crum (1998) on the relationship between a climate for safety and employee outcomes. This study shows that a positive safety climate significantly increases the level of employee commitment. Therefore, in the next section we will focus on the linkage between the strategic climate dimensions and commitment as a proximal performance outcome.

6.2 Strategic climate & ward commitment

Research at the individual level of analysis, has consistently demonstrated relationships between different types of climate and affective outcomes, such as commitment, satisfaction and turnover intentions (e.g. C. P. Parker et al., 2003). One could expect that the attitudes of individuals in a group may come to be shared

because of common experiences (Ryan, Schmit, & Johnson, 1996). Members of a group, in this study a ward, are subject to many of the same situational influences, and as a result similarity of attitudes within a unit is expected. Recently, Schulte, Ostroff, Shmulyian, and Kinicki. (2009) have demonstrated in their research that shared positive climate perceptions are positively related to unit-level employee attitudes (including satisfaction and commitment).

In line with the above arguments, we consider that the strategic climate dimensions will have a positive influence on ward-level commitment. The positive relationship between the climate for quality of care and commitment is rooted in the fact that professionals working in health care settings highly value 'to help others' and 'to do some rewarding work' (Shields & Ward, 2001). These individual values seem to fit with a positive climate for quality of care, since the emphasis in this climate is on norms and values associated with delivering high quality care towards patients (focused on helping others) resulting in enhanced employee commitment.

The climate for safety refers to the extent to which employees believe that safety is valued within their ward. A lot of research has been conducted on the relationship between climate for safety and safety performance, starting with the research by Zohar in the 1980's. Although these studies provide evidence for a linkage between safety climate and better safety outcomes, it gives no insight how this process might work, and how safety climate is linked to specific employee attitudes. These attitudes can be seen as indicators of safety performance behavior (Morrow & Crum, 1998). We expect that safety climate will have a positive influence on employee commitment, since safety climate relates to the ward's concern for the well-being of its employees. As we know from the literature about Perceived Organizational Support (e.g. Eisenberger, Huntington, Hutchinson, & Sowa, 1986) the concern about the well-being of employees is important in predicting the extent to which people are likely to feel committed to their organization. The same argument can be made for the ward level; concern for the well-being of employees at the ward level will result in more commitment towards the ward. These arguments suggest:

Hypothesis 1: a strategic climate for (a) quality of care and (b) for safety will have a positive influence on ward commitment.

The question remains how hospitals can create relevant strategic climates, which in turn will lead to a more committed workforce. In the next section we try to find an answer to this question.

6.3 How to create strategic climates?

Considerably less attention is paid to the antecedents of climate than to their consequences (Kuenzi & Schminke, 2009). Given the broad definition of climate as employees' perceptions of what the organization is like in terms of practices, policies and procedures (Reichers & Schneider, 1990) one would expect that climate can be created by means of these practices, policies and procedures. Bowen and Ostroff (2004) argue that HRM can have an influence on strategic climate through sending signals about what strategic goals are most relevant and what kind of employee behaviors are expected, supported, and rewarded relative to these goals. Schneider, White, and Paul (1998) included in their research different contextual factors (e.g. HRM and supervisory behavior) as relevant antecedents of a climate for service. In this research we will therefore focus on HRM practices as possible antecedents of strategic climate.

6.3.1 The relevance of HRM

In this research the following areas of HRM are included: autonomy, performance management (including training and development), communication and supervisor informing behavior. These practices were included for reasons specific for the context of the hospital to be discussed later.

Different perspectives can be used to examine the relevance of HRM. One of the perspectives is the so called systems approach. This approach views HRM as an integrated and coherent 'bundle' of mutually reinforcing practices (Gerhart, 2007). Illustrative for the systems view is that it takes into account that practices are interrelated and that these practices should interact or work together in achieving their effects. Examining practices separately incorporates the implicit assumption that effects of HR practices are additive, instead of reinforcing. Hence some authors argue that investigation of the effects of individual HR practices is incomplete, and this may lead to misleading results (Gerhart, 2007). Nonetheless, using a systems approach

doesn't provide insight in which practice may account more parsimoniously for any observed effect, as these systems may include practices each of which may enhance performance in its own way (Wall & Wood, 2005). This is not only of theoretical relevance, but is also an issue relevant for managers wishing to implement the most beneficial practices. Therefore one could argue that a practice approach is more appropriate. In the practice approach HRM is viewed as a collection of multiple, separate practices without any mutually reinforcing effects (Boselie, Dietz, & Boon, 2005). The use of a practice approach highlights which practices are most relevant for the creation of the desired outcomes.

Based on previous research it is not clear which approach is best. Boselie et al. (2005) reviewed 104 articles on HRM and performance. 58 articles applied a practice approach, and the remaining 46 explicitly used a systems approach. Given the pervasive empirical evidence and the diffuse literature, we will test both 'a systems approach' and a 'practice approach'.

6.3.2 Systems approach

The systems approach views HRM as a bundle or coherent system of mutually enforcing practices, thought to enhance employees' levels of skills, motivation, information, and empowerment (Appelbaum, Bailey, Berg, & Kalleberg, 2000). The basic underlying assumption in the systems approach is that the effectiveness of any practice depends on the other practices in place. If all the practices fit within a coherent system, the effect of that system on performance should be greater than the sum of the individual effects on performance from each practice alone (Delery, 1998).

Different authors suggest that HR systems influence employee attitudes and behaviors, as well as relevant organizational outcomes, by means of employee interpretations of climate (e.g. Kopelman, Brief, & Guzzo, 1990). Bowen and Ostroff (2004) even refer to the relevance of a strong HR system for the creation of strong climates. Their theoretical approach suggest that HR systems can have an influence on strategic climates through sending signals about what strategic goals are most relevant and what kind of employee behaviors are expected, supported, and rewarded, relative to those goals. Given the fact that the hospital in our study operates in multiple strategic

performance domains, one could argue that the HR system will send multiple messages that can be related to different strategic climates. In other words, HRM as a system simultaneously can have an impact on different strategic climate dimensions. In this research we therefore expect that:

Hypothesis 2: Shared perceptions of an HR system at the ward level will have a positive influence on a climate (a) for quality and (b) for safety.

So far, we have argued that different strategic climate dimensions will have an influence on commitment, and that the HR system can be seen as a relevant antecedent of strategic climate. Moreover, this study is proposing a mediating effect from strategic climate on the relationship between HRM and commitment. Employees are expected to show more commitment according to how well they identify with the goals and objectives in a given work context (e.g. Verquer, Beehr, & Wagner, 2003). When the HR system signal values that are consistent with the personal values of employees, employees will react more favorably and the relationship between climate and employee responses will be positive (Aumann & Ostroff, 2006). We expect that the strategic climate perceptions will have a mediating role in the relationships between perceptions of the HR system and commitment as long as the individual values of the employees are matched with the strategic climate types. In other words, if there is a good fit between the employee values and the organizational values (communicated by means of strategic climate and the underlying HR system), employees will be more committed. These arguments suggest that:

Hypothesis 3: A strategic climate for (a) quality and (b) for safety will mediate the relationship between shared perceptions of an HR system and commitment at the ward level.

6.3.3 Practice approach

The practice approach views HRM as a collection of multiple, discrete practices with no explicit or discernible link between the practices (Boselie et al., 2005). Notwithstanding the fact that a lot of researchers tend to focus on a systems approach (see for a recent review Paauwe, 2009), a practice approach might be a more suitable approach for examining the antecedents of strategic climate and commitment. Even if a system does have an influence on different strategic climate dimensions, it remains unclear

which of several HR practices will have an influence on these dimensions. We will discuss the expected linkages between different practices and the two climate dimensions.

First, *performance management* is viewed as a mechanism, linking the goals and responsibilities of individual employees to the objectives of the organization, and integrating different HR practices (i.e. appraisal, rewards, training and development) (Stiles, 1999). In this research we will only focus on appraisal and training and development; rewards are not included given the fact that wages are set by a collective bargaining agreement. Both training and development as well as performance appraisal can be seen as antecedents of a climate for quality (Ostroff & Bowen, 2000). Schneider et al. (1998) for example, argue that a climate for service can only be built in an organization where the training programs provide employees with the competencies required to do their job. This proposition has not been empirically tested yet, since researchers focus only on the effects of HR systems on a climate for quality instead of on the separate practice of training and development (Salanova, Agut, & Peiró, 2005).

Performance appraisal is designed to provide employees with feedback on their performance, to determine their development needs and to communicate to them their value and relevance to the organization (Bernardin, Hagan, Kane, & Villanova, 1998) Appraisal is especially important in the complex and demanding context of hospitals, as it provides employees with more role clarity, and in ensuring that staff feels valued and supported. Hospital staff that is clear about their roles and objectives is likely to perform their roles more effectively and thereby being more focused on quality of care (West, Guthrie, Dawson, Borrill, & Carter, 2006). Based on these findings, we expect that:

Hypothesis 4: Shared perceptions of the HR practice performance management are positively related to the climate for quality.

Second, in this research *autonomy* refers to the degree of discretion employees have over important decisions affecting their job, work environment and their organization as a whole (S. K. Parker, Axtell, & Turner, 2001). Previous empirical studies have shown that autonomy has been linked to a more positive safety climate (e.g. Mark et al.,

2007), resulting in better safety outcomes. In Magnet hospitals for example, where employees (especially the nurses) do have high autonomy and control over their practice, workplace safety (evidenced by lower rates of needle-stick injuries and mortality rates) was significantly higher compared with hospitals characterized by work environments with less employee autonomy (Scott, Sochalski, & Aiken, 1999). These findings indicate that a work environment characterized by greater autonomy may enhance employees' abilities to appropriately respond in work situations that might result in injury (S. K. Parker et al., 2001). Given this, we expect that:

Hypothesis 5: Shared perceptions of the HR practice autonomy are positively related to the climate for safety.

Third, *communication* refers to the free sharing of information throughout the organization (Patterson et al., 2005). Communication processes within organizations foster shared perceptions among employees (Ostroff, Kinicki, & Tamkins, 2003). Organizations can communicate towards their employees which strategic goals they pursue and what the organization expects from their employees in terms of their daily work behavior and attitudes. Hence, we expect that communication across organizational levels is critical for the creation of shared climate perceptions. Derived from the fact that the hospital in our study pursues two different strategic goals, we expect that organizational communication is relevant for the creation of both climate dimensions. A recent review by Kuenzi and Schminke (2009) shows that communication is indeed a relevant antecedent of different strategic climate dimensions such as safety and service. Therefore we hypothesize that:

Hypothesis 6: Shared perceptions of the HR practice communication are positively related to the climate for (a) quality and (b) for safety.

Empirical results indicate that behavior of direct supervisors does have considerable potential to affect climates (Kuenzi & Schminke, 2009). In view of the fact that direct supervisors in hospitals often interact with their employees, they can use these interactions to inform ward members about new practices and strategies, the goals to be reached, the work to be carried out and other ward level related issues. We refer to this behavior as supervisor informing behavior. Considering that supervisors may serve as interpretive filters of relevant organizational processes and practices for all group

members (Kozlowski & Doherty, 1989), it is reasonable to expect that supervisors, by means of their informing behavior, will try to shape the perceptions of their ward members. Much of the available work on the relationship between leadership behavior as an antecedent of climate is based on safety climate research (see for a recent overview Zohar, 2010) consistently supporting this relationship. We assume that supervisor informing behavior is relevant for both climate dimensions in our research. We hypothesize the following:

Hypothesis 7: Shared perceptions of the HR practice supervisor informing behavior are positively related to the climate for (a) quality and (b) for safety.

Figure 6.1 shows a summary of the proposed relationships in this study.

Figure 6.1 Proposed relationships between HRM perceptions, ward commitment and the mediating role of strategic climate.

6.4 Method

6.4.1 The employee survey

A total of 1825 questionnaires were sent to all employees of wards and outpatients' clinics (further referred to as wards) in November 2008. The unit managers motivated the employees to fill out the survey and informed them about the purpose of the study. In addition we introduced our research on the intranet and a weekly distributed newsletter for the employees. After three weeks we placed a reminder on the intranet, as well as in the aforementioned newsletter and the unit managers reminded all employees to take part in the research. This resulted in an overall response rate of 33.8%. The final sample consisted of 576 respondents from 59 wards, with an average group size of 9.8 responding employees per ward. The sample was found to be representative of the initial sample. The average age in our final sample was 41.2 years. The average age in the initial sample was 40.6 years. Of the employee sample

90.3% is female (91.0% of the initial sample was coded as female). In the sample 42.7 % has a higher vocational training or university degree. The average tenure in the organization is 13.3 years the average tenure in the organization in the initial sample was 12.6 years. The average tenure in the current job is 10.9 years.

Perceptions of HRM. We included 23 items on HRM. The following areas of HRM are included: autonomy, performance management (including training and development), communication and supervisor informing behavior. The first two areas of HRM were tested with 14 items of the scale by Boon, Den Hartog, Boselie and Paauwe (2011). In addition we included 4 items to measure communication / information sharing (2 items of a scale by Van Veldhoven and Meijman (1994), and two items of a scale by Riordan, Vandenberg and Richardson (2005)). Finally, we included the informational justice scale developed by Colquitt (2001) in order to measure supervisor informing behavior. One of the items included was: "The organization offers me coaching which supports my development". Cronbach's alpha's for all scales exceeded .83 (see also table 6.1).

Climate for quality. For measuring the climate for quality we used 6 items from a climate scale by Dawson, González-Romá, Davis and West (2008). We translated the original items from an organizational level perspective (e.g. "There is an emphasis on patient-focused care in this organization") into a ward level perspective (e.g. "There is an emphasis on patient-focused care within my ward"). This translation was necessary because each climate item should clearly focus on the specific collective unit which corresponds to the climate being studied (i.e. in this case the ward). By specifying a clear frame of reference we preclude the risk that respondents describe perceptions of different parts of the organization (Patterson et al., 2005).

Climate for safety. For measuring the climate for safety we used 6 items of the short version of the Safety Climate scale developed by Neal, Griffin, and Hart (2000). A sample item included "In this ward we consider safety to be important".

An exploratory factor analysis with oblimin rotation on the climate items indicated a solution with 2 factors having an Eigen value higher than 1 (explained variance 60.5%). The items were brought together in two easily interpretable dimensions which are in

accordance with theory: climate for quality of care (α = .93) and climate for safety (α = .92).

Ward commitment. In this research we will focus on ward commitment. People share their day-to-day work at the ward and will therefore feel more committed to this unit than to the more distal organization. Ward commitment was measured using a four item scale of Baruch and Winkelmann-Gleed (2002). This scale was originally designed to measure team commitment, therefore items were modified using the word 'ward' instead of 'team'. One of the items included was "I am proud to tell others that I am part of this ward".

For all scales, responses were given on a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

Control variables. Some ward level characteristics served as control variables. First, to control for ward size, we took the absolute number of employees per ward, not the number of respondents per ward. The average educational level was included to control for possible confounding effects of high vs. lower skilled work settings (1= lower education; 7 = higher education).

Ward level aggregation. In this study we focus on analysis at the ward level. Hospitals are very complex and departmentalized organizations (Dawson et al., 2008). Interactions and socialization processes will mostly take place at the ward level, where employees work together on a day-to-day base. As a result we expect that perceptions will be shared at the ward level, but not per definition on the organizational level. To support the aggregation of individual scores to ward level scores, we calculated ICC1 and ICC2 values (intraclass correlations; to measure interrater reliability, presented in table 6.1) and tested whether average scores differed significantly across wards. The ICC1 values are found to range from .13 to .29 implying that 13 to 29 percent of the variance can be attributed to the ward level. The ICC2 values all exceed the minimum value of .50 (Klein & Kozlowski, 2000). Hence, aggregation to the ward level is justified. We also calculated $r_{wg(j)}$ values of within-ward agreement for each survey scale to

further justify the aggregation of the individual level scores to the ward level. The $r_{wg(j)}$ values (all above the cut-off of .70) suggest sufficient within-ward agreement to further justify aggregation to the ward level.

Table 6.1 Aggregation characteristics

Survey scale	No. of items	α	ICC1	ICC2	Mean $r_{wg(j)}$
Autonomy	8	.83	.17	.67	0.94
Performance management	6	.85	.19	.70	0.87
Communication	4	.88	.13	.60	0.84
Supervisor informing behavior	5	.91	.29	.80	0.85
Ward commitment	4	.79	.18	.69	0.90
Climate for quality	5	.93	.23	.73	0.92
Climate for safety	6	.92	.16	.65	0.90

6.5 Results

Table 6.2 shows the descriptive statistics and correlations among the aggregated questionnaire scales. It is worthwhile noticing the significant correlations between autonomy, performance management, communication on the one hand and the two strategic climate types on the other hand. The correlations of these HR practices with the strategic climate types varied between .27 and .57 representing moderate sized effects. Supervisor informing behavior is significantly related with the climate for safety. Both climate dimensions are significantly correlated with commitment (quality r = .59; safety r = .30), as predicted in hypothesis 2. Correlations among the HRM scales were generally modest and varied from .32 to .57. All correlations between the independent measures were lower than .70, which suggests that the probability of multicollinearity is low (Tabachnick & Fidell, 1996). Hence our measures were suitable for inclusion in the hierarchical regression analysis. Tests for multicollinearity showed no multicollinearity problems in any of the regression analysis.

Table 6.2 Means, standard deviations and correlations (N= 59 wards)

Variable	M	SD	1.	2.	3	4	5	6	7	8	9	10
1. Climate for quality of care	3.82	0.40	-									
2. Climate for safety	3.36	0.42	.46**	-								
3. Autonomy	3.23	0.37	.34**	.42*	-							
4. Performance management	2.93	0.45	.27*	.48**	.42*	-						
5. Communication	2.89	0.43	.31*	.46**	.57**	.44**	-					
6. Supervisor informing behavior	3.20	0.64	.15	.54**	.32*	.54**	.53**	-				
7. HR bundle	3.06	0.37	.32*	.62**	.68**	.77**	.80*	.83**	-			
8. Ward commitment	3.67	0.40	.59*	.30*	.63**	.40**	.39*	.16	.46**	-		
9. Average ward size	24.05	14.88	-.19	.10	-.09	.11	.00	.14	.07	-.10	-	
10. Average educational level	4.29	1.01	-.31*	-.23	.01	-.10	-.27*	-.10	-.15	-.18	.04	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Hypothesis 1 predicted that the two climate dimensions would have a positive influence on ward commitment. Table 6.3 presents the regression results for the regression of the climate dimensions on ward commitment. Climate for quality (ß = .57, p < .001) is positively related to ward commitment (adjusted R^2 = .30). This result supports hypothesis 1a. A more positive climate for quality is associated with a stronger commitment towards the ward. Hypothesis 1b is not supported by the results, as the results show no significant effect of the safety dimension on ward commitment.

Table 6.3 Multiple regression analysis for ward commitment (N= 59 wards)

Independent variable	**Ward commitment Model**			
	1A ß	**1B ß**	**2A ß**	**2B ß**
Control variables				
Ward size	-.09	.01	-.13	.00
Average educational level	-.17	.01	-.10	.01
HR Bundle			.45***	.41**
Strategic climate:				
Quality of care		.57***		.55**
Safety		.04		-.20
ΔR^2	.04	.31***	.20***	.21***
ΔF	1.17	12.63***	14.49***	10.12***
R^2	.04	.35	.24	.45
Adjusted R^2	.01	.30	.20	.40

*p <.05 ** p < .01 ***p <.001 (2-tailed)

Hypothesis 2 was based on the systems approach of HRM. Hypothesis 2 predicted that the shared perceptions of a bundle of HR practices would have a positive influence on the two climate dimensions. Table 6.4 presents the regression results involving the two climate dimensions. There was a significant effect of the HR-bundle on the climate for quality (ß = .30, p <.05; adjusted R^2 = .17) and the climate for safety (ß = .59, p <.001; adjusted R^2 = .37). This supports hypothesis 2.

Hypothesis 3 predicted that the strategic climate dimensions mediate the effect of the perceived HR system on ward commitment. In order for the strategic climate dimensions to mediate the relationship between the perceptions of the HR system and commitment, the following conditions must be satisfied (c.f. Baron & Kenny, 1986): (a)

perceived HR system is significantly associated with the strategic climate dimensions; (b) perceived HR system is significantly related with commitment; (c) when entering strategic climate in the regression equation, the relationship between the perceived HR system and commitment decreases significantly. Full mediation occurs if the effect of the perceived HR system on commitment becomes non-significant when controlling for strategic climate. Partial mediation occurs when the effect of HRM on commitment becomes smaller but remains significant. The set of regressions was run with the bundle of perceived HR practices. The conditions for mediation were met here, as the bundle of HR practices is significantly associated with the strategic climates and ward commitment (see tables 6.3 and 6.4). Results are presented in Model 2a and 2B in table 6.3, and shows that entering strategic climate in the third step increases R^2 significantly. The adjusted R^2 increased from .20 to .40 (ΔR^2 = .21, p <.001). The effect size of the bundle of HR practices remains significant after entering the strategic climates, which indicates partial mediation on the effect of the HR system on commitment. This partial mediation can be ascribed to the dimension of quality for care. These results support hypothesis 3a.

Hypothesis 4, 5, 6 and 7 were based on the practice approach, suggesting that different practices would have an impact on different climate dimensions. Table 6.4 presents the results involving the two climate dimensions. There was only a significant positive relationship between supervisor informing behavior and the climate for safety (ß = .34, p <.01; adjusted R^2 = .35). This supports hypothesis 7b.

In conclusion, the results are more in favor of the systems approach on HRM. Evidence was found for hypothesis 2 and partially for hypothesis 3. HRM as a system does have a positive influence on the two climate dimensions, and ward commitment. The relationship between the HR system and ward commitment was partially mediated by climate for quality of care. There was no evidence for the hypothesis based on the practice approach, except for hypothesis 7b. Supervisor informing behavior did have a positive relationship with the climate for safety.

Table 6.4 Multiple Regression analysis for the strategic climate types N =59 wards

Independent variable	Quality of care Model			Safety Model		
	3a	3b	3c	4a	4b	4c
	ß	ß	ß	ß	ß	ß
Step 1: Control variables						
Ward size	-.18	-.21	-.18	.11	.07	.07
Average educational level	-.30*	-.25*	-.30*	-.24	-.14	-.18
Step 2a: HR Bundle		.30*			.59***	
Step 2b: HR practices:						
Autonomy			.24			.25
Performance management			.16			.16
Communication			.05			.01
Supervisor informing behavior			-.05			.34**
ΔR^2	.13*	.09*	.12	.07	.34***	.35***
ΔF	4.04*	5.96*	2.16	1.99	31.39***	7.90***
R^2	.13	.21	.25	.06	.41	.42
Adjusted R^2	.10	.17	.16	.02	.37	.35

*p <.05 ** p < .01 ***p <.001 (2-tailed)

6.5.1 Additional analysis

The HRM perceptions, climate dimensions and ward commitment were collected from the same source. To account for common method bias, a split sample analysis was used to check the robustness of our results. We randomly split the wards[1] in half, obtaining values of the HRM perceptions from one half, and the climate and commitment variables from the other half of the ward. The results obtained with this split sample procedure were robust in comparison with the results based on the sample as a whole. Based on this we can conclude that the common method bias is unlikely to be a serious problem in our data.

[1] 19 wards were excluded from the split sample procedure because the number of respondents in this ward was too small to split the sample.

6.6 Discussion

This study has sought to analyze how employees perceive intended strategic goals, the role of HRM in communicating these intentions, and if these perceptions generate the desired effects. In order to do this we have used an analytical approach, combining both qualitative and quantitative methods in a large hospital. In contrast to studies that focus on the organizational-level of analysis, this study focused on the ward level of analysis. In line with the study by Nishii and Wright (2008), our research confirms the utility of looking at the difference between intended strategic goals and HRM on the one hand and the way these are enacted and perceived across different wards on the other hand. The results showed that there are significant differences between wards with respect to the HRM perceptions, climate scores and ward commitment. In other words, although the intended strategic goals of the hospital are translated in a strategic HRM policy, the perceptions of these strategic goals and the perceptions of the enacted HRM practices differ across wards. This might be due to differences in the implementation of HR practices, and communication of relevant information towards employees (Bowen & Ostroff, 2004; Nishii & Wright, 2008). Yet, the variance across wards was significant but relatively small, suggesting that there is at least some consensus with regard to the enacted HR practices and the intended strategic goals. This consensus is desirable for the hospital because it aids to create a strong situation in which strategic goals are perceived in the same way and expectations are clear so that employees can produce the appropriate behavior (Dawson et al., 2008).

Furthermore, based on the qualitative data collection in our research two intended strategic climate dimensions were distinguished. Focusing on two strategic climate dimensions at a time supports the idea put forward by Schulte et al. (2009) and Patterson et al. (2005) that research should focus on more than one (strategic) climate dimension at a time. Hospitals, as well as other organizations, do not operate in a single performance domain. In order to make sure that these strategic goals will be accomplished, employees at the ward level should be aware of these intended strategic goals. This awareness should encourage employees to respond and behave in ways that support these strategic objectives. The survey results showed that both dimensions could be recognized across wards, suggesting that employees are aware of

both the relevance of quality and safety in their daily work. However, it is not clear if the two climate dimensions mutually influence and reinforce each other (Schulte et al., 2009). One might expect that safety can be seen as a relevant condition for quality of care, suggesting that better scores on the safety climate scale will have a positive influence on the climate for quality scores. More research is needed on this point.

6.6.1 How to create strategic climates?

This study provides insight in how the two strategic climate dimensions can be created by means of HRM. We have both tested a systems approach and a practice approach. The empirical evidence in this study supports to a large extent a systems approach. The HR system affects the two climate dimensions of quality and safety. These findings support the ideas put forward by Bowen and Ostroff (2004) that HR systems communicate the strategic focus of the organization, and as a result creates the foundation for particular climates to develop. Or as Purcell and Hutchinson (2007) explicitly acknowledge: taken together, a system of HR practices does have a role of communicating to employees the nature of the organization, their value to it and the type of behaviors expected. Hence, our findings are in line with the proposition that the overall message of the HR system is more important than the signals of separate HR practices.

Notwithstanding the relevance of an HR system for sending key messages to employees and so the creation of strategic climates, the empirical findings show that supervisor informing behavior also does have a significant influence on the climate for safety. Despite that in our study supervisor informing behavior is related to one climate dimension, we think that the informing behavior of supervisors is crucial for the development of different strategic climate dimensions. Direct supervisors often interact with their employees, and they can use these interactions to inform ward members about strategies, the goals to be reached, the work to be carried out and other ward related issues. Accordingly, direct supervisors can be seen as agents with a prominent role in the transmission of values and climate (Kuenzi & Schminke, 2009). Additionally, the direct supervisors are responsible for the implementation of the HR practices, which can also be used for communicating the organizational goals. Based

on the fact that HR systems do have an influence on climate perceptions, variance in implementation of the HR system leads to variance in climate perceptions. Based on this idea and our empirical results we suggest to further investigate the role of direct supervisors in creating relevant strategic climates and employee attitudes, which is in line with the ideas by for example Nishii and Wright (2008).

Finally, we have included ward commitment in our research as a proximal outcome indicator for performance. Testing the linkage between the two climate dimensions and commitment showed that only the climate for quality was related to ward commitment. Although we did expect that employees in hospitals highly value safety in their work environment, and as a result feel more committed if there is a positive safety climate, we did not find any relationship between safety climate and commitment. A possible explanation for not finding this relationship might be that there is only lip-service paid to safety. In other words, on the surface it seems that safety is highly valued, but practices focused on safety may be more concerned with only covering the necessary rules and procedures instead of the well-being of employees (Zohar, 2010). As a result, employees do not feel supported by the climate for safety and because of this lack of support people will not feel more committed to the ward. Finally, the HR system was related to ward commitment. This relationship was partially mediated by the climate for quality of care. One possible explanation for this result is that the content of HR practices such as performance management is more focused on delivering high quality of care, instead of on safety. However we did not take into account what the focus of the different practices was. More research is needed on this point.

6.6.2 Limitations

A noteworthy limitation of this study is the use of one data source for the measurement of all variables. This type of data collection may be prone to common method bias. To test whether this was an issue, we used a split sample procedure, randomly splitting the wards. Conducting the split sample analysis resulted in robust results. Based on this we can conclude that the common method bias is unlikely to be a serious problem in our data. Although this additional analysis did not identify

common method variance, it might be interesting for future research to use objective measures of performance in order to overcome the risk of common method bias. Moreover, the use of objective performance indicators is prudent for testing the proposition that a positive strategic climate will lead to better domain specific performance outcomes. In addition, using objective performance outcomes, next to commitment, will provide us with more insight in the way HRM perceptions will lead to better performance outcomes, via employee attitudes as suggested in the HRM process models.

6.6.3 Implications

Research. This study contributes to our knowledge of the HRM-performance linkage. The results demonstrated that employee perceptions of the intended strategic goals and HRM show variance within one and the same large organization. This supports the idea by Nishii and Wright (2008) that comparing work units within one and the same large organizations is a recommended research strategy in studying the HRM-performance linkage. More research is needed on the way intended strategic goals and HR policies are implemented by direct supervisors, and how this is related to employee perceptions and the creation of relevant strategic climates. This requires, as Boxall et al (2007) stated, an analytical approach. In this study we have used this analytical approach, combining both qualitative and quantitative research methods in order to take the context into account and to find out what is really going on in practice.

Practice. The findings in our study suggest that employee perceptions of the intended strategic goals and HRM varied by ward. Extra efforts may thus be needed to ensure that employees are aware of the intended organizational strategy, and what this means in terms of their daily work at the ward level. Sending a consistent message across wards helps to create strategic climates, in which employees perceive what strategic goals are most important and what employee behaviors are expected, supported, and rewarded. Both the HR system and supervisor behavior play a major role in sending a consistent message and thus the creation of strategic climates. Once employees are aware of the strategic goals, the organization can further improve the

alignment of strategic goals by making sure that employees know how to contribute to these goals and are able to do this.

6.7 References

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Chapter 7: The mediating role of strategic climate in the relationship between HRM and employee commitment: A multilevel temporal analysis

This chapter is based on Veld, M. & Peccei, R. The mediating role of strategic climate in the relationship between HRM and employee commitment: A multilevel temporal analysis. *Manuscript in preparation for submission.*

7.1 Introduction

The hospital sector and more broadly the health care sector is under constant and continuing pressure to deliver quality improvements, safe care, consumer choice, cost savings, and accountability. The most crucial factor in taking up these challenges involves the human resources (managers, professionals, nurses etc.) working in health care. In recent years, policy makers in health care have increasingly recognized that a well-motivated, appropriately skilled and deployed workforce is crucial for the success of health system delivery (Buchan, 2004). However, there is hardly any empirical evidence showing that HRM does add value in health care.

Based on different studies conducted in the profit sector, we can conclude that HR practices, be it separately or bundled in a system, are related to firm performance (see for example a meta-analysis by Combs, Liu, Hall, & Ketchen, 2006). Yet, there is less agreement about the processes through which HRM might contribute to performance. From a human capital perspective, for example, HRM contributes to performance by increasing the knowledge and skills of employees (e.g. Huselid, 1995). In addition, others have argued that HRM enhances the motivation and commitment of employees (high-commitment HRM), resulting in employee behavior which is in line with organizational goals (e.g. Appelbaum, Bailey, Berg, & Kalleberg, 2000). More recently, a relational perspective has been proposed, suggesting that HRM can enhance performance through the pathway of employee-employee relationships (e.g. Gittell, Seidner, & Wimbush, 2010). Although these, and other models (see for an overview Peccei, Van de Voorde, & Van Veldhoven, forthcoming), suggest different causal mechanisms through which HRM contributes to performance, they all imply that these mechanisms work through employee attitudes and behavior.

In this study we focused on the commitment pathway and, in particular, on affective commitment. Our interest, however, was not in employee affective commitment as a possible mediator of the relationship between HRM and performance. Rather, our interest was in gaining a better understanding of the first key link in the HRM-commitment-performance relationship, namely, in the relationship between HRM and affective commitment itself. Affective commitment, which hereafter we refer to simply as commitment, refers to a positive affection for a unit (e.g. organization, ward or

department), which is reflected in a desire to see the unit succeed in its goals and a feeling of pride at being part of that unit (Cohen, 2003; Meyer & Allen, 1997). Different studies have shown that commitment promotes a host of positive individual-level behavioral and performance outcomes, like attendance and OCB (e.g. Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), as well as harder measures of performance at higher organizational levels, such as turnover (Shaw, Gupta, & Delery, 2005). These results underscore the value of commitment in organizations and the importance, therefore, of having a clear understanding of how and why HRM can contribute to enhance commitment at the workplace.

