DAINA KONTER

Crossing Borders with HRM

An Inquiry of the Influence of Contextual Differences in the Adoption and Effectiveness of HRM

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Grensoverschrijdende HRM:
Een onderzoek naar de invloed van contextuele verschillen
op de toepassing en effectiviteit van HRM bundels

Thesis

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Daina Jacqueline Konter
place of birth, Leiderdorp

Doctoral Committee

Promotor:	Prof.dr. J. Paauwe
Other members:	Prof.dr. R.E. Peccei
	Prof.dr. A.R. Thurik
	Prof.dr. G.A. van der Knaap
Copromotor:	Dr. L.H. Hoeksema

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Preface

Whatever the form or nature of an organization, it cannot exist in splendid isolation from other organizations or individuals around it. Even though in a dissertation project one has to do a lot alone, it takes a lot of 'organization' to get it done. Many people have directly or indirectly contributed to my personal development and therefore also to the production of this dissertation. I am very grateful to them. I would like to thank a few people in particular.

First, I would like to express my sincere gratitude to my supervisors, Prof. Jaap Paauwe and Dr. Ludwig Hoeksema. Their continual guidance and support has been a special privilege. Prof. Jaap's patience and wise advise and Dr. Ludwig's creative thoughts are very much appreciated. I would like to mention Dr. Jan de Kok here. Dr. Jan's methodological expertise and valuable suggestions were indispensable. I have enjoyed working with him very much. I would also like to thank Prof. Riccardo Peccei for his valuable comments as well as the other members of the doctoral committee, Prof. Roy Thurik and Prof. Bert van der Knaap, for reading and reviewing this dissertation.

I also owe many thanks to several people at IBM for a pleasant and stimulating collaboration. I would particularly like to thank Drs. John Werkhoven and Drs. Hans Groothuis for making it possible for me to use data for this dissertation. The collection of the data that has been used was done from within IBM. I would like to extend my thanks to the support staff for their assistance.

I have really enjoyed my interaction with university colleagues, including other PhD students. I have nice memories of the lovely people I have met, like those of the IFAR (now EPAR) team, the Prebem team and the NOBEM reunisten.

I am blessed with good and dear friends. Within the context of my PhD special thanks go out to the friends whom I met at the university. I enjoyed discussing with them on numerous occasions. One of them has agreed to be my paranimf. I am sure that Kevin's impressive calm nerves will have a positive influence on a possible nerve wrecking event, my defense.

I would also like to thank the people who have been there for me all my life. I could not have done this without the support of my family, their partners, my in laws and my nieces & nephews. Many thanks for caring and being always there for me. I would like to mention my siblings, Tumaini, Tami and Monique in particular. Thank you for always supporting me. I am extremely glad to have my baby sister Monique as my paranimf. I am also very grateful for Ruud's love and understanding. Without his encouragement my life would not be as fulfilling as it is now. I cherish the family we started together. Occasionally having active working sessions till late in the night was not always beneficial for his schedule. Finally I would like to thank my mother. With her strength, pride and wisdom she has guided me during my entire life. Humble I take this step, thinking of my father who has also done this many years before me.

I probably haven't thanked everyone that has meant something to me during these years, so I would like to end displaying my gratitude by thanking everyone that cared.

I would like to end this preface with an invitation. Every organization is a product of (wo)man's work. Human resources play a crucial role and human resource management (HRM) is therefore an essential tool. Nowadays we are worldwide more connected, which at the same time means we are also more often confronted with our differences. I have conducted an inquiry of contextual differences in the adoption and effectiveness of HRM. I hope you are ready and willing to join me as I present you my journey aimed at crossing borders with HRM.

Daina Konter, Leiderdorp, 25 november 2013

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Chapter 1

Introduction

1.1 Prelude

By the end of the millennium economies had expanded significantly. In the year 2000 the economy was booming. Economic growth was high and widespread. The increase in gross world product (GWP) was 4 percent and was the strongest in more than a decade (United Nations 2001 p.1). In all major regions of the world this improvement was present. A year later, however, the world economy suffered a large setback. Almost every country was affected by this sharp slowdown. This situation would change again. After the major setback a global economic recovery started with modest accelerations and decelerations (United Nations 2001 through 2007). The recent financial crises that started in 2008 once again proved connectivity between countries worldwide. The cycles in improved economic strength as well as downfalls are widely shared among countries. The economic impact in one area affects economies of other distant places, as well as the world economy as a whole. The increased global connectivity is referred to as globalization (Levitt 1983). While internationalization occurs between nations, globalization affects all parts of the world in similar and simultaneous ways. When speaking of internationalization and globalization some researchers refer to newly emerging 'forces' such as technological developments and transport possibilities that are breaking down national borders (e.g. Knowles 2006) while other researchers note that when contexts are brought closer together, differences between these contexts can be made more visible (e.g. Paauwe 2004, Stark 2004). A powerful drive towards the liberalization of world trade has brought many economies closer to each other. In the European Union, for example, the single market

program removed a range of barriers that had previously inhibited trading and business across borders (Barroso 2005). In addition an increasing number of organizations have been seeking an international presence as a means of diversifying their markets. Multinational enterprises, for example, continue to expand worldwide tapping on growing global markets (e.g. Hansen 2006, Schoeff 2007). Even organizations that operate in their own familiar context do not necessarily remain unaffected when cross border exchange takes place (Van Geenhuizen & Van der Knaap 1996, Magala 2004). As the world economy becomes more closely related the discussion arises as to whether more homogeneous patterns will be found or whether differences instead will become more apparent. We therefore need to learn more about the influence of the environment in which an organization operates.

Nowadays, organizations operate in a more complex and dynamic environment. In the increasingly competitive global economy organizations will need the use of *all* their available resources in order to achieve and maintain competitive advantage. Now more than ever organizations throughout the world are dependent on their human resources (HR). Finding, training and keeping good staff has become an important element of success as labour mobility increases. Human resource management (HRM) represents that part of an organization's activities concerned with the recruitment, development and management of employees (Wood & Wall 2002). HRM can be defined as '*the pattern of planned HR deployments and activities intended to enable an organization to achieve its goals*' (Wright and McMahan 1992, p. 298). This definition highlights the importance of planned action in realizing organizational goals. Business performance is considered to be a major organizational objective (Combs et al 2006). Researchers have increasingly been concerned with the relationship between HRM and different performance indicators (e.g. Guest & Peccei 1994, Huselid 1995, Becker & Gerhart 1996, Appelbaum et al 2000, Looise & Paauwe 2001, Batt 2002, Guest et al 2003, DenHartog & Verburg 2004, Sels et al 2006). Several *countries* as well as *sectors* have been incorporated in previously mentioned studies. Most of the published research supporting the association between HRM and organizational performance is however based on a relatively small, national

and/or sector-specific sample (Datta et al 2005, Brewster 2007). There has been limited empirical research assessing HRM and performance in a broader context (Geringer et al 2002, Brewster et al 2005, Rowley & Warner 2007, Wright et al 2007). Several national differences have been examined and acknowledged in the past (e.g. Hofstede 1991, Freytag & Thurik 2007). Differences between sectors in production and market characteristics can also lead to different (competitive) dynamics (Datta et al 2005). We therefore need to learn more about the influence of both contexts.

1.2 Research question

Most studies are from Anglo-American countries (mostly the United States or the United Kingdom) and conducted in the manufacturing sector (Paauwe 2007). Consequently, relatively little is known about the relevance of these findings in different contexts. The central focus of this study is therefore on HRM and the link of HRM with performance in different contexts. In our study a distinction is made between countries and sectors. Countries with similar characteristics will be grouped together. Anglo-American countries such as the US and UK can, for example, be grouped together. Most researchers furthermore agree upon the idea that a combination of HR practices rather than single, isolated practices, influences performance (e.g. Delery & Shaw 2001, Guest et al 2004, Wall & Wood 2005). Bundles of HR practices are therefore considered, rather than the exploration of any particular practice in great depth.

The aim of this research is to examine HRM bundles, across different contexts and also in relation to various measures of organizational performance. The central research question of this study is:
'*Does the adoption and effectiveness of HRM bundles vary in different contexts?*'

Even under the best of circumstances, international research represents a challenging undertaking. In the process of collecting data, comparability of information on samples from different contexts is needed. Structured questionnaires in survey research enable this.

For this study we could use a survey conducted by IBM. This is one of the few HRM surveys that allows for comparisons between countries and sectors. IBM Business Consulting Services Human Capital Management Practice annually collects benchmarking information. The data in this study were collected in April to June 2002. The final sample of 1056 organizations consists of organizations from 47 countries and 6 different sectors. Questions have been asked about a range of HR practices and several performance indicators (IBM Global Human Capital Survey 2002).

1.3 Relevance

With the trend towards internationalization and globalization seeming ever stronger, the context of HRM will play an increasingly important role within research. To enhance theory building and the improvement of HRM in practice, it is crucial for researchers to try and tackle previously mentioned questions.

The research conducted in this study contributes to the academic HRM literature in several ways. First, bundles of HR practices will be constructed since a combination of HR practices is expected to have a greater influence on performance than any single practice could have (Delery & Shaw 2001, Guest et al 2004, Wall & Wood 2005). This study can therefore provide more understanding concerning the role of internal alignment of HR practices. In addition, depending on their role in the realization of the organization's objectives it might be appropriate to provide different HR practices to different employee groups. We will try to incorporate differences for employee groups in the analysis. Furthermore, the vast bulk of existing research on HRM and performance remains focused within countries and most of the published research is from Anglo-American countries (Brewster 2007). Most studies are also conducted within the manufacturing sector, while considerable differences are expected for other sectors such as the service sector (e.g. Boxall 2002). Findings from Anglo-American countries and the manufacturing sector are not necessarily applicable in other contexts. Examining HRM and its relationship with performance in a broader context in today's environment is essential. Different countries

and sectors are therefore considered. In this study the relationships between HRM, the context and performance will be examined.

The research conducted here is also relevant for practitioners, for whom it is important to know whether it is necessary and/or beneficial to consider the context in which they operate. After having identified important elements in the relationship between HRM, the context and performance, practitioners can develop the necessary capabilities in order to realize competitive advantage. First of all suggestions on how to align different HR practices as well as how to approach different staff categories, can be distilled from the bundles of HR practices that are constructed within this study. Furthermore comparisons can be made between the situation of an arbitrary organization and the findings of this study. The combinations that have been found between HRM and the different contexts offer an indication of how to match HRM with a specific context. Detected relationships of HRM bundles with performance outcomes will illustrate the potential of HRM in different contexts.

This study explores what it means to cross borders with HRM. By moving research from Anglo-American countries and the manufacturing sector to a broader context, national and sector borders are crossed. By providing useful insights for practitioners this research can also crossover from academia back to practice. In this study, in which "crossing borders with HRM" is the central theme, an inquiry is conducted of the influence of contextual differences in the adoption and effectiveness of HRM. An exciting mixture of challenges is brought together and tackled.

1.4 Chapter Layout

In the following chapters this international, multiple-sector research is outlined. In the next chapter a review of HRM literature will be conducted. The main challenges in current HRM research are highlighted in order to help determine a research focus. In chapter 2 research priorities are set. Chapter 3 lays the basis for a conceptual framework and

presents the hypotheses. Theory which is appropriate for examining the relationship between HRM, the context and performance will be presented in detail. In order to address our research question and test the hypotheses, in chapter 4 a design to structure this study is presented. Chapter 5 follows, in which HRM bundles are constructed. This part of the study focuses on how meaningful bundles of HR practices can be constructed. The context is operationalised in chapter 6. Different sectors will be identified and similar countries will be grouped together. With the operationalizations of our main variables in place we can revisit our hypotheses and formulate expectations. This will be done in chapter 7. In chapter 8 we will start our analyses of the relationship between HRM and the context. Country as well as sector differences in the adoption of HRM will be examined. The study continues with chapter 9 in which the link between HRM and different performance measures is investigated. Moderating effects of the context will also be taken into account. In the last chapter a summary, discussion and conclusion will be presented. Suggestions for future research and recommendations for practitioners will be formulated. A final note will conclude this study.

Chapter 2

Research priorities

2.1 Introduction

A growing area of research has been labelled strategic human resource management (SHRM) because it emphasizes the strategic role human resource management (HRM) can play in supporting business objectives (Delery 1998). In this chapter existing literature on SHRM is reviewed in order to identify key gaps in knowledge and to help establish research priorities. The aim of this chapter is threefold: (1) to learn from previous research, (2) to identify research challenges and (3) to establish the research focus for our study. It is worthwhile to take a step back and reflect on the extensive literature that comes to bear. This review is however not a general review of SHRM research (e.g. Becker & Gerhart 1996, Becker & Huselid 1998, Wood 1999, Wright & Boswell 2002, Paauwe 2004, Boxall et al 2007, Paauwe 2009, Guest 2011). Instead this chapter is aimed at determining a research focus appropriate for our study. Internationalization and globalization developments ask for a broader orientation. Our study therefore considers SHRM in a broader context. We will consider country and sector differences in the adoption and effectiveness of HRM. Important contributions to the SHRM field will be

presented and challenges will be identified as far as they are relevant for SHRM that considers a broader context.

The next section provides a brief overview of previous research in order to determine where we stand at the moment. Then, challenges in SHRM research will be identified. Finally conclusions will be drawn concerning research priorities in general and our research focus in particular.

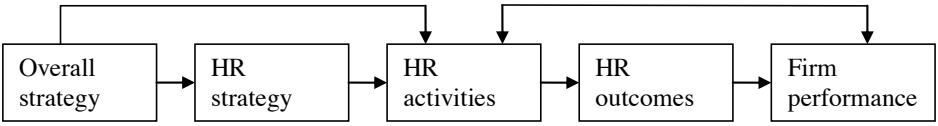
2.2 Previous research

Before identifying research challenges it is useful to reflect on achievements so far in the SHRM field. A number of empirical studies have been conducted in this field. These studies use a similar causal model for the relationship between HRM and performance (e.g. Boselie et al 2005, Becker & Huselid 2006) (see fig 2.1). The model starts with an overall strategy. An overall strategy gives direction to an organization. This overall strategy is reflected in the HR strategy or directly in the HR activities. HR activities are concerned with the recruitment, development and management of employees (Wood & Wall 2002). HR activities therefore include HR practices such as training. These HR activities are furthermore aimed at improving performance. For the performance indicators a distinction can be made between HR outcomes and firm performance. HR activities can have an effect on firm performance (e.g. profit) directly but also *via* HR outcomes (e.g. absenteeism). The model also takes into account the possibility of reversed causality. The hypothesis in this case would be that as a firm becomes more profitable, the investments in HR practices increase as a consequence. These investments are intended to further increase performance or reduce the risk of performance decline. Though increasing investments in HR activities can also simply be an act of wealth distribution (Wright & Gardner 2001).

In SHRM research the strategic role of HRM has been examined by analyzing the impact of HR strategies and/or activities on (firm) performance, but also by focusing on the

integration of or fit between HR strategies and/or activities with the overall business strategy (Delery & Doty 2001). In this paragraph first research on the link between HRM and the overall strategy will be presented. This will be followed by a categorization of research done on the link between HRM and performance.

Figure 2.1 The standard causal model in SHRM research



Source: based on Boselie et al 2005 and Becker & Huselid 2006

2.2.1 HRM and strategy

Several researchers have explicitly investigated different aspects of the relationship between HRM and the overall strategy. They have argued that strategic HRM is characterized by an alignment of HR strategies and/or activities with organizational goals and (labour) market circumstances. This alignment with the strategy is operationalised in different ways. Schuler and Jackson (1987) have constructed a "*competitive strategy approach*". They have identified different strategies for role behaviours that can relate to the three competitive strategies listed by Porter (1985): cost leadership, differentiation, and focus. In this approach alignment of HRM with the strategy is realized by linking different role behaviours to different competitive strategies. Marchington and Wilkinson (1996) provide a basis for analyzing and assessing relevant HR strategies by using the three types defined by Miles and Snow (1978) namely, the defender, prospector and analyst. This can be considered to be an "*organizational typology approach*". The distinguishing feature in this approach is that different HR strategies are linked to corporate strategies. Storey and Sisson (1993) investigated how four stages of an organization's life cycle influence HR practices in their "*life cycle approach*". They have considered different stages in the life cycle of an organization in order to determine the appropriate HR practices to link with each stage. Konter et al (2003) have developed a

conceptual framework in which they have linked HRM with the value disciplines (best product, best solution and best costs) of Treacy and Wiersema (1995). All three value disciplines realize a unique value for the customer. Although several universal best HR practices have been identified, a plea has been made to tailor HRM to the specific business strategy as much as possible. This approach is referred to as a *"tailored (HRM) value approach*". Not all HR practices have a similar role in bringing about the business strategy. Some HR practices are important regardless of the business strategy (best practices), while others are crucial for the particular business strategy.

The alignment with the organization's strategy is not always explicitly addressed in SHRM research. The focus is instead on the link between HRM and performance. Wood (1999) even implies that HRM can be compatible with any strategy, because it is the fact that there is a 'strategic' (intentional and/or purposeful) approach to HRM in an organization that is important, not that HRM is linked to a particular strategy. Whatever the reason far more attention and research has been paid to the relationship between HRM and performance (e.g. Guest & Peccei 1994, Huselid 1995, Becker and Gerhart 1996, Appelbaum et al. 2000, Looise & Paauwe 2001, Batt 2002, Guest et al 2003, DenHartog & Verburg 2004, Sels et al 2006). In the remainder of this chapter the focus will therefore be on the relationship between HRM and performance.

2.2.2 HRM and performance

The impact of HRM on performance is an important focus in SHRM research (Delery & Doty 2001). It has become a dominant research issue in the HRM field (Guest 1997, Delery & Shaw 2001, Wall & Wood 2005, Combs et al 2006). Numerous empirical examinations and theoretical treatments of the link between HRM and firm performance have been considered over the years (e.g. Huselid 1995, Guest 1997, Paauwe en Richardson 1997, DenHartog & Verburg 2004, Sels et al 2006, Paauwe 2009, Guest 2011). The desire to establish the link between how an organization manages its people and its bottom-line performance was the initial drive (Wright et al 1994). This evolved in the desire to also realize value creation through investments in HRM, thus broadening the

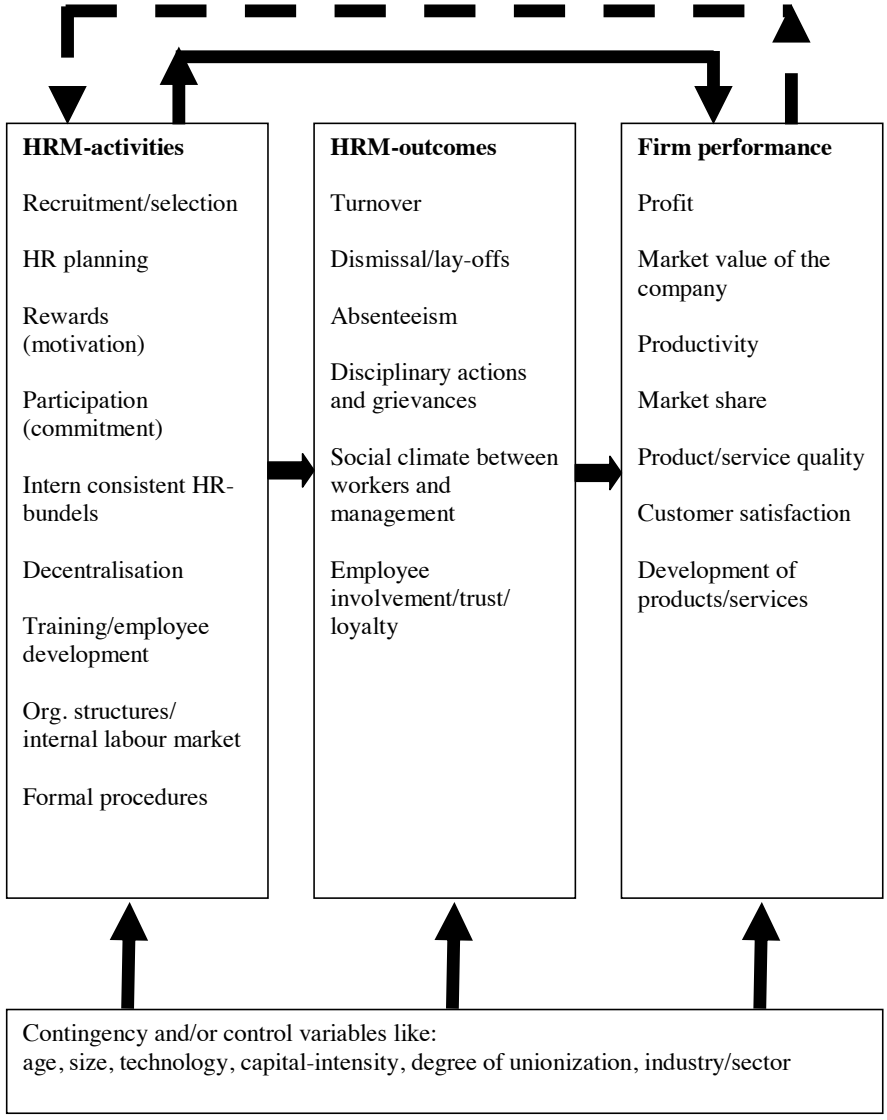
scope of performance indicators taken into consideration. Concerning the main dependent variable that researchers have considered, we can distinguish between manufacturing performance (e.g. Arthur 1994, MacDuffie 1995, Youndt et al. 1996, Challis et al 2005), financial performance (e.g. Delery & Doty 1996, Guest 1997, Tomer 2001) and market performance (e.g. Huselid 1995, Becker et al 1997, Harel & Tzafrir 1999, Richard & Johnson 2004). Sels et al (2006) on the other hand have developed a conceptual framework that maps both the value-enhancing and cost-raising impact of HRM.

SHRM research furthermore has in common that the HRM performance link is seen as a (mostly linear) sequential causal process. The research that has been conducted can largely be summarized in a general overview. In 1997 Paauwe and Richardson had already constructed a clear overview for this purpose. They present a number of empirically established relationships from different studies (see fig 2.4).

The existing research in this area is in addition predominantly functionalistic in design, with much use made of cross-sectional survey techniques (Gerhart 1999, Boselie et al 2005, Paauwe 2007). Associations between different HR practices and performance outcomes have been established, as well as estimates of the size effects of these relationships (Richardson et al 2003, Becker & Huselid 2006). This style and focus of research is most dominant in Anglo-American countries (Whitley 1999 p.11).

Not only the research principles from Anglo-American countries dominate in the SHRM field, but most of the research is also conducted in this context (Brewster 2007). Several researchers have therefore tested initial frameworks in other countries than the US or the UK. Several examples of these studies are d'Arcimoles (1997) in France, Ichniowski and Shaw (1999) in Japan, Guthrie (2001) in New Zealand and Den Hartog and Verburg (2004) in the Netherlands. Furthermore, most studies have been conducted in the manufacturing sector, although emerging knowledge-intensive service organizations have increasingly drawn the attention of researchers (Laursen 2002). A few studies incorporate multiple industries in the study (e.g. Huselid 1995), while most studies focus on one specific industry. MacDuffie (1995), for example, discussed the success of lean

Figure 2.2 a Conceptual Framework for HRM and Performance



Source: Paauwe & Richardson (1997)

manufacturing in the automobile industry, while Huselid (1995) incorporates several industry measures as control variables. The studies mentioned above all illustrate the importance of investigating the relationship between HRM and performance. Most of this research is, however, largely focused within a specific country or sector (Geringer et al 2002). We are in need of more research that considers a broader context (Brewster et al 2005, Wright et al 2007). Our research will consider a broader context.

2.3 Research challenges

In order to identify the directions in which research on SHRM can advance research challenges will need to be identified. In this section first a distinction in level of analysis will be addressed. Different areas of research exist at different levels of analysis, such as the individual-, group- and organizational level. Next a repertoire of theories and perspectives, that have been deployed to study SHRM in organizations, will be presented. This will help to determine which theory and/or perspective is most appropriate for analyzing HRM and the link of HRM with performance in a broader context. Guest (1999) furthermore pointed out three main areas of improvement. These are HRM, performance and the relationship between these two. Research challenges will be addressed for these three dimensions. In addition applying an appropriate research method can also present challenges. This section will conclude with considerations concerning research methods.

2.3.2 Level of analysis

Each level of analysis provides answers to unique questions and has its own advantages and disadvantages. Researchers in the SHRM field have been stressing the importance of the appropriate use of level of analysis (Delery 1998, Wright & Gardner 2001). A distinction has been made between two levels of organizational analysis: “macro” HRM research and “micro” HRM research (Wright & Boswell 2002). Macro HRM reflects a more organizationally focused examination of HRM. Micro HRM refers to the more functionally oriented view of HRM and focuses on the effects at the individual level. In

both cases it is about identifying and accounting for sources of variance (Kerlinger 1986), but on different levels.

Macro HRM research

Macro HRM research examines the impact of HR practices using the organization (establishment, business unit or corporation) as the level of analysis (Wright & Boswell 2002). It focuses on the variance in the relevant variables across organizations. At this higher level of measurement relative uniformity in the variable within the organization is assumed. Variance across individuals or jobs is ignored; these groups are assumed to be equal (Wright & Nishii 2004). Macro researchers are often interested in the organizational impact of practices and adopt the assumption that organizations seek to maximize economic performance (e.g. Combs et al 2006). Research is for example focused on the extent to which HR practices (such as above average compensation, extensive training and development etc.) are related to performance indicators such as productivity or sales growth (e.g. Huselid 1995, Konter et al 2004).