Although several authors have claimed that HRM is important for achieving commitment (e.g. Appelbaum et al., 2000), and a number of studies indeed have shown a positive relationship between HRM and commitment (e.g. Kehoe & Wright, forthcoming), it remains unclear why and how HRM does affect commitment. The standard argument provided in the HRM literature is based on social exchange theory (Blau, 1964). This theory suggests that "employees form general perceptions about the intentions and attitudes of the organization toward them from the policies and procedures enacted by individuals and agents of the organization" (Whitener, 2001, pp. 517). The 'quality' of the social exchange that takes place between an employee and employer is often conceptualized as perceived organizational support (POS) (Cropanzano & Mitchell, 2005; Eisenberger, Huntington, Hutchinson, & Sowa, 1986). When an organization supports employees and invests in them by means of HRM, employees are likely to feel a reciprocal obligation to exchange this support and investment with extra effort and commitment to the organization. Despite the fact that social exchange theory is assumed to be relevant, there is hardly any empirical evidence in the HRM literature showing that social exchange is a linking mechanism between HRM and commitment. Moreover, alternative explanations for the link between HRM and commitment have received far less attention. In this study we sought to address this gap by focusing on strategic climate and exploring the role that this potential mechanism plays in mediating the relationship between HRM and commitment. In the theoretical framework we explain in more detail how this process works.

More generally, in this study we sought to contribute to the strategic HRM and climate literatures by exploring, both theoretically and empirically, an alternative mechanism (i.e. strategic climate) through which HRM may affect commitment. This alternative mechanism is based on a strategic focus, linking the strategic goals of the organization to the way these goals are transmitted to and perceived by employees through HR practices, and how this, in turn, helps to enhance commitment at the workplace. In particular, we sought to contribute to the HRM and climate literatures in two main ways. First, is by theorizing and then empirically testing the relationship between HRM and strategic climate. Notwithstanding the fact that different researchers have suggested that HRM does have an influence on employee outcomes via climate perceptions (e.g. Kopelman, Brief, & Guzzo, 1990), there is little research or understanding of how climate actually develops from HRM. Second, is by theorizing and then empirically testing the link between strategic climate and commitment. Although there is considerable research focusing on the relationship between strategic climate and employee behavior (see for an extended overview Kuenzi & Schminke, 2009), there is hardly any research focused on the relationship between strategic climate and commitment. To achieve the above aims we first developed an integrated model of the relationship between HRM, strategic climate and employee commitment. We then tested this theoretical model using two-wave panel survey data based on a sample of 262 employees from 48 wards in a Dutch hospital (period 2008-2009). The model was tested using a multilevel approach involving both a ward and an individual level of analysis in order to determine whether shared perceptions of HRM and strategic climate at the level of the ward influenced employee affective commitment to the ward itself.

7.2 Theory and hypotheses

As noted, in the present study we focused on strategic climate as a key mechanism that may serve to transmit the effect of HR practices on employee commitment. In essence, therefore, we are hypothesizing that there are two main links involved in the HRM-commitment relationship. The first is the link between HR practices and strategic climate. The second is the link between strategic climate and employee commitment. Below we consider each of these links in turn. Before doing so, however, we first

provide a brief description of the hospital site where the study was conducted in order to set the research in context, identify the most relevant strategic goals of the organization, and provide insight into the most meaningful level for examining the process through which HRM influences commitment.

7.2.1 Background: Strategic focus of the hospital and levels of analysis

This study was conducted in a Dutch hospital which provided the required basic medical care, as well as a range of high-quality and complex treatments (e.g. neurosurgery). The hospital was of average size with approximately 3200 employees (on average, Dutch hospitals employ between 1000 and 5000 employees) (Personeel in Beeld, 2004). The strategic program of the hospital was based on a mission statement emphasizing a number of core values: delivering "excellent basic care to patients", "continuous innovation", and "being more efficient" (annual report, 2008). The mission statement served as the basis for the development of a long-range strategic HRM plan (2008-2011). According to this plan employees were expected to be devoted to the delivery of safe and high quality care, and to treat the patient as paramount. Another important element was the focus on innovation. In order to be able to provide high quality care the organization wanted to create a climate that was focused on innovation. Finally, contrary to the mission of the organization, there was no explicit focus on being more efficient in the strategic HRM plan. However, different key informants in the hospital (i.e. HR advisors and cluster managers) confirmed in interviews that being efficient was a highly relevant strategic goal for the organization. Based on this exploration of the context, we can conclude that the hospital pursued four strategic goals, i.e. delivering high quality care, delivering safe care, being innovative and being efficient. If the hospital wants to accomplish these goals, then management must make sure that the goals are properly transmitted to employees and that employees experience these goals as relevant. Moreover, employees should be motivated and able to act in line with these goals (Veld, Boselie, & Paauwe, 2010). This is in line with the argument by Boswell (2006) that translating strategic goals into an enacted strategy requires development of employee awareness about what the strategy involves and how to contribute to it. In the next section we will provide more

details about this process. However, since we are interested in employee perceptions of the relevance of strategic goals in their daily work context, and how HRM can help to create this awareness, we first need to explore in more detail at which level this process will take place. Notwithstanding the fact that perceptions are, by definition, formed and necessarily assessed at the individual level, we focused our theoretical predictions and empirical analysis on the impact of aggregated perceptions on individual level commitment.

What constitutes a meaningful level of analysis within an organization varies depending on the situation, but may include, for instance, different functions, departments or work groups. In our Dutch case study hospital, the most meaningful level of analysis was the individual ward organized around a specific specialism or professional service (e.g. cardiology, maternity, geriatrics, accident and emergency). In essence, the wards constituted what might be thought of as semi-autonomous units within the larger hospital structure, with unit managers and supervisors responsible for the day-to-day management of the ward and for the detailed implementation of HR practices at local level. In other words, wards constituted distinct micro-systems with their own managerial and authority structure, often characterized by a strong sense of ward identity based on the particular medical specialism or professional service involved. More generally, it was the wards, rather than the hospital as a whole, that constituted the primary point of reference and attachment for employees, with ward supervisors exerting a strong influence on the extent and way in which HR practices and strategic goals were implemented at the place of work.

Given the particular organizational context, we expected some communality in both HRM and strategic climate perceptions at the ward level, as employees working in the same ward were exposed to broadly the same HR practices and working environment. Moreover, employee perceptions are likely to become shared within the ward due to socialization and interaction processes taking place in the unit (Kozlowski & Hattrup, 1992). This is in line with social information processing theory (Salancik & Pfeffer, 1978) which suggests that individual perceptions of organizational phenomena and of the work environment are influenced by social processes in that environment. Individual employees use the information available in their immediate work context to

interpret events and to form judgments about that context which, in turn, influence their attitudes and behavior. In addition, social interaction among unit members can lead to collective sense making and the shared development of perceptions of the environment (Weick, 1995).

Overall, therefore, because of the nature of the case study organization, the main point of reference of the present study and analysis at the supra-individual level was the ward, rather than the hospital as a whole. Because of the key role played by the ward in the hospital structure, we expected some ward-level communality in HRM system and climate perceptions (i.e. shared aggregate ward-level HRM system and climate perceptions). Moreover, in line with earlier studies in hospitals (e.g. Bhat & Maheshwari, 2005; Brewer & Lok, 1995), and based on the centrality of the ward in the daily work life of employees in hospitals, we expected that commitment to the ward would be a more meaningful construct to our respondents than commitment to the more distal organization. Hence, in this study we focused on affective commitment to the ward rather than to the organization as a whole as is often done in empirical studies in this area.

7.2.2 HRM and strategic climate

Our central argument here is that HR practices play a key role in transmitting and embedding strategic organizational goals at the workplace, thereby contributing to the development of a strong strategic climate in the organization. In the organizational context, climate is commonly said to refer to employees' perceptions of their work environment (Carr, Schmidt, Ford, & DeShon, 2003; Reichers & Schneider, 1990; Schneider, 2000). Our focus here is on the notion of strategic climate which refers to employees' perceptions and experience of the organization's strategic goals and of their relevance in their daily work environment (i.e. the ward). In other words, the concept of strategic climate, as used here, is similar to what in the literature on strategic climate types is commonly referred to as a climate that has a specific purpose (James et al., 2008), or a so-called 'climate for something' (e.g. a climate for customer service Schneider, 1990; or a climate for safety Zohar & Luria, 2005). The main difference is that the notion of strategic climate used here explicitly recognizes that

organizations may have more than one strategic priority and that management, therefore, may wish to transmit a number of strategic goals simultaneously to employees. At the same time, though, we also recognize that because of the nature and structure of the hospital under investigation, strategic climate perceptions may vary across wards depending, for example, on how strategic organizational goals are transmitted, emphasized and applied by management and supervisors at local level. More generally, therefore, the notion of strategic climate implies that employees understand what the strategic goals of the organization are (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005) and, in the present case, refers to the extent to which employees perceive these strategic goals, like excellent service delivery or innovation, to be relevant in their work context and to be emphasized on a day-to-day basis in their own immediate ward environment. Hence, employee goal awareness will be reflected in shared strategic climate perceptions at the level of the ward, and these shared perceptions may well vary across wards.

Different researchers have suggested that HRM can be seen as an important vehicle for transmitting the strategic goals of the organization to its employees and ensuring that these goals are translated into concrete forms of behavior at work (e.g. Bowen & Ostroff, 2004; Boxall & Purcell, 2008). Based on the HRM literature we can distinguish many practices that can be used for signaling the relevance of specific strategic goals to employees. Processes of recruitment and selection, for example, can be used by management to signal to new recruits which particular qualities and attitudes are desired by the organization. After the initial phase of hiring, induction programs can be used to transmit key organizational values to newcomers and to socialize them into the strategic goals of the organization (Boselie, 2010). Training and development programs, performance management and reward practices can further strengthen strategic goal alignment by signaling what kind of behaviors are expected, supported and rewarded. A final example is information-sharing, which can be used to inform employees about the strategic priorities and values of the organization, as well as the specific contributions that may be expected of them at work.

Though this list of practices might suggest that all HR practices can be used for transmitting the strategic goals and expectations of the organization, this is not

necessarily the case. Work-life balance practices, grievance procedures and job security guarantees, for example, are first and foremost relevant for employee well-being and for signaling the kind of benefits or inducements that employees might expect from the organization, rather than for signaling the relevance of strategic goals and the specific contributions that might be expected of employees in relation to these goals. In this study we do not cover all possible signaling practices. Rather, we focus on four core practices that can be used by management as vehicles to transmit and reinforce key strategic goals and values to employees, signaling the kind of contributions that are expected of them at work. The four HR practice areas we focus on are performance management (including appraisals and training and development), decentralized job design and two forms of information-sharing, general information-sharing and supervisor informing behavior. These practices were included as we expect them to be particularly important in signaling strategic signals to employees and helping to align their individual goals to those of the organization.

Performance management can be seen as involving a broad range of activities that create a bridge between managing employee performance and enhancing overall organization performance (Boselie, 2010, pp. 173). The broad range of activities can include appraisal, pay-for-performance, and training and development (Stiles, 1999). Together these HR practices form a relevant mechanism linking the goals and responsibilities of individual employees to the objectives of the organization. In this study we focused on the relevance of appraisal, as well as training and development, for the creation of strategic climate perceptions. Rewards were excluded because wages in Dutch health care system are set by central collective bargaining agreements, leaving no space for pay-for-performance or bonuses at local level. We expected that training and development, as well as performance appraisal, can be used by management for carrying strategic signals. Performance appraisal is designed to provide employees with feedback on their performance, to determine their development needs and to communicate to them their value and relevance to the organization (Bernardin, Hagan, Kane, & Villanova, 1998). The purpose of appraisal is to direct employee performance towards achieving organizational goals and to improve individual performance in line with these goals (West et al., 2002, pp. 1307).

Similarly, training and development are focused on providing employees with the required knowledge, skills and abilities to perform desired tasks at work. Besides the instrumental relevance of training and development programs, these programs can also serve as an important signaling device. For example, training programs focused on enhancing service quality not only provide employees with the necessary competencies for actually delivering good service, but can also be used to transmit a message that service quality is an important goal to strive for at work (e.g. Schneider, White, & Paul, 1998).

Information-sharing represents a one-way (top-down) form of communication with employees (Boselie, 2010, pp. 237). Information-sharing in organizations fosters shared perceptions among employees (Ostroff, Kinicki, & Tamkins, 2003) and promotes the alignment of individual and organizational goals since it can be used to communicate to employees which strategic goals the organization wishes to pursue and what specific attitudes and behaviors are therefore expected of employees to achieve these goals. Intranet or weekly distributed newsletters are well-known forms of information-sharing in hospitals. Another important source of information-sharing in organizations is the information provided by direct supervisors. Direct supervisors in hospitals often interact with their subordinates, and they can use these interactions to inform their employees about relevant issues, like the goals to be reached and the work to be carried out. The role of supervisors in creating climate perceptions is widely acknowledged in the climate literature. Kozlowski and Doherty (1989), for example, argued that supervisors serve as interpretive filters of relevant organizational processes and practices for their employees. Based on this, it is reasonable to expect that supervisors, by means of their informing behavior, can help to shape the climate perceptions of their employees. An extended review by Kuenzi and Schminke (2009) shows that both forms of communication (i.e. information-sharing and supervisor informing behavior) are relevant antecedents of several facet-specific climates.

Decentralized job design. Decentralized approaches to job design are characterized by higher levels of job autonomy which refers to “the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out” (Hackman &

Oldham, 1976, pp. 258). According to self-determination theory (Deci & Ryan, 1985), people will internalize the value of doing activities that are not initially interesting if their context supports autonomy. Cadwallader, Jarvis, Bitner, and Ostrom (2010), for example, argued and showed that employees who perceived greater autonomy regarding whether to contribute to an organizational goal (i.e. participated in the implementation of service innovation), were more likely to be motivated to contribute to the goal because they believed they had a choice in the matter. The results of their study showed that autonomy, rather than being forced to contribute to the goal, resulted in stronger positive feelings towards and beliefs about the goal. Based on self-determination theory and the empirical findings by Cadwallader et al. (2010), we expected that employees who perceive that they have greater autonomy at work will exhibit more positive feelings and beliefs about organizational goals, which will then be reflected in more positive strategic climate perceptions.

So far we have argued that each of the above HR practices can be seen as an antecedent of strategic climate. Different researchers have argued that a system or bundle of HR practices is a relevant antecedent of climate, rather than each practice separately (e.g. Kopelman et al., 1990). Bowen and Ostroff (2004) even refer to the relevance of a 'strong' HR system for the creation of strong climates. They argue that the more the HR system sends strong signals about what strategic goals are most relevant and what kind of behaviors are expected, supported and rewarded relative to these goals, the more likely it is that employees will have positive strategic climate perceptions. In line with this argument we expected the signaling effects of the various practices identified above to be mutually reinforcing. The more intensive and extensive the use of these various signal-carrying practices, therefore, the more effective the transmission of strategic organizational goals to employees is likely to be and, hence, the stronger and more positive will employees' strategic climate perceptions be. Clearly, we are not suggesting that the adoption by organizations of the various practices identified above will necessarily lead to the development of a strong positive strategic climate. However, in the absence of well-developed signal-carrying practices of the kind identified above, we expected the emergence of a strong strategic climate to be less likely.

Based on the above considerations, therefore, in the present study we did not focus on the individual HR practices identified above. Instead, we focused on the combination of these practices together and examined the effects of this combined bundle of signal-carrying practices on strategic climate. For ease of presentation, we refer to this particular bundle or combination of HR practices as the focal HRM system, or the HRM system for short. In order to determine whether the HRM system was actually enacted in the hospital we measured employee perceptions of the system, rather than relying on management reports of the HR practices in place. This approach is in line with process models of HRM (e.g. Nishii & Wright, 2008) and the idea that there may be a difference between the HR practices intended and implemented by management and the way these practices are perceived and experienced by employees at the place of work. Ultimately, what is important in terms of employee outcomes, including employees' perceptions of strategic climate, is the way in which they perceive and experience the HR practices that are in place in the organization; hence our focus was on employee perceptions of the HRM system.

Assuming that the case study hospital was indeed focused on a number of key strategic goals (i.e. quality, safety, innovation and efficiency), we expected stronger employee perceptions of the HRM system (i.e. higher scores relating to the various signal-carrying practices) to be associated with stronger strategic climate perceptions (i.e. higher composite scores across the four strategic goals).

Hypothesis 1: perceptions of the HRM system will be positively related to their strategic climate perceptions.

7.2.3 Strategic climate and commitment

A strategic climate can act as a so called "strong situation" (Mischel, 1973), if employees share a common interpretation of the organization's policies, practices, procedures and goals and develop shared perceptions about what behaviors are expected, supported and rewarded (Bowen & Ostroff, 2004). Hence, creating strong situations is desirable as it provides clear signals about what is expected, thereby eliciting required strategic behaviors. Several empirical studies have shown that a strategic 'climate for something' (e.g. customer service), influences employee behaviors relating to that goal. For example, research has shown that safety climate

perceptions are positively related to safety compliance and negatively related to safety incidents such as medical treatment errors, needle stick injuries and medication errors (e.g. Hofmann & Mark, 2006; Katz-Navon, Naveh, & Stern, 2005). Similarly, Liao and Chuang (2004) have shown that a positive service climate is related to employee service performance.

In addition to eliciting required behaviors and thereby contributing to performance, we suggest that strategic climate is beneficial in other respects. In particular, we propose that a strategic climate can have a positive impact on employee commitment. The likely influence of strategic climate and, indeed, of strong situations more generally, on commitment is often overlooked in the literature since the main focus is on the enhancement of strategic oriented behaviors. There are a number of reasons, however, why a strong strategic climate can be expected to contribute to the development of commitment. First, a strategic climate, by its very nature, implies that employees are aware of key values and goals. Awareness of such values and goals does not automatically result in greater commitment. But in the absence of a clear understanding and appreciation of what the work context stands for and of its core values and goals, it is less likely that employees will develop a strong sense of identification with and attachment to the work context and its goals. In other words, commitment implies, at the very least, an awareness and understanding of key values and goals and this is a central aspect of a strong strategic climate.

Second, a strategic climate involves and implies greater goal clarity for employees. If goals are clearly perceived and their achievement is stressed, employees' psychological attachment to these goals is stimulated, thereby increasing employees' commitment (González-Romá, Peiró, & Tordera, 2002). Prior studies have indeed shown that the degree of goal clarity or goal ambiguity influences the level of commitment (Mathieu & Zajac, 1990; Meyer et al., 2002). Pandey and Wright (2006), for example, showed that lack of goal clarity is related to lower employee commitment. Third, strategic climate induces commitment via goal alignment and internalization. If employees perceive that the strategic goals in their work context are congruent with their individual values, they will be more likely to internalize these goals (O'Reilly & Chatman, 1986). In other words, if there is a good fit between individual values and values in their work context,

reflected in strong strategic climate perceptions, employee commitment is likely to be enhanced.

Finally, strategic climate may enhance commitment through processes of retrospective rationality (Meyer & Allen, 1988; Staw, 1980). This is the idea that, linked to principles derived from cognitive dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1972), individuals, in the search for self-consistency and self-justification, may seek to align their attitudes more closely to their behaviors. As noted, strong strategic climates serve to structure and direct employee behavior towards desired goals. In turn, this may lead employees to adjust their attitudes towards the goals in question, as well as towards the ward, in order to bring their attitudes more in line with their behavior. And one way in which individuals can do this is by developing a stronger sense of commitment to the strategic goals in question and to the ward itself, thereby reducing any potential dissonance between their attitudes and behavior at work.

Based on the above arguments we expected that if, through the HRM system, organizational goals and values are effectively transmitted to employees, as reflected in positive strategic climate perceptions at the ward level, employees will exhibit higher levels of commitment.

Hypothesis 2: Employee strategic climate perceptions will be positively related to their level of commitment.

Combining the arguments from hypotheses 1 and 2 above, we then propose the following final integrated mediation hypothesis.

Hypothesis 3: The relationship between employee perceptions of HRM and commitment will be mediated by employee strategic climate perceptions.

Figure 7.1 shows a summary of the proposed relationships in this study.

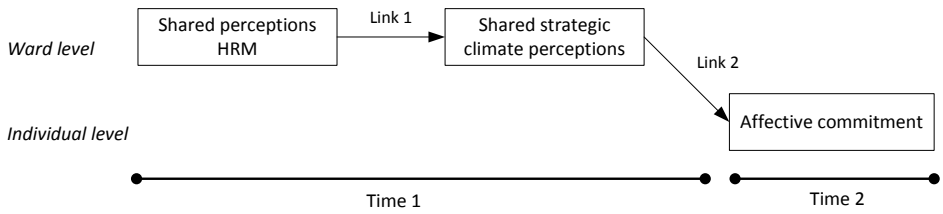

Figure 7.1 conceptual framework

7.3 Methods

7.3.1 Sample

Survey data in the hospital were collected in November 2008 (T1) and November 2009 (T2). At both time points ward managers motivated the employees to fill out the survey and informed them about the purpose of the study. In addition the research was introduced on the intranet and in a weekly distributed news letter. After three weeks reminders were placed on the intranet and in the news letter and the unit managers reminded all employees to take part in the research. At time 1 a total of 1825 questionnaires were sent to all employees of wards and outpatients' clinics. The overall response rate at time 1 was 33.8%. At time 2, 513 employees responded. Respondents were only included in the final analysis sample if they worked in a ward with a response rate of a minimum of 30% (at T1 and T2). This resulted in a final panel sample of 48 wards, with 262 respondents (42.5%) who completed both questionnaires. The drop in response rate by half or more between occasions of measurement is not uncommon in panel research (Chan, 1998).

The final panel sample differed slightly from the initial sample on some background characteristics. The average age of the panel was 42.9 years (initial sample = 41.7 years). Ninety per cent of the panel were female (initial sample = 91% female). In the panel, 41.5% had a higher vocational training or university degree, and their average tenure in the organization was 14.0 years (initial sample = 12.6 years).

7.3.2 Measures

HRM perceptions (time 1). Employee perceptions of HR practices in the areas of job design (autonomy), performance management, communication, and supervisor informing behavior were measured with a total of 23 items. The first two areas were measured with 14 items from an HRM scale by Boon, Den Hartog, Boselie, and Paauwe (2011). In addition 4 items were included to measure communication / information-sharing (two items from a scale by Van Veldhoven and Meijman (1994), and two items from a scale by Riordan et al. (2005)). Finally, we included the informational justice scale developed by Colquitt (2001) to measure supervisor informing behavior. Exploratory factor analysis of the 23 items using oblimin rotation yielded a single factor

that explained 35.8% of the variance. As the hypotheses involved perceptions of the HRM system as a whole, we therefore combined the 23 items into an overall scale of the perceived HRM system in the ward. This scale exhibited good internal reliability (T1 Cronbach's alpha = 0.91).

Climate perceptions (time 1 and 2). Four strategic climate dimensions were included: quality (emphasis on providing good quality patient care) (Dawson, González-Romá, Davis, & West, 2008), safety (extent to which employees believe that safety is valued within their ward) (Griffin & Neal, 2000), innovation (the expectation, approval and practical support of attempts to introduce new and improved ways of doing things in the work environment) (West, 1990, pp. 38), and efficiency (emphasis on goal orientation, objectives, productivity, functionality and efficiency). For measuring the climate for quality six items were used from a scale by Dawson et al. (2008). The original items were translated from an organizational level perspective (e.g. "There is an emphasis on patient-focused care in this organization") into a ward level perspective (e.g. "There is an emphasis on patient-focused care within my ward"). This translation was necessary because each climate item should clearly focus on the specific collective unit which corresponds to the climate being studied (i.e. in this case the ward). By specifying a clear frame of reference we precluded the risk that respondents describe perceptions of different parts of the organization (Patterson et al., 2005). For measuring the climate for safety we used 6 items of the short version of the Safety Climate scale developed by Neal, Griffin and Hart (2000). Climate for innovation was measured using the subscale support for innovation of the team climate inventory developed by Anderson and West (1996). The subscale consisted of 8 items with an acceptable internal consistency. The original team climate inventory was designed to assess team level attributes therefore items were modified using the word 'ward' instead of 'team'. Climate for efficiency was measured using a subscale of the FOCUS questionnaire (Van Muijen, Koopman, & De Witte, 1996). This questionnaire is based on the Competing Values Framework by Quinn and Rohrbaugh (1983). An exploratory factor analysis, using oblimin rotation, on the 24 items indicated a solution with four factors having an eigen value higher than 1. The scree plot showed a bend at both one and four factors, indicating a clear break between the

first and the second, and the fourth and the fifth component. We computed the four-factor solution (explained variance 65.8%). However, this four factor solution was difficult to interpret, and different items (i.e. the climate for efficiency items) showed cross-loadings. After excluding these items we rerun the analysis, resulting in a three factor solution (explained variance 63.2%) which is easily interpretable: 1. climate for quality; 2. climate for safety; 3. climate for innovation.

Although this solution is in line with three of the original scales, the three dimensions were highly correlated, suggesting that they represent a higher order climate construct. We therefore decided to conduct a second order factor analysis. The second-order factor analysis including the three climate types supported a shared higher order construct (explained variance 72.0%). Based on this finding we combined the three climate types into an overall strategic climate scale with good internal reliability (Cronbach's alpha: T1 = 0.94, T2 = 0.94).

Affective commitment (time 1 and time 2). In this research we focused on affective ward commitment. Ward commitment was measured using a four item scale from Baruch and Winkelmann-Gleed (2002). This scale was originally designed to measure team commitment, therefore items were modified using the word 'ward' instead of 'team'. One of the items included was "I am proud to tell others that I am part of this ward". This scale exhibited adequate internal reliability (Cronbach's alpha: T1 = 0.75, T2 = 0.70).

For all scales, responses were given on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree".

Control variables. Ward size and employee age served as control variables. To control for ward size, we took the absolute number of employees per ward, not the number of respondents per ward. A continuous scale for age was included, as the relationship between HRM and affective commitment might change with age (Kooij, Jansen, Dikkers, & De Lange, 2010).

Ward level aggregation. Shared HRM perceptions and shared climate perceptions are based on the aggregation of individual scores to the level of the ward. To support the

aggregation of individual scores to the ward level, we calculated ICC1 and ICC2 values for the HRM and climate scales and tested whether average scores differed significantly across wards (see table 7.1). ICC1 values ranged from 0.24 to 0.30, indicating that quite a high proportion of the variance (between 24 to 30 per cent) can be attributed to the ward level. ICC2 scores all exceed the minimum value of .50 (Klein & Kozlowski, 2000), indicating adequate reliability of the aggregate ward level HRM and climate measures. Hence, aggregation to the ward level was justified. We also calculated $r_{wg(j)}$ values of within-ward agreement for each scale to further justify the aggregation of the individual level HRM and climate scores to the ward level. The $r_{wg(j)}$ values (all above the cut-off of .70) suggested sufficient within-ward agreement to further justify aggregation to the ward level.

7.3.3 Analytic strategy

We tested our research model and hypotheses at the aggregate ward level, and across the ward and individual level, using cross-level analysis. Specifically, link 1 in our model (see figure 7.1) is that between HRM and strategic climate at the ward level. This link was tested with aggregate shared measures of HRM and climate using multiple regression analysis. Link 2 between ward level climate and employee commitment was tested using cross-level analysis with Hierarchical Linear Modeling (HLM) in which aggregate ward level strategic climate was used to predict individual level employee commitment. In order to test whether HRM and strategic climate were associated with any change in commitment across time, we controlled for commitment at time 1 in all relevant analyses.

7.4 Results

Means, standard deviations, correlations and reliability coefficients for the key variables are presented in table 7.1. Aggregate perceptions of the HR system were positively related to shared climate perceptions. Moreover, shared HRM and climate perceptions were positively related to ward commitment. The control variables (ward size and employee age) were not significantly correlated with any of the variables under investigation, and were therefore excluded from further analysis.

Table 7.1 Aggregation characteristics, means, standard deviations, correlations, and reliability coefficients

Variable	ICC1	ICC2	Mean $r_{wg(j)}$	Mean	SD	1.	2.	3.	4.	5.	6.	7.
Ward level												
1. HR system t1	.24	.64	.97	3.21	.34	(.93)						
2. strategic climate t1	.24	.63	.97	3.53	.36	.55**	(.94)					
3. strategic climate t2	.30	.70	.98	3.57	.37	.63**	.82**	(.96)				
4. ward size	-	-	-	34.3	18.2	-.10	-.02	.01	-			
Individual level												
5. ward commitment t1	-	-	-	3.71	.65	.21**	.43**	.33**	-.07	(.75)		
6. ward commitment t2	-	-	-	3.78	.60	.23**	.42**	.45**	.03	.55**	(.70)	
7. age	-	-	-	42.92	9.93	.01	.04	.04	-.06	.03	-.04	-

**. Correlation is significant at the 0.01 level (2-tailed). Cronbach's alpha's are in parentheses

7.4.1 Hypotheses testing

Hypothesis 1 predicted that aggregate HRM perceptions are positively related to shared strategic climate perceptions. We tested this hypothesis at the ward level, using regression analysis. The results, presented in table 7.2, show that shared HRM perceptions at time 1 had a positive influence on shared climate perceptions at time 1 ($\gamma = .54$, $p < .001$). These results support hypothesis 1.

Table 7.2 Test relationship HRM and strategic climate t1: Multiple regression analysis (n =48 wards)

	Shared climate T1
Shared perceptions HR system T1	.54***
R^2	.28
Adjusted R^2	.27

Notes: Unstandardized estimates are reported; *** $p < 0.001$.

Hypothesis 2 predicted that shared strategic climate perceptions are positively related to individual level employee commitment. The first model in table 7.3, which contains no predictors (null-model), is used to check for an adequate amount of ward-level variance in commitment. This condition was met: 18.1% of the variance in individual commitment scores can be attributed to the ward level. The cross-level results from model 2 in table 7.3 show that, controlling for shared HRM perceptions, ward-level climate at time 1 was positively related to employee commitment at time 2 ($\gamma = .39$, $p < .01$), controlling for employee commitment at time 1. Hence, hypothesis 2 was also supported.

Table 7.3 Cross-level mediation analyses of commitment controlled for commitment time 1a

	Null-model[b]	**Model 1**		**Model 2**	
Ward level					
Shared perceptions HR system		.22*	(.10)	.01	(.12)
Shared climate				.39**	(.12)
Variance components					
Individual level	.30		.23		.22
Ward level	.07		.02		.01
Model fit (AIC)	458.65		364.68		356.38

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. [a] HRM and climate perceptions were measured at time 1, commitment at time 2
[b] The variance components at the ward level and the individual level do not count for 100% of the variance. Part of the variance resides at the business unit level (.32) and the hospital level (.31)

Hypothesis 3 predicted that shared strategic climate perceptions mediate the effects of shared HRM perceptions on individual ward commitment. In order for strategic climate to mediate the relationship between HRM and ward commitment, the following conditions must be satisfied according to MacKinnon, Fairchild and Fritz (2007): (1) the independent variable (HRM perceptions) has a significant effect on the mediating variable (strategic climate perceptions); and (2) the mediating variable (strategic climate perceptions) has a significant effect on the dependent variable in a regression of the independent and mediating variable on the dependent variable. Full mediation occurs if there is no effect of the independent variable on the dependent variable (in addition to the mediating variable). Partial mediation occurs if the independent variable does have a significant effect on the dependent variable in addition to the mediating variable. Though the often cited mediation rules by Baron and Kenny (1986) argued that for a mediating effect to exist, the independent and the dependent variable should correlate, more recent literature argues that this condition is not necessary, as suppressor effects may occur (MacKinnon et al., 2007).

The mediating role of strategic climate perceptions was examined at the cross-level of analysis, using HLM. Shared HRM perceptions were added as a fixed effect in model 1 (table 7.3). Consistent with the bivariate correlation between shared HRM perceptions and commitment, shared HRM perceptions at time 1 were significantly associated with commitment at time 2 (γ =.22, $p <$ .05), controlling for commitment at time 1. To test whether ward-level climate mediated the relationship between shared HRM perceptions and commitment we included shared climate perceptions in model 2. The results reveal that once shared climate was added to the analysis, the effect of shared HRM perceptions was no longer significant, suggesting that the relationship between shared HRM perceptions at time 1 and commitment at time 2 was fully mediated by shared climate perceptions at time 1. A Sobel test showed that this mediating effect was significant ($p < .01$).