Micro HRM research

Micro HRM research explores the impact of HR practices on (specific groups of) individuals. The aim of this research is to identify and account for variance across individuals or groups (Wright & Boswell 2002). It focuses on individuals or small work groups with shared identity. Micro research is often aimed at improving technological sophistication of a particular HR practice. The intent of the research is to improve the technical capability of the practices and examine their effect on individual attitudes and behaviours (e.g. Tesluk & Mathieu 1999, Kristof-Brown 2000). It often entails assessing some individual characteristics (specific job skills, cognitive ability, etc.).

Combined research

There is much that can be learned from research on both levels of analysis. Insights from both research directions can be combined. This can, for example, be done by analyzing how HRM is established at the macro level and particularistic at the micro level. Macro

research can establish that a bundle of HR practices is likely to improve overall productivity, while micro research can identify how HR practices can improve individual productivity. Other combinations are, however, also imaginable. Different levels of analysis can for example also be combined by using the concept of the psychological contract (Rousseau 1995, Guest 1999). (Employment) contracts serve to bind individuals and organizations (Robinson et al 1994).

Implications for our study

The choice of measuring at a specific level depends on the research question. This will have implications for the desired level of specificity and the expected variance (Delery 1998, Wright & Gardner 2001). When examining SHRM in different contexts a higher level of analysis will generally be more appropriate. A detailed level of specificity is more difficult to maintain when SHRM is considered in a broader context.

2.3.2 Organizational theory

The SHRM field brings together researchers with different background (e.g. psychology, sociology, economics) (Boxall et al 2007). Understandably this also means that different organizational theories underlie research in the SHRM field (e.g. Wright & McMahan 1992, Shafritz & Ott 2001, Douma & Schreuder 2002). The approaches that will shortly be described here are: (1) Behavioural perspective, (2) Resource-based view of the firm, (3) Agency/transaction cost theory, (4) Contingency theory, (5) Institutionalism and (6) Critical theory. The theories or perspectives, that are included, have three attributes in common. First of all the approaches can all be helpful when examining SHRM in a broader context. The theories or perspectives enable an examination of the role of HRM in an organization and/or the influence of an organizations environment on HRM. In addition all these theories enable the organization itself or its primary subunits to be the unit of analysis. This means that for example psychological theories, concerned with individual employee performance and attitudes (such as learning), will not be considered. Instead approaches that have their roots in economics, sociology or organization design and strategic management will shortly be addressed. Last but not least, the focus will be on

theories or perspectives that can be helpful when a researcher is concerned with an organization's overall ability to adapt and achieve its goals. The theories or perspectives, that are included, incorporate a certain degree of "manageability" or stated otherwise an individual person or organization can influence its own destiny or surroundings. Theories, such as evolution theory, describe how changes occur that are not intentionally influenced by (groups of) individuals (Douma & Schreuder 2002 p.229). Critical theorists finally criticize main stream theories and for a more complete and encompassing overview this critical perspective is also addressed.

Behavioural perspective

The behavioural theory of the firm focuses on the decision making process concerning pricing, resource allocation and capital investment in organizations (Cyert & March 1963). In this theory organizations are considered to be groups of individuals each with their own objective. In explaining the decision-making process several steps are distinguished. A distinction is made between the process of defining goals, the forming of expectations, making choices and implementing them. A behavioural perspective therefore predominantly focuses on the throughput transformation process within an organization. Employee behaviour is seen as the mediator between strategy and firm performance. The purpose of various employment practices is to elicit and control employee attitudes and behaviours. Several researchers stress the importance of discretionary behaviour in the process aimed at reaching organizational goals (Guest 1997, Purcell et al 2003); others focus instead on for example role behaviour (Schuler & Jackson 1987).

Resource based view of the firm

There is a growing acceptance of the use of the Resource-based view of the firm (RBV) when examining the link between HR practices and firm performance. Barney (1991) proposed to shift the focus from the external environment (how to position the organization in a competitive market) to the internal resources (how to exploit the internal strengths). These resources can lead to a competitive advantage. Competitive advantage refers to the implementation of a value creating strategy that is not simultaneously being

implemented by any current or potential competitor. An organization can gain '*sustained*' competitive advantage from the resources it possesses only when other organizations are incapable of duplicating the benefits of the competitive advantage. For a resource to be a source of (sustained) competitive advantage it must be rare, valuable, inimitable, and non-substitutable. Human resources can meet the criteria for (sustained) competitive advantages (Wright & McMahan 1992). The human resource based theory of the firm (Paauwe 1994, Wright, McMahan & McWilliams 1994, Boselie et al 2005, Boselie & Paauwe 2009) shows that HRM can influence performance.

Agency/transaction cost theories

As a means of reducing costs of transactions different factors are identified that explain why organizations seek to internalize transactions instead of contracting via the market (Williamson 1981). Transaction costs are the costs associated with negotiating, monitoring, evaluating and enforcing exchanges between parties. If the transaction costs in the marketplace increase, there is a tendency to internalize the transaction process. Two human factors serve as major obstacles to an efficient exchange or transaction: bounded rationality (people are subject to information processing limits) and opportunism (people will act with self-interest). Where uncertainty exists, both parties will tend to behave in behalf of self-interest. This is the agency problem. Establishing efficient contracts between parties reduces the agency costs. Organizations will seek to internalize transactions instead of contracting via the market dependent on the costs for either option. In the HRM field several authors (e.g. Paauwe & Williams 1998, Lepak et al 2007) have examined the make (internalize) or buy (marketplace) decision concerning HR issues.

Contingency theory

The contingency theory is an approach to organizational analysis that views organizations and their various subsystems as adaptive to their environment (Lawrence & Lorsch 1967, Burns & Stalker 1961). Environmental conditions are regarded as a direct cause of variation in organizational forms (Lewin & Volberda 1999). Contingency theorists argue that there is no one best way of organizing. The effectiveness depends on the contingency

factor. Various aspects of the situation, such as the size of an organization, can be identified as having an influence on the outcome of HRM. Larger organizations are, for example, more likely to generate more revenue (and costs) than smaller organizations. The effectiveness of HRM may also depend upon the presence or absence of other contingency factors such as the strategy (e.g. Delery & Doty 1996) and countries or sectors (e.g. Konter et al 2004).

Institutionalism

Many structures, programs, and practices in organizations attain legitimacy through the social construction of reality (Scott 1987). Social processes, obligations, or actualities come to take on a rule like status; individuals come to accept a shared definition of reality. Actions that are not driven by necessity or obvious advantage are taken for granted as defining the 'way things are' and/or the 'way things are to be done'. The focus in institutional theory is on why organizations within a population exhibit similar characteristics. This process of homogenization, where organizations in a population tend to resemble one another, is referred to as population isomorphism (DiMaggio & Powell 1983). Several researchers have looked at the influence of the institutional context on organizations (e.g. Whitley 2000) or specifically on HRM (e.g. Boselie et al 2001, Boon et al. 2009). Paauwe & Boselie (2005) for example investigated whether organizations in some contexts have more homogenous HRM than organizations in other contexts.

Critical theory

Critical theorists criticize mainstream theories, which incorporate the idea that organizations or social systems can be quantified, categorized and analyzed to any degree of accuracy. This falsely promotes the concept that the world is capable of being known and controlled through reason. Critical theorists instead consider knowledge to be socially constructed (Gephart 1993, Keenoy et al 2000, Townley 2002). This social construction of knowledge has generated the view of organizations which reflects the interests of management. Because management or owners of capital traditionally exercise power in organizations much of the main stream research on organizations serves the interests of

these managers rather than the interests of the (lower level) worker. Critical theorists criticize the capitalist system and the modern and increasingly multinational orientation of business enterprise. Work in this system is claimed to be inherently dehumanizing and oppressing. Those hired to work in the lower level of organizations are the ones who are exploited. By theorizing, research and awareness building, conditions which promote the emancipation of people can be realized. Critical perspectives on HRM have been marginalized within the mainstream HRM research agenda (Keegan & Boselie 2006) and mainstream HRM is dominated by a concern with the HRM-performance link (Paauwe 2004, Keenoy 2009). Delbridge & Keenoy (2010) plea for a 'Critical Human Resource Management' in which consideration is given to the sociological, psychological, economic, political and ethical aspects of working, managing and organizing.

Table 2.1 Organizational theories

Roots	theoretical perspective	Key constructs
Economics	Behavioural view of the firm	employee behaviour as mediator
	Resource based view of the firm	valuable, rare, inimitable and non-transferable resource enable the realization of sustained competitive advantage
	Agency/Transaction costs	minimization of transaction and/or bureaucratic costs in relative uncertainty
Strategy and Organization design	Contingency theory	variation due to environmental context
Sociology	Institutional theory	isomorphism based on shared norms and logics
	Critical theory	knowledge is a social construct

Implications for our study

An overview of the approaches that have been addressed can be found in table 2.1. Boselie et. al. (2005) examined more than a hundred published articles from international refereed

journals between 1994 and 2003. In their study they found contingency theory and the resource-based view (RBV) to be most often applied when examining the link between HRM and performance. These approaches are also appropriate for examining SHRM in a broader context. RBV focuses on the added value or potential of HRM. The resource based view of the firm shows how organizations can gain sustained competitive advantage by differentiating from competitors (Barney 1991). In contingency theory a conditional association of two or more independent variables with a dependent outcome is hypothesized (Drazin & van de Ven 1985). Relationships are expected to hold within the ranges specified by boundary conditions. HRM can for example be effective in one context but not in another.

In our study we consider differences between countries and sectors. Our focus is on the institutional context on both levels. Institutional drivers are important to consider (Farndale & Paauwe 2007). We have learned much from the cultural differences analyzed by Hofstede (1991). Distinguishing factors between countries can also be the geographical location or GDP per capita. Our study instead focuses on differences between institutional contexts. The development and success of HR practices needs to be explained with reference to institutional contexts (Brewster 2007). Formal institutions have a crucial role in governing important aspects of economic organization (Whitley 1999 p.44). Institutional pressures can furthermore exist on both the country- as well as the sector level. Institutional theory will provide us with a vehicle for in depth research (Gerhart et al 1996, Paauwe & Boselie 2007). In institutional theory the pursuit of legitimacy by organizations explains why organizations within a population exhibit similar characteristics (DiMaggio & Powell 1983). The principles of institutional theory thus go further than contingency theory because the limitations of differentiation are also considered. In our study institutional theory will therefore offer valuable possibilities in examining the context of an organization.

By combining the resource based view of the firm with institutional theory, the added value of HRM as well as the influence of the institutional context can be taken into

account. Our research will therefore use these two theoretical perspectives as lenses for examining SHRM in a broader context.

2.3.3 HR practices

The following three paragraphs will present challenges concerning the improvement of research on HRM, performance and the link between these two (Guest 1999). First the focus will be on identifying research challenges for HRM. As we can recall from the introduction HRM can be defined as '*the pattern of planned HR deployments and activities intended to enable an organization to achieve its goals*' (Wright & McMahan 1992). A combination of HR practices has the potential to have a greater impact on performance than single isolated practices (Delery & Shaw 2001, Wall & Wood 2005). The main challenge is therefore how to *create bundles of HR practices* (Paauwe et al forthcoming). In order to form HRM bundles HR practices will need to be combined. Several conceptual issues as well as measurement issues are of importance when constructing HRM bundles. Three important conceptual concerns will be addressed: (1) what kind of HR practices are performance enhancing? (2) how can HR practices be combined into a HRM bundle? and (3) whom to target with an HRM bundle? In addition two measurement issues will be addressed namely (1) different ways of describing HRM and (2) the desired level of specificity.

Performance enhancing HR practices

Current research largely focuses on identifying "high performance work systems' (Combs et al 2006). This focus is an expression of the interest in the ways in which HRM can influence performance. Performance enhancing practices are supposed to yield performance gains above those associated with more traditional workplace and employment relation's practices (Godard 2002). It does so by (1) enabling and motivating workers to develop and apply knowledge and skills more fully, hereby (2) increasing business performance for employers and finally also by (3) creating opportunities for union renewal (e.g. partnership). Thus the high performance paradigm is ideally supposed

to be "best practice" for multiple stakeholders (employers, employees and their unions). High performance HR practices (or high involvement practices) can be defined as any practices associated with and in general unique to a high performance system (Godard 2002). They include: (1) "direct"- and "indirect" participation, (e.g. new work practices or quality management), (2) new pay practices (e.g. performance based pay) and (3) high commitment employment practices (e.g. sophisticated selection, intensive training). These practices have in common that they are aimed at supporting employee capability, opportunity and motivation to enact those behaviours critical for accomplishing organizational goals (e.g. Way 2002). The challenge is to determine which HR practices need to be adopted for this purpose.