In conclusion, the results confirm all three of our hypotheses[1]. In line with hypothesis 1, HRM perceptions were positively related to strategic climate perceptions, at the supra-individual level. Consistent with hypothesis 2, shared strategic climate perceptions were positively related to employee commitment. Finally, in line with hypothesis 3, the relationship between HRM and commitment was fully mediated by strategic climate, at the cross-level of analysis.

7.4.2 Additional analysis

The HRM perceptions, climate perceptions and ward commitment were collected from the same source. In the previous analyses we included strategic climate at time 1 as a possible mediator. This reduced the risk of common method bias with respect to strategic climate and commitment. To account for common method bias between the HRM perceptions and climate perceptions, we conducted the same analyses including strategic climate at time 2 as a mediator. The results obtained with this procedure (available from the authors) were virtually the same as those obtained using strategic climate at time 1 as a mediator. Based on this we can conclude that common method bias is unlikely to be a serious problem in our data.

7.5 Discussion

The aim of this study was to theorize and test an alternative mechanism to social exchange through which HRM may lead to enhanced commitment. Using a strategic perspective, we proposed a strategic climate interpretation of the relationship between HRM and employee commitment, as an alternative to the more commonly theorized social exchange explanation of this relationship (e.g. Kehoe & Wright, forthcoming). Specifically, we proposed that employee awareness of the relevance of strategic goals, reflected in strategic climate perceptions, can enhance commitment. Furthermore, we argued that HRM is a relevant vehicle for transmitting the strategic

[1] In order to test whether individual variation in HRM and strategic climate perceptions did have an influence on commitment, we also tested our hypotheses at the individual level of analysis, using HLM. The results were comparable with the results obtained with our cross-level analyses, and confirmed our hypotheses. Details of the individual analysis are available upon request from the first author.

goals and values of the organization to its employees, thereby creating strategic climate perceptions.

In general our findings support our predictions: strategic climate significantly mediated the relationship between employee perceptions of HRM and commitment. The empirical support for our model reflects the relevance of strategic climate as a linking mechanism between HRM and commitment. More generally, the results of the study direct attention to a number of important theoretical, empirical and practical considerations.

First, our findings provide direct support for the idea proposed by different scholars (e.g. Bowen & Ostroff, 2004; Schneider et al., 2005) that HRM systems create the foundation for the development of particular climates by communicating to employees the strategic focus of the organization. Our study, however, extends this line of theorizing in two ways. First, through the notion of signal-bearing HR practices, the study contributes to a better understanding of how and why HRM can have a positive impact on strategic climate. More specifically, we were able to show that a combination of performance management, information-sharing, supervisor informing behavior and decentralized job design was relevant for the creation of shared strategic climate perceptions.

The second contribution is in terms of the notion of multiple 'climates for something' and the idea that, for a variety of reasons, strong climates and situations of this kind can have a significant positive effect not only on employee behaviors, but also on key attitudes at work, such as commitment.

The second, and related point, concerns the full mediation effect of strategic climate in the HRM-commitment relationship. As noted, there are other factors, apart from climate, that are likely to mediate the effect of HRM on commitment including, in particular, factors related to social exchange processes. Therefore, to the extent that social exchange mechanisms are in operation and effective, strategic climate would be expected only to partially, rather than fully, mediate the HRM-commitment relationship. Hence, our full mediation results are somewhat surprising. One possible explanation is that climate and social exchange mediation effects go through different sets of HR practices. In other words, while the four HR practices covered in this study

may be particularly important for the transmission of strategic goals, they may be less central from a social exchange perspective (e.g. as means of creating felt obligation). This represents an important area for further theorizing and research. In particular, future research should seek to incorporate a broader range of HR practices, combining both signal carrying HR practices as well as practices focused on inducing employee well-being (e.g. work-life balance practices). We expect that both sets of practices are relevant for enhancing commitment and subsequently performance, but that this process works via different (complementary) pathways that need to be examined simultaneously.

The third point concerns the specific effect of strategic climate on commitment. In this study we included climate types that were directly linked to the strategic goals of the hospital under investigation. The results suggested that employees were aware of the relevance of quality, safety and innovation in their daily work. However, we were not able to distinguish a climate for efficiency, suggesting that employees did not necessarily recognize efficiency as a relevant distinct goal in its own right. Though the three strategic climate dimensions could be distinguished, they were highly correlated and were therefore combined into an overall second order climate construct. Using this second order factor enabled us to test whether employee goal awareness in general enhanced commitment, rather than testing the mediating role of separate climate dimensions. It may well be, however, that different climate dimensions have different effects on employee attitudes. This is an area that deserves further research. Moreover, more research is needed to examine whether different climate dimensions mutually influence and reinforce each other. For example, in a hospital context, safety is likely to be a relevant condition for quality of care, suggesting that climate for quality perceptions are likely to be influenced by safety climate perceptions. In other contexts, however, the two types of strategic climate may be quite separate.

The fourth point concerns the multilevel nature of the study. Specifically, the findings were quite similar at the individual and at the cross-level of analysis. This suggests that the influence of HRM on commitment, via strategic climate is a multilevel phenomenon, given that the relationships among these variables holds and operates across different levels of analysis (i.e. wards and individuals) (Rousseau, 1985). We

thereby extend both the organizational behavior (OB) and strategic HRM literature by means of bridging the gap between 'micro' and 'macro' studies (Boswell, 2006). Employees do not solely base their reactions on their own perceptions (as assumed in the micro OB literature); they are also influenced by the perceptions of their colleagues with whom they interact on a day-to-day basis and who share common experiences (e.g. experience the same enacted HRM). Based on this idea and the empirical findings, and in line with Choi (2007), we suggest that future research investigate the ways in which individual and collective perceptions influence each other and possibly interact with each other over time.

Finally, from a practical standpoint, our findings suggest that sending a consistent message across organizational subunits (e.g. wards), through the consistent implementation and enactment of key signal-carrying HR practices, helps to create strategic climates, in which employees perceive what strategic goals are most relevant, and what kind of behaviors are expected, supported and rewarded. Additionally, one of the benefits of creating strategic climates is the enhancement of employee commitment. Commitment is a highly relevant outcome for organizations, as employees who are committed are more likely to behave and act in line with (strategic) organizational goals (Cohen, 2003).

7.5.1 Limitations

Despite the strengths of this research described above, there are some limitations. First, all data stem from the same source, and might therefore be subject to common method bias. The analyses presented in this paper used strategic climate at time 1 as a possible mediator between HRM (time 1) and commitment (time 2), thereby reducing the risk of common method bias with respect to strategic climate and commitment. To account for common method bias between the HRM perceptions and climate perceptions, we conducted the same analyses including strategic climate at time 2 as a mediator. The results obtained with this procedure were similar to those using strategic climate at time 1. Based on this we can conclude that common method bias is unlikely to be a serious problem in our data. Though the additional analyses did not identify common method bias, it is important for future research to include other

sources of information, such as direct supervisor ratings of enacted HR practices and employee performance outcomes.

Second, this study tested a mediation process across time, using two waves of data collection. Although using a two-wave design is rather unique in HRM research, testing mediation across time with greater confidence requires at least a three-wave data collection procedure (Cole & Maxwell, 2003). Future research should aim for such extended longitudinal designs, although we realize that collecting longitudinal data is very time consuming and difficult to accomplish in practice.

7.5.2 Conclusion

The findings of this study highlight the relevance of strategic climate as a linking mechanism between HRM and commitment. Our study underlines the importance of incorporating the employee perspective into the examination of strategic HRM (e.g. Nishii & Wright, 2008). We conclude it is worthwhile focusing on implementing signal-carrying HR practices (performance management, information sharing, supervisor informing behavior and autonomy) in order to create strategic climates throughout the organization and enhance employee commitment.

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Chapter 8: The use of HRM as signal carrying device: Different subsystems – different signals?

8.1 Introduction

In the previous chapters we have examined which strategic climate types could be distinguished in the participating hospitals (chapter 5), and we tested the mediating role of strategic climate in the relationship between employee perceptions of HRM and ward commitment in one hospital (chapter 6 and 7). The results of these chapters revealed that an HR system (comprised of performance management, information sharing, supervisor informing behavior and autonomy) is relevant for the creation of strategic climate perceptions. Moreover, strategic climate mediates the relationship between perceptions of HRM and ward commitment.

The aim of this chapter is to broaden our understanding of the relationship between HRM, strategic climate and employee outcomes. First, by including a broader set of HRM practices. So far, we have focused on a small set of HR practices, suggesting that these practices are particularly relevant for the creation of strategic climate perceptions. However, HR systems in hospitals (as well as in other organizations) often encompass more HR practices. In this chapter we will theorize and empirically test the idea that some HR practices can be more easily used for sending strategic signals (thereby creating strategic climate perceptions) than other practices. We thereby contribute to an important debate in the HRM literature, i.e. whether one should use a practice or systems approach when examining the effectiveness of HRM. In chapter 6 we tested the relevance of both approaches in relation with strategic climate, showing that the empirical evidence supports to a large extent a systems approach. In this chapter we take a middle of the road approach by suggesting that different subsystems of HRM can be used for sending different types of signals towards employees. We thereby take into account the idea of the systems approach that different practices might influence each other. However, instead of suggesting that a large, holistic HR system does have an influence on strategic climate, we suggest that different subsystems can be used for sending different types of signals. We thereby take into account an important assumption made by the practice approach, i.e. that different practices do have different effects.

Second, we include multiple employee outcomes which are relevant in a hospital context, i.e. affective commitment (to the organization, occupation and ward),

organizational citizenship behavior (OCB), satisfaction, and intention to leave and test whether these outcomes are directly or indirectly (via strategic climate) influenced by employee perceptions of HRM. We make use of the data collected in four hospitals, to see whether the findings are consistent across these settings.

8.2 Theoretical framework

8.2.1 HRM & strategic climate

Different researchers have suggested that HRM does have an influence on employee outcomes and performance via climate perceptions (e.g. Kopelman, Brief, & Guzzo, 1990). However, there is little research or understanding of how climate actually develops from HRM. In chapter 6 and 7 we tested the linkage between employee perceptions of a small bundle of HR practices and different climate types, showing that employee perceptions of the HR system were positively related to strategic climate perceptions. These findings provided direct support for the idea proposed by different scholars (e.g. Bowen & Ostroff, 2004; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005) that HRM systems create the foundation for the development of particular climates by communicating to employees the strategic focus of the organization. Moreover, it supports the idea that research should focus on employee perceptions of HRM, rather than relying on managerial reports of the HR practices in place. This is in line with the process models of HRM (e.g. Nishii & Wright, 2008) and the idea that there may be a difference between the intended and implemented HR practices and the way these practices are perceived and experienced by employees. Hence, our focus is on employee perceptions of HRM.

The findings that employee perceptions of a bundle of HR practices (including performance management, communication, supervisor informing behavior and autonomy) does have an influence on strategic climate perceptions suggests that this specific set of practices is relevant for sending signals to employees about the strategic focus in the organization, and what kind of attitudes and behaviors are expected in line with this focus. Hence, these signals create the foundation for the development of particular strategic climates.

The idea that HR practices send signals to employees and are used as a communication tool towards employees is not new. Guzzo and Noonan (1994) argued that all HR

practices applied throughout organizations communicate messages constantly. Or as they state "ordinary, routine HR practices send signals that are decoded and interpreted by employees" (pp. 453). This is in line with the signaling theory (Murray, 1991; Spence, 1973) which implies that observable actions by an organization (e.g. the implementation of specific HR practices) are interpreted as signals of less observable characteristics like values and goals. Employees need these signals to help them understand what issues are relevant in the organization, and may thus serve to guide or strengthen relevant attitudes and behaviors.

Though the signaling theory has been applied in a wide variety of topics like employee recruitment and financial statements (see for a recent and extended review Connelly, Certo, Ireland, & Reutzel, 2011), only a few studies have focused on HR practices and systems as signal carrying devices. Casper and Harris (2008) applied the signaling theory to work-life balance practices, assuming that these practices signal to employees that the organization is caring for her employees. More recently, Biron, Paauwe and Farndale (2011) focused on the signaling role of a set of formal performance management practices. They argued that formal performance management practices can be used as a vehicle for signaling to employees what the organization expects of them and what the organization really values. The results of their study revealed that organizations can send unambiguous signals in the form of formal practices related to performance management, thereby facilitating employees to appropriately interpret and respond to the information transmitted with these practices.

In this chapter we also draw from signaling theory by suggesting that HR practices can be used for sending signals towards employees. Moreover, we go one step further by suggesting that some HR practices can be more easily used for sending strategic signals than other HR practices. Based on the empirical evidence from chapters 6 and 7 we argue that the following HR practices are relevant for signaling the strategic focus of the organization, and the kind of behaviors that are expected and rewarded: autonomy, performance management, supervisor informing behavior and information sharing. Based on the empirical evidence in the previous chapters, and in line with the argument that a combination of HR practices is more relevant for the creation of

climate perceptions, rather than each practice separately (e.g. Kopelman et al., 1990), we expect the signaling effects of the four practices to be mutually reinforcing. Given the strategic focus of the signals send to employees, we refer to this set of practices as a strategic signaling HR bundle. We argue that the more intensive and extensive use of a bundle of strategic signaling practices, the more effective the transmission of strategic goals to employees is likely to be and, therefore, the stronger and more positive will employees' strategic climate perceptions be. Hence, we expect that:

Hypothesis 1: employee perceptions of a bundle of strategic signaling HR practices (performance management, autonomy, communication and supervisor informing behavior) will have a positive influence on their strategic climate perceptions.

In addition to the strategic signaling practices, HR systems often encompass more HR practices. This is also the case in the hospitals under investigation. Hence, next to the four strategic signaling practices, we include the following HR practices in this study: job content, job security, work-life balance arrangements, and internal career opportunities, as these are expected to be relevant for the Dutch hospital context.

Job content refers to the extent to which a job is viewed as being meaningful, valuable and worthwhile (Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004). Job content is an example of a more traditional aspect of the employment relationship. In 1975 Hackman and Oldham already emphasized the relevance of skill variety and task significance for the enhancement of positive employee and work outcomes (e.g. work satisfaction, high quality performance and low turnover and absence rates). We expect that job content is especially relevant in professional organizations, as challenging jobs provide more opportunities to further develop knowledge and skills, and are therefore attracting for professional employees (Purcell, Kinnie, Swart, Rayton, & Hutchinson, 2009).

Offering *job security* is relevant for reducing workforce instability and ensuring the retention of skills and knowledge (Pfeffer, 1998). This is highly relevant for healthcare, as workforce instability seriously jeopardizes the overall quality of patient care (Armstrong-Stassen & Schlosser, 2010). Moreover, different studies reveal that job insecurity has negative consequences for both employees and organizations (see for a review De Witte, 2007), like lower employee well-being and higher turnover rates.

Work-life balance refers to work arrangements to achieve a better balance between employees' professional and private lives, irrespective of their marital or parental status (White, Hill, McGovern, Mills, & Smeaton, 2003). Work-life balance arrangements include a wide range of individual practices or mini-bundles of practices that are intended to provide employees with greater control and the ability to integrate work and family responsibilities (Beauregard & Henry, 2009), like flexible work times, child care support, family support and compressed work weeks. The nature of health care work makes jobs in the sector inherently demanding as professionals are often required to work irregular times, unsocial hours and overtime (Lee, McCann, & Messenger, 2007). Moreover, the health care sector is characterized by a relatively high workload and emotionally demanding interactions (De Prieëlle, Van der Velde, Smeets, & Leijten, 2010), resulting in work related stress that cannot easily 'turned off' once employees go home (Van Der Heijden, Demerouti, Bakker, & Hasselhorn, 2008). Hence, these tensions between work and private life ask for work-life balance arrangements.

Finally, offering *internal promotion opportunities* can be seen as an important HR practice for hospitals. Employees in Dutch hospitals are the least satisfied with the provision of internal promotion opportunities (De Prieëlle et al., 2010). This is partly due to the functional specialization of professionals in health care. However, provision of internal promotion opportunities has been shown to be relevant for reducing employee turnover in hospitals (Kirschenbaum & Mano-Negrin, 1999). Offering internal promotion opportunities is not only relevant for the retention of employees, it can also help to gain a better image as employer, and hence attract more potential employees.

We argue that these four practices can be less easily used for sending strategic signals towards employees. Rather these practices are first and foremost relevant for employee well-being and for indicating the kind of benefits or inducements that employees might expect from the organization, thereby sending signals to employees that the organization is a caring entity. Again, we expect that the signaling effects of these practices to be mutually reinforcing. Hence, we focus on the combination of these practices and refer to this set of practices as a benevolence signaling bundle. We

argue that this bundle of practices does signal goodwill and organizational support rather than the strategic focus of the organization, and we therefore expect that these practices do have no influence on strategic climate perceptions.

Hypothesis 2: employee perceptions of a bundle of benevolence signaling HR practices (job content, job security, work-life balance arrangements and internal promotion opportunities) will have no influence on their strategic climate perceptions.

8.2.2 Employee attitudes and behaviors

In the HR field different types of outcomes are relevant. Dyer and Reeves (1995) make a distinction between three sequential levels of outcomes of HR practices, i.e. HR-related (e.g. attitudinal, cognitive and behavioral outcomes among employees), organizational (e.g. output measures such as productivity, quality, and efficiencies) and financial outcomes (e.g. profits, sales, market share). Most of the research on HRM and performance is focused on organizational or financial outcomes. However, the use of these distal indicators is problematic as these outcomes are potentially also affected by other non-HRM factors. Different scholars (e.g. Becker, Huselid, Pickus, & Spratt, 1997; Guest, 1997) have made a plea for using more proximal indicators when examining the added value of HRM. HR-related outcomes can be seen as proximal indicators, as these are directly or almost directly affected by HR interventions or HR practices. Recently, empirical studies have provided support for the claim that HR practices work most immediately through employee attitudes and behaviors, such as commitment, satisfaction, intention to leave and organizational citizenship behavior (OCB) (e.g. Boon, Den Hartog, Boselie, & Paauwe, 2011; Takeuchi, Chen, & Lepak, 2009). In this study we focus on different employee outcomes, i.e. commitment (organization, ward and occupational commitment), OCB, job satisfaction and intention to leave. Focusing on these outcomes is especially relevant in a hospital context, where services are produced and consumed at the same time, which brings into sharp focus the vital role that employees play in the provision of these services (e.g. Bienstock, DeMoranville, & Smith, 2003). Moreover, hospitals face challenges with respect to attracting and retaining qualified personnel. This is unlikely to be reversed in the near future, due to an ageing of the population (Armstrong-Stassen &

Schlosser, 2010). In order to guarantee overall quality of patient care, hospitals should try to enhance positive employee outcomes, as these directly impact the quality of care. Besides strongly committed and satisfied employees are more likely to stay in the organization and to act on behalf of the organization. Below we describe for each of the outcomes in more detail why these are relevant in a hospital context.

Commitment. Commitment refers to a positive affection for a unit (e.g. organization), which is reflected in a desire to see the unit succeed in its goals and a feeling of pride at being part of that unit (Cohen, 2003; Meyer & Allen, 1997). Commitment can be seen as a relevant building block for employee retention, as committed employees often have a stronger desire to maintain their membership in the organization. This is highly relevant as many health care organizations are challenged by employee retention issues (e.g. Armstrong-Stassen & Schlosser, 2010). In addition, committed employees are more likely to naturally behave in ways that reflect the affective bond with a specific unit. More specifically, committed employees are likely to demonstrate in their work behaviors, a personal connection and devotion to the activities and goals of the organization (Mayer & Schoorman, 1992; Mowday, Porter, & Steers, 1982).

Different researchers have stressed the relevance of distinguishing among multiple foci of employee commitment in the workplace (e.g. Baruch & Winkelmann-Gleed, 2002; G. Blau, 2007; Vandenberghe, Bentein, & Stinglhamber, 2004). Individuals in a work setting can simultaneously experience varying degrees of commitment to several aspects of working life. We expect that this will be especially the case in hospitals. Different authors (e.g. Brewer & Lok, 1995; Corley & Mauksch, 1993) have suggested that nurses and other health care professionals have multiple commitments, for instance to the organization, their team and their profession, as these professionals tend to identify themselves more closely with the area of work (i.e. occupation and ward they work for) rather than the hospital as a whole. In this research we therefore distinguish between different types of commitment, i.e. organizational commitment, work group commitment and occupational commitment.

Organizational commitment has gained the most attention in the academic literature up till now (Baruch & Winkelmann-Gleed, 2002) and refers to identification with and loyalty to the organization and its goals (G. Blau & Boal, 1987) which Mowday, Steers

and Porter (1979) defined as the relative strength of an individual's identification with and involvement in a particular organization. Organizational commitment is of particular relevance for hospitals, because service quality might be stimulated by high organizational commitment (Hallowel, 1996). Besides that, organizational commitment often leads to lower turnover rates (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002), which is highly relevant in a sector where a huge labor shortage is expected.

Work group commitment is the relative strength of an individual's identification with, and involvement in, a particular work group (Bishop, Scott, Goldsby, & Cropanzano, 2005). What constitutes a meaningful workgroup in an organization varies depending on the situation, but may include, for instance, different functions, departments or teams. We argue that the most meaningful workgroup in hospitals is the ward, where employees work together on a day-to-day base. The feelings that one has toward one's co-workers may or may not parallel one's feelings toward one's employer. For this reason, it is important to separate the commitment that one has for the organization from the commitment that one has for the ward they are working for (Bishop et al., 2005).

Occupational commitment can be described as the degree to which a person identifies with his / her profession (Mowday et al., 1979). This form of commitment is highly relevant in the health care sector, since professionals (e.g. nurses) are often first and foremost committed to their professional career. Commitment to the occupation has a strong relationship with work outcomes, even stronger than other work related commitments such as organizational commitment (Cohen, 1998; Mueller, Wallace, & Price, 1992). One possible explanation for this is that professionals may be driven more by their occupational than by their organizational expectations (Cohen, 1998). Mueller et al. (1992) for example found that occupational commitment is an important determinant of nursing professionals' turnover, stronger than other work related commitments such as the organization and work.

Organizational Citizenship Behavior (OCB). OCB can be shortly described as individual contributions in the workplace that go beyond role requirements and contractually rewarded job achievements (Organ & Ryan, 1995), or in other words "going the extra mile". OCB can be distinguished from employees' task performance as it typically goes

beyond an employee's formal job requirements (Werner, 2000). Although OCB is critical to the performance of all organizations (Podsakoff & MacKenzie, 1997), the nature of service organizations, like hospitals, makes OCB particularly relevant. First, the production and consumption of services (i.e. patient care) occur simultaneously. Hence, employee discretionary behavior is directly related to customer perceptions of service quality. Second, one cannot fully specify in advance what employees might have to do in response to unpredictable customer requests (Bowen, Gilliland, & Folger, 1999, pp. 19). In line with this, Koberg, Boss, Goodman, Boss, and Monsen (2005) even argue that OCB will become more important in hospital settings, due to the growing emphasis on the quality of care to be delivered. Thus, motivating employees to show behaviors that go beyond formal requirements is highly relevant in hospitals, and particularly functional for achieving desirable customer outcomes (Sun, Aryee, & Law, 2007). In an empirical study by Bienstock et al. (2003) it was found that this kind of discretionary effort resulted in more effective service delivery and enhanced customer perceptions of service quality. In other words, going the extra mile in health care is expected to be directly linked to the delivery of care and therefore worthwhile pursuing.

Job satisfaction represents a workers overall affective evaluation of their job (Appelbaum, Bailey, Berg, & Kalleberg, 2000). The service management literature describes the relevance of enhancing employee satisfaction in a service context, referring to the so called "satisfaction mirror phenomenon". This phenomenon, introduced by Heskett (1997), assumes that employee satisfaction is reflected, as in a mirror, to customers. In turn, customer satisfaction elicits a "mirror" effect in employees, increasing their satisfaction and engagement. Another explanation for the relevance of employee satisfaction in service settings has been referred to as the "spillover effect" (Payne & Webber, 2006), meaning that employee attitudes are contagious, spilling over onto clients during contacts with clients. Van Wijk (2007) empirically tested the satisfaction mirror phenomenon in the Dutch health care context, showing that employee satisfaction and client satisfaction about the delivered care were correlated. This is in line with different studies conducted in other service settings, which showed that employee satisfaction and customer satisfaction are

strongly related (e.g. Newman & Maylor, 2002; Payne & Webber, 2006; Schneider & Bowen, 1985).

Finally, we include *intention to leave* as a relevant outcome for hospitals. Intention to leave refers to a conscious and deliberate willfulness of an individual towards voluntary permanent withdrawal from the organization (Hom & Griffeth, 1995). Although intention to leave does not necessarily mean actual employee turnover, intention to leave has been found to be one of the strongest predictors of actual turnover (e.g. Griffeth, Hom, & Gaertner, 2000; Steel & Ovalle, 1984). High intention to leave may also have negative consequences at work in the form of absenteeism, reduced productivity and inconsistent services provided to patients (Hwang & Chang, 2009). In hospitals, the costs of employee turnover, both direct (i.e. costs of recruiting and training newly employed staff) and indirect (i.e. costs of postponing patient treatment due to lacking staff) are substantial (Kivimaki et al., 2007). As a result, reducing the intention to leave among hospital staff is of high importance.

8.2.3 HRM, strategic climate and employee outcomes

Many HRM scholars propose that HR practices will have an influence on organizational performance through their impact on employee attitudes and behaviors (e.g. Becker et al., 1997; Nishii & Wright, 2008). Only recently, empirical studies have provided support for this claim. Kehoe and Wright (forthcoming) for example studied the link between employee perceptions of the HR system and affective commitment, OCB and intent to remain in the organization. Results of their study indicated that employees' perceptions of the HR system positively related to commitment, OCB and intent to remain in the organization. A study conducted by Boselie (2010) in a Dutch hospital showed that employee perceptions of HR practices were positively related to commitment and OCB. Boon et al. (2011) found that perceived HRM was positively related to commitment, OCB, job satisfaction and negatively related to intention to leave. Gould-Williams (2004) demonstrated a link between employee perceptions of HRM and enhanced employee commitment, satisfaction, and inversely with intention to leave. Studies that include commitment as outcome focus on affective commitment to the organization. There are hardly any studies focusing on the relationship between

HRM perceptions and multiple commitments at a time. Recently, Boselie and Veld (forthcoming) conducted a study in Dutch child day-care centers, showing that employee perceptions of HRM were positively related to organizational commitment, team commitment and occupational commitment.

As described in section 8.2.1. we argue that HR practices can be either strategic signaling or benevolence signaling devices. We expect that both types of practices will have an influence on employee outcomes, however, the pathway through which these practices will have an influence might differ. First, the benevolence signaling practices are primarily relevant for the enhancement of employee well-being and for signaling the kind of inducements and support that employees might expect from the organization. In other words, employees' perceptions of benevolence focused signal carrying HR practices are likely to be interpreted as indicative of organizational support and care for them. The social exchange theory suggests that employees are likely to feel a reciprocal obligation to do something to return these benefits and or favors to their partners in exchange (P. M. Blau, 1964), for example, by means of enhanced commitment, satisfaction, OCB and lower intention to leave (e.g. Kehoe & Wright, forthcoming; Rupp & Cropanzano, 2002; Whitener, 2001). In line with these findings we expect:

Hypothesis 3: employee perceptions of a system of benevolence signaling HR practices will be positively related to organizational commitment, occupational commitment, ward commitment, OCB, and job satisfaction, and negatively related to intention to leave.

Clearly, this third hypothesis does by no means suggest that strategic signaling HR practices are not relevant for the enhancement of positive employee outcomes. Rather, we do argue that this relationship will be mediated by strategic climate perceptions for a couple of reasons. First, strategic signaling HR practices play a key role in transmitting and embedding strategic goals at the workplace, thereby contributing to the development of strategic climate perceptions (hypothesis 1). Subsequently, strategic climate is expected to have an influence on employee outcomes. This is in line with the idea by Aumann and Ostroff (2006) who suggested that if the HR system signals values (reflected in climate perceptions) that are

consistent with the personal values of employees, employees will react more favorably and the relationship between strategic climate and outcomes will be positive. Research has consistently demonstrated relationships between different types of climate and affective outcomes, such as commitment, satisfaction, OCB and turnover intentions (e.g. Parker et al., 2003).

If there is a good fit between the employee values and the organizational goals / values (communicated by means of strategic climate and the underlying HR practices), employees will feel more eager and obliged to contribute to the organizational goals. Employees who feel more obliged to contribute to the organizational goals are more likely to be committed (see chapter 7 for more details). Moreover, they are more likely than others to go the extra mile to accomplish these goals, even if they do not expect to be directly rewarded for this extra role behavior on the basis of formal HR practices. Besides, employees who feel a desire to help achieve organizational goals are more likely to stay in the organization as they can only contribute to these goals if they continue their employment relationship (Kehoe & Wright, forthcoming).

Based on the results of chapter 5, we will focus on three types of strategic climate, i.e. quality, safety and innovation. We consider that each of the climate types will have a mediating role between employee perceptions of a strategic signaling bundle of practices and employee outcomes.

The relationship between climate for quality of care and employee outcomes is rooted in the fact that professionals working in health care settings highly value 'to help others' and 'to do some rewarding work' (Shields & Ward, 2001). These individual values seem to fit with a positive climate for quality of care, since the emphasis in this climate is on norms and values associated with delivering high-quality care towards patients (focused on helping others), resulting in enhanced employee outcomes (i.e. commitment, OCB, satisfaction and lower turnover intentions).

Climate for safety refers to the extent to which employees believe that safety is valued within their work environment. A lot of research is conducted on the relationship between safety climate and outcomes like work place injuries and safety motivation (see for a recent and extended overview Zohar, 2010). However, considerably less attention is paid to the consideration that safety climate might affect other behavioral

and attitudinal outcomes. The first empirical study on the relationship between safety climate on the one hand and job satisfaction and intention to remain with the organization on the other hand was conducted by Morrow and Crum (1998). In similar, more recent studies (Hofmann, Morgeson, & Gerras, 2003; e.g. Kath, Magley, & Marmet, 2010; Michael, Evans, Jansen, & Haight, 2005; Veld, Boselie, & Paauwe, 2010), climate for safety has been shown to be a predictor of job satisfaction, withdrawal behaviors, citizenship behavior, ward commitment and intention to leave the organization. A theoretical explanation for the relationship between a climate for safety and employee outcomes can be found in the Perceived Organizational Support theory (e.g. Eisenberger, Huntington, Hutchinson, & Sowa, 1986). Safety can be seen as an important environmental need which relates to the employee experience of the ward's concern for the well-being of its employees. A positive perception of the climate for safety would affect worker's perceptions that their working conditions are favorable, resulting in enhanced organizational attitudes and behaviors, such as a low intent to leave the organization.

Finally, the positive relationship between a climate for innovation and employee outcomes is derived from the fact that a climate for innovation encourages the use of employees' knowledge and skills (Ostroff & Bowen, 2000). Using employees knowledge and skills promotes professional and personal growth, which sequentially enhances employee satisfaction and commitment (González-Romá et al., 2002). In other words, providing a climate for innovation is attractive for professional employees, who will react with positive attitudes and behaviors.

Based on these arguments we expect strategic climate to mediate the relationship between a system of strategic signaling HR practices and commitment, OCB, satisfaction, and intention to leave:

Hypothesis 4: strategic climate perceptions mediate the relationship between employee perceptions of the strategic signaling HR system and organizational commitment, ward commitment, occupational commitment, OCB, job satisfaction and intention to leave.

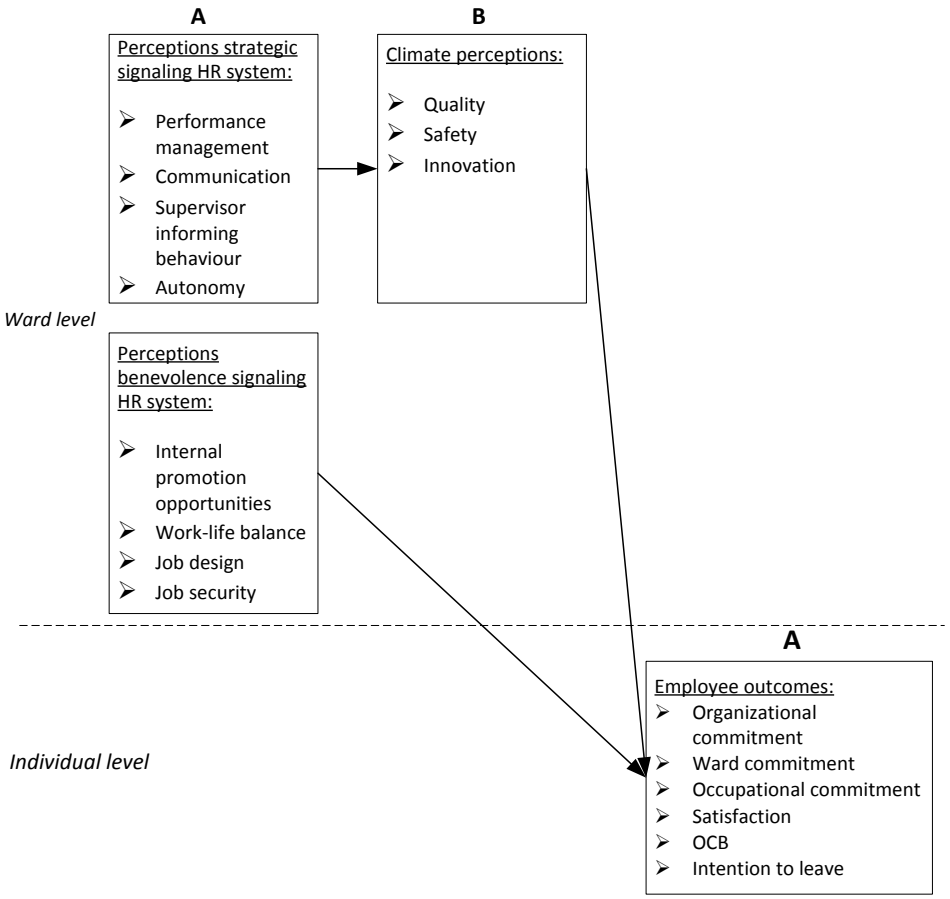
8.2.4 Level of analysis

Above we have outlined the relationship between employee perceptions of HRM, strategic climate and employee outcomes. As yet, however, we have not specified the level at which these processes operate. Despite the fact that perceptions are formed and necessarily assessed at the individual level, it is very likely that perceptions will be shared within subunits of organizations.

What constitute meaningful subunits within an organization varies depending on the situation, but may include, for instance, different teams, departments, or work groups. In our Dutch hospitals, the most meaningful subunit was the ward organized around a specific specialism or professional service (e.g. cardiology and geriatrics). These wards can be characterized as semi-autonomous units within the larger hospital structure, with their own managerial and authority structure, often characterized by a strong sense of ward identity based on a particular medical specialism or professional service involved. Within these wards supervisors are responsible for the detailed implementation of HR practices at the ward level. In other words supervisors exert a strong influence on the extent and way in which HR practices are implemented.

Given this particular context, we expect some communality in both HRM and climate perceptions at the ward level, as employees working in the same ward were exposed to broadly the same HR practices and work environment. In addition, employee perceptions are likely to become shared in a ward due to socialization and interaction processes taking place in the unit (Kozlowski & Hattrup, 1992). This is in line with social information processing theory (Salancik & Pfeffer, 1978) which suggests that individual perceptions of organizational phenomena and of the work environment are influenced by social processes in that environment. Individual employees use the information available in their immediate work context to interpret events and to form judgments about that context which, in turn, influence their attitudes and behavior. In addition, social interaction among unit members can lead to collective sense making and the shared development of perceptions of the environment (Weick, 1995). Given this expected communality in HRM and climate perceptions at the ward level, we will focus on the cross-level linkages between ward level HRM perceptions and employee level outcomes, as mediated by ward level climate.

The conceptual model tested in this research is summarized in figure 8.1.



The A and B designations above the boxes reflect the split-sample analytical approach.

Figure 8.1 Conceptual framework

8.3 Methods

8.3.1 Sample

Similar to the data collection procedure described in chapter 5, data were collected in four large hospitals, resulting in a sample of 2068 respondents (44.4%) from 168 wards, with an average group size of 12.31. In order to reduce the risk of common method bias, we decided to use a split-group design as recommended by Ostroff, Kinicki and Clark (2002). We randomly split each ward in half, obtaining values of the HRM perceptions and employee outcomes from one half of the ward, and the climate variables from the other half of the ward (see for a similar approach Kehoe & Wright,

forthcoming). The A and B designations in figure 8.1 reflect this split-sample analytical approach. Twenty-eight wards were excluded from this split sample procedure because the number of respondents in these wards was too small to split the sample. So, our final sample consisted of 1997 respondents (42.9%) working in 140 wards. This final sample was found to be representative of the initial sample. The average age in our final sample was 40.4 years. The average age in the initial sample was 40.5 years. Of the employee sample 89.6% is female (in the initial sample 89.9% was coded as female). In the sample 40.2% has a higher vocational training or university degree. The average tenure in the hospitals is 11.6 years, which is comparable with the average tenure in the initial sample (also 11.6 years). The average tenure in the current job is 9.1 years. 90.6% of the sample has a permanent employment contract. Only 30.9% of the sample works full-time (i.e. more than 32 hours).

8.3.2 Measures

Perceived HR practices. Employee perceptions of HR practices in the areas of autonomy, performance management, communication, supervisor informing behavior, work-life balance, internal promotion opportunities, employment security and job content were measured with a total of 38 items. All areas, except for communication and supervisor informing behavior were measured with 29 items from an HRM scale by Boon et al. (2011). In addition four items were included to measure communication / information-sharing (two items from a scale by Van Veldhoven and Meijman (1994), and two items from a scale by Riordan et al. (2005)). Finally, we included the informational justice scale developed by Colquitt (2001) to measure supervisor informing behavior.

Exploratory factor analysis of the 38 items using oblimin rotation indicated two different solutions, i.e. a one factor solution and a solution with eight factors. The eight factor solution (explained variance 60.9%) was in accordance with theory and was easily interpretable: 1. Autonomy; 2. Internal promotion opportunities; 3. Performance management; 4. Work-life balance; 5. Communication; 6. Supervisor informing behavior; 7. Job design; 8. Job security.

Based on theoretical arguments we conceptually distinguished between a strategic signaling and a benevolence signaling bundle. In order to test whether these two bundles could be differentiated, we performed a confirmatory factor analysis (CFA) in AMOS, using the scale scores of the eight HR practices. We computed a one factor model, a two factor model without correlating factors and a two factor model with correlating factors (see table 8.1).

Table 8.1 Confirmatory factor analysis strategic signaling and benevolence signaling HR-bundle

Model	χ^2	df	p	GFI	CFI	NNFI	RMSEA
One-factor model (total system)	134.84	19	.000	.97	.94	.92	.08
Two-factor model non-correlated factors (strategic vs. benevolence signaling bundle)	842.35	19	.000	.86	.59	.39	.21
Two-factor model correlated factors (strategic vs. benevolence signaling bundle)	134.84	18	.000	.97	.94	.91	.08

Note. GFI = Goodness of Fit Index; CFI = Comparative Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean Square Error of Approximation;

The chi-square values were very high (normally suggesting a bad fit) in all models, but this might be caused by the large number of observations in the total sample (Kline, 2005). We therefore used multiple indices of fit as recommended by Bollen and Long (1993) as well as Hu and Bentler (1998), including the Comparative Fit Index (CFI), the Goodness of Fit Index (GFI) and the Non-Normed Fit Index (NNFI) (values ≥ .90 for these three indices indicate an acceptable fit) and the Root Mean Square Error of Approximation (RMSEA) (ideally scores should be .08 or lower) (Byrne, 2001). Both the one factor model and the two factor model with correlating factors show an acceptable fit. It is not surprising that the two factor model with correlating factors shows a better fit compared to the model without correlating factors. These subsystems are both part of a larger system (reflected in the one factor model) and are therefore likely to be correlated. Based on our theoretical arguments and the results of the CFA we decided to compute two HR systems, i.e. a strategic signaling and a benevolence signaling system. The strategic signaling system includes the following practices: autonomy, performance management, communication and supervisor informing behavior. The benevolence signaling system is comprised of internal promotion opportunities, work-life balance arrangements, job security and job design.

Srategic climate. Following the results from chapter 5, four strategic climate dimensions were included, i.e. quality, safety, innovation and efficiency. For the background and validity of the climate measures, we refer to chapter 5. *Climate for quality* was assessed using six items from a scale by Dawson et al. (2008). The original items were translated from an organizational level perspective (e.g. "There is an emphasis on patient-focused care in this organization") into a ward level perspective (e.g. "There is an emphasis on patient-focused care within my ward"). This translation was necessary because each climate item should clearly focus on the specific collective unit which corresponds to the climate being studied (i.e. in this case the ward). By specifying a clear frame of reference we preclude the risk that respondents describe perceptions of different parts of the organization (Patterson et al., 2005). For measuring the *climate for safety* we used 6 items of the short version of the Safety Climate scale developed by Neal, Griffin and Hart (2000). *Climate for innovation* was measured using the subscale support for innovation of the team climate inventory developed by Anderson and West (1996). The subscale consisted of 8 items with an acceptable internal consistency. The original team climate inventory was designed to assess team level attributes therefore items were modified using the word 'ward' instead of 'team'. Climate for efficiency was measured using a subscale of the FOCUS questionnaire (Van Muijen, Koopman, & De Witte, 1996). This questionnaire is based on the Competing Values Framework by Quinn and Rohrbaugh (1983).

In line with the exploratory and confirmatory analysis described in chapter 5, we computed three climate scales, i.e. climate for quality, climate for safety and climate for innovation. Although this solution is in line with three of the original scales, the three dimensions were highly correlated, suggesting that they represent a higher order climate construct. Hence, we decided to conduct a second order factor analysis. This second-order factor analysis supported a shared higher order construct (explained variance 72.5%). Based on this finding we combined the three climate types into an overall strategic climate scale. Tests of the mediating role of strategic climate were conducted including the separate climate types as well as the overall strategic climate scale.

Organizational commitment was measured using a Dutch translation by De Gilder, Van den Heuvel and Ellemers (1997) of Allen and Meyer's (1990) original construct. We excluded one item, based on a later publication of Ellemers, De Gilder and Van den Heuvel (1998), resulting in a four item affective organizational commitment scale. Sample items include "I feel emotionally attached to this organization" and "I feel 'part of the family' in this organization".

Ward commitment was assessed using a four item scale from Baruch and Winkelmann-Gleed (2002). This scale was originally designed to measure team commitment, therefore items were modified using the word 'ward' instead of 'team'. One of the items included was "I am proud to tell others that I am part of this ward".

Occupational commitment was assessed using four items of the scale of Baruch and Winkelmann-Gleed (2002). An example of an item includes "I am proud to tell others that I am part of this profession".

OCB was measured using 9 items of MacKenzie, Podsakoff and Fetter's (1991) altruism, civic virtue and courtesy scales. We added one item to the civic virtue scale, based on a later publication of MacKenzie, Podsakoff and Paine (1999). Sample items included "I am willing to help other colleagues who have work related problems" (altruism), "I attend training and information sessions that are encouraged but not required to attend" (civic virtue) and "I consider the impact of my actions on others" (courtesy).

Intention to leave was measured using a three-item subscale of the survey on the experience and evaluation of work (Van Veldhoven & Meijman, 1994). A sample item is: "I think about changing jobs".

Job satisfaction. In order to measure the overall job satisfaction of employees we used a single-item measure: "Overall how satisfied are you with your job" (Boon et al., 2011). Previous research has proven the reliability and validity of single-item measures for job satisfaction (e.g. Nagy, 2002; Wanous, Reichers, & Hudy, 1997). Answers were given on a five-point Likert scale ranging from "very dissatisfied" (1) to "very satisfied" (5).

For all scales, except job satisfaction, responses were given on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree".

Control variables. Given that we obtained responses from employees working in different hospitals, we created three dummy coded variables to control for potential systematic effects of the hospitals with hospital D as the baseline category. In addition, we included two individual level control variables (age and educational level) and one ward level control variable (ward size). It is regarded to be important to control for these variables because they may have confounding effects. To control for individual differences, we included a continuous scale for age and a categorical indicator for educational level (1= lower education, 7 = higher education). To control for ward size, we took the absolute number of employees per ward, not the number of respondents per ward.

8.3.3 Analytic strategy

Hypothesis 1 and 2 were tested with aggregate shared measures of HRM and climate using multiple regression analysis. Hypothesis 3 and 4 involved cross-level processes (HRM and climate emanate from the ward level of analysis, employee outcomes reside at the individual level of analysis). Moreover, employees are nested in the ward they work for. This nesting is likely to cause dependency in the data, which needs to be taken into account (Snijders & Bosker, 1999). Hence, we used Hierarchical Linear Modeling (HLM) in order to test hypothesis 3 and 4.

8.3.4 Ward level aggregation

Shared HRM perceptions and shared climate perceptions are based on the aggregation of individual scores to the level of the ward. To support the aggregation of individual scores to the ward level, we calculated ICC1 and ICC2 values for the HRM and climate scales at the split ward level, given that this was the level to which we sought to aggregate the data (see table 8.2). ICC1 values ranged from .09 to .22, implying that 9 to 22 percent of the variance can be attributed to the ward level. ICC2 scores all exceed the minimum value of .50 (Klein & Kozlowski, 2000), except for the benevolence signaling bundle (ICC = .42). This low group level reliability is due to the low ICC1 value (.09) and the small-group size (Bliese, 1998) which is a consequence of the split-sample procedure. If ICC1 is low, one can just obtain reasonable ICC2 values if they are estimated from large groups. We therefore calculated the ICC2 value for the

total sample, which resulted in an acceptable ICC2 value (.65). We also calculated $r_{wg(j)}$ values of within-ward agreement for each scale to further justify the aggregation of the individual level HRM and climate scores to the ward level. The $r_{wg(j)}$ values (all above the cut-off of .70) suggest sufficient within-ward agreement to further justify aggregation to the ward level. Hence aggregation to the ward level was justified.

Table 8.2 Aggregation characteristics

Survey scale[1]	No. of items	α	ICC1	ICC2	Mean $r_{wg(j)}$
Strategic signaling bundle	23	.94	.20	.64	.95
Benevolence signaling bundle	15	.79	.09	.42	.96
Climate for quality	5	.90	.18	.61	.90
Climate for safety	6	.95	.22	.67	.90
Climate for innovation	7	.91	.22	.67	.94
Overall strategic climate	18	.93	.18	.60	.97

[1] Split B was used for the computation of aggregation characteristics of the climate scales; Split A was used for all other variables (see also figure 8.1).

8.4 Results

Table 8.3 shows the means, standard deviations and correlations among all variables. It is worthwhile noticing the significant correlations between the strategic signaling bundle and the three strategic climate types. These correlations varied between .38 (correlation between strategic signaling bundle and climate for quality) and .43 (correlation between strategic signaling bundle on the one hand and climate for safety and innovation on the other hand), representing moderately-sized effects. Moreover, we found a moderate-size correlation (.46) between the strategic signaling bundle and overall strategic climate. Though we did not expect any relationship between employee perceptions of a benevolence signaling bundle and strategic climate, these correlations were significant. However, these correlations were relatively small (varying between .21 and .35), especially in comparison with the correlations between the strategic signaling bundle and strategic climate.

Employee perceptions of HRM (both strategic and benevolence signaling bundle) and employee outcomes were significantly correlated with most of the employee outcomes. There were no significant correlations found for the relationship between the benevolence signaling bundle and organizational commitment. Finally, the results show small, but significant, correlations between strategic climate and most of the

employee outcomes, with the strongest correlations between strategic climate and ward commitment (varying between .23 and .25).

8.4.1 Hypotheses testing

Hypothesis 1 and 2 were focused on the relationship between employee perceptions of HRM and strategic climate perceptions. These hypotheses were tested at the ward level of analysis, using regression analysis (results are presented in table 8.4). Hypothesis 1 suggested that employee perceptions of a bundle of strategic signaling HR practices would have a positive influence on their strategic climate perceptions. The results, presented in table 8.4, show that the strategic signaling HR bundle was significantly related to climate for quality (γ = .28, $p < .01$; adjusted R^2 = .11), climate for safety (γ = .31, $p < .01$; adjusted R^2 = .10), climate for innovation (γ = .35, $p < .001$; adjusted R^2 = .12), and overall strategic climate (γ = .35, $p < .001$; adjusted R^2 = .13). The results support hypothesis 1.

Hypothesis 2 predicted that employee perceptions of a bundle of benevolence signaling HR practices would have no influence on their strategic climate perceptions. This hypothesis is partly supported, as there was no significant effect on a climate for quality, a climate for innovation and overall strategic climate. A small, but significant effect was found for the relationship between the non-signal carrying bundle and a climate for safety (γ = .21, $p < .05$; adjusted R^2 = .05).

Hypothesis 3 predicted that employee perceptions of a benevolence signaling system would be positively related to organizational commitment, occupational commitment, ward commitment, OCB, and job satisfaction, and negatively related to intention to leave. This hypothesis was tested using HLM (results are presented in table 8.5 – 8.9, model 3a).

Table 8.3 Means, standard deviations and correlations

Variable	M	SD	1.	2.	3.	4.	5.	6.	7.	8.
Ward level [a]										
1. Strategic signaling bundle	3.3	.33	-							
2.Benevolence signaling bundle	3.5	.22	.69**	-						
3. Climate for quality	3.9	.31	.38**	.21**	-					
4. Climate for safety	3.4	.35	.43**	.35**	.63**	-				
5. Climate for innovation	3.5	.38	.43**	.28**	.66**	.76**	-			
6. Overall strategic climate	3.6	.31	.46**	.31**	.83**	.89**	.91**	-		
7. Ward size	42.5	30.0	.09**	.18**	.01	.06	.01	.03	-	
Individual level:										
8. Commitment organization	3.4	.78	.10**	.05	.11**	.06	.07*	.09**	-.03	
9. Commitment occupation	3.8	.71	.18**	.16**	.14**	.13**	.12**	.15**	-.01	.31**
10. Commitment ward	3.8	.65	.28**	.19**	.23**	.22**	.22**	.25**	-.02	.39**
11. OCB	3.9	.38	.13**	.10**	.10**	.07*	.07*	.09**	-.01	.32**
12. Intention to leave	2.2	.95	-.12**	-.08*	-.09**	-.06	-.04	-.07*	.05	-.40**
13. Job satisfaction	4.0	.70	.25**	.17**	.16**	.14**	.14**	.16**	-.01	.32**
14. Age	40.3	11.4	-.02	-.01	-.02	-.08	-.09**	-.07*	-.02	.23**
15. Educational level	4.3	2.0	.03	.02	-.04	-.02	.05	-.03	-.07*	-.11**
16. Hospital dummy A	-	-	-.38**	-.38**	-.28**	-.23**	-.18**	-.24**	-.23**	-.06
17. Hospital dummy B	-	-	.18**	.27**	.03	.04	-.04	.02	.59**	-.11**
18. Hospital dummy C	-	-	.22*	.17**	-.03	.08*	.13**	.09*	-.06*	-.01

Climate scores for the computation of descriptive and correlations were drawn from employees in split B; values for all other variables were drawn from split A.

[a] Ward level means assigned to individual employees.

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Table 8.3 (continued) Means, standard deviations and correlations

Variable	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
Ward level [a]										
1. Strategic signaling bundle										
2.Benevolence signaling bundle										
3. Climate for quality										
4. Climate for safety										
5. Climate for innovation										
6. Overall strategic climate										
7. Ward size										
Individual level:										
8. Commitment organization										
9. Commitment occupation	-									
10. Commitment ward	.57**	-								
11. OCB	.33**	.37**	-							
12. Intention to leave	-.36**	-.35**	-.18**	-						
13. Job satisfaction	.51**	.52**	.23**	-.47**	-					
14. Age	-.09*	.00	.07*	-.17**	.04	-				
15. Educational level	.07*	.04	.08*	.08*	.00	-.19**	-			
16. Hospital dummy A	-.05	-.09**	-.07	.02	-.06	.03	.00	-		
17. Hospital dummy B	.01	-.02	.00	.12**	-.04	-.08	.02	-.32**	-	
18. Hospital dummy C	.08*	.06	-.02	-.07	.04	.05	.00	-.32**	-.26**	

Climate scores for the computation of descriptive and correlations were drawn from employees in split B; values for all other variables were drawn from split A.

[a] Ward level means assigned to individual employees.

*. Correlation is significant at the 0.05 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed).

Table 8.4 Ward level analysis: test relationship HRM and strategic climate

	Climate for quality			Climate for safety			Climate for innovation		
	Model 1a	**Model 1b**	**Model 1c**	**Model 2a**	**Model 2b**	**Model 2c**	**Model 3a**	**Model 3b**	**Model 3c**
Step 1:									
Ward size	-.05	-.05	-.01	.05	.05	.05	.01	.01	.01
Hospital dummy A	-.31***	-.24*	-.27**	-.20*	-.12	-.14	-.16	-.07	-.10
Hospital dummy B	-.06	-.08	-.07	.01	-.02	-.02	-.03	-.07	-.06
Hospital dummy C	-.08	-.13	-.17	.04	-.02	-.01	.09	.03	.02
Step 2:									
Strategic signaling bundle		.28**			.31**			.35***	
Benevolence signaling bundle			.03			.21*			.15
ΔR^2	.08*	.15**	.00	.05	.08**	.04*	.04	.15***	.01
ΔF	2.98*	10.10**	.11	1.81	12.12**	5.22*	1.52	16.28***	2.54
R^2	.08	.15	.07	.05	.13	.09	.04	.15	.05
Adjusted R^2	.05	.11	.03	.02	.10	.05	.02	.12	.01

** p <.01 ***p <.001 (2-tailed)*p <.05

Table 8.4 (continued) Ward level analysis: test relationship HRM and strategic climate

	Overall strategic climate		
	Model 4a	**Model 4b**	**Model 4c**
Step 1:			
Ward size	.01	-.01	.01
Hospital dummy A	-.21*	-.13	-.17
Hospital dummy B	-.02	-.04	-.03
Hospital dummy C	-.02	-.01	-.04
Step 2:			
Strategic signaling bundle		.35***	
Benevolence signaling bundle			.13
ΔR^2	.04	.12	.01
ΔF	1.33	16.85***	1.94
R^2	.04	.16	.05
Adjusted R^2	.01	.13	.02

** p <.01 ***p <.001 (2-tailed)*p <.05

In order to test hypothesis 3, we first specified a null-model for each of the outcomes to split the variance in parts at the individual (σ^2) and ward level (τ^2) and to check for an adequate amount of ward-level variance in the dependent variables. This condition was met for all employee outcomes, except OCB: 8% of the variance in organizational commitment, 14% of ward commitment, 4% of occupational commitment, 3% of OCB[1] (n.s.), 9% of job satisfaction and 5% of intention to leave resided between wards. This means that HRM perceptions and strategic climate perceptions at the ward level could potentially explain between-ward variance in employee outcomes, except for OCB (Bliese, 2002). Hence, we were not able to test the relationship between shared HRM perceptions and OCB.

We then estimated model 1, including the control variables. The results suggest that age is positively related to organizational commitment (table 8.5) and negatively related to occupational commitment (table 8.7) and intention to leave (table 8.9). Higher educated employees are less committed to the organization and are more intended to leave the organization. Finally, differences in organizational commitment and intention to leave can be partly explained by the hospital employees work for.

In model 3a we included the benevolence signaling HR system as level 2 predictor. Perceptions of this system were significantly related to organizational commitment (γ =.35, p <. 001), ward commitment (γ =.52, p <. 001), occupational commitment (γ =.53, p <. 001), job satisfaction (γ =.55, p <. 001) and intention to leave (γ =-.46, p <. 001). Hence, these results support hypothesis 3 (except for OCB).

Hypothesis 4 predicted that strategic climate perceptions mediate the effects of employee perceptions of a strategic signaling HR system on employee outcomes. In order for strategic climate to mediate the relationship between HRM and employee outcomes, the following conditions must be satisfied according to Mackinnon, Fairchild and Fritz (2007): (1) the independent variable (perceptions of the strategic signaling HR system) has a significant effect on the mediating variable (strategic climate perceptions); and (2) the mediating variable (strategic climate perceptions) has a significant effect on the dependent variable in a regression of the independent and

[1] Individual level variance OCB was σ2=.139 ; ward level variance OCB was τ2=.005

mediating variable on the dependent variable. Full mediation occurs if there is no effect of the independent variable on the dependent variable (in addition to the mediating variable). Partial mediation occurs if the independent variable does have a significant effect on the dependent variable in addition to the mediating variable. Though the often cited mediation rules by Baron and Kenny (1986) argued that for a mediating effect to exist, the independent and the dependent variable should correlate, more recent literature argues that this condition is not necessary, as suppressor effects may occur (MacKinnon et al., 2007).

The first condition (hypothesis 1) was met. Perceptions of the strategic signaling HR system were significantly related to strategic climate perceptions (see table 8.4). In order to test the second condition we included the strategic climate types in model 2b, and overall strategic climate in model 2c (see tables 8.5 -8.9). Climate for quality was significantly related to ward commitment (γ=.26, $p < .05$), occupational commitment (γ= .25, $p < .05$) and intention to leave (γ=-.37, $p < .05$). However, Sobel tests revealed that there were no statistically significant mediating effects of climate in the relationship between strategic signaling HRM practices and employee outcomes. Overall strategic climate was significantly related to ward commitment (γ= .32, $p < .001$) and occupational commitment (γ= .17, $p < .05$). Sobel tests revealed that there was only a significant partial mediating effect of overall strategic climate in the relationship between the strategic signaling bundle and ward commitment ($p < .01$).

Since the separate climate dimensions were highly correlated, including these dimensions simultaneously in the same analysis might cause multicollinearity issues. As we were still interested in the mediating role of different strategic climate types, we performed further analyses on the mediating role of each strategic climate type separately. These analyses (tables 8.10-8.14 in the Appendix) reveal that climate for quality, climate for safety and climate for innovation partially mediate the relationship between the strategic signaling bundle and ward commitment. Climate for quality also partially mediates the relationship between this bundle and occupational commitment. Based on these results we can partly confirm hypothesis 4: strategic climate (i.e. separate dimensions, as well as overall strategic climate) partially mediates the relationship between the strategic signaling bundle and ward

commitment. Climate for quality partially mediates the relationship between the strategic signaling bundle and occupational commitment.

Based on theoretical arguments we did not expect any linkage between the set of benevolence signaling HR practices and strategic climate. However, the empirical results in this thesis revealed that there was a small, but significant effect of this system on climate for safety. Based on this result we decided to conduct an additional analysis, in order to test whether a climate for safety mediated the relationship between the benevolence signaling HR practices and employee outcomes (see table 8.5 – 8.9, model 3b). Climate for safety did have a significant effect on ward commitment (γ=.27, $p < .05$), however a Sobel test revealed that there was no significant mediation effect of climate for safety in the relationship between benevolence signaling HRM and ward commitment.

Table 8.5 Cross-level analysis of organizational commitment

	Organizational commitment													
	Null-model		**Model 1**		**Model 2a**		**Model2b**		**Model 2c**		**Model 3a**		**Model 3b**	
Level 2 control variables														
Hospital dummy 1			-.15*	(.07)	-.08	(.07)	-.05	(.08)	-.06	(.07)	-.09	(.08)	-.08	(.08)
Hospital dummy 2			-.34**	(.11)	-.37***	(.10)	-.35**	(.10)	-.36***	(.10)	-.37***	(.10)	-.36**	(.10)
Hospital dummy 3			-.17*	(.09)	-.21*	(.08)	-.19*	(.08)	-.20*	(.08)	-.19	(.08)	-.18	(.08)
Ward size			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables														
Age			.01***	(.00)	.01***	(.00)	.01***	(.00)	.01***	(.00)	.01***	(.00)	.01***	(.00)
Educational level			-.03*	(.01)	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)
Level 2 predictors														
Strategic signaling bundle					.33***	(.09)	.29**	(.10)	.28**	(.10)				
Benevolence signaling bundle											.35*	(.14)	.30*	(.15)
Climate for quality							.18	(.14)						
Climate for safety							-.03	(.13)					.10	(.09)
Climate for innovation							.01	(.12)						
Overall strategic climate									.13	(.10)				
Variance components														
Individual level	.57	(.03)	.56	(.03)	.56	(.03)	.56	(.03)	.56	(.03)	.56	(.03)	.56	(.03)
Ward level	.05	(.02)	.03	(.01)	.01	(.01)	.01	(.01)	.01	(.01)	.02	(.01)	.02	(.01)
Model fit (AIC)	2268.17		2084.05		2073.67		2077.41		2074.17		2069.10		2069.80	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.6 Cross-level analysis of ward commitment

	Ward commitment													
	Null-model		**Model 1**		**Model 2a**		**Model2b**		**Model 2c**		**Model 3a**		**Model 3b**	
Level 2 control variables														
Hospital dummy 1			-.14	(.07)	-.04	(.06)	.03	(.06)	.00	(.06)	-.07	(.07)		
Hospital dummy 2			-.01	(.11)	-.08	(.09)	-.04	(.08)	-.06	(.08)	-.06	(.10)		
Hospital dummy 3			.03	(.09)	-.04	(.07)	.00	(.07)	-.02	(.07)	-.02	(.08)		
Ward size			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)		
Level 1 control variables														
Age			.00	(.00)	.00	(.00)	.00	(.00)	.00	.00	(.00)	(.00)	.00	(.00)
Educational level			.01	(.01)	.00	(.00)	.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)
Level 2 predictors														
Strategic signaling bundle					.52***	(.08)	.42***	(.08)	.41***	(.08)				
Benevolence signaling bundle											.52***	(.13)	.40**	(.13)
Climate for quality							.26*	(.11)						
Climate for safety							.03	(.11)					.27***	(.08)
Climate for innovation							.07	(.10)						
Overall strategic climate									.32***	(.08)				
Variance components														
Individual level	.37	(.02)	.36	(.02)	.36	(.02)	.37	(.02)	.37	(.02)	.36	(.01)	.36	(.01)
Ward level	.06	(.01)	.05	(.01)	.02	(.01)	.01	(.01)	.01	(.01)	.04	(.01)	.03	(.01)
Model fit (AIC)	1888.79		1748.63		1711.77		1702.88		1699.99		1732.98		1722.69	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.7 Cross-level analysis of occupational commitment

	Occupational commitment													
	Null-model		**Model 1**		**Model 2a**		**Model2b**		**Model 2c**		**Model 3a**		**Model 3b**	
Level 2 control variables														
Hospital dummy 1			-.03	(.07)	.05	(.06)	.10	(.07)	.07	(.06)	.03	(.07)	.06	(.06)
Hospital dummy 2			.06	(.09)	.01	(.08)	.03	(.08)	.02	(.08)	-.01	(.09)	.01	(.08)
Hospital dummy 3			.15	(.08)	.10	(.07)	.14	(.07)	.11	(.07)	.10	(.07)	.11	(.07)
Ward size			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables														
Age			-.01**	(.00)	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)
Educational level			.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)
Level 2 predictors														
Strategic signaling bundle					.39***	(.08)	.33***	(.08)	.33***	(.08)				
Benevolence signaling bundle											.53***	(.12)	.46***	(.12)
Climate for quality							.25*	(.11)						
Climate for safety							.07	(.11)					.15	(.07)
Climate for innovation							-.08	(.11)						
Overall strategic climate									.17*	(.09)				
Variance components														
Individual level	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)
Ward level	.02	(.01)	.02	(.01)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Model fit (AIC)	2093.23		1947.97		1924.60		1923.51		1922.73		1929.01		1926.73	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.8 Cross-level analysis of job satisfaction

	Job satisfaction													
	Null-model		**Model 1**		**Model 2a**		**Model2b**		**Model 2c**		**Model 3a**		**Model 3b**	
Level 2 control variables														
Hospital dummy 1			-.14	(.07)	.00	(.06)	.03	(.07)	.00	(.07)	-.06	.07	-.04	(.07)
Hospital dummy 2			-.09	(.11)	-.17	(.09)	-.15	(.09)	-.16	(.09)	-.15	(.10)	-.14	(.10)
Hospital dummy 3			-.00	(.09)	-.07	(.07)	-.05	(.07)	-.07	(.07)	-.05	(.08)	-.04	(.08)
Ward size			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables														
Age			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Educational level			-.01	(.01)	.00	(.01)	.00	(.01)	.00	(.01)	-.01	(.01)	.00	(.00)
Level 2 predictors														
Strategic signaling bundle					.59***	(.08)	.55***	(.09)	.55***	(.09)				
Benevolence signaling bundle											.55***	(.13)	.48***	(.13)
Climate for quality							.19	(.12)						
Climate for safety							-.02	(.11)					.14	(.08)
Climate for innovation							-.03	(.11)						
Overall strategic climate									.11	(.09)				
Variance components														
Individual level	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)
Ward level	.04	(.01)	.04	(.01)	.01	(.01)	.01	(.01)	.01	(.01)	.03	(.01)	.02	(.01)
Model fit (AIC)	2030.75		1889.42		1842.84		1846.04		1843.41		1872.91		1871.93	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.9 Cross-level analysis of intention to leave

	Intention to leave													
	Null-model		**Model 1**		**Model 2a**		**Model2b**		**Model 2c**		**Model 3a**		**Model 3b**	
Level 2 control variables														
Hospital dummy 1			.14	(.09)	.06	(.09)	.00	(.09)	.06	(.09)	.09	(.09)	.08	(.09)
Hospital dummy 2			.26*	(.12)	.31**	(.11)	.30*	(.11)	.31**	(.11)	.32**	(.12)	.32**	(.12)
Hospital dummy 3			-.02	(.10)	.03	(.09)	-.02	(.10)	.03	(.09)	.02	(.12)	.02	(.10)
Ward size			.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables														
Age			-.01***	(.00)	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)
Educational level			.03*	(.02)	.03*	(.02)	.03*	(.02)	.03*	(.02)	.03*	(.02)	.03*	(.02)
Level 2 predictors														
Strategic signaling bundle					-.38***	(.11)	-.39**	(.12)	-.37**	(.12)				
Benevolence signaling bundle											-.46**	(.16)	-.44**	(.17)
Climate for quality							-.37*	(.16)						
Climate for safety							.01	(.15)					-.04	(.10)
Climate for innovation							.23	(.15)						
Overall strategic climate									-.03	(.12)				
Variance components														
Individual level	.87	(.04)	.85	(.04)	.85	(.04)	.84	(.04)			.84	(.04)	.84	(.04)
Ward level	.04	(.02)	.02	(.02)	.01	(.01)	.01	(.01)			.01	(.01)	.01	(.01)
Model fit (AIC)	2637.53		2430.49		2415.05		2415.11		2416.97		2420.70		2422.53	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

8.5 Discussion

The goal of this chapter was to broaden our understanding of the relationship between HRM, strategic climate and employee outcomes. First, by making a contribution to the strategic HRM and climate literature by theorizing and empirically testing the relationship between HRM and strategic climate. This is in line with the idea proposed by different researchers (e.g. Bowen & Ostroff, 2004; Schneider et al., 2005) that HRM systems create the foundation for the development of particular climates by signaling to employees the strategic focus of the organization. This study, however, further extends this line of theorizing in a number of ways. First, through the notion that some HR practices can be more easily used for transmitting strategic signals towards employees, than other HR practices. In order to test this idea we made a theoretical distinction between two different subsystems of HR practices. The first subsystem we distinguished included the following practices: performance management, communication, supervisor informing behavior and autonomy. These practices together did have an influence on strategic climate for quality, safety and innovation. In other words, this subsystem is relevant for transmitting strategic signals towards its employees, thereby sending important information about which strategic goals are relevant and what kind of behaviors are expected in line with these goals. We hypothesized that the second subsystem (including internal promotion opportunities, work-life balance arrangements, job security and job design) can be less easily used for sending strategic signals. However, this does not mean that these practices do not send signals at all. Given the nature of these practices we argued that these practices are first and foremost relevant for signaling the kind of benefits or inducements that employees might expect from the organization. In general our findings support this prediction: the system of benevolence signaling practices did have no influence on climate for quality and climate for innovation. Contrary to our expectations, we found a small, but significant, relationship between the benevolence signaling bundle and climate for safety. A possible explanation for this finding is that safety climate not only reflects the extent to which safety is a relevant strategic goal. Rather safety climate also relates to the ward's concern for the well-being of its employees (Neal et al., 2000). If employees perceive benevolence oriented practices at the ward level, they

receive the signal that the ward is supportive of their general welfare and well-being, which results in more positive perceptions of safety climate at the ward level.