Combining HR practices

Another challenge is how to combine HR practices into a bundle. If HR bundles rather than individual HR practices affect organizational outcomes (Delery & Shaw 2001, Wall & Wood 2005, Boxall & Macky 2009), individual HR practices should be viewed as part of a wider HR system. A HR 'system' can be used to describe a 'coherent set' of HR practices. When HR systems are constructed, HR practices need to be bundled. Several properties of HR practices will need to be considered. Individual practices can complement, substitute for, or even conflict with other practices (Delery 1998, Delery & Shaw 2001). Becker et al (1997) use the term "powerful connections" to describe the case where two practices have a synergistic effect, and "deadly combination" to refer to the case where the combination of two practices results in poorer performance than either used alone. Multiple HR practices in empirical research can be aggregated either additive (independent non-overlapping effects on the outcome) or interactive (positive/negative synergy) (Delery 1998). Simply adding up HR practices is only desirable when HR practices are no substitutes of each other and also when no interactive effects among practices exist (Delery & Shaw 2001). If multiple, but substitutable or redundant practices are added up to represent an organization's HR system, this will result in an over-representation. By adding up substitutable or redundant practices it seems like an organization does a lot, but in fact they are ineffectively only doing a lot of the same. In

contrast, an HR system is likely to be an under-representation if the combined effect of multiple synergistic practices is not taken into account. Team work in combination with team remuneration can, for example, enforce each other's effect on team performance.

Differentiation in application of HR practices

Organizations are increasingly dependent on part-time and external workers, such as temporary employees, contract labourers etc in addition to the use of internal full-time employees (Purcell & Purcell 1998, Houseman et al 2003, Koene et al 2004). Some researchers plea for different approaches for different groups of employees (e.g. Lepak et al 2007). While certain HR practices might be centralized or standardized for all employees, others might be customized to match specific requirements of particular employee groups (Miles and Snow 1984, Lepak & Snell 1999). A new body of research examines the implications of heterogeneity of the workforce for organizational practices. Which employee groups are or should be managed differently? These approaches assume considerable within firm variation in HR practices. Benshop (2001) pleas for full recognition of the variation and differentiation among employees, and to acknowledge the very different effects that HR activities may have on different categories of personnel. She speaks of diversity. Diversity can be found in work-related characteristics (experience, education etc.) and personal characteristics (age, gender etc.). The first set of characteristics mainly impacts work relations, while the latter has an impact on social relations. Diversity may, furthermore, affect outcomes for the individual, group or organization.

In general three factors are of importance when considering splitting the workforce in the HR design (Delery & Shaw 2001): (1) task interdependence, (2) technology and (3) culture. These three factors can make it (un)favourable to split the workforce in the HR design. When employee groups are, for example, highly dependent when exercising their tasks it can be harmful to differentiate between these groups. All employee groups will have an important role in impacting performance. A cultural reason for strong

interdependence between the different employee-groups can be that importance is placed on a certain degree of unity of policy.

Several researchers (e.g. Capelli & Crocker-Hefter 1996, Delery & Shaw 2001) distinguish between core, support and temporary employees. Lepak & Snell (1999) suggest that employee skills that are central to the firm's competitiveness should be developed and maintained internally, whereas those of limited or peripheral value are candidates for outsourcing. Other distinctions in staff categories are also possible. In the IBM global questionnaire a distinction has been made in the managerial level namely between senior management, middle management and operational staff. The implication of differentiation is that different HR practices are appropriate for different employee groups as opposed to a single "optimal" bundle of HR practices for managing all employees. In that case different employment modes (e.g. internal development, acquisition etc.) will need to be identified for particular employee groups.

Describing HR practices

There is little agreement on the measurement of HR practices (Delery & Shaw 2001). As Becker and Gerhart (1996) already pointed out the same conceptual variable is often operationalised in different ways. A distinction can be made between nonmetric (qualitative) and metric (quantitative) data. Characteristics or categorical properties of a subject are described or identified by nonmetric measures (Hair et al 1998). HR practices can for example be measured by indicating the presence or absence of a characteristic or property. Metric measures in turn determine the amount or magnitude of a subject and therefore reflect relative quantity or degree. An example of a metric measure is the number of training days for employees. Metric measures provide the highest level of precision in description and therefore permit performing all mathematical operations. The merits of non-metric measures have therefore been debated (Michell, 1986). Non metric measures are however also used in SHRM research (e.g. MacDuffie 1995, Ichniowski et al 1997). Furthermore certain dummy variables can be seen as quasi-interval scales. The presence of an (additional) HR practice indicates 'more' is done.

Specifying HR practices

There are also differences in the level of specificity in which HR practices are measured (Hutchinson et al 2001). A well known distinction is between HR policies and work systems (Gerhart et al 2000, Huselid & Becker 2000, Wright & Gardner 2001). HR policies represent the *stated intention* about the kinds of HR activities that should be carried out in an organization, while work systems consist of the *actual* HR programs that are performed in an organization. Wright and Nishii (2004, forthcoming) in addition also speak of *perceived* HR practices. Stated intentions as well as actual practices will be perceived and interpreted subjectively by individual employees. There can be discrepancies if stated intentions aren't actually implemented or perceived otherwise than intended. These measures are, however, not necessarily in conflict. They operate at different levels of an HR system (Becker & Gerhart 1996). HR policies are measured on a higher, more abstract level in the HR architecture than work systems or perceived HR practices. Perceived HR practices can be very (firm and/or person) specific. Individual reactions must be consistent or complementary enough across one another in order to have an impact on the group or organizational level (Wright & Nishii 2004). Work systems can also be (firm) specific because of the detailed level of specificity. This means that work systems and perceived HR practices are more difficult to define and compare across organizations. The implicit assumption when using higher level practices is that the effects are not firm specific but generalizable. This is more likely to occur when the scope is limited to the design and structure of a system. Becker and Gerhart (1996) pointed out that there are likely very few practices at a low level in the HR architecture (e.g. a specific type of performance appraisal technique) that are universally effective. Higher-level practices will have much more predictive power across different types of organizations and situations.

Implications for our study

The challenges addressed here give an indication of the complexity when trying to operationalise HRM. Becker and Gerhart (1996) found a surprisingly low level of overlap in the practices being explored. Previously mentioned challenges are helpful in that

important concerns are addressed. First, it is important to identify which HR practices have the potential of improving performance (Godard 2002). Second, several properties of HR practices will need to be considered when bundling HR practices (Delery & Shaw 2001). HR practices can interact in different ways. In addition, different HR practices might be appropriate for different employee groups (Lepak et al 2007). Furthermore two measurement considerations have been addressed: the description of HRM and specification of HRM. Both metric and non metric measures can describe HR practices. Concerning the level of specificity a lower level of specificity is more useful for comparing organizations in different contexts. These alternative challenges will be taken into account in our study.

2.3.4 Performance

A key task for researchers is to determine how HRM can maximize performance (while controlling costs) (Combs et al 2006). Also for performance a distinction can be made between conceptual matters and measurement concerns. This section will start off with the conceptual matters before heading to measurement considerations.

Different performance dimensions

The effectiveness of an intervention is determined by the extent to which objectives are achieved. Business performance (maximization) stands out as a major organizational objective (Combs et al 2006). Effectiveness is therefore determined by the extent to which business performance is maximized, plus an account for the accomplishment of goals held by multiple stakeholders (Rogers & Wright 1998). The "business performance" construct includes financial indicators (e.g. profitability), organizational indicators (e.g. productivity, quality, service) and market indicators (e.g. market value, market share) (Rogers & Wright 1998).

Paauwe (2004 p.51) distinguishes between three dimensions of performance: the strategic dimension (contributing to business performance), the professional dimension (contributing to the professional rendering of services) and the societal dimension

(contributing to the accountability of the company to society). With this approach he takes into account the institutional setting and its related actors. This perspective focuses on satisfying the different aspiration levels of the various stakeholders involved. Examples of different stakeholders are shareholders, employees, work council members etc. He furthermore states that performance should be viewed multidimensional, because the different dimensions are not independent from each other. This can be illustrated with an example. More and more organizations, especially multinationals, pay attention to their image in society and therefore for example support philanthropic activities that improve environmental conditions (Rondinelli & Berry 1999). These organizations develop initiatives such as the sponsoring of environmental projects in order to preserve, conserve, or recreate natural resource areas on lands that house their facilities. This will not only satisfy environmentalists, but might also appeal to potential customers and therefore improve sales. This is an example of how the accountability of an organization to society (societal dimension) can coincide with business performance (strategic dimension). Organizations have to deal with all these different dimension but with different weights and different time frames (Rogers & Wright 1998).

The largest weight is often put on business performance indicators in SHRM research (Combs et al 2006). Business performance outcomes have always had clear meaning and relevance to managers. Performance from a perspective of stakeholders other than shareholders is less often examined (Boselie et al 2005). Financial measures are considered to be the best indicators of organizational success and sustainability because of their value to company executives, shareholders and the market in general (Ichniowski et al 1996). Profit firms are assumed to have a goal of wealth maximization for their shareholders. Financial measures are furthermore accommodated according to short term financial reporting cycles, while environmental concerns have a longer time frame. Outcome measures realized on the short term are more often used because research with a large timeframe can be costly. Also for this reason in much research business performance indicators dominate.

Proximal versus distal performance measures

Another aspect in relation to performance is that outcomes can be differentiated at sequential levels, with HR outcomes (e.g. turnover, absenteeism, job satisfaction) contributing to firm performance outcomes (e.g. profit, market value). HRM can therefore lead to firm performance outcomes directly or indirectly via HR outcomes (Dyer & Reeves 1995, Paauwe & Richardson 1997, Paauwe 2007). Although HRM should (eventually) affect both sets of measures, HR outcomes are much closer to HRM than firm performance. HR outcomes are more proximal while firm performance is more distal. Firm performance is further removed from HRM (Huselid 1995, Becker et al. 1997) and is affected by a wide variety of factors such as mergers and acquisitions. Ideally both outcomes are incorporated in analyses.

Different measures

There are several possible approaches for measuring the effectiveness of HRM. Guest & Peccei (1994) distinguish between three approaches. These approaches will shortly be addressed here: (1) measuring HRM effectiveness against specified goals, (2) subjective judgments of key interest groups and (3) the use of specific quantitative measures. Measuring effectiveness against specified goals is plausible if consensus can be reached about the key goals and about ways of measuring and interpreting levels of goal attainment. This is not an easy task. Another difficulty is how to judge responses to unanticipated events that did not constitute goals. Effectiveness can also be measured by gathering the subjective judgments of key interest groups. In this approach researchers recognize that organizations are political systems in which individuals dominate the decision-making processes. These individuals form judgments based on their interpretation of events. In this stakeholder perspective the key stakeholders will vary from organization to organization but will invariably include the company board. That is where strategy is shaped and resources allocated. Objective measures however tend to be preferred to subjective judgment calls from respondents (e.g. Boselie et al 2005). The last option mentioned by Guest and Peccei is considered to be most reliable. This approach is considered to be most objective. The use of specific quantitative measures has high

credibility (e.g. labour turnover, profit). Performance measures are therefore also mostly used (Boselie et al 2005).

Implications for our study

Performance plays an important role in SHRM research. Research that examines the link between HRM and performance ideally incorporates several performance indicators. Performance indicators can satisfy multiple stakeholders (e.g. employees as well as shareholders), have different timeframes (e.g. short term financial cycles opposed to long term environmental effects) and can be differentiated at sequential levels (e.g. HRM having an effect on HR outcomes, which in turn can effect firm performance). Business performance measures dominate much of SHRM research and will also be used in our study. A combination of several performance indicators will enable a more comprehensive and complete examination of the effect of HRM. HR outcomes as well as firm performance indicators will therefore both be included in our study. Performance indicators can also be measured differently. The use of specific quantitative measures (e.g. labour turnover) has high credibility because it can be seen as the most reliable measure. The focus in our study will therefore be on quantitative measures of performance.

2.3.5 Linking HRM and Performance

Within the link between HRM and performance several issues are of importance. The first concerns the process through which this link is supposed to be established. Researchers have been referring to this issue as "unravelling the black box" (Wright & Gardner 2001). Next the direction or causality within the relationship will be addressed (Gerhart 1999, Guest et al 2003). Fit concepts will also be considered (Wood 1999). The last issue that will be addressed is differences in modes of theorizing (Delery & Doty 1996).