The distinction between the strategic signaling and benevolence signaling system is not only relevant in relation to strategic climate perceptions. In light of the ongoing debate in the HRM and OB literature whether one should focus on the effectiveness of an overall HR system at the organizational level of analysis ('macro HRM research') or on the effectiveness of single practices at the individual level of analysis ('micro HRM research'), the results in this study support the idea that it is worthwhile combining the macro and micro approaches. One of the main premises behind the macro approach is that organizational goals can be accomplished by means of implementing a coherent bundle of mutually reinforcing HR practices, which is properly aligned with the strategic goals of the organization (Wright & Boswell, 2002). Studies using a macro approach tend to focus on the effectiveness of a holistic system of practices, thereby ignoring the fact that different practices might have different effects. The micro approach is mainly focused on testing the functional effectiveness of a single practice, without taking into account that practices do not work in isolation. The results of this study show that a distinction can be made between two subsystems of HRM, thereby supporting the micro approach that different practices have different effects. Additionally, along the lines of the macro approach, we took into account the idea that different practices might influence each other, by means of testing the effects of two subsystems of HRM. So, we were able to bridge the gap between macro and micro HRM research by means of combining the ideas of both approaches.

Though we were able to show that a strategic signaling HR system does have an influence on strategic climate, there was still quite some unexplained variance, suggesting that there are alternative antecedents of strategic climate perceptions, next to this HR system. Our result supports the idea of different authors (e.g. Biron et al., 2011; Haggerty & Wright, 2009; Ostroff, Kinicki, & Tamkins, 2003; Townsend, Wilkinson, & Allen, 2011) who suggest that HR policies and practices are only one signal carrying device among the many signals that are sent by the upper management to employees. For example, organizations may use organizational culture to set expectations that guide employee behavior (Biron et al., 2011). Next to the more

formal and informal practices, strategic climate is likely to be influenced by several processes. Different authors point to the role of direct supervisors as "climate engineers" (e.g. Ostroff et al., 2003). A recent study by Townsend et al. (2011) shows that ward managers in hospitals (who can be compared with line managers / direct supervisors in other organizations) play a key role in this process, as they are in a position to deliver clear signals to the staff of their ward. More specifically, ward managers can determine what signals reach employees and how these signals are delivered, which will subsequently lead to differences in employee perceptions between wards. First, they do have some leeway to decide which HR practices they implement and how they implement these practices (Bos-Nehles, 2010), thereby influencing the type of signals employees receive. Second, ward managers determine which information they pass to their employees, and provide the employees with their own interpretation. Or as Townsend et al. (2011) state "the ward managers are in a key position to determine what signals reach employees and how they are delivered" (pp. 10). The results in this study also showed that there are significant differences between wards, both with respect to the HRM perceptions and climate scores. This might be due to differences in the implementation of HR practices and communication of relevant information from ward managers towards employees. Hence, more research is needed on the implementation process of HRM in large and complex organizations, like hospitals. Moreover, special attention should be paid to the role of direct supervisors in this process.

The second contribution in terms of understanding the linkage between employee perceptions of HRM and strategic climate is the notion that a strategic signaling HR bundle can send multiple messages at a time. In this chapter we incorporated three strategic climate types (i.e. quality, safety and innovation), and we were able to show that a strategic signaling HR bundle is related to these three climate types. This supports the idea put forward by Patterson et al. (2005) and Schulte et al. (2009) that research should focus on more than one (strategic) climate dimension at a time. Hospitals, as well as other organizations, do not operate in a single performance domain. In order to make sure that these strategic goals will be accomplished, employees at the ward level should be aware of these intended strategic goals. This

awareness should in turn encourage employees to respond and behave in ways that support these objectives. In this study the employees were aware of the relevance of quality, safety and innovation in their daily work. Though employees did recognize the relevance of these goals at the ward level, the three climate types were highly correlated, suggesting that the three climate dimensions might mutually influence and reinforce each other (Schulte et al., 2009). One might expect that, in a hospital context, both safety and innovation are likely to be relevant conditions for quality of care.

A third contribution concerns the relationship between HRM and employee outcomes which are highly relevant in a hospital context. Both the strategic signaling and benevolence signaling bundle were expected to have a positive influence on employee outcomes. However, we argued that the benevolence signaling bundle would have a direct effect on employee outcomes, while strategic climate would mediate the relationship between the strategic signaling bundle and employee outcomes. The results showed that employee perceptions of both HR bundles were positively related to job satisfaction, organizational, occupational and ward commitment and negatively related to intention to leave. The finding that shared perceptions of HRM have strong associations with individual employee outcomes is in line with earlier studies (e.g. Kehoe & Wright, forthcoming; Takeuchi et al., 2009).

We were not able to test the (in)direct effect of HRM on OCB, as there was no ward level variance for OCB. In other words, the level of OCB was not dependent on the ward people work for. Moreover, focusing on the descriptive statistics of OCB revealed that the average score was relatively high (3.9 on a 5 point scale), and there was hardly any variance at the individual level (SD = .38). This result suggests that employees working in hospitals show a high level of OCB, irrespective of the organization or ward they work for. A possible explanation for this result can be found in the idea that OCB is not really discretionary in health care. Different authors have argued that OCB is often informally rewarded by supervisors (even though this type of behavior is not explicitly required) (e.g. Hui, Lam, & Law, 2000; Yun, Takeuchi, & Liu, 2007). In other words, employees are more likely to engage in OCB when they believe that this type of behavior will be rewarded. Second, employees might feel pressured to perform citizenship behavior, as OCB is often implicitly encouraged via organizational or

professional norms, general statements about good employee behavior, or group pressure (Bolino, Turnley, Gilstrap, & Suazo, 2010). As employees in health care are expected to engage in helping behavior (e.g. towards patients and their families), they are more likely to feel pressure to show OCB. Hence, the high scores on OCB in this study might be due to the fact that OCB is not really discretionary in this specific context, but rather it can be seen as relevant behavior that is required in hospitals.

Finally, the results of testing the mediating role of strategic climate revealed some mixed findings. First, we tested the mediating role of strategic climate in the relationship between the signaling bundle and employee outcomes, including the three climate dimensions in the same analysis. The results of this analysis revealed that there was no significant mediating effect. However, given the fact that the three climate dimensions were highly correlated, this might have caused some problems with multicollinearity. This problem is rather common with aggregated data (Allison, 1999), and makes it more difficult to detect statistically significant coefficients. In order to overcome this problem, we computed an overall strategic climate score (i.e. including the three climate types) and tested the mediating role of overall strategic climate in the relationship between the signaling bundle and employee outcomes. The results of these analyses revealed that overall strategic climate partially mediated the relationship between the signaling bundle and ward commitment. As we were still interested in exploring the mediating role of different climate types, we finally ran some additional analysis including one climate type at a time as possible mediator. The findings showed that climate for quality, safety and innovation partially mediated the relationship between signaling HRM and ward commitment, with the strongest effect for climate for quality. Climate for quality also partially mediated the relationship between signaling HRM and occupational commitment.

We did not find any significant mediating effect of strategic climate in the relationship with organizational commitment. Not finding any significant mediating effect of strategic climate in the relationship with organizational commitment, might be due to the fact that in this specific research context HRM primarily results in strong situations at the ward level (i.e. strategic climate perceptions), but not necessarily at the hospital level. Put differently, employees' perceptions of what the organization is like in terms

of its goals (reflected by strategic climate at the organizational level) might be different from their perceptions of what is important in their daily work at the ward level (reflected by strategic climate perceptions at the ward level). Organizational commitment implies, at the very least, an awareness and understanding of organizational values and goals. Hence, in the absence of a clear understanding and appreciation of what the hospital as a whole stands for, it is less likely that employees will develop a strong sense of identification with and attachment to the organization and its goals. The idea that organizational climate might differ from ward level climate is an area that deserves further research. Moreover, more research is needed to examine whether strategic organizational climate is related to organizational commitment.

Finally, we did not find any significant mediating effect of strategic climate in the relationship between job satisfaction and intention to leave. This might be due to the bandwidth of our strategic climate concept. Bandwidth refers to the amount or complexity of information one tries to obtain in a given space (Cronbach & Gleser, 1965). Our strategic climate construct does have a relatively narrow manifestation of the work environment, as it is only focused on the strategic goals employees experience at the ward level. Different studies on the bandwidth of predictors have shown that the breadth of the outcome and the breadth of the predictor construct should be in line (e.g. Hogan & Roberts, 1996). The idea of bandwidth implies that strategic climate is more important for predicting a specific outcome (e.g. safe behavior). Conversely, more general climate seems to be more important for predicting individual level attitudes, like job satisfaction and intention to leave (Carr, Schmidt, Ford, & DeShon, 2003). Based on this idea and the empirical findings, and in line with Ostroff et al. (2003), we suggest that future research examines the relative importance of global versus strategic climate dimensions for different sets of outcomes (i.e. strategic behavior versus general employee attitudes).

8.5.1 Limitations & future research

Despite the strengths of this study, there are some limitations. First, all data stem from the same source, and might therefore be subject to common method bias. In order to preclude this problem we used a split-sample procedure at the ward level of analysis. The independent and dependent variables were drawn from sample A and the mediator from sample B, reducing the risk of common method bias between the independent variable and the mediator, and between the mediator and the dependent variable. Though this split-sample procedure reduced the risk of common method bias, it is important for future research to include other sources of information, such as objective performance outcomes.

Based on the finding that different subsystems of HRM do send different types of signals towards employees, one can expect that these subsystems will have an influence on various performance outcomes. Whereas the strategic signaling bundle can be used to align the strategic goals of the organization with employee attitudes and behavior, we expect that this type of HR practices is first and foremost relevant for the accomplishment of strategic goals, and as a result the creation of added value. The benevolence oriented practices are less relevant for the accomplishment of strategic goals, rather they are focused on creating moral value (i.e. fairness and legitimacy). Thus, examining the extent to which different types of HRM practices lead to enhanced added and moral value is an interesting venue for future research.

Finally, there were some concerns with respect to the correlations between the three strategic climate types, as these were relatively high. Though these correlations are comparable with other studies on climate (e.g. Dawson et al., 2008; Schulte et al., 2009), it bears the risk of multicollinearity problems. Apart from the statistical difficulties caused by multicollinearity issues (i.e. not finding significant effects for the separate climates), the high correlations between the strategic climate dimensions suggest that the different climate dimensions might mutually influence and reinforce each other. In order to take this into account, we decided to compute an overall strategic climate index and examined the mediating role of this index. The basic premise underlying this method is that the effect of the overall climate will not be

equal to the sum of the independent climate types, if these climate types mutually reinforce each other (Schulte et al., 2009). Based on this idea, we suggest that future research further investigates the ways in which different climate types influence each other.

8.5.2 Conclusion

In conclusion, this study suggests that HRM can be used as an important signaling device sending messages from management to employees. More specifically, adopting both strategic signaling and benevolence signaling HRM practices constitutes a viable way for improving employee outcomes. The strategic signaling HR device can be used for creating strategic climate perceptions, in which employees perceive what strategic goals are relevant, and what kind of behaviors are expected, supported and rewarded. Once employees are aware of the strategic goals, the organization can further improve the alignment of strategic goals by making sure that employees know how to contribute to these goals and are able to do this. The benevolence signaling HR device is essential for sending the message that the organization cares about here employees, thereby enhancing positive employee outcomes, and in the end creating moral value.

Adopting both types of practices is therefore particularly relevant for hospitals that must maintain or improve their added value (e.g. improving customized care while responding to cost pressures) and, at the same time, improve their moral value in order to attract and retain highly qualified personnel. Implementing HRM systems that include both strategic and benevolence signaling devices may provide hospitals with a unique and sustainable competitive advantage by simultaneously optimizing both added value and moral value.

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8.7 Appendix

Table 8.10 Cross-level analysis organizational commitment

	Organizational commitment									
	Model 1		**Model 2a**		**Model2b**		**Model 2c**		**Model 2d**	
Level 2 control variables										
Hospital dummy 1	-.15*	(.07)	-.08	(.07)	-.05	(.08)	-.07	(.07)	-.07	(.07)
Hospital dummy 2	-.34**	(.11)	-.37***	(.10)	-.35**	(.10)	-.37***	(.10)	-.36***	(.10)
Hospital dummy 3	-.17*	(.09)	-.21*	(.08)	-.19*	(.08)	-.21*	(.08)	-.21	(.08)
Ward size	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables										
Age	.01***	(.00)	.01***	(.00)	.01***	(.00)	.01***	(.00)	.01***	(.00)
Educational level	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)	-.03*	(.01)
Level 2 predictors										
Strategic signaling bundle			.33***	(.09)	.28**	(.09)	.31**	(.09)	.30**	(.10)
Climate for quality					.16	(.11)				
Climate for safety							.05	(.09)		
Climate for innovation									.06	(.08)
Variance components										
Individual level	.56	(.03)	.56	(.03)	.56	(.03)	.56	(.03)		
Ward level	.03	(.01)	.01	(.01)	.01	(.01)	.01	(.01)		
Model fit (AIC)		2084.05		2073.67		2073.49		2075.28		2075.06

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.11 Cross-level analysis ward commitment

	Ward commitment									
	Model 1		**Model 2a**		**Model2b**		**Model 2c**		**Model 2d**	
Level 2 control variables										
Hospital dummy 1	-.14	(.07)	-.04	(.06)	.03	(.06)	-.01	(.06)	-.02	(.06)
Hospital dummy 2	-.01	(.11)	-.08	(.09)	-.05	(.08)	-.07	(.09)	-.06	(.08)
Hospital dummy 3	.03	(.09)	-.04	(.07)	.01	(.07)	-.03	(.07)	-.04	(.07)
Ward size	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	.00
Level 1 control variables										
Age	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Educational level	.01	(.01)	.00	(.00)	.01	(.01)	.01	(.01)	.01	(.01)
Level 2 predictors										
Strategic signaling bundle			.52***	(.08)	.44***	(.08)	.45***	(.08)	.44***	(.08)
Climate for quality					.34***	(.09)				
Climate for safety							.20**	(.07)		
Climate for innovation									.21**	(.07)
Variance components										
Individual level	.36	(.02)	.36	(.02)	.36	(.02)	.36	(.02)	.36	(.02)
Ward level	.05	(.01)	.02	(.01)	.01	(.01)	.01	(.01)	.01	(.01)
Model fit (AIC)		1748.63		1711.77		1699.90		1706.34		1704.99

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.12 Cross-level analysis occupational commitment

	Occupational commitment									
	Model 1		**Model 2a**		**Model2b**		**Model 2c**		**Model 2d**	
Level 2 control variables										
Hospital dummy 1	-.03	(.07)	.05	(.06)	.10	(.07)	.07	(.06)	.06	(.06)
Hospital dummy 2	.06	(.09)	.01	(.08)	.04	(.08)	.02	(.08)	.02	(.08)
Hospital dummy 3	.15	(.08)	.10	(.07)	.13	(.07)	.11	(.07)	.10	(.07)
Ward size	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables										
Age	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)	-.01**	(.00)
Educational level	.01	(.01)	.01	(.01)	.02	(.01)	.02	(.01)	.02	(.01)
Level 2 predictors										
Strategic signaling bundle			.39***	(.08)	.32***	(.08)	.34***	(.08)	.35***	(.08)
Climate for quality					.23*	(.09)				
Climate for safety							.12	(.07)		
Climate for innovation									.08	(.07)
Variance components										
Individual level	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)	.48	(.02)
Ward level	.02	(.01)	.00	(.00)	.00	(.01)	.00	(.00)	.00	(.00)
Model fit (AIC)		1947.97		1924.60		1920.13		1923.90		1925.22

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.13 Cross-level analysis job satisfaction

	Job satisfaction									
	Model 1		**Model 2a**		**Model2b**		**Model 2c**		**Model 2d**	
Level 2 control variables										
Hospital dummy 1	-.14	(.07)	.00	(.06)	.03	(.07)	.00	(.07)	.00	(.06)
Hospital dummy 2	-.09	(.11)	-.17	(.09)	-.15	(.09)	-.16	(.09)	-.16	(.09)
Hospital dummy 3	-.00	(.09)	-.07	(.07)	-.05	(.07)	-.07	(.07)	-.07	(.07)
Ward size	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables										
Age	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Educational level	-.01	(.01)	.00	(.01)	.00	(.01)	.00	(.01)	.00	(.01)
Level 2 predictors										
Strategic signaling bundle			.59***	(.08)	.54***	(.08)	.57***	(.08)	.57***	(.08)
Climate for quality					.15	(.09)				
Climate for safety							.05	(.08)		
Climate for innovation									.05	(.07)
Variance components										
Individual level	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)	.44	(.02)
Ward level	.04	(.01)	.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)
Model fit (AIC)		1889.42		1842.84		1842.46		1844.42		1844.44

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Table 8.14 Cross-level analysis intention to leave

	Intention to leave									
	Model 1		**Model 2a**		**Model2b**		**Model 2c**		**Model 2d**	
Level 2 control variables										
Hospital dummy 1	.14	(.09)	.06	(.09)	.02	(.09)	.06	(.09)	.06	(.09)
Hospital dummy 2	.26*	(.12)	.31**	(.11)	.29*	(.11)	.31**	(.11)	.32**	(.11)
Hospital dummy 3	-.02	(.10)	.03	(.09)	.01	(.10)	.03	(.09)	.03	(.09)
Ward size	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)	.00	(.00)
Level 1 control variables										
Age	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)	-.01***	(.00)
Educational level	.03*	(.02)	.03*	(.02)	.03*	(.02)	.03*	(.02)	.03*	(.02)
Level 2 predictors										
Strategic signaling bundle			-.38***	(.11)	-.33**	(.11)	-.39**	(.11)	-.42***	(.12)
Climate for quality					-.18	(.12)				
Climate for safety							.01	(.10)		
Climate for innovation									.07	(.10)
Variance components										
Individual level	.85	(.04)	.85	(.04)	.84	(.04)	.85	(.04)	.84	(.04)
Ward level	.02	(.02)	.01	(.01)	.01	(.01)	.01	(.01)	.01	(.01)
Model fit (AIC)	2430.49		2415.05		2414.93		2417.04		2416.56	

Notes: Unstandardized estimates are reported; standard errors are inside parentheses. *p <.05 ** p <.01 ***p <.001

Chapter 9: Conclusions & discussion

9.1 Introduction

The overall aim of this thesis was to provide insight in the relationship between HRM, strategic climate and performance in a hospital context. A contextually based approach was conducted, in order to understand what actually happens in the context of hospitals. In this final chapter, we start with a short description of our main research findings, followed by an extended discussion of important issues this thesis brought to the fore. Further, some limitations as well as possible research directions are given. Finally, theoretical and practical implications are provided.

9.2 Main research findings

In this thesis we addressed four research questions. Below the main findings related to these questions will be described.

Which types of strategic climate can be distinguished in hospitals?

To answer this question we combined both qualitative and quantitative methods (chapter 5). Based on interviews and document analyses we concluded that the strategic intentions of the four hospitals were quite similar, as they were focused on delivering high quality and safe care, being innovative and being efficient. Though the intentions were quite similar, it is important to note that each of the hospitals did emphasize different aspects. Analyses of employee surveys revealed that only three types of strategic climate could be distinguished across the four hospitals, i.e. climate for quality, safety and innovation. Only in two hospitals employees were able to distinguish a climate for efficiency.

To what extent does HRM contribute to different strategic climate types?

After answering the first question, we were able to test the relationship between HRM and three strategic climate types (chapter 6, 7 and 8). More precisely, we tested this relationship using both a systems and practice approach (chapter 6). The practice approach revealed that supervisor informing behavior was positively related to a climate for safety. The empirical evidence in this thesis, however, supports to a larger extent a systems approach. Employee perceptions of an HR system, including performance management, autonomy, communication, and supervisor informing behavior were positively related to a climate for quality, safety and innovation.

Based on this finding we decided to further explore the relevance of HR systems for creating strategic climate perceptions (chapter 8), arguing that we can distinguish between different types of HR bundles. As already described the first bundle did have a positive influence on the three strategic climate types, while the second bundle (including work-life balance, internal promotion opportunities, job design and job security) was only positively related to a climate for safety (see section 9.3.5 for a detailed discussion of these findings).

To what extent does strategic climate have an influence on performance?

Based on our empirical findings we can conclude that strategic climate is first and foremost relevant for the enhancement of ward commitment (chapter 6, 7 and 8). Besides, climate for quality was positively related to occupational commitment and negatively related to intention to leave.

How and to what extent does HRM contribute to performance in hospitals at different levels (individual and ward level) of the organization and to what extent does strategic climate have a mediating role in this relationship?

To answer this question, we conducted ward-level (chapter 6), and cross-level analyses (chapter 7- 8). To answer the first part of the question we tested the relationship between shared perceptions of HRM and employee outcomes on the other hand. The results revealed that if employees perceive more HRM at the ward they work for, they feel more committed to the organization, the ward and their occupation. Besides employees were more satisfied and less intended to leave the organization if they perceived more HRM at the ward level.

In order to test the mediating role of strategic climate we included the different climate types (chapter 6 and 8) as well as a composite climate score (representing overall strategic climate) (chapter 7 and 8). Overall strategic climate fully mediated the relationship between HRM and ward commitment (chapter 7 and 8). Climate for quality partially mediated the relationship between HRM and ward commitment (chapter 6-8).

9.3 Discussion

Now we have answered our main research questions, we can continue with an in-depth discussion of our findings. During the research process, it turned out that there are in fact seven key issues which are characteristic for this study. Below, we discuss in detail these seven key issues.

9.3.1 Relevance contextually based / analytical approach: every context tells a story

In order to really understand how HRM might add value in a specific context, researchers should try to find out what happens in practice. Too often, research in the HRM field is conducted without even paying a visit to the organization under investigation. This is a lost opportunity, as much information about how things work in practice can be gathered by means of visiting the organization. By actually going to an organization one can see and experience what's going on in a specific context, and talk with relevant stakeholders like managers, employees, directors and / or works council representatives, thereby creating sense and understanding.

In this thesis we adopted a contextually based approach (see section 9.5 for a critical reflection on the research design), which does have some important theoretical implications.

First, understanding why and how HRM works in a specific context asks for combining different theoretical perspectives. In this thesis we started with the contextually based human resource theory by Paauwe (2004). This framework, which incorporates elements of different theories like the contingency and configurational mode, new institutionalism, the Resource Based View and the Harvard model, was used to link the internal and external context to relevant HRM issues in the Dutch hospital sector. Next, we focused on the cause and effect chain through which HRM influences performance. More specifically we focused on the core of this chain, i.e. employee perceptions of HRM, strategic climate and employee outcomes. In order to do this we combined the strategic HRM literature with climate literature (see section 9.3.2 for more details).

A second key implication is the need to step back from a universalistic approach on HRM, which assumes that particular HR practices or bundles of practices are

universally applicable, as suggested by for example Pfeffer (1998). Given that the internal and external context always play a certain role in the shaping of HRM, it is unlikely to find universally applicable best practices. Hence, the contextually based approach asks for a 'best fit' approach, which assumes that HRM can only be successful in case of a fit between HRM and the internal and external context (e.g. Arthur, 1994; Schuler & Jackson, 1987). Instead of searching for 'best practices', one can search for 'best principles' when using a contextually based approach. Boxall and Purcell (2008) describe the difference between 'best practices' and 'general principles' by making a distinction between the surface level of HR policies and practices in a firm and an underpinning level of processes and principles. They argue that, at the surface level, it is hardly unlikely that one can come up with a list of 'best practices' which is universally applicable, as context always matters. However, at the underpinning layer, one can search for generic HR processes and 'best principles' which, if applied, will bring about more effective HRM. Yet, the success of applying these 'best principles' highly depends on the alignment with the organization's context (Boselie, 2010).

For example, at the surface level the design and implementation of selection policies differ per context, while at the underpinning layer the selection policies are based on the principle that the selection process is relevant for the effective selection of people who fit in the organization (Becker & Gerhart, 1996). Focusing on 'best principles' adds to the HRM field as it takes into account the relevance of context while in the meantime one can try to build a general theory based on relevant HRM principles. This is worthwhile, as the debate between the universalistic approach and the contingency approach is still ongoing, even after more than 20 years of research (Guest, 2011). In this thesis we found empirical support for the following principles (which will be discussed in more detail in the remainder of this chapter):

- HRM can be used as a signal carrying device, sending messages about the relevance of strategic goals towards employees
- HRM works through the impact on employees: influencing their strategic climate perceptions and employee outcomes

Summarizing, adopting a contextually based approach implies more than just including control variables in statistical models or adjusting the research design to a specific

context. In order to understand the complex reality and explain what's going on, different theoretical perspectives and research traditions need to be blended.

9.3.2 Combining HRM and OB research: best of both worlds

Traditionally, strategic HRM research (organizational level or 'macro research') and research incorporating the employee perspective (individual level or 'micro research') belonged to different worlds. The strategic HRM field has mainly focused on 'macro' studies, whereas 'micro' research has received a lot of attention in the field of organizational behavior (OB) and work and organizational psychology. In line with the plea made by different authors (e.g. Guest, 2002; Ostroff & Bowen, 2000; Wright & Boswell, 2002) and corresponding to recent developments in the HRM field (Guest, 2011), we tried to fill the gap between the strategic oriented 'macro' HRM approach and the 'micro' OB perspective. Together, these complementary perspectives were used to describe the cause and effect chain through which HRM does have an influence on performance.

First, we combined the strategic HRM literature and climate literature. In the strategic HRM literature it is assumed that HRM leads to better performance, if there is a fit between the HR strategy / policy and the strategy of the organization (e.g. Baron & Kreps, 1999; Beer, Spector, Lawrence, Quinn-Mills, & Walton, 1984). Though this strategic fit is an important first step for enhancing superior performance, the SHRM approach has largely ignored the fact that strategic success of organizations can only be achieved if the contributions made by employees are in line with the strategic goals of the organization. This implies that for HRM to have an effect on performance, it should have an impact on employee attitudes and behavior (Boxall & Purcell, 2008). An important precondition for the alignment between the goals of an organization and employee behaviors is the creation of goal awareness among employees. In this thesis we were able to show that employees were aware about the relevance of most of the strategic goals (reflected by strategic climate perceptions). Moreover, the finding that HRM was positively related to strategic climate perceptions underlines the relevance of strategic fit between HRM and the goals of the organization. In other words, HRM

can only create the intended strategic climate, if it is largely driven by the strategic focus of the organization.

Second, we focused on employee perceptions of their daily work environment (i.e. HRM and climate perceptions) and the influence of these perceptions on employee outcomes, using a ward level and cross-level approach. We thereby step back from the organizational perspective, which assumes that there is hardly any variation inside organizations with respect to HRM. The results in this thesis showed that there were significant differences between wards with respect to HRM perceptions and strategic climate perceptions. In other words, employee perceptions of the intended strategic goals and HRM differed per ward. This finding supports the idea by Nishii and Wright (2008) among others, that comparing work units within one and the same large organization is a good research strategy for HR researchers to gain a better insight in the linkage between HRM and performance (see for a more elaborate discussion section 9.3.7.)

9.3.3 Strategic climate: a multifaceted concept

Research focused on work climate tends to use either a global or general organizational climate construct or a facet specific climate construct. Given the difficulties concerning the predictive power of global climate constructs, we focused in this thesis on the concept of facet specific climates. To be precise, we added to the climate literature by incorporating a strategic focus through linking the concept of facet specific climate to the goals of the participating hospitals. The main difference with earlier studies using a facet specific approach is that the notion of strategic climate used in this thesis explicitly recognizes that organizations may have multiple strategic priorities and thus multiple strategic climates might exist within these organizations. Whereas previous studies were interested in the antecedents and effects of one facet specific climate, we focused on multiple facets.

As we were interested in what really happens in practice, the choice which strategic climate types to measure in our survey was based on the strategic focus of the hospitals (chapter 5). Based on a qualitative study, we expected that we could distinguish four strategic climate dimensions, i.e. climate for quality, safety, innovation

and efficiency. The results of our survey showed that three of the four climate dimensions could be distinguished, thereby highlighting the relevance of incorporating multiple facet specific climates in the same study. Climate for efficiency could only be distinguished in two hospitals (B and D). Not finding a climate for efficiency does not necessarily mean that efficiency is not important for the hospital, nor does it imply that employees do not work in an efficient manner. It only indicates that employees do not perceive or recognize that efficiency is relevant. A possible explanation for not finding a climate for efficiency in hospital A, can be found in the fact that the strategic HRM policy, contrary to the mission of the hospital, did not mention the goal of being efficient. This may have resulted in not having any HR practices focused on efficiency implemented in the different wards. Though the intended HR policy in hospital C mentioned that one of the goals of HRM was efficiency, this does not necessarily mean that the HR practices focused on efficiency were actually implemented. Thus, in general, this indicates that not finding a climate for efficiency might be due to the fact: a) that the intended hospital strategy might not have been translated into the HR policy; b) that the HR practices focused on efficiency might not have been implemented.

Based on the qualitative study we expected that the scores on the different climate types would differ across hospitals, as they emphasized different priorities in their strategic (HR) policy. Much to our surprise we found the same pattern for the mean climate scores across and within the four hospitals. That is employees were most positive about the climate for quality, followed by climate for safety and innovation. This finding suggests that there might exist a strategic climate configuration for the Dutch hospital sector, as the pattern of high and low climate scores was the same across the four hospitals. The concept of climate configurations is based on the premise that multiple climate dimensions might interact with each other such that the overall climate is not equal to the sum of its independent dimensions (this is similar to the configurational approach in HRM) (Schulte, Ostroff, & Kinicki, 2006). In other words, this suggests that much could be gained by simultaneously examining multiple climate types and the way in which these different climate types might influence each other.

For example, in a hospital context, safety is a relevant precondition for quality of care, suggesting that perceptions of climate for safety are likely to influence perceptions of climate for quality. In other contexts (e.g. chemistry), however, the two types of climate may be quite separate. In this thesis we did not use a configurational approach for strategic climate, as there were no advanced theories available for predicting what types of climate configurations would emerge from the data (Schulte et al., 2006). Moreover, at the start of this research project we did not know what the strategic goals of the hospitals were, and therefore we could not specify beforehand which strategic climate dimensions could be distinguished. However, we think that testing whether climate configurations exist is an interesting avenue for future research.

9.3.4 HR Practices, HR systems or HR system strength

One of the major, and still continuing, debates in the HRM literature is whether one should use a practice approach or a systems approach when measuring the added value of HRM. Whereas the practice approach assumes that there is no explicit or discernible link between different HR practices, the systems approach is rather complex by implying that the effectiveness of any practice depends on the other practices in place. In this thesis we tested both a practice and systems approach (chapter 6), revealing that the empirical evidence was more in favor of a systems approach. Nevertheless, using a practice approach enabled us to see which practices in the system were most relevant for creating strategic climate perceptions.

The finding that the system (including performance management, information sharing, supervisor informing behavior and autonomy) is more relevant for the creation of strategic climate perceptions, suggests that the four practices in the system are mutually reinforcing. Important to note is that performance management, information sharing and supervisor informing behavior can mutually reinforce each other by sending a consistent message about the strategic goals of the organization. Autonomy seems on the first hand a stranger in our midst. However, employees are more likely to create positive strategic climate perceptions, if they do have the feeling that they have a choice how to accomplish the strategic goals in their daily work, rather than being forced to do so. This is especially relevant in a hospital context, where a lot of

professionals work, who highly value autonomy. So, performance management, information sharing and supervisor informing behavior can be used for sending a consistent message about the relevance of strategic goals, thereby providing the right direction where employees should head for. Autonomy provides professionals with the necessary leeway to decide how to accomplish these goals in their daily work, thereby enhancing the feeling of control and positive feelings and believes about these goals, which is reflected in positive strategic climate perceptions.

Bowen and Ostroff (2004), among others, also argued that it is the HR system, rather than separate practices that will lead to the emergence of shared climate perceptions. They go even one step further by suggesting that a 'strong' HR system is necessary for the creation of shared climate perceptions. If employees perceive the HR system as being high in distinctiveness, consistency and consensus, the system will be perceived as a 'strong' HR system.

Notwithstanding the fact that the concept of HR systems strength has received growing attention in empirical studies (see for example work by Delmotte, 2008; Guest & Conway, 2011; Li, Frenkel, & Sanders, 2011), we decided not to focus on strength of the HR system. The main argument for not focusing on HR systems strength is that it is mainly based on the process through which the HR system is designed and administered, thereby ignoring the question which set of practices can be used for sending strategic signals. In other words, there is no attention paid to the content of the HR system. Though we agree with the idea that HR systems will only have an effect if they are properly implemented, we argue that one first needs to understand what kind of practices can be used for sending strategic signals, before one can focus on the implementation process itself. This is not only of theoretical relevance, but is also a relevant issue for managers and direct supervisors wishing to put the most beneficial HR practices into effect. Hence, we focused on the content of HRM. Important to note is that we did take into account two important characteristics of systems strength as suggested by Bowen and Ostroff. First, we measured employee perceptions of HRM thereby implicitly testing the assumption whether HR practices are visible in the organization. Moreover, our result that a system of HR practices is more relevant for the creation of strategic climate perceptions, than each practice separately, underlines

the relevance of internal alignment or consistency among the HR practices, i.e. the second characteristic of a strong HR system. Notwithstanding the fact that we implicitly took into account some characteristics of systems strength in this thesis, we suggest that researchers and practitioners first need to sort out what kind of practices can be used for sending strategic signals, before one can examine whether these practices make up a strong system or not. Simply ignoring the content of HR systems, as is done by Bowen and Ostroff, does not contribute to a better understanding of the relationship between HRM and strategic climate.

9.3.5 HRM as signal carrying device: different subsystems – different messages?

In the previous section we concluded that a system of HR practices is more relevant for the creation of strategic climate and employee outcomes than the influence of separate practices. This is in line with the current point of view in the HRM field, as there is yet widespread acceptance of the claim that one should treat HRM practices as being part of a holistic system (Chadwick, 2010). So far, different efforts have attempted to empirically derive which practices should fit with each other in a system (e.g. control and commitment oriented systems). However, like others we note that there are some serious difficulties with these holistic systems. First, just adding up a lot of practices is problematic, as it provides no insight which particular combinations of practices might have a clear impact (Guest, Conway, & Dewe, 2004). Moreover, adding up practices in a large and all encompassing system ignores the idea that different practices might have different effects, or work through different pathways.

In this thesis we argued that some HR practices can be used for sending strategic signals, while other HR practices do not send strategic signals (chapter 8). The first set of practices we distinguished included autonomy, performance management, information sharing and supervisor informing behavior. This set of practices was clearly linked to the different types of strategic climate (chapter 6-8), suggesting that these practices can be seen as a communication device providing employees information about the strategic goals of the organization.

The second set of practices included work-life balance arrangements, job security, internal promotion opportunities and job design. We argued, based on theoretical

considerations, that this second set of practices is not relevant for the creation of strategic climate perceptions, as these practices do not send strategic signals. Rather, we argued that this set of practices is first and foremost relevant for sending signals that the organization is a caring entity, thereby positively influencing employee outcomes. The findings in chapter 8 showed that this set of practices was only weakly related to a climate for safety.

Overall, the finding that the two different sets of practices do have a different influence on strategic climate perceptions is a first indication that the two sets of practices send different types of signals, i.e. strategic signals (i.e. signals about the strategic goals) and benevolence signals (i.e. signals about the organization as caring entity).

We also tested the (in)direct relationship of both sets of practices with employee outcomes, showing that both sets were relevant for the enhancement of employee attitudes and behavior. This finding might be seen as a refutation of the idea that it is interesting to focus on different subsystems of HRM, as one can argue that different subsystems should lead to different outcomes. Not finding any difference in outcomes might be due to the fact that we mainly focused on general employee outcomes like OCB, intention to leave, satisfaction and different foci of commitment (see also next section). Though these global employee outcomes are relevant proximal indicators of the added value of HRM in general (e.g. Kehoe & Wright, forthcoming; Paauwe & Boselie, 2005), they do not provide evidence that employees show strategic oriented behaviors, nor does it provide us with information about the accomplishment of strategic goals. Hence, in order to test whether a strategic signaling HR bundle instead of a benevolence oriented HR bundle would enhance strategic oriented behavior and strategic goal alignment, we should have measured this type of behavior (e.g. actual deliverance of quality of care, or innovative behavior), or link the subsystems with objective performance outcomes which are equivalent to the strategic goals of the organization (e.g. safety, efficiency).

Summarizing, this thesis provides a first indication that it is worthwhile focusing on different subsystems of HRM, as different sets can send different signals towards

employees. More research is needed to test whether the different subsystems lead to different performance outcomes.

9.3.6 Enhancing employee outcomes

With the introduction of more sophisticated models in strategic HRM research (e.g. Nishii & Wright, 2008) growing attention is paid to the enhancement of employee attitudes and behaviors. The underlying premise in these sophisticated models is that the effect of HRM on organizational performance mainly works through employees.

In light of our contextually based approach we focused on employee outcomes which deemed to be relevant in a hospital context, i.e. satisfaction, intention to leave, organizational citizenship behavior (OCB) and commitment. More specifically, we explicitly made a distinction between three different foci of commitment, that is organizational commitment, ward commitment and occupational commitment. The distinction in these three foci of commitment was highly relevant in our hospital context, as it turned out that employees in hospitals are more committed to the ward they work for and their occupation than to the hospital they work for.

An important point for discussion is the usefulness of OCB in a hospital context, as there was hardly any variance in OCB. The results in chapter 8 suggest that employees working in hospitals show a high level of OCB, irrespective of the organization or ward they work for. A possible explanation for this result can be found in the idea that OCB is an almost 'taken for granted' behavior in health care. Engaging in OCB is one avenue by which individuals can express an interest in and concern for others. Given that prosocial values are deeply ingrained in the nature of health care, health care professionals are more likely to show OCB. Cohen and Kol (2004) indeed showed that professionalism in nursing was positively related to OCB. In other words, OCB can be seen as a form of behavior that articulates professional values and norms. Another explanation for the high level of OCB in our research context is the presence of strong social cues about appropriate behavior. OCB is often implicitly encouraged via organizational or professional norms, general statements about good employee behavior, or group pressure (Bolino, Turnley, Gilstrap, & Suazo, 2010). As employees in health care are expected to engage in helping behavior (e.g. towards patients and their

families), they are more likely to feel pressure to show OCB. Hence, the high scores on OCB in this study might be due to the fact that OCB is not really discretionary in this specific context, but rather it can be seen as relevant behavior that is required in hospitals.

Now we have focused on the type and level of employee outcomes, the question remains how employee outcomes can be enhanced. As already described in the previous section, employee perceptions of the strategic and benevolence signaling bundle were positively related to satisfaction and the three types of commitment and negatively related to intention to leave. More specifically, we focused on shared perceptions at the ward level, thereby acknowledging the relevance of the daily work context for the enhancement of individual attitudes and behaviors (see also section 9.3.7).

Next to the direct influence of HRM perceptions on employee outcomes, there was also an indirect influence of HRM via strategic climate perceptions on ward commitment (chapter 6 - 8). From a strategic point of view, this is a relevant finding, as employees who are committed are more likely to behave and act in line with the (strategic) goals (Cohen, 2003). More research is needed whether ward commitment results in strategic oriented behavior among employees. Strategic climate did have no mediating effect on the relationship between HRM and the other employee outcomes.

In sum, the empirical support in this thesis reflects the relevance of shared HRM perceptions for the enhancement of employee outcomes.

9.3.7 Employee perceptions: disentangling individual and group level processes

In this thesis we focused on the process through which employee perceptions of HRM and strategic climate influences employee outcomes. Specifying the correct level of analysis at which these processes operate is highly relevant, both from a methodological and theoretical perspective. So far, the majority of studies on employee perceptions is either focused on the individual level or the aggregated level of analysis (e.g. ward, job group, business unit or organizational level), thereby ignoring the possibility of multi-level effects of work environment perceptions on

individual responses (Rousseau, 1985). In this thesis we focused on ward-level and cross-level processes.

The question what constitutes a meaningful level of analysis, depends on the situation in the research context. In our hospital context, the most meaningful subunit was the ward level organized around a specific specialism or professional service (e.g. cardiology, geriatrics). In essence, these wards constituted what might be thought of as semi-autonomous units within the larger hospital structure, with direct supervisors responsible for the day-to-day management of the ward and for the implementation of HR practices at local level. In other words, given that the implementation of HR practices is devolved to the ward level, one can expect variation in enacted and thus perceived HRM at this level. Moreover, from a social interaction perspective (e.g. Salancik & Pfeffer, 1978), employee perceptions are most likely to be influenced by their daily work context, e.g. the colleagues whom they work with on a day-to-day base. More generally, it is the ward, rather than the hospital as a whole, that constitutes the primary point of reference and attachment for employees.

The results of this thesis extend both the organizational behavior (OB) and strategic HRM literature, by showing that employee perceptions of the work environment influence employee outcomes in two ways: first as an individual or personal factor (as assumed in the micro OB literature) and second as a situational factor (as assumed in the SHRM literature). Conceptualizing employee perceptions of HRM and strategic climate at the individual level implies that the influence of HRM and strategic climate is simply a process that occurs within a person's mind (Choi, 2007). Shared perceptions of the work context can be seen as a situational factor or collective phenomenon, which captures properties that cannot be captured by individual perceptions or interpretations (Weick & Roberts, 1993).

The findings in chapter 7 imply that "shared perceptions of the same workplace characteristics" have distinct effects on individual outcomes beyond individual perceptions and interpretations. In other words, employees do not solely base their reactions on their own perceptions; they are also influenced by the perceptions of their colleagues with whom they interact on a day-to-day basis and who share common experiences (e.g. experience same enacted HRM). These shared experiences

and social interactions among employees result in shared perceptions, which can be seen as a characteristic of the situation or the context.

We also demonstrated that HRM and climate perceptions varied within the hospitals (chapter 6-8), thereby underlining the relevance of focusing on variance within organizations, rather than focusing on variance across organizations. Though we did not explicitly measure the antecedents of the variance across wards, during sessions in which we presented our data to the hospitals, different suggestions were given why this variance exists. One of the reasons for variance across wards is the behavior of direct supervisors. First, direct supervisors decide whether to implement certain HR practices or not. Hence, this is an indication that the difference in HR perceptions across wards is, at least partly, a matter of whether the practices are actually enacted at the ward. Second, the way direct supervisors implement these practices also might lead to variance across wards. Based on these suggestions, and in line with different scholars (Bos-Nehles, 2010; e.g. Den Hartog, Boselie, & Paauwe, 2004; Hutchinson & Purcell, 2010; Purcell & Hutchinson, 2007), we suggest that future research should focus on the role of direct supervisors and line management in the implementation process of HRM. A final reason for variance across wards that was mentioned, are constraints in resources, like a lack of money or time for implementing HR practices at the ward level.

9.4 Limitations

Despite the strengths of this thesis, the results of this thesis should be interpreted in light of some limitations. The first limitation concerns the use of single source data for testing the linkage between HRM, climate and employee outcomes. This type of data collection may be prone to common method bias. However, since this thesis was focused on employees' perceptions of their work environment (i.e. perceptions of HRM and strategic climate) and their work-related outcomes, it was not possible to collect data about employee perceptions of their work environment in alternative ways. Rather, we ran several additional analyses in order to minimize the risk of common method bias. First, we used a split sample procedure (chapter 6 and chapter 8). Conducting this split-sample analysis resulted in robust results compared with the results based on the sample as a whole. In our two-wave panel survey (chapter 7) we

first included strategic climate at time 1 as a possible mediator between HRM and ward commitment, thereby reducing the risk of common method bias with respect to strategic climate and ward commitment. In addition to that, we included strategic climate at time 2 as a mediator in order to account for common method bias between the HRM perceptions and strategic climate perceptions. Again, the results obtained with this procedure were robust in comparison with the results using strategic climate at time 1 as a mediator. Hence, by means of running these additional analyses we were able to minimize the risk of common method bias in this thesis.

A second limitation is the lack of objective performance indicators. In this thesis we intended to collect objective performance indicators at the ward level of analysis. More specifically, we tried to collect performance indicators in order to measure quality of care, safety, innovation and efficiency at the ward level. These performance indicators were chosen as they reflect the strategic goals of the participating hospitals. Collecting these objective performance indicators proved to be difficult for a couple of reasons. First, notwithstanding the fact that there is public access to a number of performance indicators which can be compared across hospitals, there are hardly any performance indicators available at the ward level of analysis. Moreover, if objective indicators were available at the ward level, they were not comparable across wards due to the fact that each ward does have its own definition and criteria for performance. For example, quality and safety at a geriatric ward differs from quality and safety at a pediatric ward. Second, we tried to collect subjective performance indicators, which is a good alternative in case that objective performance indicators are unavailable or cannot be used. In order to collect subjective information about quality, safety, efficiency and innovation we have asked unit managers (responsible for multiple wards) to rank the wards on these four performance dimensions. However unit managers indicated that they were not able to rank the wards in a reliable way. A majority of the unit managers indicated that ranking those wards would be based on comparing apples and oranges. Hence, different attempts have been made to collect information about the quality, safety, innovation and efficiency of the participating wards. Although there is a lot of information that can be accessed at the hospital level, this type of information is hardly available at or comparable across wards.

Third, our actual research design differed from our ideal research design, which has been described in detail in chapter 4. Important to note here is that we were not able to include "extreme" cases in our study, i.e. we were not able to select high and low performing hospitals. This was partly due to lack of information about hospital performance (e.g. lack of comparable indicators for the quality of care delivered, safety, and efficiency), and partly due to the willingness of hospitals to invest a lot of time and energy in our research project. However, there was some variation in hospital performance in our final sample, but this variation was not as extreme as we were hoping for.

Finally, the last weakness stems from the period of data collection. Most of the studies presented in this thesis are based on a cross-sectional design (chapter 5, 6 and 8). This design does not allow testing causal relationships. Fortunately, we were able to conduct a two-wave panel study in one hospital, with a time lag of one year (chapter 7). However, the time lag of this study might have been too short to really capture the causal effects of HRM. Although studies on the relationship between HRM and outcomes reveal that one year seems to be the typical time lag (e.g. Guest, Michie, Conway, & Sheehan, 2003), it is probable that a longer time period is more appropriate when examining the causal effects of HRM. The current literature on HRM and performance does not account for the length of time which is necessary before HRM will have an effect. Wright and Haggerty (2005) even suggest that it is not unreasonable to expect that a 3 to 4 year time lag is needed before a relationship between HRM and outcomes would be observed.

9.5 Research design: a critical reflection

The research design in this thesis can best be described as a contextually based approach, or as Boxall, Purcell and Wright (2007) name it an analytical approach. In line with the ideas by Paauwe, (2004) Boxall et al. (2007) and Hesketh and Fleetwood (2006) we argue that in order to understand how HRM works in a specific context, one needs to know what is going on in practice. This is not just a matter of controlling for external factors (e.g. organization size or unionization level) in your statistical analysis as is often done in SHRM research. Rather, we make a plea for making a "voyage of discovery" in the organizations under investigation. This voyage starts at the very

beginning of a research project and can be seen as an ongoing and continuous process during, and even after the data collection. Our voyage started with a sector level analysis of the Dutch hospital sector (chapter 2), in order to learn more about the external and internal pressures hospitals are confronted with these days. After this first exploration of the research setting, we selected four hospitals to participate in our study. Including this small number of hospitals was a well-considered choice, and provided us with some major advantages. First, it allowed us to spend a lot of time in each hospital (which is a necessary precondition if you want to find out what happens in practice). Second, including multiple cases allowed us to compare our findings within *and* across hospitals. In particular, the comparison across hospitals helped us to understand how these hospitals were impacted by local conditions. Taking these conditions into account is relevant, as hospitals interact with their environments. The comparison within hospitals allowed us to take into account the variability inside the hospitals. Third, including a small number of cases made it possible to use a tailor-made data collection procedure, resulting in a higher response rate.

From the start of our research project, we collaborated in close conjunction with the hospitals. Notwithstanding the fact that this was sometimes a time consuming process, the collaboration helped to bridge the gap between research and practice in a number of ways. First, we were able to study a topic which was not only relevant from a scientific point of view, but also from a practical point of view. Second, we were able to adapt our research design (if necessary) to the specific hospital context. Though we used the same questionnaire in each hospital, the way these were distributed was adapted according to the hospitals needs. Finally, we were able to translate our research results into information which was useful for the participating hospitals. In each hospital we presented the main findings of our study at different levels (e.g. board of directors, HR advisors, unit and ward managers and the works council), and provided short research reports including practical implications. Furthermore, in two hospitals workshops were conducted (on request) in which attention was paid to the question how managers and direct supervisors can make use of the results presented in the research reports. The translation of results was not only beneficial for the

hospitals, but also for our research project as we were able to get feedback on the reasons why certain results were found.

Although this contextually based design contributed to a better understanding of the research context, this design has a number of disadvantages. As described above, conducting contextually based research is a very time consuming process, and it takes more than a year to understand what is going on in a specific context. Moreover, gaining access to organizations was difficult. Though hospitals did agree that our approach would result in valuable information, it was not feasible for some hospitals to participate due to a lack of time and resources. Furthermore, conducting contextually based research runs the risk of getting involved in political processes, as different stakeholders are concerned with the research motives and outcomes. Some stakeholders, for example, did not want to participate in the study as they were afraid that the research results would be used for other reasons than further improving HRM. Furthermore, in some situations different stakeholders tried to use our research for internal organizational politics. Researchers should be aware of these political issues, and safeguard their independent position as much as possible.

All in all, adopting a contextually based design was beneficial both for research and practice.

9.6 Future challenges

This thesis is just as much an endpoint as it is a starting point for further research. Below we will describe some challenges for future research.

9.6.1 The causal HR chain: further exploration

In this thesis, the main focus was on the relationship between HRM perceptions, strategic climate and employee outcomes. Future research is needed to further explore the causal chain through which HRM influences performance.

First, more research is needed to examine the relationship between intended, actual and perceived HRM. The results in this thesis showed that employee perceptions differed significantly across wards (as described in 9.3.7), which indicates that there is a difference between intended and perceived HRM. This might be caused by differences in implementation of the HR policy and practices, i.e. differences in actual

HRM. Though direct supervisors and line managers likely implement HRM differently across wards, we know little as to what might actually explain the differences in implementation as well as the variability in climate perceptions and employee outcomes that result from these differences. The question remains why some supervisors implement HRM in the intended way and others not. Future research should try to gain more insight in the implementation process, and the role of direct supervisors in this process. Recent work by Townsend, Wilkinson and Allen (2011) and Bos-Nehles (2010) can be seen as a good starting point for further examining the role of line managers in enacting HRM.

Secondly, as previously noted in the limitations section, we were not able to collect objective performance indicators at the ward level of analysis, nor were we able to ask ward managers to rank different wards based on their performance. This is a missed opportunity, as we were not able to test whether HRM and strategic climate contribute to the accomplishment of strategic goals at the ward level. Therefore, a fruitful avenue for future research would be the development of better constructs and measures for performance at the ward level of analysis. Based on our own experience, we realize that collecting objective performance indicators at the ward level of analysis is very difficult. We therefore suggest developing a measurement instrument for collecting subjective performance indicators, which is a good alternative in case that objective performance indicators are unavailable or cannot be used. Previous research has shown that subjective performance indicators are significantly correlated with objective performance indicators (Bae & Lawler, 2000; Powell, 1992; Wall et al., 2004). Wall et al. (2004) compared the use of subjective and objective measures in three different samples and showed that measures of subjective performance were positively associated with corresponding objective measures (convergent validity). The association between these subjective and objective performance indicators were even stronger than those between measures of differing aspects of performance using the same method (discriminant validity) and the relationship between a range of independent variables and subjective measures were equal to the relationships found when objective measures were used (construct validity). For example, quality of care can be measured using patient satisfaction surveys. Next to this, more attention can be

paid to measurement of employee attitudes and role behaviors that are required for the successful implementation of different strategic goals.

In this thesis we focused on strategic climate as a vital link in the causal HR chain. The finding that strategic climate has only a partial mediating role in the relationship between HRM perceptions and ward commitment, implies that there are alternative mechanisms through which HRM influences employee outcomes. Different theoretical models describe alternative causal mechanism through which HRM contributes to performance (see for an overview Peccei, Van de Voorde, & Van Veldhoven, forthcoming). A next step in order to understand the HR causal chain is to include multiple causal mechanisms (e.g. strategic climate, employee knowledge skills and abilities and perceived organization support) in theoretical models, and to empirically test these models. Combining multiple pathways seems to be a fruitful approach as HRM can have an influence on desired outcomes through different mechanisms.

A final suggestion for future research related to this issue is considering the role of time. One of the requirements for testing a causal relationship is temporal precedence, i.e. the proposed cause must exist in time prior to the proposed outcome (see for a detailed description of the other prerequisites Wright, Gardner, Moynihan, & Allen, 2005). In this dissertation we assumed that employee perceptions of HRM will have an influence on employee outcomes via strategic climate perceptions. Though this suggests that HRM precedes strategic climate perceptions and employee outcomes in time, it does not specify how long it may take for HRM to have an influence on strategic climate and employee outcomes. More theory is needed on the most appropriate time lag. Furthermore, future research focusing on mediating mechanisms should incorporate more than two points of data collection.

9.6.2 The role of strategic climate: climate engineers and climate configurations

A second area for future research concerns the concept of strategic climate. In this thesis we were able to show that climate can be directly linked to the strategic goals of hospitals, and that multiple strategic climates exist within these hospitals. It is reasonable to expect that these different climate types might influence each other. For example, Zohar and Luria (2005) suggest that a climate for safety might be weakened

by a climate for efficiency. We argue that a climate for quality might be strengthened by a climate for safety and innovation. Safety can be seen as a relevant precondition for quality, and a climate for innovation can support the implementation of new ideas that help to improve safety and quality of care. Hence, a recommendation for future research is to examine possible interactions among the different climate types. This is in line with the concept of climate configurations (Schulte et al., 2006; Schulte, Ostroff, Shmulyian, & Kinicki, 2009) which indicates that multiple climate dimensions might interact with each other such that the overall climate is not equal to the sum of its independent dimensions.

Another point for consideration in future research is the emergence of shared strategic climate perceptions. In this thesis we were able to show that shared perceptions of HRM do have an influence on shared strategic climate perceptions. Nonetheless, a relatively large part of the variance remained unexplained, suggesting that there are alternative antecedents of strategic climate. Next to different psychological processes (e.g. social information processes, social interaction and group cohesion), more manageable features are proposed in the literature as antecedents of shared climate perceptions. First, one can further explore the role of direct supervisors as they act as intermediaries or interpreters of signals as these signals are passed between upper managers and frontline employees (Townsend et al., 2011). In other words, they are in a key position to filter what signals reach employees and how they are delivered. For example, organizations can offer a safety training program to their employees, thereby (intending) to signal that safety is relevant. If line managers actively support participation in this training program, it is more likely that employees will receive signals that safety is relevant. Hence, direct supervisors can be seen as relevant "climate engineers" (Ostroff, Kinicki, & Tamkins, 2003).

Second, given that the core work force of healthcare employees consists of professionals, one can also focus on the role of professional networks in creating strategic climate perceptions. These professional networks create a shared sense of identity and common norms and values among their members (Golden, Dukerich, & Fabian, 2000), which are often deeply ingrained. In the Netherlands nurses and care providers can sign up in a quality register, which is provided by the professional

association V&VN (*Verpleegkundigen & Verzorgenden Nederland).* Professionals that are registered need to act upon the professional codes and the professional standards as provided by the V&VN. These codes and standards represent the duties and responsibilities of nurses, as well as core norms and values. Hence, employee perceptions of the relevance of quality and safety in a hospital setting might be influenced by these professional logics.

9.6.3 HR subsystems: creating added value and moral value?

The results in this thesis revealed that some HR practices can be more easily used for sending strategic signals than other HR practices. This finding emphasizes the differential nature of HR practices regarding their strategic signaling capability. Although different scholars (e.g. Kopelman, Brief, & Guzzo, 1990) has addressed that HR systems can be used for sending signals towards employees thereby creating climate perceptions, the idea that some practices can be more easily used for sending strategic signals than others is mostly neglected. From a theoretical point of view, this could entail that the notion of an overall HR system creating strategic climate perceptions is not valid. Rather than theorizing that an overall HR system can be used for sending strategic signals, we suggest that separate subsystems exist: (1) a strategic signaling bundle and (2) a benevolence signaling bundle. Hence, the first subsystem is more relevant for the creation of strategic climates, while the second subsystem is first and foremost relevant to signal that the organization is a caring entity.

The distinction between different subsystems of HRM is an area that deserves further research. More specifically, future research can further examine whether different subsystems of HRM lead to different performance outcomes. Although the results in this thesis showed that both subsystems did have an influence on employee outcomes, we argue that the two subsystems might have different performance outcomes at the ward and the organizational level. The strategic signaling bundle is likely to enhance strategic goal alignment. Different empirical studies have shown that a strategic 'climate for something', influences employee behaviors relating to that goal (see for an overview Kuenzi & Schminke, 2009). Given that organizations need to accomplish their strategic goals in order to safeguard the continuity of the firm, it is interesting to

further explore if the use of strategic signaling practices indeed enhances strategic goal alignment, and thus, creates more market value.

The benevolence signaling bundle is focused on sending signals that the organization is a caring entity. Sending this type of signals is not only relevant for supporting employees who currently work within an organization, it is likely that it also helps to create a better labor market reputation and position. In other words, benevolence signaling practices are likely to contribute to creating moral value. Hence, more research is needed to investigate whether the different subsystems do have an influence on the added value and moral value of organizations.

9.7 Recommendations for practice

Based on the findings in this thesis, we have some important recommendations for practice. It is important to note, that we do not have cut-and-dried solutions for all the HR-challenges hospitals are confronted with. However, we are able to provide an overview of the implications of our findings for hospitals and for different practitioners working in hospitals, like HR managers and advisors, the board of directors and direct supervisors.

An important first step for HRM to make a contribution to performance in hospitals is to create awareness among relevant stakeholders that a well-motivated, appropriate skilled and deployed workforce is crucial for the success of health system delivery (Buchan, 2004). We think that the hospitals participating in this study (increasingly) recognize that managing human resources is highly relevant, however, in practice this is still a difficult task. This might be due to the traditional administrative model of many HR departments in hospitals. Though this traditional role has shifted towards a more advising role, HR practitioners in hospitals still spend a lot of time and efforts on day-to-day operational problem solving, leaving little scope for the development and implementation of strategic HRM. The challenge for HRM in hospitals is to optimize their basic delivery processes, and focus more on the development and implementation of a 'future-proof' strategic HRM policy.

Another challenge for HR managers and policy makers is to get to know their context. If managers and policymakers want to (re)shape their HR policy, they need to be aware of their internal and external context, as many factors inside and outside the hospitals

do have an impact upon the shaping, structuring, and implementation of HRM. We therefore recommend to conduct a force field analysis on a regular base. In this thesis we conducted a force field analysis for the Dutch hospital sector, using the CBHRT framework by Paauwe (2004). We think that this framework provides a comprehensive checklist which enables practitioners to conduct a force field analysis for their own organization, resulting in a systematic overview of the present situation (i.e. forces and actors having an impact on HRM), including upcoming challenges and issues. This overview can be used for further discussing the kind of HRM policies and practices that might be possible given the degree of available leeway for the dominant coalition, and the kind of HRM policies and practices which are necessary to deal with the challenges in the hospital context. In other words, we think that a force-field analysis can be used as a stepping stone for creating a better fit between the (changing) context and the management of employees.