Black box

An important issue in the effort to understand how HR practices impact performance is the development of a theory through which the relationship occurs. The field of research

investigating links between HRM and performance is said to suffer from a lack of theoretical rigor (Richardson et al 2003). The way that inputs (people) are transformed into outputs (performance) is hidden from view. This is referred to as the "black box" problem (Macky & Boxall 2007).

There is limited research that describes the processes through which HRM influences firm performance (Guest 2001, Purcell et al 2003, Boselie et al 2005). Different variables within the HRM and performance link have been considered in analyses. There is, however, still a lot of discussion about what the principle intermediate variables could be. Candidates for potentially decisive intervening variables are employee behaviours, attitudes and motivation (Richardson et al 2003). HR practices only result in sustained competitive advantage if they lead to the desired employee behaviour (Wright et al 1994). Guest (1999) confirms the link in the assumed causal chain from HR practices to performance through the attitudes and behaviour of employees. Employees can give and can take away co-operation and effort, and can even "go beyond the line of duty". This discretionary behaviour is also stressed by Purcell et al. (2003). Better performance comes about when people are stimulated to do their jobs better. Someone who likes his/her job feels motivated and committed to the organization. This makes it much more likely that the person displays discretionary behaviour.

An additional number of mediating variables may still need to be specified between the measure of HR practices and the measure of firm performance, but how many need to be included before the model is complete has yet to be settled (Wright & Gardner 2001). Consensus is emerging around the conceptual categorization of employee skills, motivation, and opportunity (Wright & Boswell 2002). HR practices support employee skills (practices aimed at attracting and developing a skilled workforce), motivation (practices that elicit high motivation) and opportunity (practices which empower employees by enabling employee voice and influence) to enact those behaviours critical for accomplishing key business processes and strategic success (Applebaum et al 2000). Recent studies also refer to the AMO (Ability, Motivation and Opportunity)- Framework

when assessing which mediating variables need to be specified between the measure of HR practices and the measure of firm performance (Boxall & Macky 2009). In much research these processes are assumed to be present (implicitly) (Delery 1998, Boselie et al 2005)

Causality

Most research until now has been cross-sectional (Guest et al 2003, Van de Voorde et al. 2011). Correlations have been detected but this does not establish chains of cause and effect. With a few exceptions such as D'Arcimoles (1997), Capelli & Neumark (2001), Guest et al (2003) and Wright et al (2005) indications of a causal relationship are missing. This is due to the research methods used and the time lag between the moment of intervention and the occurrence of the actual effects. Between the moment of intervention and the actual observable effect a significant amount of time can pass by. Explanations for the time passed can possibly be found in the complexity of underlying processes, the varying interests of different stakeholders, etc.

Apart from the expected direction of effect of HR practices on performance a possible reverse effect (reversed causality) should also be considered. Perhaps investments in HR practices will increase as an organization becomes more profitable (Paauwe & Richardson 1997, Wright & Gardner 2001). Longitudinal research is necessary in order to be able to address this issue properly. Funding limitations and methodological difficulties of this kind of study have limited the number of studies that do this.

Fit concepts

In SHRM fit between HRM and strategy is seen as the basis of HR's contribution to competitive advantage (Becker & Huselid 2006). When fit is examined different dimensions can however be considered. These can all be of importance for improving performance. The following fits have been identified by Wood (1999): (1) the internal or horizontal fit of HR practices, (2) the organizational fit, (3) the strategic fit and (4) the environmental fit. The internal fit between HR practices revolves around the question as to

whether HR practices independently effect organizational outcomes or need to be embedded in a broader and internally consistent configuration of such practices. A major issue in the SHRM field is whether HR practices independently effect organizational outcomes or need to be embedded in a broader and internally consistent configuration of such practices (Guest et al 2004). Single isolated HRM practices are not expected to have the impact on performance as a coherent set of practices could have (Delery & Shaw 2001, Wall & Wood 2005). In our study therefore bundles of HR practices will be constructed. The next fit is organizational fit. Organizational fit is between HR practices and other practices within the organization. HRM is not an isolated activity within an organization and therefore needs to be tuned in with other activities in an organization. Examining HRM not only on its own merits, but in interaction with other organizational activities complicates a study even more. This fit will not be incorporated in our study. The third fit is strategic fit. Strategic fit is between HR practices and the business or competitive strategy of an organization. The role of strategy has understandably often been stressed in SHRM research (Delery 1998, Boxall & Purcell 2003). It has however not been addressed explicitly that often. Instead the strategic approach is assumed to be covered when focusing on the relation of HRM with performance (Delery & Doty 2001). The last fit Wood (1999) mentioned is the environmental fit. This is the fit between HR practices and the organization's environment. The context in which an organization operates will influence the way in which an organization can function (Boon et al. 2011). In today's international and global environment research that incorporates the influence of the environment will become increasingly important. Variations in forms of economic organization have been addressed on a national level (e.g. Whitley 1999). This is however not the only context of importance. If in a time of increasing globalization national boundaries would become less significant, economic organization at a sector level might become more relevant. Contextual differences in sectors might therefore also be important. Our research will incorporate the first fit (internal fit) and focus on the last fit (environmental fit).

Modes of theorizing

Synergy, fit and integration are key concepts in the SHRM field. This can be examined via different modes of theorizing. Delery & Doty (1996) distinguish between three dominant modes of theorizing: the universalistic, contingent and configurational approach.

The universalistic approach adopts the "best practice" approach to SHRM, arguing that greater use of specific HR practices will always result in better (or worse) organizational performance. Pfeffer (1994), for example, has identified 16 practices such as empowerment and incentives pay which should always result in higher productivity and profit regardless of the type of organization. Fit is not an issue in this approach.

In the contingency approach HR practices must be consistent with other organizational characteristics. Fit is considered to be important. It is however limited to a one dimensional fit between HRM, contingency variables and performance. Examples of contingency variables are strategy and size, but also sector, country, degree of unionization etc. Within this contingency approach Drazin & Van de Ven (1985) distinguishes between a ´selection approach´ and an ´interaction approach´. Venkatraman (1989) refers to these approaches as ´matching´ and ´moderation´. He furthermore adds fit as ´mediation´. In the selection (or matching) approach fit is a result of natural selection and/or managerial selection. The assumption is that when an organization does not naturally adapt or makes managerial choices in order to adapt, it will not survive. *Congruence* between HR practices and contingency variables is therefore needed. In this approach performance is not included explicitly. In the interaction (or moderation) approach the focus is on explaining *variations* in organizational performance. In this approach performance has a central role. The relationship between the relevant independent variables (e.g. HRM) and the dependent variables (e.g. performance) will be different for differences in contingency variables. This means that the interaction effect of for example HR practices and contingency variables are examined on performance indicators. Venkatraman (1989) in addition also considers mediation as a possible fit approach. In the mediation approach an *intervening* mechanism (indirect effect) is

assumed between two of the variables. The strategy of an organization can, for example, mediate between market-structure characteristics and performance.

The last mode of theorizing mentioned by Delery and Doty is configurational theory. Configurational theories are guided by a holistic principle of inquiry. This approach coincides with the ´systems approach´ of Drazin & Van de Ven (1985). Venkatraman (1989) goes further and distinguishes between ´fit as gestalt´, ´fit as covariation´ and ´fit as profile deviation´. The first fit mentioned by Venkatraman (1989) considers different types of combinations along several attributes at the same time (e.g. cluster analyses). The second fit shows a pattern of consistency along theoretically related variables (e.g. factor analyses). Only in the third type of fit performance is considered explicitly. Different ideal type combinations are constructed among dimensions of the organizational context, HRM, and performance. Deviations from the ideal profile imply a weakness in the co alignment. This will have implications for the effectiveness. Within the configurational approach different (e.g. ideal type) configurations may furthermore be equally effective so that equifinality assumptions may hold. Equifinality suggests that organizations can reach the same results, even if they have different points of departure, and follow different routes in order to reach these results (Doty et al. 1993).

The different approaches hold different expectations for the nature of the relationship between HRM, the institutional context and performance. Fit is either not an issue at all (universalistic approach), considered to be important for several contingency factors (contingency approach) or viewed in a holistic way (configurational theory). Both the universalistic and the contingency approach can be valuable for examining the relationship between HRM, the institutional context and performance. The configurational approach can furthermore be useful for constructing HRM bundles.

Implications for our study

Several research challenges have been identified specifically for the link between HRM and performance. These challenges are concerned with (1) unravelling the black box

between HRM and performance, (2) the chains of cause and effect, (3) different modes of theorizing and (4) synergy or fit among variables. Consensus is emerging about the conceptualization of employee skills, motivation and opportunity as the drivers between HRM and performance (e.g. Applebaum et al 2000). These processes are however often assumed to be present implicitly (Delery 1998, Boselie et al 2005). In order to address the issue of cause and effect properly longitudinal research is needed as well as an investigation of the reasons for a time lag. This kind of study is hindered by funding limitations and methodological difficulties. Most research therefore focuses on detecting associations between HRM and performance via cross-sectional surveys (Guest et al 2003, Wright et al 2005, Paauwe 2007). Our study will also be limited to examining whether associations can be found. Furthermore a distinction can be made between different modes of theorizing (Drazin & Van de Ven 1985, Venkatraman (1989), Delery & Doty 1996) and different forms of fit (e.g. Wood 1999). Different determinants (HRM, the institutional context and performance) have been identified as well as different interactions (e.g. contingency approach and/or a configuration approach). In this study, configurations of HRM bundles will be constructed. Contingency models will furthermore be used to examine the relationship between HRM, the institutional context and performance. This means that two kinds of fits will be addressed: internal fit and environmental fit. Internal fit will be incorporated in the analyses because a bundle of HR practices is expected to have a greater effect on performance than any single isolated HR practice. Establishing whether there is any form of environmental fit is finally crucial in the examination of the relationship of HRM, the institutional context and performance.

2.3.6 Research method

Different data gathering methods are appropriate and applied in SHRM. Postal and/or telephone-based surveys (e.g. Huselid 1995, Delery & Doty 1996, Guest & Peccei 1994, DenHartog & Verburg 2004) can be contrasted with or supplemented by (and vice versa) case studies (e.g. Arthur 1994, MacDuffie 1995, Ichniowski et al 1994, Purcell et al 2003). The dominant data collection method in SHRM research is however through surveys (Delery & Doty 2001).

Many researchers have relied on what has become known as the key informant method (Gupta et al 2000, Delery & Doty 2001). In the key informant method information is collected by asking an informed respondent to provide the relevant value for his or her organization. The questionnaire or interview is completed by a single or sometimes multiple informants in the organization who is/are presumed to be the most knowledgeable about the issues at hand. Some researchers, however, stress that the reliability of a single informant would be unacceptable (e.g. Wright et al 2001) especially when studying large organizations. Data collected from multiple informants seems more reliable, since more informants are more likely to better represent an organization. More informants, however, do not necessarily provide a more accurate estimate of reliability. Individual's perceptions of HR practices can vary significantly (Gerhart et al 2000). Wright et al (2001) tried to show how researchers can get a more accurate estimate of reliability. They concluded that the reliability of a single informant method would be unacceptably low in many cases. Huselid and Becker (2000), however, highlighted a critical issue in the reliability debate, namely that simply adding more raters may not increase reliability. Many times there are just a very few people who can accurately report on HRM issues. In this case simply adding more raters is not the answer for improving reliability. Thompson (1994) and Delery & Shaw (2001) argue that accuracy of the data provided by informants depends on the respondents having the authority, capacity and motivation to respond. These factors will determine the accuracy of the data provided by informants. Thus the number of raters is neither the only nor the most important factor in receiving reliable information.

Implications for our study

The last research challenge mentioned concerns the dominant research method applied. Case study research is often conducted but survey research is the most common research method in the SHRM field (e.g. Guest & Peccei 1994, Huselid 1995, Delery & Doty 1996, DenHartog & Verburg 2004). In survey research much use is made of the key informant

method in which the person(s) who is/are assumed to be best informed are asked to fill in a questionnaire. This research method will also be executed in our study.

2.4 Conclusion

In this chapter developments have been highlighted that need to occur in order to improve our understanding of the relationship between HRM bundles, the institutional context and performance. This research will build on lessons learnt from previous research. It will not be possible to address all challenges raised in this review. A number of challenges have been identified and chosen to tackle in our study. This study will in particular be a departure from most of previous research in that it will (1) examine different ways of bundling HR practices, (2) incorporate differences in staff categories for several HR practices (3) examine whether previous findings (mostly within Anglo-American countries) are applicable in other contexts and finally also (4) examine whether sector differences occur.

Now that we have identified research priorities we can continue with our study. In the next chapter a conceptual research framework will be presented and hypothesis will be formulated.

Chapter 3

A Conceptual Framework

3.1 Introduction

As we can recall from the previous chapter the focus of our research will be on the relationship between HRM bundles, the institutional context and performance. Insights from the resource-based view and institutional theory will be combined. First both theories will be presented in more detail. This will be followed by a short description of the implications of a combination of both theories. Then research questions will be formulated and hypotheses will be developed. This chapter will end with a conclusion.

3.2 Resource Based View of the Firm

The basic argument of the resource-based view is that acquiring and deploying specific resources leads to competitive advantage (Barney 1991, Pfeffer 1994, Boselie & Paauwe 2009). Moreover, if other organizations are incapable of duplicating the benefits of competitive advantage, an organization can gain *sustained* competitive advantage. Competitive advantage is derived from performing similar activities *better* than rivals perform them, performing *different activities* from rivals or performing similar activities in *different ways* (based on Porter 1998). Of the three different ways of deriving competitive advantage 'performing similar activities *better*' is more difficult to sustain

over an extended period of time. Differences in activities help organizations to distinguish themselves from competitors for an extended period of time. Differences across organizations have been referred to as organizational *heterogeneity* (e.g. Barney 2001, Wernerfelt 2002).

According to Barney (1991) for a resource to be a source of competitive advantage it must be valuable (contribute to organization's efficiency or effectiveness), rare (not widely available), inimitable (not easily replicated by competitors), non-substitutable (the same function cannot be fulfilled by other resources), and non-transferable (cannot simply be purchased in resource markets). Human resources can meet these criteria (Wright et al 1994, Oliver 1997, Delery 1998). Micro HRM research, specifically utility analysis, has proven that human resources can add *value* to an organization via productivity. Because knowledge, skills, and abilities are normally distributed in a population, valuable human resources are by definition *rare*. Furthermore, being part of and at the same time creating a unique history and culture within the organization also makes human resources *inimitable*. Because human resources also have the potential not to become obsolete this can also limit their *substitutability*. By continuously learning and adapting human resources can remain valuable and thereby limit the need for and/or ease of replacement. Finally, transaction costs limit the mobility of human resources and render them not easily *transferable*. There is always some cost of switching because of the disruption and potential reconfiguration of activities. All these attributes of human resources can result in organizational heterogeneity, which in turn can form the basis for (sustained) competitive advantage. From a resource based perspective, economic optimization can thus be realized through selective human resource accumulation and deployment.

While the (human) resource based view explains the importance of human resources to competitive advantage, it does not specifically deal with how an organization can realize this via HRM. In SHRM research the focus is on HR practices and not the actual human resources of the organization (e.g. Guest & Peccei 1994, Huselid 1995, Becker & Gerhart 1996, Appelbaum et al. 2000, Looise & Paauwe 2001, Batt 2002, Guest et al 2003,

DenHartog & Verburg 2004, Sels et al 2006). Can we expect HR practices to qualify as sources of competitive advantage? Considering the wealth of prescriptive literature available on how best to conduct HRM, HR practices would not appear to be able to generate competitive advantage for organizations as mentioned in the resource-based view. Information about best practices is widely available. Delery (1998) states that an organization does not gain a competitive advantage from HR practices per se, but that these practices are the main tools that organizations employ to develop and sustain the necessary human resources. Gerhart et al (1996) on the other hand state that HR practices themselves can generate competitive advantage. HR practices in combination with each other can enforce each other, creating synergies. Synergies can realize such an advantage, because it potentially generates causal ambiguity and social complexity. Causal ambiguity makes it difficult to *identify* the reasons for competitive advantage and social complexity makes it difficult to *reproduce* the reasons for competitive advantage. Causal ambiguity can be described as the situation in which the relationship between the resources and sustained competitive advantage is not understood and therefore cannot be identified by the organization itself, let alone the competitors (e.g. Barney 1991, Wright & McMahan 1992). This makes it hard or even impossible to relate the consequence or effects of a phenomenon to its initial state or cause. With strategy it is, for example, difficult to determine whether the success of a company is due to solid strategic thinking or due to sheer luck. Social complexity on the other hand does not focus on the identification aspect, but the reproduction part (e.g. Barney 1991, Wright & McMahan 1992). Socially complex interactions, such as interpersonal relationships in teams, are difficult to reproduce. Either way, the conclusion can be drawn that HR practices can generate competitive advantage. This can be realized because HR practices act as tools for acquiring and developing the necessary human resources (Delery 1998), or because HR practices themselves can generate competitive advantage through causal ambiguity and social complexity (Gerhart et al 1996). This means HR practices are able to play an important role in realizing organizational objectives. HRM has thus emerged as a determinant of (sustained) competitive advantage.

Notwithstanding its important insights, the resource-based view has not looked beyond the properties of resources to explain sustained competitive advantage. In particular it has not examined the social context within which decisions concerning these resources are made (e.g. regulatory pressures) and how this context might affect the degree to which organizations are able and willing to distinguish themselves from competitors (Oliver 1997).

3.3 Institutional theory

The social context in which resources are embedded (e.g. organizational traditions, network ties, regulatory pressures) can affect the degree to which organizations are able and willing to distinguish themselves from competitors (e.g. Whitley 1999, Paauwe & Boselie 2007). The theory of new institutionalism (DiMaggio & Powell 1983) focuses on why organizations within a population exhibit similar characteristics. By conforming to social pressures organizations attain legitimacy and increase their probability of survival. These tendencies toward conformity with predominant norms, traditions etc. lead to homogeneity among organizations in their structures and activities. The appropriateness or rationality of activities is not necessarily questioned, thereby allowing for initiatives that are not driven by obvious (competitive) advantage.

This process of homogenization, where organizations in a population tend to resemble one another because of the same set of environmental condition, is called isomorphism (DiMaggio and Powell 1983). DiMaggio and Powel distinguish between two types of isomorphism: competitive and institutional isomorphism. The emphasis in competitive isomorphism is on market competition and is most relevant where free and open competition exists. Institutional isomorphism is another type of isomorphism. This results from coercive, normative, and mimetic pressures. Coercive mechanisms stem from political influence and the problem of legitimacy (e.g. the influence of social partners). Mimetic mechanisms result from standard responses to uncertainty (e.g. implementation of fashionable fads in the field of HRM). Normative mechanisms, finally, are associated with professionalization (e.g. educational level and job experience). In this process of

homogenization, referred to as isomorphism, institutional arrangements are the driving forces.

In our study the focus will be on organizations, therefore the institutional arrangements are considered within the context of economic organization. Several dimensions of economic organization can be distinguished: economic (market dynamics), social (relational) and regulatory (formalization) (Paauwe 2004). Economic influences on organizations for example include entry and exit barriers to markets. Socio cultural influences have an effect on the manner in which the different stakeholders of an organization behave. Regulatory influences are the rules and regulations imposed by institutions such as the government.

3.4 RBV and Institutional perspectives combined

In this study it is argued that an organization's sustainable competitive advantage depends on its ability to manage its resources as well as the institutional context in which an organization is embedded (e.g. Deephouse 1999, Boselie & Paauwe 2009). The resource-based view (RBV) is combined with insights from institutional theory in order to be able to examine HRM bundles as well as the relationship of HRM bundles with performance in a broader context.

The institutional pressures in institutional theory are said to limit the room to manoeuvre for organizations (e.g. Paauwe & Boselie 2003). Combining institutional theory and the resource-based view (RBV) has several implications (e.g. Gerhart et al 1996, Oliver 1997) With respect to these two theories there are differences in the goals, the degree of differentiation, the rationality of choices, the decision making process and the attributes of HR practices. These topics have been mentioned by Gerhart et al (1996) and/or Oliver (1997) and will shortly be addressed here (see table 3.1):

(1) Goal: *Competitive advantage* is realized when an organization is able to distinguish itself from any current or potential competitor (RBV). Adaptability to the environment can however be essential in order to attain legitimacy and secure *survival* (institutional

theory). The end goal of HRM is to realize (sustained) competitive advantage, but the possibilities to do so are limited by the need to secure survival.

(2) Differentiation: In RBV an organization can realize (sustained) competitive advantage by distinguishing itself from competitors. This is established through differences in activities across organizations (organizational *heterogeneity*). Institutional pressures on organizations (e.g. regulation) to conform to socially constructed standards however results in organizational *homogeneity*. Institutional theory therefore suggests that environmental influences on organizations reduce the potential for variation and therefore limit the room for organizations to distinguish themselves.

(3) Rationality: In RBV *economic* rational choices are made to ensure the realization of the goals set out. In institutional theory it is acknowledged that *normative* rational choices are often made. Many activities in organizations (e.g. approaches to managing employees) are so taken for granted or so strongly endorsed that the appropriateness or rationality of these activities are no longer questioned. Normative rational choices that are shaped by the social context of an organization can dominate over economically rational choices. Economic choices are therefore constrained by socially enforced limits.

(4) Decision making process: In RBV the decision-making process is focused on *optimization*. The focus is on getting the most out of any activity in order for an organization to distinguish itself from competitors. In institutional theory the decision-making process is focused on *justification*. If organizations are motivated to comply with external pressures, the decision-making process concerning the available (resource) choices will extend beyond economic optimization to social obligation or justification. This can lead to suboptimal resource choices.

(5) HR practices: Human resources and/or HR practices will need to have several attributes that enable the realization of competitive advantage (RBV). These attributes are: inimitable, rare, valuable, non-substitutable and non-transferable. All these attributes stress the importance of *uniqueness*. *Legitimacy* is, however, crucial for HR practices when survival of an organization needs to be secured (institutional theory). When HR practices lack legitimacy or social approval this will limit their appropriateness.

Drawing on the resource-based view as well as institutional theory, an argument can be made that the adoption and effectiveness of HRM can be influenced by the institutional context of the resource decisions.

Table 3.1 Implications RBV and institutional theory

	Theoretical perspective	
SHRM topic	**RBV**	**Institutional theory**
Goal	Competitive advantage	Survival
Differentiation	Heterogeneity	Homogeneity
Rationality	Economic	Normative
Decision making process	Optimization	Justification/satisfying
HR practices	Uniqueness	Legitimacy

Source: based on Oliver (1997) and Gerhart et al. (1996)

3.7 Hypotheses

In previous sections the resource based view of the firm and institutional theory have been addressed. The focus of this study is to learn more about the relationship between HRM, the institutional context and performance. The central research question is: '*Does the adoption and effectiveness of HRM bundles vary in different contexts?*' The focus in this study will not be on specific HR practices. Instead bundles of HR practices will be considered. Bundles are more likely to have a greater effect on performance than individual practices (e.g. Delery & Shaw 2001, Guest et al 2004, Wall & Wood 2005).

The central research question can be divided in two sub questions:

I. *Is there variation in the adoption of HRM bundles across different contexts?*
II. *Are there differences in effectiveness of HRM bundles in different contexts?*

The first part of the research question focuses on differences in the adoption of HRM bundles. Differences in the adoption are assumed to be a result of natural selection and/or managerial choice. Organizations will naturally adapt or make managerial choices in order to adapt to its environment in order to increase the probability of survival. This kind of fit has been referred to as the 'selection' or 'matching' approach to fit (Drazin & Van de Ven

1985, Venkatraman 1989). Congruence between HR practices and its environment is needed to secure survival. The second part of the research question focuses on variations in organizational performance. From the resource based view of the firm an argument has been made that HRM bundles can realize competitive advantage. As indicators for competitive advantage it is common to use performance measures (e.g. Boselie 2002, Combs et al 2006). We also want to examine whether there are differences in the effectiveness of HRM bundles in different contexts. This kind of fit has been referred to as the 'interaction' or 'moderation' approach to fit (Drazin & Van de Ven 1985, Venkatraman 1989).

Hypotheses will attribute in answering our research questions. We will formulate hypotheses for testing the relationships between HRM, the institutional context and performance.

The first hypotheses are concerned with the identification of associations between HRM bundles and performance. Before heading to hypotheses about the influence of the context, we first want to establish whether there is a relationship between HRM and performance. A combination of performance indicators will provide a more comprehensive and complete examination of the effect of HRM on performance. For this reason firm performance indicators (e.g. profit) as well as HR outcomes (e.g. absenteeism) will be considered. Since HR outcomes are considered to be closest to HRM bundles the focus in this study will be on HR outcomes. Firm performance indicators are however also of much interest to certain stakeholders such as shareholders (Combs et al 2006). Direct effects on both HR outcomes and firm performance will therefore be examined. Since HRM bundles might also have an indirect effect on firm performance *via* HR outcomes (e.g. Paauwe & Richardson 1997) a mediating role of HR outcomes will also be considered. The following hypotheses can be formulated:

1a There is a direct relationship between HRM bundles and HR outcomes.
1b There is a direct relationship between HRM bundles and firm performance.