Next to creating fit between the changing organizational context, HR managers and the Board of directors are also challenged to create a fit between the strategic focus of the hospitals and the HR policy. If there is a fit between the strategy of the hospital and the HR policy and practices, HRM can be used for sending strategic signals towards employees, thereby creating the intended strategic climate. It is important to note that this implies more than creating a strategic fit on paper. Though this is an essential first step, employees will only perceive which goals are relevant if the HR policy is actually enacted across the organization. The findings in this thesis showed that employee perceptions of strategic climate and HRM differed significantly per ward, which can be seen as an indication that the actual implementation of the HR policy and practices differed per ward. We suggest that more attention should be paid to the implementation of HRM at the ward level. In hospitals, direct supervisors are responsible for the actual enactment of HRM. Many of these supervisors are former nurses, and as a result some of these supervisors lack the necessary knowledge and skills to implement the HR practices. Moreover, direct supervisors in hospitals indicated that they are confronted with a lot of responsibilities and tasks, resulting in a lack of time and resources to pay attention to HR issues. Hence, extra efforts may thus be needed to ensure that direct supervisors are able and willing to implement the HR

policies and practices. This is not just a responsibility of the direct supervisors. Rather the HR department plays an important part during the implementation process, as they are responsible for supporting the direct supervisors and ensuring that direct supervisors do have the necessary tools, competences and skills for implementing HRM. We suggest that attention should be paid to possible constraining factors during the implementation process, in order to reduce these constraints as much as possible. Moreover, the HR department should try to deliver the necessary services and support to the direct supervisors.

In this thesis we were able to show that HRM can be used for sending strategic signals, thereby creating strategic climate perceptions. More specifically, the results in this thesis revealed that some HR practices can be more easily used for sending strategic signals than other HR practices. We were able to show that performance management (including appraisal and training and development), information sharing, supervisor informing behavior and autonomy can be more easily used for sending strategic signals, than work-life balance arrangements, job security, internal promotion opportunities and job design. Important to note is, that it is not the HR practice itself that signals messages, rather it is the way direct supervisors actively make use of the practices in place. For example, a direct supervisor can conduct a performance appraisal without paying attention to a specific strategic goal (e.g. efficiency) that needs to be accomplished, or the extent to which employees contributed to this goal. Rather, they can just tick the necessary boxes, ignoring that efficiency is a relevant goal to accomplish. In this example, it will be less likely that employees perceive that efficiency is relevant. Furthermore, based on the results in this thesis we can conclude that the strategic signaling HR practices are mutually reinforcing. This implies that if managers and direct supervisors want to send a consistent message towards employees about the relevance of strategic goals, they must align the performance management practices, with information sharing and supervisor informing behavior in such a way that each practice signals the same message. Combining these practices with autonomy for employees, i.e. leeway to decide how employees can accomplish these goals in their daily work, helps to send a consistent message and will result in positive strategic climate perceptions. Though we were able to show that a

combination of performance management, information sharing, supervisor informing behavior and autonomy were related to strategic climate perceptions, we by no means want to claim that these four HR practices are the only practices that can be used for sending strategic signals. Organizations can search for alternative practices and mechanisms that can be used for sending strategic signals, like introduction programs for new employees or reward practices.

The results in this thesis revealed that work-life balance arrangements, job security, internal promotion opportunities and job design can be less easily used for sending strategic signals. Nevertheless, these practices can be used for signaling towards (potential) employees that the hospital cares about her employees. This is especially relevant for our hospital context, which is often confronted with a poor image as employer.

Finally, this thesis illustrates that employees working in the same ward share their perceptions regarding HRM. These shared perceptions are relevant if hospitals wish to increase positive employee outcomes, such as affective commitment (to the hospital, the ward and the occupation), satisfaction and lower intention to leave. This finding points to the need for organizations to focus on consistent implementation of and communication about HR practices across an organization. If direct supervisors employ HR practices consistently across wards and ensure that all employees working in that ward are aware of the practices in use, employees will be more committed, satisfied and less intended to leave.

9.8 A final personal reflection

Conducting research in the Dutch hospital context was a highly valuable and challenging experience, and though we have gained a lot of insight in what's going on in practice, this research project is just a beginning. After walking around in the hospital sector for more than four years, even more questions are raised than answered. Hence, we will definitely continue with research in this setting. Moreover, we encourage other researchers in the HRM field to conduct contextually based research. Though we acknowledge that this is not an easy task and a time consuming process, this should not discourage researchers to pursue this route, as it provides the opportunity to bridge the gap between research and practice.

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Appendix A: Interview protocol

The interview protocol provides an overview of the main topics that were covered in the interviews. The interview approach is semi-structured. The open-ended questions in this protocol guided the structure of the interviews. In order to get deeper into the subjects, we asked follow-up questions if necessary. We used partial different interview protocols for the HR advisors and the unit managers. After each topic you can see whether this question was mentioned for the HR advisor (HR), the unit manager (UM) or both (B). The precise content of the interviews was further dependent on the job position of the respondent and the hospital they worked for.

Introduction (B):

- Introduction of the interviewer and the research project
- Short description of the content of the interview
- Introduction of the interviewee: Background and description of current position.

Strategy organization (B):

- How would you describe the key success factor of your hospital?
- What are the three most important strategic goals of your hospital?
- Do these strategic goals differ for each Business Unit (Resultaat Verantwoordelijke Eenheid; RVE)? Yes -> ask for explanation differences.
- What are the implications of these goals for the employees in the organization?
- To what extent are these three strategic goals linked to the HR strategy of the organization?
- What is the contribution of the HR function (department and its professionals) to linking the business strategy and the HR strategy?
- What is the added value of the HR function to achieving the strategic goals? Can you give some illustrations?

Strategy Business Unit (RVE) (UM):

- What are the three most important core activities of this unit?
- What are the implications of these activities for the employees in this unit?
- Could you describe the way in which you monitor and evaluate these activities?
- How does your unit perform relative to other units in this hospital?

Leitmotiv (B):

- How do you embed the strategic goals of the organization in the daily work of your employees?
- Think about the ideal situation for your hospital. Can you describe how this would look like for your hospital within 3 to 5 years?
- How do you want to achieve this?
- How can the HR function contribute to this?

Changes HR policies (B):

- Could you describe important changes that have taken place during the last three to five years in your organization, regarding the HR policies and practices?

Check the following questions per major change mentioned by question four:

Design (B)

- Could you describe the design process of this change?
- Who was involved in this change process?

Implementation process (B)

- Could you describe the implementation process of this change?
- Which parties were involved in the implementation process?
- How were the changes communicated throughout the organization?

Relationship HR advisors and line managers

- How does HR get senior executives and line managers to adopt and implement changes in the HR practices? What is their role in aligning HR practices? (HR)
- What is the role of the HR department in implementing changes? (HR)
- What is the role of the HR department in monitoring and evaluating changes? (HR)
- What is the role of the line managers in implementing changes? (BM)
- Does the HR department provide enough support during the implementation process? (BM) Ask for illustrations
- Do you have enough time and resources for the implementation of the HR changes? (BM) Ask for illustrations
- How is the relationship between line managers and the HR function? Ask for an example to illustrate this relationship. (B)

Appendix B: Employee questionnaire (Dutch & English version)

Appendix B1: vragenlijst

Deel A. De organisatie

In het eerste gedeelte van de vragenlijst staan een aantal stellingen over wat de organisatie u biedt. Er wordt u gevraagd in hoeverre organisatie X deze zaken aan u biedt. Er zijn 5 antwoordmogelijkheden. Omcirkel het antwoord dat het meeste voor u van toepassing is.

1. Volledig mee oneens
2. Mee oneens
3. Eens noch oneens
4. Mee eens
5. Volledig mee eens

	Organisatie X biedt (mij)…..	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
1.	…divers en afwisselend werk	1	2	3	4	5
2.	…uitdagend werk	1	2	3	4	5
3.	…werk dat me de mogelijkheid geeft om mezelf te uiten.	1	2	3	4	5
4.	…de mogelijkheid om betrokken te zijn bij besluitvorming over de werving en selectie van een nieuwe collega	1	2	3	4	5
5.	…inspraak in de beleidsplannen van organisatie X	1	2	3	4	5
6.	…de mogelijkheid om zelf te bepalen hoe ik mijn taken uitvoer	1	2	3	4	5
7.	…de mogelijkheid om zelf beslissingen te nemen over mijn werk	1	2	3	4	5
8.	…de mogelijkheid om zelf verantwoordelijkheid te dragen	1	2	3	4	5
9.	…de mogelijkheid om mijn mening te geven over werkgerelateerde vragen	1	2	3	4	5
10.	…de mogelijkheid om trainingen, cursussen en workshops te volgen	1	2	3	4	5
11.	…de mogelijkheid om nieuwe kennis en vaardigheden te ontwikkelen voor mijn huidige of toekomstige baan	1	2	3	4	5
12.	…coaching, gericht op mijn ontwikkeling	1	2	3	4	5

	Organisatie X biedt (mij)…..	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
13.	…begeleiding bij mijn loopbaanontwikkeling	1	2	3	4	5
14.	…de mogelijkheid om voor een andere afdeling te werken als ik dat wil	1	2	3	4	5
15.	…de mogelijkheid om een andere functie te vervullen binnen organisatie X	1	2	3	4	5
16.	…goede carrière mogelijkheden binnen organisatie X	1	2	3	4	5
17.	...uitbreiding van mijn verantwoordelijkheden als ik goed presteer	1	2	3	4	5
18.	…de mogelijkheid om door te groeien naar een hogere functie binnen organisatie X	1	2	3	4	5
19.	…de zekerheid dat ik mijn baan kan behouden	1	2	3	4	5
20.	…een contract dat mij werkzekerheid biedt	1	2	3	4	5
21.	…de mogelijkheid om als team zelf beslissingen te nemen	1	2	3	4	5
22.	…de mogelijkheid om met mijn team verantwoordelijk te zijn voor onze resultaten	1	2	3	4	5
23.	… periodieke evaluatie van mijn prestaties	1	2	3	4	5
24.	…eerlijke beoordeling van mijn prestaties	1	2	3	4	5
25.	…keuze uit flexibele werktijden	1	2	3	4	5
26.	…ondersteuning bij kinderopvang (bijv. opvang, financiële middelen)	1	2	3	4	5
27.	...zorgverlof als dat nodig zou zijn	1	2	3	4	5
28.	…de mogelijkheid om parttime te werken als dat nodig zou zijn	1	2	3	4	5
29.	…de mogelijkheid om mijn werkschema aan te passen aan mijn thuissituatie	1	2	3	4	5
30.	…informatie over de gang van zaken binnen organisatie X	1	2	3	4	5
31.	…duidelijke communicatie over beleid en procedures binnen organisatie X	1	2	3	4	5

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
32.	... informatie over belangrijke veranderingen binnen	1	2	3	4	5
33.	…inzicht in de manier waarop de besluitvorming binnen organisatie X loopt	1	2	3	4	5

Hieronder vindt u enkele stellingen over de mate waarin trainingen en cursussen die u volgt / gevolgd heeft aandacht schenken aan bepaalde onderwerpen. Omcirkel het antwoord dat het beste bij u past. Er zijn weer vijf antwoordcategorieën, variërend van volledig mee oneens tot volledig mee eens.

	In welke mate wordt er bij de trainingen en cursussen die u volgt / gevolgd heeft aandacht geschonken aan...	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
34.	... vaktechnische / professionele vaardigheden	1	2	3	4	5
35.	...doelmatig werken	1	2	3	4	5
36.	...persoonlijke vaardigheden (bijv. verbeteren persoonlijke effectiviteit, sociale vaardigheden)	1	2	3	4	5
37.	...vermindering van lichamelijke belasting in het werk (bijvoorbeeld tilcursussen)	1	2	3	4	5
38.	...het verbeteren van werkprocessen	1	2	3	4	5
39.	...kwaliteit van de dienst-verlening en servicegerichtheid	1	2	3	4	5
40.	...uw verdere loopbaan	1	2	3	4	5
41.	...het omgaan met onveilige situaties op de werkvloer	1	2	3	4	5

Hieronder vindt u enkele stellingen over uw **direct leidinggevende**. Omcirkel het antwoord dat het beste bij u past. Bij elke vraag zijn er 5 antwoorden mogelijk.

1. Volledig mee oneens
2. Mee oneens
3. Eens noch oneens
4. Mee eens
5. Volledig mee eens

	Mijn direct leidinggevende...	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
42.	...Heeft mij een duidelijke uitleg gegeven van de procedures binnen organisatie X	1	2	3	4	5
43.	...Is open in zijn / haar communicatie met mij	1	2	3	4	5
44.	…Past zijn / haar communicatie aan aan de wensen en voorkeuren van de werknemers	1	2	3	4	5
45.	...Communiceert tijdig belangrijke details naar mij	1	2	3	4	5
46.	...Heeft mij een aannemelijke uitleg gegeven van de procedures binnen organisatie X	1	2	3	4	5

De laatste stellingen in dit gedeelte gaan over de inhoud van de jaargesprekken die u voert met uw direct leidinggevenden. U kunt wederom antwoorden door het antwoord dat het beste bij u past te omcirkelen.

47. Heeft uw leidinggevende het afgelopen jaar een jaargesprek met u gevoerd?
    a. Ja -> beantwoord onderstaande vragen
    b. Nee -> ga door naar Deel B

	In hoeverre wordt er tijdens het jaargesprek met uw leidinggevende aandacht geschonken aan...	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
48.	...uw ontwikkelingsbehoeften	1	2	3	4	5
49.	...de kwaliteit van het werk dat u levert	1	2	3	4	5
50.	...de wensen die u heeft met betrekking tot het gebruik van het meerkeuze systeem arbeidsvoorwaarden	1	2	3	4	5
51.	...het naleven van veiligheidsprotocollen en procedures op de werkvloer	1	2	3	4	5
52.	...de arbeidsomstandigheden waarin u moet werken	1	2	3	4	5
53.	...uw prestaties in vergelijking tot de gestelde afdelingsdoelen	1	2	3	4	5
54.	...verbeteringen / vernieuwingen die u zou willen op de werkvloer	1	2	3	4	5

Deel B. Mijn ervaringen

In het volgende gedeelte zal er gevraagd worden naar uw mening over organisatie X, uw beroep en de afdeling waar u werkt. Omcirkel het antwoord dat het beste bij u past. Bij elke vraag zijn er 5 antwoordmogelijkheden.

1. Volledig mee oneens
2. Mee oneens
3. Eens noch oneens
4. Mee eens
5. Volledig mee eens

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
55.	Ik voel me emotioneel gehecht aan organisatie X.	1	2	3	4	5
56.	Organisatie X betekent veel voor mij.	1	2	3	4	5
57.	Ik voel me *niet* als 'een deel van de familie' in organisatie X.	1	2	3	4	5
58.	Ik zou graag de rest van mijn loopbaan in organisatie X blijven werken.	1	2	3	4	5
59.	Ik geef *niet* om het lot van mijn beroep (bijvoorbeeld verpleging, fysiotherapie, etc.)	1	2	3	4	5
60.	Tegen vrienden praat ik vol lof over mijn beroep	1	2	3	4	5
61.	Ik ben er trots op om anderen te vertellen over mijn beroep	1	2	3	4	5
62.	Ik denk dat mijn beroep een bevredigende loopbaan bied	1	2	3	4	5
63.	Ik geef *niet* om het lot van mijn afdeling	1	2	3	4	5
64.	Tegen vrienden praat ik vol lof over mijn directe collega's	1	2	3	4	5
65.	Ik ben er trots op om anderen te vertellen dat ik deel uit maak van deze afdeling	1	2	3	4	5
66.	Werken binnen deze afdeling geeft voldoening	1	2	3	4	5

De onderstaande stellingen gaan over uw mening over collega's en over organisatie X. Er zijn weer vijf antwoordcategorieën, variërend van volledig mee oneens tot volledig mee eens.

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
67.	Ik help met het begeleiden van nieuwe werknemers ook als ik het op dat moment erg druk heb	1	2	3	4	5
68.	Ik sta altijd klaar voor mijn collega's	1	2	3	4	5
69.	Ik steek tijd in het helpen van anderen op het werk	1	2	3	4	5
70.	Ik vind het belangrijk om ontwikkelingen binnen organisatie X bij te houden	1	2	3	4	5
71.	Ik lees altijd aankondigingen, memo's en andere berichten van organisatie X	1	2	3	4	5
72.	Ik doe dingen die het imago van organisatie X hoog houden, terwijl dit niet verplicht is	1	2	3	4	5
73.	Ik neem vrijwillig deel aan trainingen en / of informatiebijeenkomsten, die niet verplicht zijn gesteld door organisatie X	1	2	3	4	5
74.	Ik houd rekening met de gevolgen van mijn acties voor anderen	1	2	3	4	5
75.	Ik overleg met anderen als ik iets ga doen dat mogelijk gevolgen voor hen heeft	1	2	3	4	5
76.	Ik probeer te voorkomen dat ik problemen veroorzaak voor collega's	1	2	3	4	5

De onderstaande stellingen hebben betrekking op uw intenties. Er zijn weer 5 antwoordmogelijkheden, van volledig mee oneens tot volledig mee eens.

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
77.	Ik ben van plan mijn huidige baan nog minstens twee jaar te houden	1	2	3	4	5
78.	Ik denk er over van baan te veranderen	1	2	3	4	5
79.	Ik ben van plan om het komend jaar van baan te veranderen.	1	2	3	4	5

Hieronder volgt een vraag over de mate waarin u tevreden bent met uw werk. Kies het antwoord dat het beste bij u past. U kunt een keuze maken uit de volgende antwoordcategorieën, variërend van zeer ontevreden tot zeer tevreden:

1. zeer ontevreden
2. ontevreden
3. niet ontevreden en niet tevreden
4. tevreden
5. zeer tevreden

		Zeer on-tevreden	On-tevreden	Niet ontevre-den en niet tevreden	Tevreden	Zeer tevreden
80.	Over het algemeen genomen, hoe tevreden bent u met uw baan?	1	2	3	4	5

Deel C. Sfeer op de afdeling waar ik werk

In het volgende gedeelte zal er gevraagd worden naar uw mening over de sfeer op **de afdeling waar u werkt**. Er zijn 5 antwoordcategorieën mogelijk, van volledig mee oneens tot volledig mee eens:

1. Volledig mee oneens
2. Mee oneens
3. Eens noch oneens
4. Mee eens
5. Volledig mee eens

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
81.	De afdeling heeft een reputatie als het gaat om het leveren van goede kwaliteit zorg.	1	2	3	4	5
82.	Op de afdeling ligt de nadruk op het leveren van patiënt gerichte zorg.	1	2	3	4	5
83.	De afdeling stelt extreem hoge eisen aan het personeel.	1	2	3	4	5
84.	Als patiënt, zou ik blij zijn met de zorg die onze afdeling levert	1	2	3	4	5
85.	Kwaliteit staat hoog in het vaandel.	1	2	3	4	5

		Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
86.	De afdeling heeft duidelijke standaarden waaraan het personeel probeert te voldoen (om goede resultaten te behalen).	1	2	3	4	5
87.	Mijn collega's op de afdeling zijn altijd bezig met de ontwikkeling van nieuwe oplossingen voor problemen.	1	2	3	4	5
88.	Hulp bij het ontwikkelen van nieuwe ideeën is gemakkelijk te krijgen op de afdeling.	1	2	3	4	5
89.	De afdeling staat open voor veranderingen.	1	2	3	4	5
90.	Op de afdeling zoeken we altijd verfrissende, nieuwe invalshoeken om problemen op te kunnen lossen.	1	2	3	4	5
91.	Op de afdeling nemen we de tijd die nodig is om nieuwe ideeën te ontwikkelen.	1	2	3	4	5
92.	Op de afdeling werken we samen bij het ontwikkelen en toepassen van nieuwe ideeën.	1	2	3	4	5
93.	Op de afdeling maken we gebruik van elkaars kennis en ervaring bij het toepassen van nieuwe ideeën.	1	2	3	4	5
94.	Op de afdeling bieden wij elkaar bruikbare hulp bij het in de praktijk brengen van nieuwe ideeën.	1	2	3	4	5
95.	Binnen onze afdeling wordt het belang van gezondheid en veiligheid op de werkvloer benadrukt.	1	2	3	4	5
96.	Veiligheid staat hoog in het vaandel bij mijn leidinggevende.	1	2	3	4	5
97.	Binnen onze afdeling is veiligheid erg belangrijk.	1	2	3	4	5
98.	Tijdens het werkoverleg is er voldoende gelegenheid om te discussiëren over veiligheid op de werkvloer.	1	2	3	4	5
99.	Op mijn afdeling wordt er open en eerlijk gecommuniceerd over veiligheid op de werkvloer	1	2	3	4	5

	Volledig mee oneens	Mee oneens	Eens noch oneens	Mee eens	Volledig mee eens
100. Werknemers op deze afdeling worden regelmatig om advies gevraagd over onderwerpen die met veiligheid en gezondheid op de werkvloer te maken hebben	1	2	3	4	5
101. Voordat een taak wordt uitgevoerd, wordt duidelijk vastgesteld wat daarmee bereikt moet worden.	1	2	3	4	5
102. Het is normaal dat wordt nagegaan of wat we wilden bereiken ook bereikt is.	1	2	3	4	5
103. Binnen deze afdeling zijn wij kostenbewust en handelen daarnaar.	1	2	3	4	5
104. Binnen deze afdeling wordt efficiënt gewerkt	1	2	3	4	5

Deel D. Algemene vragen

Tot slot volgen er nog enkele algemene vragen. Deze gegevens zullen uitsluitend worden gebruikt voor het verwerken van de vragenlijsten. De gegevens zullen dan ook niet gekoppeld worden aan personen. Probeert u de vragen zo volledig mogelijk in te vullen.

105. Wat is uw functie? .....
106. Op welke afdeling bent u werkzaam? .....
107. Hoeveel jaar bent u in dienst bij organisatie X? ..... jaar
108. Hoeveel jaar bent u werkzaam in uw huidige functie? ..... jaar
109. Wat voor soort arbeidscontract heeft u?
0 vast dienstverband
0 tijdelijk dienstverband
0 leer / werkovereenkomst
0 anders, namelijk……
110. Hoeveel uur werkt u gemiddeld per week?
0 meer dan 32 uur
0 24 tot 31 uur
0 12 tot 23 uur
0 minder dan 12 uur
111. Wat is de hoogste opleiding die u heeft afgerond?
0 MAVO / VMBO
0 HAVO
0 VWO
0 LBO / LTS
0 MBO / MTS
0 HBO / HTS
0 Wetenschappelijk onderwijs
0 anders,namelijk……

112. Wat is uw geslacht?	0	Man
	0	Vrouw
113. Wat is uw leeftijd		..... jaar

Dit is het einde van de vragenlijst. U kunt de vragenlijst in de bijgesloten antwoord enveloppe opsturen. Frankeren is niet nodig. Mocht u nog vragen of opmerkingen hebben over de vragenlijst of het verdere onderzoek dan kunt u deze noteren aan de achterzijde van deze pagina.

Nogmaals hartelijk dank voor uw deelname, Monique Veld

Appendix B2: questionnaire

Part A. The organization

In the first part of the survey, a number of statements are given about what the organization offers you. Please indicate to what extent Organization X offers you these matters. 5 response categories are given. Please choose the answer which best fits your situation.

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

	Organization X offers (me)...	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
1.	...Comprehensive and diverse work	1	2	3	4	5
2.	...Challenging work	1	2	3	4	5
3.	...Work that gives me the opportunity to express myself	1	2	3	4	5
4.	... The opportunity to participate in decision making processes	1	2	3	4	5
5.	...Participation in developing (strategic) plans	1	2	3	4	5
6.	... The opportunity to do my work in my own way	1	2	3	4	5
7.	... The opportunity to make my own decisions	1	2	3	4	5
8.	...The opportunity to take the responsibility for my own tasks	1	2	3	4	5
9.	...Possibilities to present my opinion on matters	1	2	3	4	5
10.	...The opportunity to follow training, courses and workshops	1	2	3	4	5
11.	...The opportunity to develop new skills and knowledge for my current job or for possible jobs in the future	1	2	3	4	5

	Organization X offers (me)...	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
12.	... Coaching which supports my development	1	2	3	4	5
13.	...Support in planning my future development	1	2	3	4	5
14.	...The opportunity to work for another department	1	2	3	4	5
15.	... The opportunity to do another job within this organization	1	2	3	4	5
16.	...Good career prospects	1	2	3	4	5
17.	... An increase in job responsibilities if I perform well at my current tasks	1	2	3	4	5
18.	...The possibility to occupy a higher position within the organization	1	2	3	4	5
19.	...Certainty of keeping my job	1	2	3	4	5
20.	... An employment contract offering job security	1	2	3	4	5
21.	...The possibility to make decisions as a team	1	2	3	4	5
22.	...The possibility for my team to take the responsibility for our results	1	2	3	4	5
23.	...Periodic evaluation of my performance	1	2	3	4	5
24.	...Fair appraisal of my performance	1	2	3	4	5
25.	...Flexible working hours	1	2	3	4	5
26.	...Support for childcare (e.g. day care, financial help)	1	2	3	4	5
27.	...Sabbatical to give care	1	2	3	4	5
28.	...The opportunity to work part-time if I needed to	1	2	3	4	5
29.	...The opportunity to arrange my work schedule so I can meet family obligations	1	2	3	4	5
30.	...Information regarding procedures within the organization	1	2	3	4	5

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
31.	...Clear communication about company policies and procedures	1	2	3	4	5
32.	... Information regarding significant changes in the organization	1	2	3	4	5
33.	...Insight in the way decisions are made within the organization	1	2	3	4	5

Below, you find some statements about the content of training and courses you took. Please choose the answer which best reflects your opinion. Again, there are five response categories ranging from strongly disagree to strongly agree.

	To what extent is the content of the training and courses you took focused on....	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
34.	...Technical / professional skills	1	2	3	4	5
35.	...working in an efficient way	1	2	3	4	5
36.	...personal skills (e.g. improving personal efficiency, social skills)	1	2	3	4	5
37.	...decreasing physical work load	1	2	3	4	5
38.	...improvement of the way work is conducted	1	2	3	4	5
39.	... quality of services	1	2	3	4	5
40.	...your career	1	2	3	4	5
41.	...coping with dangerous situations at work	1	2	3	4	5

Below you find a few statements about your direct supervisor. Please choose the answer which best reflects your opinion. There are five response categories.

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

	My direct supervisor...	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
42.	...is candid in his/her communications with me	1	2	3	4	5
43.	...Has explained the procedures in this organization thoroughly	1	2	3	4	5
44.	...Has explained the procedures in a reasonable way	1	2	3	4	5
45.	...Has communicated details in a timely manner	1	2	3	4	5
46.	... Has seemed to tailor his/her communications to individuals' specific needs	1	2	3	4	5

The last statements in this part pay attention to the performance interviews. Again, 5 response categories are provided, ranging from. strongly disagree to strongly agree.

47. Did your direct supervisor conduct a performance interview with you within the past year?

Yes -> please, answer the questions below

No -> please continue with part B of this questionnaire

	To what extent are the following aspects discussed during the performance interview...	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
48.	...your development needs	1	2	3	4	5
49.	...the quality of your work	1	2	3	4	5
50.	...the wishes you have regarding the cafeteria plan	1	2	3	4	5
51.	…observing the safety procedures and regulations on the shop floor	1	2	3	4	5
52.	...your working conditions	1	2	3	4	5
53.	...your performance against the goals and targets of the ward you work for	1	2	3	4	5
54.	...changes you would like to make on the shop floor	1	2	3	4	5

Part B. My experiences

In the next part there are some statements about your opinion regarding the organization, your occupation and the ward you work for. Please choose the answer that best reflects your opinion. For each question there are five response categories.

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
55. I do feel "emotionally attached" to organization X	1	2	3	4	5
56. Organization X has a great deal of personal meaning for me.	1	2	3	4	5
57. I do not feel like "part of the family" at organization X	1	2	3	4	5
58. I would be very happy to spend the rest of my career within organization X	1	2	3	4	5
59. I do not care about the fate of my occupation (e.g. nursing, physiotherapy, management etc)	1	2	3	4	5
60. I speak highly of my occupation to my friends	1	2	3	4	5
61. I am proud to tell others that I am part of this profession	1	2	3	4	5
62. I think my occupation is a rewarding career	1	2	3	4	5
63. I do not care about the fate of my ward*	1	2	3	4	5
64. I speak highly of my immediate colleagues to my friends	1	2	3	4	5
65. I am proud to tell others that I am part of this ward	1	2	3	4	5
66. I think working in this ward is rewarding	1	2	3	4	5

Below there are some statements about your colleagues and the organization. Again, 5 response categories are provided, ranging from strongly disagree to strongly agree.

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
67.	I help orient new employees even though it is not required	1	2	3	4	5
68.	I am always ready to help or to lend a helping hand to those around me	1	2	3	4	5
69.	I willingly give of my time to help others	1	2	3	4	5
70.	I "keep up" with developments in the company	1	2	3	4	5
71.	I read and keep up with the company announcements, messages, memos etc.	1	2	3	4	5
72.	I attend functions that are not required, but that help the company image	1	2	3	4	5
73.	I attend training / information sessions that agents are encouraged but not required to attend	1	2	3	4	5
74.	I consider the impact of my actions on others	1	2	3	4	5
75.	I 'touch base' with others before initiating actions that might affect them	1	2	3	4	5
76.	I try to avoid creating problems for the other employees	1	2	3	4	5

Below, some statements related to your intentions are presented. Again, 5 response categories are provided, ranging from strongly disagree to strongly agree.

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
77.	I am planning to stay in my current job for at least two more years	1	2	3	4	5
78.	I think about changing jobs	1	2	3	4	5
79.	I am planning to search for a new job during the next year	1	2	3	4	5

Below, a question is asked about your job satisfaction. Please choose the answer which best reflects your opinion. 5 response categories are given, ranging from very dissatisfied to very satisfied:

1. Very dissatisfied
2. Dissatisfied
3. Neither dissatisfied nor satisfied
4. Satisfied
5. Very satisfied

	Very dis-satisfied	Dis-satisfied	Neither dis-satisfied nor satisfied	Satisfied	Very satisfied
80. Overall, how satisfied are you with your job?	1	2	3	4	5

Part C. Work climate

In this part some questions will be asked about your opinion regarding the work climate at **the ward you work for.** For each question there are five response categories.

1. Strongly disagree
2. Disagree
3. Neither disagree nor agree
4. Agree
5. Strongly agree

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
81. This ward does have much a reputation for top quality patient care	1	2	3	4	5
82. There is an emphasis on patient focused care in this ward	1	2	3	4	5
83. This ward sets extremely high standards for its staff	1	2	3	4	5
84. As a patient, I would be happy to have care provided by this ward	1	2	3	4	5
85. Quality is taken very seriously here	1	2	3	4	5
86. The ward has clear standards which staff try to meet in order to achieve excellence	1	2	3	4	5

		Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
87.	This ward is always moving toward the development of new answers	1	2	3	4	5
88.	Assistance in developing new ideas is readily available	1	2	3	4	5
89.	This ward is open and responsive to change	1	2	3	4	5
90.	People in this ward are always searching for fresh, new ways of looking at problems	1	2	3	4	5
91.	In this ward we take the time needed to develop new ideas	1	2	3	4	5
92.	People in the ward co-operate in order to help develop and apply new ideas	1	2	3	4	5
93.	People in the ward provide and share resources to help in the application of new ideas	1	2	3	4	5
94.	Ward members provide practical support for new ideas and their application	1	2	3	4	5
95.	In this ward we place a strong emphasis on workplace health and safety	1	2	3	4	5
96.	Safety is given a high priority by my supervisors	1	2	3	4	5
97.	In this ward we consider safety to be important	1	2	3	4	5
98.	There is sufficient opportunity to discuss and deal with safety issues in meetings	1	2	3	4	5
99.	There is open communication about safety issues within this ward	1	2	3	4	5
100.	Employees are regularly consulted about workplace health and safety issues	1	2	3	4	5
101.	Before we start with a task, we narrow down what we want to reach with it	1	2	3	4	5
102.	It is normal to check if we've reached what we wanted to reach	1	2	3	4	5

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
103. Within this ward we are cost-conscious and act to this principle	1	2	3	4	5
104. Within this ward we work in an efficient manner	1	2	3	4	5

Part D. Background information

To finish this questionnaire, a few general questions will be asked. These questions will only be used in order to process the questionnaires. Please fill in these questions as completely as possible.

105. What is your official job title? .....
106. At which ward do you work? .....
107. How long is your tenure in organization X? ..... years
108. How long is your tenure in your current position? ..... years
109. Which type of contract do you have in organization X?
0 permanent contract
0 temporary contract
0 apprenticeship
0 other, namely ……
110. How many hours a week do you work?
0 more than 32 hours
0 24 up to 31 hours
0 12 up to 23 hours
0 less than 12 hours
111. What is your highest completed education[1]?
0 High school
0 Vocational training
0 University
0 Other education……
112. What is your gender?
0 Male
0 Female

113.What is your age? .....year

[1] These response categories are only given for illustrative purposes, given that the Dutch educational system differs from systems in other countries.