1c There is an indirect relationship between HRM bundles and firm performance *via* HR outcomes

The focus of most studies in HRM has been within a specific country (Geringer et al 2002). Studies from Anglo-American countries (e.g. US and UK) have dominated research to date (Brewster 2007). The suitability of Anglo-American HRM principles is questioned in other contexts such as Rhineland countries (e.g. Germany, the Netherlands) (Paauwe & Boselie 2003). Country differences can have an influence on the adoption of HRM bundles as well as the effectiveness of HRM bundles. Paauwe (2004), for example, argued that several of the 16 best practices mentioned by Pfeffer (1994) were 'institutionalized' in the Netherlands. Organizations from different countries are therefore likely to make different use of HR practices than others. The effect HRM bundles have on performance may also differ between countries. We will focus on HR outcomes because these are closer to HRM bundles than firm performance. Many more organizational practices besides HR practices will have an influence on firm performance (Guest 1997). Interpretations of results for relationships between HRM bundles and HR outcomes (in different contexts) are therefore expected to be more meaningful and better interpretable. The second set of hypotheses that will be addressed is the following:

2a Organizations adoption of HRM bundles varies across countries.
2b The relationship between HRM bundles and HR outcomes varies across countries.

SHRM research started in manufacturing (e.g. MacDuffie 1995). In an industry organizations may seek to serve their particular set of customer needs in much the same way. It is not necessarily easy to change this, because mobility barriers tend to be quite significant (Boxall 2002). Social and professional networks among organizations in the same industry also lead to an increased degree of homogeneity across organizations (Oliver 1997). Boxall (2002) among others has in particular contrasted between traditional manufacturing organizations and emerging knowledge-intensive service organizations. Differences in production and market characteristics lead to different competitive

dynamics (Datta et al 2005). Furthermore trade union and work councils' influence, in combination with labour legislation (e.g. collective bargaining agreements on sector level), also might influence HRM bundles (Boselie 2002). Differences in industry-wide norms can therefore affect the adoption and effectiveness of HRM bundles. The focus will again be on HR outcomes because these are closer to HRM bundles. The last set of hypothesis that will be tested is the following:

3a Organizations adoption of HRM bundles varies across sectors.
3b The relationship between HRM bundles and HR outcomes varies across sectors.

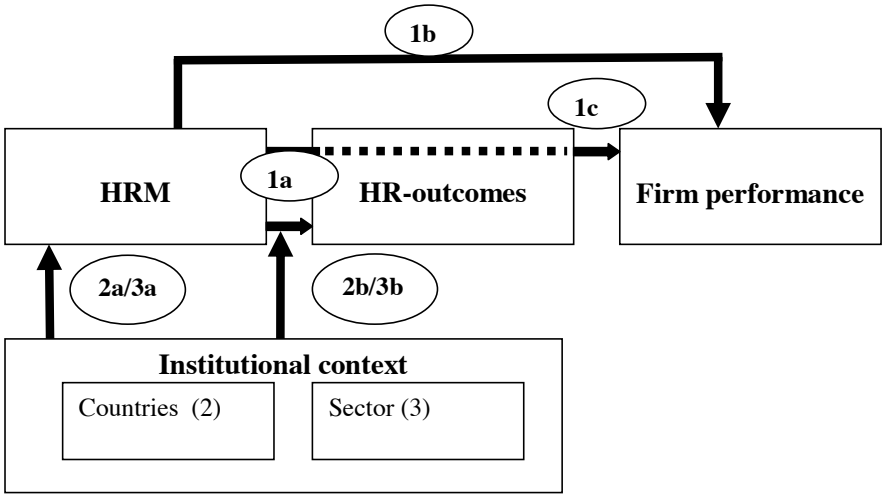
A visual representation of the relationships between HRM bundles, the institutional context and performance can be found in figure 3.1. The arrows represent the relationships that will be tested with the hypotheses. The hypotheses that have been formulated are very broad, because at this stage we cannot be more precise about what kind of differences we can expect to find. These hypotheses will therefore be revisited after we have operationalized our main variables. As we learn more about the possibilities of our data we will be able to formulate more precisely what we can expect to find.

3.8 Conclusion

The conceptual framework presented in this chapter builds on insights from the resource based view of the firm (RBV) as well as institutional theory. Institutional pressures in institutional theory limit the room to manoeuvre for organizations. While RBV stresses the importance of organizational heterogeneity, institutional theory describes reasons for organizational homogeneity. Acquiring and deploying specific resources can enable organizations to distinguish themselves from competitors, which forms the basis for sustained competitive advantage. This is the basic reasoning within RBV. Institutional theory addresses why organizations within a population exhibit similar characteristics. Conforming to institutional pressures may be necessary in order to attain legitimacy and increase the probability of survival. When insights of RBV are combined with institutional theory an argument can be made that the adoption and effectiveness of HRM bundles will

be influenced by the institutional context of the resource decisions. In the next chapter our research design will be presented.

Figure 3.1 Conceptual Framework



Chapter 4

Research design

4.1 Introduction

This chapter presents a research design appropriate for testing the hypotheses. First the survey design and process is sketched. This will be followed by a more detailed description of how the different variables have been measured. In order to be able to answer the research questions and test the hypotheses several analyses will need to be conducted. An analysis plan will be presented before concluding this chapter.

4.2 Survey design and process

In order to identify and understand the added value of HR practices for organizations in different parts of the world a comprehensive survey has been designed and executed by IBM Business Consulting Services. This survey is conducted in order to learn about circumstances that underpin superior performance worldwide (IBM 2002). This global survey is conducted for benchmarking purposes. The aim of this survey was to determine standards to compare against and to be able to determine where (potential) competitors stand amongst each other. This large database with information about HR practices and performance indicators has also created an opportunity to conduct an inquiry of contextual differences in the adoption and effectiveness of HRM. More specifically, it will contribute

to answering the central research question of our study: '*Does the adoption and effectiveness of HRM bundles vary in different contexts?* Wall and Wood (2005) argue that future research progress will require large-scale research at a level of magnitude that can probably only be achieved through partnerships between researchers and other beneficiaries, such as practitioners. This is such a study. In the following two paragraphs the process of questionnaire development will be described and the data collection procedure will be addressed.

4.2.1 Questionnaire development

Structured questionnaires are useful to cover a wide range of areas. They particularly ensure consistency because they are laid out as a list of standard questions. The structured questionnaire in this study was developed in an iterative process, in which a series of established scales were refined through feedback obtained from professional judgment, client experience, and current academic thinking. 18 years ago the first of this series of HR benchmarking surveys was undertaken. The format has undergone several changes since its original conceptualization and has been influenced by the work of for example Huselid (1995) and Baarda, Kouwenhoven and Werkhoven (1994). Items have been included concerning the HR process (e.g. employee counselling), HR technology (e.g. shared service centres), HR organization (e.g. recruitment and selection) and performance indicators (e.g. revenue). The measurement of the different items in the questionnaire will be addressed more extensively later in this chapter, after the data collection procedure is described. In this study not all questions will however be incorporated in the analysis. Not all HR practices have been identified as having a performance enhancing status (e.g. Huselid 1995, Applebaum et al 2000, Guest et al 2004, Wall & Wood 2005). Questions about technology developments in HRM (e.g. shared service centre) are for example not included. The HR practices included can all be considered to be performance enhancing HR practices (see appendix 1). The performance enhancing status of these practices has been confirmed by previous research (Wall & Wood 2005, Boselie et al 2005, Combs et al 2006). We will elaborate more on this issue when we bundle the HR practices (see chapter 5 HR bundles).

In order to double check the relevance of the questions as well as capture any additional new developments in the HRM field a pre-test of the preliminary questionnaire was conducted with a global player in the products sector. Feedback was also asked on the appeal of the whole set up. The relevance of this study was confirmed in the pre-test of the questionnaire as well as the in-depth interview that followed. Finally, for several countries where some respondents might have a limited ability to read or write in English translations have been made available into the native language.

4.2.2 Data collection method

The surveys have been administered in person, by (e)mail and via internet. The mode of administration of data collection was self-completion. The growing popularity of the internet provided additional possibilities in the data collection procedure. Responses were either marked on paper and mailed back by the respondent after completion or electronically marked via internet. These two data capturing instruments enable that a large number of questionnaires can be distributed in a short time. The survey has been promoted widely and attention has been drawn to the online questionnaires.

The final sample of organizations for this study was drawn from local databases (e.g. chamber of commerce's database) as well as international rankings (e.g. Times top 200 companies). Among others (potential) clients have been approached with the request to participate. When in this way human intervention comes into play, the sample is referred to as being a 'convenience sample'. Organizations are selected on the basis of their availability (e.g. because they volunteered) or based on professional judgment that they are representative. These samples are useful for documenting that a particular characteristic or phenomenon occurs within a given group and are also very useful for detecting relationships among different phenomena. The trade-off made for obtaining a convenience sample is the degree of reassurance that the sample is representative. Generalizing to a population is, however, not necessarily ruled out with this procedure. The main concern is how the sample would differ from a sample that was completely randomly selected. Specific types of respondents might be over-represented in the sample

and/or certain types of respondents might have been excluded from the sample. It is also important to note whether the respondents that were left out might behave differently. The target was to survey the world's leading organizations (IBM 2002). The nature of the sample surveyed could therefore lead to a bias towards larger and/or more innovative organizations. A well known criticism is, furthermore, that organizations that tend to do more with respect to the topics surveyed are more likely to respond than organizations that don't (King et al 1994). Self selection of respondents based on the explanatory variable (in this study HRM) causes no problems in determining the relationship between different variables, but may limit the generalizability to a wider population (e.g. more kinds of HRM bundles are imaginable and might be applied in practice). Self selection based on the dependent variable (in this study performance indicators) limits the observations to less than the full range of variation on the dependent variable. In the case of performance indicators it is likely that organizations that are doing well will be more inclined to participate. The effect of HRM within a group of mainly high performing organizations will result in an underestimate of the true potential of HRM. The variation in performance will be higher when all kinds of organizations are included. Any association found between HRM and performance indicators would therefore in reality be even larger. Other organizations can however still mirror what organizations are doing within this specific group that might act as 'role models'.

IBM sent questionnaires to more than 13.000 organizations worldwide in April to June 2002. The data in this study has been collected through structured questionnaires, which were filled in by the head of HR, or the most senior person responsible for HRM. Respondents may differ between practices, but single-source responses were given for any given measure (e.g. financial managers for financial performance measures and HR managers for HR practices). A total of 1.310 organizations participated in this study. The response rate was 10 percent. This response rate is within the range of values reported for similar studies (Wall & Wood 2005). After data validation procedures on the completed questionnaires 1056 organizations remained. The final sample consists of organizations from 47 countries and six different sectors.

4.3 Measurement

In this section the measures for HR practices, the institutional context and performance will be presented. Most of the items that have been used in this study were measured with a non-metric measurement scale, mainly nominal scales. Dummy variables indicate the presence or absence of an item. This is the case for most of the HRM items as well as both dimensions of the institutional context. Other items such as the performance indicators were measured with metric scales, namely ratio. All items used have been recoded into either nominal or ratio scales for the analyses.

4.3.1 HR practices

There seems to be a growing consensus for a plausible list of practices that should be taken into consideration (Boselie et al 2005, Wall & Wood 2005). This list of performance enhancing HR practices includes comprehensive employee recruitment and selection procedures, incentive compensation & performance management and extensive employee involvement & training. In this study therefore, a series of HR practices has been examined that the "high-performance" literature (Huselid 1995, Becker & Gerhart 1996, Pfeffer 1994, Applebaum et al 2000, Wall & Wood 2005, Combs et al 2006) identifies as essential components of an effective HR system. HRM has been measured through items in the questionnaire, which cover the following nine HR practices: (1) Recruitment, (2) Selection, (3) HR role, (4) Development, (5) Appraisal, (6) Salary systems, (7) Incentive pay, (8) Work/Life balance and (9) Training. These HR practices have been measured through HR instruments. HR instruments are the different methods that can be adopted within a HR practice (e.g. 'face-to face interviews' is a HR instrument for the HR practice 'selection'). The HR instruments are represented by the individual items in the questionnaire (see table 4.1).