Below you can find an overview of the different (sub)scales as described in chapter 4 (research design), and the items which belong to these (sub)scales.

Name (sub)scale	Item nr:	Excluded items
Job design	1 - 3	
Autonomy	4 - 9, 21, 22	
Performance management (incl. training & development)	10 -13, 23, 24	
Internal labor market	14 - 18	
Job security	19, 20	
Work-life balance arrangements	25 - 29	26
Information sharing	30 - 33	
Content training	34 - 41	
Supervisor informing behavior	42 - 46	
Content performance interviews	47 - 54	
Commitment organization	55 - 58	57
Commitment occupation	59 - 62	
Commitment ward	63 - 66	
OCB	67 - 76	
Intention to leave	77 - 79	
Satisfaction	80	
Climate for quality	81 - 86	83
Climate for innovation	87 - 94	
Climate for safety	95 - 100	
Climate for efficiency	101 - 104	

Samenvatting (Dutch)

Human resource management, strategisch klimaat en medewerkeruitkomsten in ziekenhuizen: HRM als remedie?

Inleiding

Ziekenhuizen staan, net als andere zorginstellingen, enorm onder druk. Gezien de ontwikkelingen in de zorgsector komt er voor ziekenhuizen steeds meer de nadruk te liggen op het leveren van kwalitatief goede en veilige zorg. Bovendien wordt er van ziekenhuizen verwacht dat zij deze zorg op een innovatieve en efficiënte manier leveren. Tegelijkertijd staan veel ziekenhuizen voor de uitdaging om voldoende gekwalificeerd personeel aan te trekken en te behouden. Geen makkelijke opgave in tijden waarin de arbeidsmarkt steeds krapper wordt. Al deze uitdagingen zorgen er voor dat ziekenhuizen moeten veranderen willen zij de toenemende concurrentie het hoofd kunnen bieden. In dit proces van verandering spelen medewerkers een belangrijke rol. Immers geen zorg zonder capaciteit, en geen verandering zonder medewerkers. Er is dan ook een belangrijke rol weggelegd voor het Human Resource Management (HRM) om medewerkers in beweging te krijgen en te houden. HRM kan er toe bijdragen dat medewerkers over de juiste capaciteiten, motivatie en mogelijkheden beschikken om de beoogde veranderingen en daarmee ook prestatie verbeteringen te realiseren.

Ondanks het toenemende besef bij beleidsmakers en managers in de gezondheidszorg dat het managen van medewerkers een belangrijke sleutel tot succes is, wordt er nog maar weinig onderzoek gedaan naar de toegevoegde waarde van HRM in de zorg. Onderzoek in andere sectoren (met name de profit sector) laat zien dat HRM kan leiden tot betere prestaties (bijvoorbeeld Combs, Liu, Hall, & Ketchen, 2006; Zacharatos, Hershcovis, Turner, & Barling, 2007). Door een gebrek aan onderzoek naar de relatie tussen HRM en prestaties in de ziekenhuissector blijft het echter onduidelijk in hoeverre en waarom HRM toegevoegde waarde op zou kunnen leveren in deze sector.

Het doel van dit proefschrift is dan ook om meer inzicht te krijgen in de relatie tussen HRM en prestaties in Nederlandse ziekenhuizen. Centraal hierbij staat het belang van ‘strategisch klimaat’ in de relatie tussen HRM en prestaties. Klimaat kan hierbij worden omschreven als de gedeelde beelden die medewerkers hebben over wat belangrijk is binnen de organisatie in termen van activiteiten, beleid, procedures, routines en beloningen. Bij een strategisch klimaat kunnen deze beelden direct worden gekoppeld

aan de strategische doelen van een organisatie, zoals een klimaat voor veiligheid. Uit eerder onderzoek is gebleken dat het sturen op strategisch klimaat, door middel van HRM, bijdraagt aan het bereiken van (strategische) organisatiedoelen. Bovendien is de verwachting dat strategisch klimaat ook een belangrijke bijdrage levert aan HRM uitkomsten, zoals tevredenheid en betrokkenheid.

De centrale vraag van dit onderzoek luidt dan ook als volgt:

Op welke wijze en in welke mate kan HRM bijdragen aan de prestaties van ziekenhuizen op verschillende niveaus (individueel en afdelingsniveau) en in welke mate medieert strategisch klimaat deze relatie?

Om een antwoord te kunnen geven op bovenstaande vraag is het van belang dat er eerst antwoord wordt gegeven op de volgende vragen:

- *Welke typen strategisch klimaat kunnen worden onderscheiden in ziekenhuizen?*
- *In welke mate heeft HRM invloed op verschillende strategisch klimaat typen?*
- *In welke mate heeft strategisch klimaat invloed op de prestaties?*

Het onderzoek

Onderzoek naar de toegevoegde waarde van HRM en strategisch klimaat in ziekenhuizen vraagt om een "contextgerichte" onderzoeksbenadering. Het primaire doel van deze benadering is theorie vorming en empirisch onderzoek om een gedegen inzicht te krijgen in de vraag wat er nu daadwerkelijk gebeurt in organisaties en waarom dit zo gebeurt. De "contextgerichte" onderzoeksbenadering in dit proefschrift is gestoeld op de volgende principes:

- Inbedding van het onderzoek in de context van de deelnemende ziekenhuizen;
- Evidence based management. Dit kan omschreven worden als een onderzoeksbenadering waarbij onderzoeksresultaten worden vertaald naar praktische implicaties;
- Combinatie van verschillende theoretische benaderingen en verschillende onderzoeksmethoden en technieken.

Om een gedegen inzicht te krijgen in de specifieke kenmerken van de onderzoekscontext is gestart met een verkenning van belangrijke ontwikkelingen binnen de ziekenhuissector (***hoofdstuk 2***). Als uitgangspunt voor deze sectoranalyse is gebruik gemaakt van het Contextually Based Human Resource Theory model (CBHRT-model) van Paauwe (2004). Dit model kan gebruikt worden om de interne en externe

context van organisaties in kaart te brengen. De externe context behelst zowel het institutionele kader als de markt waarin organisaties opereren. De interne context heeft betrekking op de configuratie van organisaties. De sector analyse op basis van het CBHRT-model is uitgevoerd door het bestuderen van diverse beleidsnotities van de overheid, het Centraal Bureau voor de Statistiek (CBS), brancheverenigingen, en ziekenhuizen; het interviewen van diverse experts en praktijkmensen van verschillende ziekenhuizen en een uitgebreid literatuuronderzoek naar wetenschappelijke publicaties over HRM in de zorg. De resultaten van deze analyse laat zien dat Nederlandse ziekenhuizen worden geconfronteerd met een dubbele vergrijzing: enerzijds vergrijst de bevolking, waardoor de vraag naar zorg blijft toenemen. Anderzijds vergrijst het personeelsbestand in de zorg, waardoor meer personeel zal uitstromen. Als gevolg hiervan zien ziekenhuizen zich geconfronteerd met de behoefte om efficiënter te gaan werken, en tegelijkertijd zorg te dragen voor het aantrekken en behouden van voldoende personeel. Daarnaast wordt vanuit de Nederlandse overheid ingezet op meer marktwerking in de zorg. Ziekenhuizen zullen hierdoor meer klantgericht moeten gaan werken, en zorg moeten dragen voor het leveren van kwalitatief goede en veilige zorg voor een aantrekkelijke prijs. Ziekenhuizen kunnen verschillende strategische keuzes maken hoe om te gaan met de vele ontwikkelingen in zowel de interne als externe context.

Na deze uitgebreide context analyse, wordt in ***hoofdstuk 3*** het conceptuele model beschreven. Het conceptuele model is gebaseerd op een combinatie van de strategisch HRM literatuur ('macro' onderzoek) en de klimaat literatuur ('micro' onderzoek). Deze combinatie is wenselijk om meer inzicht te krijgen in de werking van HRM (de onderliggende processen). In verschillende procesmodellen (bijvoorbeeld Nishii & Wright, 2008; Ostroff & Bowen, 2000) worden meerdere stappen onderscheiden in de relatie tussen HRM en prestaties. Deze procesmodellen geven, zoals de naam al aangeeft, de processen weer die ten grondslag liggen aan de relatie tussen HRM en prestaties.

Het conceptuele model in dit proefschrift is gebaseerd op deze procesmodellen, en is gericht op de relatie tussen HRM percepties (ervaring van het HRM-beleid door

medewerkers), strategisch klimaat en attitude en gedrag van medewerkers (medewerkeruitkomsten).

De relatie tussen HRM percepties en strategisch klimaat is gebaseerd op het idee dat HRM gebruikt kan worden om signalen over te brengen naar medewerkers over wat belangrijk is binnen de organisatie. De verwachting is dat medewerkers die meer HRM ervaren op de afdeling waar zij werken, meer signalen ontvangen over de strategische doelen van de organisatie, en over wat er van hen verwacht wordt in termen van houding en gedrag. Oftewel, HRM percepties zullen naar verwachting een positieve relatie hebben met strategisch klimaat percepties. Naar verwachting zullen deze strategisch klimaat percepties vervolgens een positieve uitwerking hebben op medewerkeruitkomsten, als betrokkenheid, tevredenheid, Organizational Citizenship Behavior (OCB; de bereidheid van medewerkers om een 'stapje extra' te willen doen voor de organisatie), en een lagere intentie tot vertrek.

De verdere operationalisering van de concepten HRM, strategisch klimaat en medewerkeruitkomsten wordt omschreven in ***Hoofdstuk 4.*** Daarnaast wordt er in dit hoofdstuk een gedetailleerde omschrijving gegeven van het contextgerichte onderzoeksdesign. Om er voor te zorgen dat er veel tijd en aandacht besteed kon worden aan het verkennen van de specifieke kenmerken van de ziekenhuis context is besloten om data te verzamelen in vier ziekenhuizen. In het onderzoek is gebruik gemaakt van zowel kwalitatieve als kwantitatieve onderzoeksmethoden. Document analyses en interviews met HR managers, RVE managers, leden van de OR, en leden van de Raad van Bestuur (n=31) zijn gebruikt om meer inzicht te krijgen in de strategische doelen van het ziekenhuis, en het (strategische) HR beleid. Daarnaast is er een uitgebreid vragenlijst onderzoek uitgevoerd. Deze vragenlijst is naar medewerkers van zorgverlenende afdelingen en poliklinieken gestuurd en bestond uit vier onderdelen: a) het HR beleid wat de ziekenhuizen aanbieden aan de medewerkers; b) strategisch klimaat; c) medewerkeruitkomsten (betrokkenheid, tevredenheid, OCB, en intentie tot vertrek); d) achtergrond kenmerken van de respondenten. In totaal zijn er binnen de deelnemende ziekenhuizen 4660 vragenlijsten verstuurd (respons 45,6%). Binnen 1 ziekenhuis was er de mogelijkheid om een tweede meting uit te voeren (1809 vragenlijsten verstuurd bij deze tweede meting). Binnen ieder ziekenhuis is er gezocht

naar een passende manier om de vragenlijsten uit te zetten en zijn er diverse communicatie methoden ingezet (bijvoorbeeld intranet, posters en voorlichtingsbijeenkomsten) om medewerkers goed te informeren over het doel van het onderzoek.

Resultaten

In ***Hoofdstuk 5*** gaan we op zoek naar het antwoord op de eerste deelvraag: *welke typen strategisch klimaat kunnen worden onderscheiden in ziekenhuizen?* Om deze vraag te kunnen beantwoorden is het van belang te achterhalen welke strategische doelen de ziekenhuizen nastreven. Document analyses en semigestructureerde interviews laten zien dat de deelnemende ziekenhuizen de volgende strategische doelen na streven: kwaliteit van zorg leveren, veilige zorg leveren, innovatief zijn en efficiënt werken. Willen ziekenhuizen deze doelen bereiken, dan is het van belang dat medewerkers weten welke doelen worden nagestreefd, en wat dit betekent in termen van gewenste houding en gedrag. HRM kan hier naar verwachting een belangrijke rol in spelen, door signalen naar medewerkers te sturen over welke doelen van belang zijn. Belangrijke voorwaarde hierbij is dat het HR beleid is afgestemd op de doelen van de organisatie. Gebaseerd op deze kwalitatieve analyse werd verwacht dat er vier strategisch klimaat typen konden worden onderscheiden: klimaat voor kwaliteit, veiligheid, innovatie en efficiëntie. Deze verwachting werd deels bevestigd door middel van vragenlijst onderzoek. In vier ziekenhuizen konden de volgende typen worden onderscheiden: klimaat voor kwaliteit, veiligheid en innovatie. Klimaat voor efficiëntie kon in slechts twee ziekenhuizen worden onderscheiden.

Na antwoord te hebben gegeven op de eerste deelvraag, staan in hoofdstuk 6 t/m 8 de vragen centraal in hoeverre HRM van invloed is op deze strategisch klimaat typen, en in hoeverre de strategisch klimaat typen van invloed zijn op medewerkeruitkomsten.

In ***hoofdstuk 6*** wordt de relatie tussen HRM percepties, klimaat voor kwaliteit en veiligheid, en betrokkenheid bij de afdeling getoetst op afdelingsniveau. Hierbij is gekeken naar het effect van zowel losse HR activiteiten (praktijkbenadering) als een combinatie van HR activiteiten (systeembenadering). Meer specifiek richt dit hoofdstuk zich op het effect van de volgende vier HR activiteiten: prestatie management (inclusief beoordeling, training en ontwikkeling), informatie delen,

communicatie door de leidinggevenden en autonomie. Uit de resultaten blijkt dat een combinatie van deze vier HR activiteiten een belangrijkere voorspeller is voor strategisch klimaat, dan ieder van deze HR activiteiten afzonderlijk. Ook wordt er bewijs gevonden voor een partieel mediërende rol van klimaat voor kwaliteit in de relatie tussen percepties van het HR systeem en betrokkenheid bij de afdeling. Dit betekent dat percepties van HRM deels een direct effect hebben op medewerkeruitkomsten, en deels verloopt dit effect via klimaat voor kwaliteit. Tot slot toont dit hoofdstuk aan dat naarmate medewerkers positiever oordelen over de communicatie door hun direct leidinggevenden, des te positiever oordelen zij over het belang van veiligheid binnen hun afdeling.

In ***hoofdstuk 7*** bouwen we voort op de resultaten van hoofdstuk 6, door de relatie tussen HRM percepties, strategisch klimaat en betrokkenheid bij de afdeling op nieuw te testen. In tegenstelling tot hoofdstuk 6 maken we hierbij gebruik van een longitudinale data set. Waar we in hoofdstuk 6 alleen iets kunnen zeggen over de samenhang tussen de verschillende concepten op 1 tijdstip, kunnen we met behulp van longitudinaal onderzoek meer inzicht krijgen in de processen tussen HRM en uitkomsten. Net als in hoofdstuk 6 testen we de mediërende rol van strategisch klimaat, echter in hoofdstuk 7 maken we hiervoor gebruik van multilevel analyses in plaats van analyses op afdelingsniveau. Het voordeel van deze multilevel analyses is dat er rekening wordt gehouden met de verschillen tussen individuen *en* het feit dat medewerkers ingebed zijn binnen afdelingen.

De resultaten in hoofdstuk 7 laten, net als in hoofdstuk 6 zien dat HRM een positieve invloed heeft op betrokkenheid bij de afdeling, via strategisch klimaat. Dit wil zeggen dat medewerkers die meer HR beleid op de afdeling ervaren, meer signalen ontvangen over belangrijke strategische doelen, waardoor er een duidelijker beeld ontstaat over het belang van deze doelen voor de afdeling (strategisch klimaat). Strategisch klimaat is op haar beurt van invloed op betrokkenheid bij de afdeling. Medewerkers die beter weten welke doelen worden nagestreefd binnen de afdeling voelen zich meer betrokken bij deze afdeling. Een mogelijke verklaring voor deze bevinding, is dat duidelijkheid over welke doelen van belang zijn er voor zorgt dat medewerkers zich

beter kunnen identificeren met deze doelen, met als resultaat een grotere betrokkenheid.

Op basis van de resultaten in hoofdstuk 6 en 7 kunnen we nu concluderen dat de volgende combinatie van HR activiteiten van belang is voor het creëren van strategisch klimaat op afdelingsniveau: informatie delen, prestatie management (inclusief training en ontwikkeling), communicatie door de leidinggevende en autonomie. Belangrijk om te benadrukken is dat met name de combinatie van deze activiteiten er voor kan zorgen dat er eenduidige signalen naar medewerkers worden gezonden. Bovendien draagt deze combinatie van activiteiten bij aan het vergroten van de betrokkenheid bij de afdeling.

Tot zover hebben wij ons gericht op de relatie tussen enerzijds een beperkt aantal HR activiteiten en anderzijds strategisch klimaat en betrokkenheid bij de afdeling. Ondanks het feit dat we hiermee hebben aangetoond dat deze HR activiteiten samen bij kunnen dragen aan strategisch klimaat op afdelingsniveau, gaan we hiermee voorbij aan het feit dat HR systemen in de praktijk vaak een grotere verscheidenheid aan HR activiteiten bevatten. Dit is ook het geval in de deelnemende ziekenhuizen. In ***hoofdstuk 8*** richten wij ons dan ook op een breder scala aan HR activiteiten. Naast de vier HR activiteiten zoals hierboven omschreven, worden de volgende HR activiteiten meegenomen in de analyse: werkprivé balans, functieontwerp, interne promotie mogelijkheden en baanzekerheid. Belangrijk om te vermelden is dat we veronderstellen dat deze vier activiteiten minder geschikt zijn voor het overbrengen van signalen over de strategische doelen van de ziekenhuizen. Dit betekent echter niet dat deze activiteiten niet belangrijk zijn. Verwacht wordt dat de combinatie van deze activiteiten vooral gebruikt kan worden voor het overbrengen van de boodschap dat de organisatie haar medewerkers waardeert; oftewel deze bundel is gericht op goed werkgeverschap. Om deze veronderstelling te toetsen is er gekeken of de verschillende combinaties van HR activiteiten een andere invloed hebben op de strategisch klimaat percepties. De eerste combinatie van HR activiteiten (d.w.z. informatie delen, prestatie management, communicatie door de leidinggevende en autonomie) heeft een positieve invloed op strategisch klimaat, en kan dan ook aangeduid worden als een strategisch georiënteerde bundel. De tweede bundel bleek geen effect te hebben op

klimaat voor kwaliteit en innovatie. Wel werd er een relatief klein verband gevonden met klimaat voor veiligheid. Deze resultaten ondersteunen deels het idee dat verschillende combinaties van HR activiteiten verschillende typen signalen (al dan niet over de strategie van de organisatie) over kan brengen aan medewerkers.

Tot slot hebben we in hoofdstuk 8 gekeken naar een breder scala aan medewerkeruitkomsten, namelijk betrokkenheid bij de organisatie, betrokkenheid bij het beroep, betrokkenheid bij de afdeling, OCB, tevredenheid en intentie tot vertrek. Het onderscheid in de verschillende typen betrokkenheid is met name belangrijk voor de ziekenhuis context. De resultaten laten namelijk zien dat medewerkers over het algemeen meer betrokken zijn bij de afdeling waar zij werken, en bij het beroep dat zij uitoefenen, dan dat zij zich betrokken voelen bij het ziekenhuis. Opvallend is dat medewerkers hoog scoren op OCB, en dat er nauwelijks variatie is in de scores op OCB. Dit betekent dat medewerkers aangeven dat zij zich extra inzetten voor de organisatie, ongeacht de afdeling of het ziekenhuis waar zij voor werken. Door gebrek aan variatie in de OCB scores, was het niet mogelijk om de relatie van HRM en strategisch klimaat met OCB te testen.

De resultaten van dit hoofdstuk laten verder zien dat naarmate medewerkers positiever oordelen over het HRM beleid (zowel over de strategisch georiënteerde bundel als de bundel gericht op goed werkgeverschap), des te meer betrokken zij zijn bij zowel de afdeling, het beroep als de organisatie, des te meer tevreden zij zijn en des te minder zij geneigd zijn om de organisatie te verlaten. Samenvattend kan geconcludeerd worden dat HRM een positieve bijdrage kan leveren aan zowel strategisch klimaat op afdelingsniveau en medewerkeruitkomsten.

Conclusies en implicaties

In **hoofdstuk 9** wordt de centrale onderzoeksvraag beantwoord: Op welke wijze en in welke mate kan HRM bijdragen aan de prestaties van ziekenhuizen op verschillende niveaus (individueel en afdelingsniveau) en in welke mate medieert strategisch klimaat deze relatie?

Medewerkers die meer HRM ervaren op de afdeling waar zij werken, voelen zich meer betrokken (bij de organisatie, de afdeling en het beroep), zijn meer tevreden en zijn minder geneigd om de organisatie te verlaten. De relatie tussen HRM en

betrokkenheid bij de afdeling blijkt volledig te verlopen via strategisch klimaat (d.w.z. voor de totale klimaat score waarin geen onderscheid wordt gemaakt in de verschillende klimaat typen) (hoofdstuk 8). Wanneer gekeken wordt naar de mediërende rol van de verschillende klimaat typen, blijkt dat de relatie tussen HRM en betrokkenheid bij de afdeling deels verloopt via het klimaat voor kwaliteit (hoofdstuk 6 en 8).

Terugblikkend op de resultaten van het onderzoek worden er in hoofdstuk 9 een aantal implicaties gegeven voor wetenschap en praktijk. Om te beginnen toont dit proefschrift het belang aan van een contextgerichte onderzoeksbenadering. Door veel tijd en aandacht te schenken aan de onderzoekscontext is het mogelijk geweest om een beter beeld te krijgen van de processen die zich afspelen binnen ziekenhuizen. Bovendien heeft dit bijgedragen aan het slaan van bruggen tussen wetenschap en praktijk.

Ten tweede wordt aangetoond dat het integreren van de strategisch HRM literatuur met de klimaat literatuur bijdraagt aan een beter inzicht in de onderliggende processen tussen HRM en prestaties. In het bijzonder heeft dit onderzoek aangetoond dat HRM bij kan dragen aan het creëren van een groter bewustzijn bij medewerkers over welke doelen van belang zijn, en wat er van hen verwacht wordt in termen van houding en gedrag (strategisch klimaat). Bovendien blijken zowel HRM als strategisch klimaat een positieve invloed te hebben op medewerkeruitkomsten.

Ten derde pleiten de resultaten in dit proefschrift voor onderzoek op afdeling- en medewerker niveau. Gegeven de complexiteit en omvang van ziekenhuizen is het van belang om te kijken hoe processen binnen het ziekenhuis verlopen. De bevinding dat percepties van het personeelsbeleid en strategisch klimaat verschillen per afdeling ondersteunt dit idee.

Daarnaast hebben de resultaten van dit proefschrift belangrijke implicaties voor de klimaat literatuur, door aan te tonen dat meerdere strategisch klimaat typen kunnen worden onderscheiden in ziekenhuizen. Hiermee onderkennen we het feit dat organisaties meerdere strategische prioriteiten tegelijkertijd kunnen hebben, en dat er meerdere strategisch klimaat typen kunnen bestaan in organisaties.

Tot slot hebben we aangetoond dat verschillende combinaties van HR activiteiten gebruikt kunnen worden voor het overbrengen van verschillende typen signalen naar medewerkers. Onderzoek naar de relatie tussen HRM en prestaties richt zich tot nu veelal op het effect van grote, alles omvattende HR systemen. Het nadeel van deze benadering is dat het niet duidelijk is welke HR activiteiten een impact hebben. Bovendien wordt er geen rekening gehouden met het idee dat verschillende combinaties van HR activiteiten verschillende effecten kunnen hebben. De resultaten in dit onderzoek laten zien dat het van belang is om verder onderzoek te verrichten naar de effecten van verschillende subsystemen van HRM.

Naast de bovengenoemde implicaties kunnen we op basis van de gevonden resultaten de volgende aanbevelingen doen voor de praktijk.

Een belangrijke eerste stap voor HRM om een bijdrage te leveren aan betere prestaties, is het creëren van bewustwording dat het aansturen van medewerkers een belangrijke sleutel tot succes is. Ondanks het feit dat dit in de praktijk meer en meer erkend wordt, blijkt in de praktijk nog vaak de nadruk te liggen op het oplossen van operationele problemen.

Daarnaast is het van belang dat HR-managers meer context sensitiviteit ontwikkelen. Dit wil zeggen dat zij meer inzicht krijgen in de ontwikkelingen in de interne en externe organisatie context en de daaraan gekoppelde uitdagingen. Regelmatig een krachtenveld analyse uitvoeren op basis van het model van Paauwe kan hierbij een goed hulpmiddel zijn. De resultaten van een dergelijke analyse kunnen gebruikt worden voor een betere afstemming tussen de (veranderende) context en het aansturen van medewerkers.

Naast een goede afstemming met de context is het van belang dat het HRM beleid is afgestemd op de doelen van de organisaties. Wil een organisatie haar doelen bereiken, dan is het van belang dat medewerkers hier een bijdrage aan leveren. Het creëren van bewustzijn bij medewerkers over het belang van deze doelen is hierbij een eerste stap. Dit kan bereikt worden door het daadwerkelijk implementeren van het HR beleid binnen afdelingen. De bevindingen in dit onderzoek laten zien dat medewerkers die op verschillende afdelingen werken, het HR beleid anders ervaren. Dit kan er op wijzen dat het bedoelde HR beleid niet of verschillend wordt geïmplementeerd door de direct

leidinggevenden. Het is dan ook aan te bevelen om meer aandacht te besteden aan de implementatie van het bedoelde HR beleid. Als dit op een consistente wijze gebeurt, dan draagt dit niet alleen bij aan het creëren van strategisch klimaat, maar zorgt het ook voor meer betrokken en tevreden medewerkers, die minder geneigd zijn om de organisatie te verlaten.

About the author

About the author

Monique Veld was born in Oss (8 December 1982), the Netherlands. In 2001 she obtained her high school diploma at the 'Maasland College' in Oss. In September 2001 she started studying Human Resource Studies at Tilburg University. She graduated (with honors) in March 2006, after which she was appointed as a junior teacher in Organizational Studies at Tilburg University. Besides she worked as a junior researcher for the Institute for Labour Studies in Tilburg. At the institute she was involved in a research project on age-related HRM policies in Dutch Universities.

In August 2006 she started working as a junior teacher for the HR studies department at Tilburg University. In February 2007 she was appointed as a PhD student in human resource management in health care at the Institute of Health Policy and Management (Erasmus University), where she worked on her dissertation about 'HRM, strategic climate and employee outcomes in hospitals'. During her work on her dissertation she was part of the People Performance and Healthcare group which is a cooperation between the Institute of Health Policy and Management (Erasmus University) and the department of HR studies at Tilburg University, resulting in working 50% of the time in Rotterdam and 50% of the time in Tilburg.

She presented her research at international conferences, including the EIASM conference, the EAWOP conference, the Academy of Management, HRM network conference and the International Workshop on Human Resource Management. Together with Jaap Paauwe, Monique organized a professional development workshop at the Academy of Management Conference in Montreal, on conducting contextually based research on HRM and performance in health care. Moreover, she co-organized a conference (PREBEM conference in 2008) and a seminar in the Netherlands (in 2009) on Improving People Performance in Healthcare. Together with Jaap Paauwe, she initiated an annual seminar on HRM in health care which rotates between Kings' College in London, Dublin City University, the Institute of Health Policy and Management in Rotterdam and Tilburg University.

Monique currently works as an assistant professor at the Open Universiteit in Heerlen, School of Management. Besides, she continues her active participation in the People Performance and Healthcare research group.

Publications

Boselie, P. & Veld, M. (in press). Human resource management and commitment in Dutch child day care. *Administration in Social Work.*

Veld, M., Paauwe, J., Boselie, P. (2010). HRM and strategic climates in hospitals: does the message come across at the ward level? *Human Resource Management Journal*, 20(4), 339-356.

PhD Portfolio

Name: Monique Veld	**PhD period:** 2007-2012
Promotor: Prof.dr. Jaap Paauwe	**Department:**
Prof.dr. Paul Boselie	institute of Health Policy & Management

1. PhD training	**Year**
General academic skills:	
• Intensive English course (Language centre, Tilburg University)	2007
• Academic writing for PhD students (language and training centre, EUR)	2007
• Art of presenting science (Tilburg University)	2009
Didactic skills:	
• Tutor training Problem-based learning (iBMG)	2007
• Elementary course didactical skills (RISBO)	2007
Research skills, Statistics & Methodology:	
• Research master: Analysis of Multilevel Data (Tilburg University)	2007
• Research master: Linear structural models (Tilburg University)	2009
In-depth courses:	
• Elective: Advanced Studies in HRM	2009
Presentations international conferences:	
• EIASM conference, 23rd workshop on Strategic HRM, Slovenia. Presentation paper: HRM, climate and performance in the Dutch health care sector.	2008
• EAWOP conference, Santiago de Compostella. Poster-presentation: The impact of employee perceptions of HRM on multiple strategic climates in a Dutch hospital.	2009
• Academy of Management conference, Chicago. Poster-presentation: Boselie, P., Veld, M. The Impact of Human Resource Management on Affective Commitment, Team Commitment and Occupational Commitment in Dutch Child Daycare.	2009
• VIII international workshop on HRM, Seville. Presentation paper: The mediating role of strategic climate in the relationship between HRM and employee commitment: A multilevel temporal analysis.	2011
• Seminar: Improving People Performance in Health Care, London. Presentation paper: Human Resource Management in health care: Living the dream?	2011
Seminars and workshops:	
• Phresh seminar: multi-level issues in HRM	2008
• Media skills (Tilburg University)	2010
• Multilevel Analysis of Group and Longitudinal Data (Tilburg University)	2011
• PhD career counseling (Tilburg University)	2011
Presentations national conferences:	
• VHPG conference: workshop on strategic climate in health care	2009
• Dutch HRM network conference, Amsterdam. Presentation paper: HRM, strategic climates and commitment in hospitals: an explorative case study	2011
• Dutch HRM network conference, Groningen. Presentation paper: From intended strategy to employee awareness: the relevance of strategic climate	2011
• Dutch HRM network conference, Groningen. Presentation paper: Human Resource Management in health care: Living the dream?	2011

Other:	
• Member organizing committee Prebem conference	2008
• Organizer seminar Improving people performance in healthcare; (co) initiator rotating seminar among King's college London, Dublin City University, Tilburg University and iBMG	2009
• Co-organizer Professional Development Workshop, AOM conference, Montreal	2010
2. Teaching activities	**Year**
Lecturing:	
• Guest lecture, introduction HRM (bachelor, Tilburg University)	'07 –'10
• Personnel management (master health care management, iBMG)	'08 –'10
• Human Resource Management (master health care management, iBMG)	'09 –'11
Supervising practicals and excursions:	
• Site visit London, master students health care management	2008
Supervising Bachelor's and Master's theses:	'07-'11
• Supervision Master's theses (iBMG & department HR studies, Tilburg University)	
• Supervision Bachelor's theses	
Co-evaluate Bachelor's and Master's theses:	'07-'11
• Second reviewer Master's theses (iBMG & department HR studies, Tilburg University)	

The hospital sector – and more broadly the health care sector - is increasingly under pressure to operate more efficiently and effectively and has to respond to the challenges of increased market orientation, changed legislation and providing demand driven care. The most crucial factor in taking up these challenges involves the people (managers, professionals, specialists, nurses etc.) working in this sector. Although policy makers in health care increasingly recognize that a well-motivated, appropriate skilled and deployed workforce is crucial for the success of health system delivery, empirical research focused on the added value of HRM in health care remains scarce.

This thesis aims to fill this gap and is focused on enhancing our understanding of the process through which Human Resource Management influences performance in hospitals. The thesis builds on the strategic HRM literature, HRM process models, and climate literature and bridges 'macro' (organizational level) and 'micro' (individual level) research. More specifically, the thesis is focused on the mediating role of strategic climate in the relationship between HRM and outcomes. According to the strategic climate approach a strategic climate should encourage employees to respond and behave in ways that support the strategic objectives of the organization. The results in this thesis show that multiple strategic climate types can be distinguished (i.e. climate for quality, safety, and innovation) across the participating hospitals. Moreover, the results show that employee perceptions of the HR system help to create strategic climate perceptions, which in turn affect relevant employee outcomes.

In order to take into account the specific characteristics of the hospital context, and to bridge the gap between research and practice, a contextually based research approach is applied.