Table 4.1 HRM measures

HR practice	HR instruments
Recruitment	Recruitment methods (per staff category): Internal advertising, External advertising, Recruitment agencies/Head-hunters, Internet, Job Centre, Personal contacts/acquaintances, Career days, school contacts
Selection	Selection methods (per staff category): Face to face interviews, Telephone interviews, Psychometric testing, Assessment centre, Presentations
HR role in organization	Chief HR member of highest ranking management team
Appraisal	Employee aspects reviewed: Responsibilities taken, Professional/technical competencies, Personal characteristics, Individual learning and development (improvement), Results achieved (targets fulfilled), Living company values
Salary system	Systems applied: Competency based pay, Salary scales with fixed increments, Open salary scales, Broad banding, Individual arrangements, Performance based pay
Incentive pay	Components to which it applies: Base pay, Individual bonus system, Group bonus, Profit sharing, Stock options, Non cash rewards, e.g. incentive travel
Work/Life balance	Work-life balance programmes: Relaxed dress code, Flexible hours, Part-time work, Telecommuting/home working, Parent/child friendly policy, e.g. childcare, Reduced overtime, Home services at work, Reduction in company travel
Development	Management development programmes: Performance appraisal feedback, Peer feedback, 360 feedback, Personal development, Workshops, Training in people skills, Training in leadership styles, Mentoring, One to one coaching, On the job experience, Self based training (e.g. CD Rom, books)
Training	Average number of training days per employee in a year

Source: IBM questionnaire 2002 (see also questionnaire in appendix 1)

Several HR practices need to be elaborated on a little more. Recruitment and selection instruments have been gathered for three different employee groups: (1) senior management/executive, (2) middle management, consultants, specialists, (3) worker/operational/office staff. This enables an investigation of differences between staff categories for these variables. Recruitment is furthermore measured with an ordinal scale meaning that respondents have been asked to rank their responses. The HR role in an organization has been measured by asking whether the chief HR is a member of the highest ranking management team, indicating the concerns of top executives with HR issues (Barney & Wright 1998). The salary systems that are expected to contribute to performance have been included in further analysis, but others, such as base pay, have been excluded. Training is furthermore the only HR practice included that is originally measured as a ratio scale (average number of training days per employee). All items used in the analyses are finally (recoded in) either nominal or ratio scales.

The HR practices can be bundled in different ways. The ways that are considered within this study will be presented in the analysis plan in the next section. First the other measures will be described.

4.3.2 Institutional context

Two contexts will be considered: countries and sectors. Organizations from 47 countries have participated in this survey (see table 4.2). These countries will need to be grouped together. Six sectors have furthermore been distinguished from 38 subgroups (see table 4.3). The way countries will be grouped as well as the distinction of sectors will be addressed in the analysis plan and performed in chapter 6 ‘Institutional Context’.

Table 4.2 Countries

Country
Argentina
Australia
Austria
Belgium
Bermuda
Bolivia
Brazil
Bulgaria
Canada
Chile
Colombia
Czech Republic
Denmark
Estonia
France
Germany
Hong Kong
Hungary
Indonesia
Ireland
Italy
Japan
Korea
Luxembourg
Malaysia
Egypt
Oman
United Arab Emirates
Netherlands
New Zealand
Philippines
Poland
Singapore
South Africa
Spain
Sweden
Switzerland
Turkey
UK
US
Saudi Arabia
Bahrain
Nigeria
Portugal
Panama
Costa Rica
Jordan

Source: IBM questionnaire 2002 (see also questionnaire in appendix 1)

Table 4.3 Sectors

Sector
Product
Energy & Utilities
Financial Services
Services
Government & Non-profit
Information, Communication & Entertainment

Source: IBM questionnaire 2002 (see also questionnaire in appendix 1)

4.3.3 Performance

SHRM research ideally incorporates several performance measures. The current study incorporates HR outcomes and firm performance measures as dependent variables.

HR outcomes

Several estimates of HR outcomes have been considered. Absenteeism and labour turnover are the main HR outcomes considered. These HR outcomes are measured with ratio scales. The means, standard deviation, number of observations (N), minimum and maximum are presented in table 4.4.

Firm performance

Estimates of firm performance include revenue, operating expense, and profit. Profit is calculated by subtracting expenses from revenue. The firm performance measures are the year-end measures per full time equivalent (fte) and are measured with ratio scales.

Observations are retained as much as possible and only extraordinary observations for which no explanation can be found are omitted from further analyses. Outliers are observations distinctly different from the other observations (Hair et al 1998). Only for the firm performance measures clear outliers were present. 3 cases represent extreme high values of the variables. The three highest values for revenue and profit are millions of dollars higher than the rest (e.g. highest value revenue is 3,8 million dollar per fte and the highest incorporated in the analyses is 1,7 million dollar per fte). These values were

almost double the rest. These cases have been omitted from further analysis. In table 4.5 the means, standard deviation, number of observations, minimum and maximum of the remaining observations are presented.

Table 4.4 Descriptives HR outcomes

HR outcome	Description	Mean	Standard Deviation	Minimum	Maximum	Number of observations
Absenteeism	Average number of days absence (per fte[1])	8	5,88	0	30	429
Labour turnover rate[2]	Percentage employee turnover	17%	16,52	0	166	652

[1] *fte = full time equivalent*
[2] *Labour turnover = the total number of terminations of employment divided by the average employment for the year*

Table 4.5 Descriptives Firm performance

Firm Performance	Description	Mean * 1000 dollar	Standard Deviation * 1000 dollar	Minimum * 1000 dollar	Maximum * 1000 dollar	Number of observations
Revenue	Revenue per fte	222,03	253,67	0,11	1744,08	522
Expense	Operating expenses per fte	123,48	151,11	0,03	1002,02	480
Profit	Profit per fte	82,39	176,03	-247,56	1323,20	429

4.3.4 Control variable

One control variable was included in the analyses. Information was incorporated on workforce size. Size is a common control variable. As an organization increases in size it is likely that other factors (e.g. profit) are able to increase as well. Organizations that provided results ranged in size from 28 to 168.227 fte, with an average of 5202 fte and a standard deviation of 13.773. In table 4.6 size is grouped in five categories in order to show the distribution of organizations more clearly. Size is represented by Ln(Average fte) in further analysis.

Table 4.6 Size classes by average FTE

Size class	Number of observations	Percentage
≤ 200	105	12,7
201-1.200	301	36,5
1.201-5.000	246	29,9
5.001-15.000	110	13,3
≥15.001	62	7,5
Total	824	100,0

4.4 Analysis plan

In order to be able to examine the relationship between HRM, the institutional context and performance an analysis plan has been constructed. HRM will be operationalised by constructing meaningful bundles of HR practices. The context will also need to be operationalised. After these operationalizations the study will continue with an examination of the influence of different contexts on the adoption of HR bundles. The last topic that will be addressed is the relationship between HRM and performance. Possible mediating effects by HR outcomes, as well as moderating effects of the context will be considered. These steps will all be instrumental in answering the central research question: '*Does the adoption and effectiveness of HRM vary in different contexts?*' The specifications of the analysis will shortly be addressed in the remainder of this paragraph.

4.4.1 HRM bundles

When researchers are interested in an overall picture of HRM, it is sensible to select practices in conjunction with and not in isolation from each other. HRM bundles are likely to have a greater effect on performance than individual isolated practices can have (Delery & Shaw 2001). Configurations of HR practices will need to be made (e.g. Delery & Doty 1996). The majority of empirical studies investigating the relationship between HRM and performance have computed measures of "HRM bundles" by grouping individual HR practices together (Wall & Wood 2005). Whether it is factor analysis (e.g. Huselid 1995), cluster analysis (e.g. Arthur 1994) or another method that has been used (e.g. Guest et al 2004), all these approaches are based on assumptions. The different options of bundling HR instruments that will be considered in this research will shortly be presented here. The actual bundling will be discussed in chapter 5 'HRM Bundles'.

Theoretical perspective

The first alternative is the grouping of HR instruments based on theoretical rationale. Combined measures of HR instruments are derived purely based on prior theory that indicates how HR practices influence performance. These configurations represent ideal constructs of HRM bundles (e.g. Drazin & Van de Ven 1985, Delery & Doty 1996). This approach resembles the 'fit as profile deviation' of Venkatraman (1989). Deviations from the ideal profile imply a weakness in the alignment.

Numerative perspective

It has been argued that organizations can improve performance either by increasing the number of HR instruments they employ within the system or by implementing HR instruments in a more widespread way (Youndt et al 1996). If so, it does not seem unreasonable to simply count the number of HR instruments applied. This is a measure of HRM which reflects quantity or amount (e.g. Guest & Hoque 1994).

Interdependency perspective

To study whether HRM consist of coherent and consistent bundles of HR instruments some form of factor analyses has often been used (e.g. Huselid 1995). Factor analysis is an interdependence technique in which all variables are simultaneously considered (Hair et al 1998). This technique has been used to group individual HR instruments. The aim is to find the underlying factor structure of the data. Covariation is central in this approach and has therefore been labelled as examination of 'fit as covariation' by Venkatraman (1989). Factor analysis is used when researchers have several measures that they assume to be equivalent indicators of an underlying construct of interest or when several measures of variables that are conceptually related need to be reduced in number to enhance interpretability of analyses. The individual HR instruments within such a construct should therefore have relatively high inter-correlations. An examination of the Kaiser-Meyer-Olkin (KMO) statistic indicates whether an acceptable factor can be constructed (Kaiser 1974, Hair et al 1998).

Classification perspective

Cluster analysis is used to classify organizations (e.g. MacDuffie 1995). Cases in a dataset are grouped based on several HRM characteristics of these cases. This clustering approach is in line with the ´fit as gestalt´ approach of Venkatraman (1989). Cluster analysis is a descriptive tool that looks for similarities across cases. These cases are then reorganized into relatively homogeneous groups. This technique enables a researcher to discover the patterns of HR instruments that organizations have adopted (Hair et al 1998). Two-step cluster analysis will be conducted. This technique can handle both continuous and categorical variables at once. This is an important advantage since training is a continuous variable while all other HR measures are (recoded into) nominal variables.

4.4.2 Operationalization of the context

Apart from HRM the context also needs to be operationalised. In this research two dimensions are considered at which institutional influences are expected to occur. These are country and sector level. The operationalization of the context will be conducted in chapter 6 'Institutional Context'.

Business systems

Countries with similar institutional characteristics will be grouped together. For the operationalisation of the context the business- systems approach of Whitley (1999) will be helpful. In all institutionalist strands of organizational theory the adaption of organizations to their institutional environments is emphasized (Tempel & Walgenbach 2007). The process of homogenization where organizations tend to resemble one and other is called isomorphism. Institutional isomorphism in particular is the result of coercive, normative and mimetic pressures. New institutionalists (e.g. DiMaggio and Powell, 1983) mainly focus on normative and cognitive institutions: patterns of thought, norms and taken for granted assumptions as to how firms should be organized and what firms should do. In the business systems approach of Whitley (1999) the focus is mainly on structural-regulative institutions, such as financial systems, which are often underpinned by coercive mechanisms. New institutionalists furthermore consider the societal or cultural environment on organizations, which they refer to as the ´organizational field´. The same organizational field can theoretically be located in different nations. Implicitly the limits of the organizational field are drawn at national borders because empirical studies by new institutionalists are primarily conducted within national borders (Tempel & Walgenbach 2007). The business system approach is, however, oriented from the outset towards a comparison between nations. At the national level core national institutions structure the environment of economic actors so that distinctive economic logics may become established. Another attribute of the business systems approach is that it emphasizes that different patterns of economic coordination develop and are continually reproduced because adaptation to the characteristics of the institutional environment can be considered

to be efficient within the borders of that business system. These attributes in the approach of business systems make the use of business systems suitable for our study.

The business systems of Whitley (1999) provide us with a useful categorization (see table 4.7). Each business system represents a different way in which coordination over (economic) activities takes place. A short description of each business system will be given in chapter 6 'Institutional context'

Table 4.7 Business systems

Business systems
Fragmented
Coordinated-industrial district
State organized
Compartmentalized
Highly coordinated
Collaborative

Source: Whitley 1999

The 47 countries (see appendix 1) will be grouped together according to characteristics of the business systems of Whitley (1999). Not all 47 countries have been identified by Whitley as belonging to one of the business systems. Some of the factors of 'the index of economic freedom' will therefore be used in order to be able to group all countries into business systems. These factors are: fiscal burden of government, government intervention in the economy, banking and finance, wages and prices, property rights and regulation. The index has been constructed by the Heritage Foundation/Wall Street Journal. It reflects the degree to which economies in every country can be regarded as having free market conditions. Free market conditions are typically opposed to forms of collaboration (e.g. Phillips et al 2000). Alliances and cooperation are riskier on strong impersonal markets, where there is little commitment (Whitley 1994). The economic freedom factor scores will be matched to each business system. With K-means cluster analysis groups of countries can be identified. This type of cluster analysis groups data into a known number of clusters based on a pattern of scores.

Sectors

At the sector level institutional environments can also differ. Distinctive systems of how economic transactions are organized can develop around the different production systems. Differences in the primary production process can have consequences for the internal organization as well as collective representation or collaboration between social actors. The following sectors will be considered: products, energy & utilities, financial services, services, government & non-profit and information, communication & entertainment (see also table 4.3). Subgroups have been incorporated within these six categories (see questionnaire in appendix 1).

4.4.3 Relationships

In the previous paragraphs methods have been presented that will be used to identify meaningful HRM bundles and to operationalise the context. In this paragraph the analysis plan is presented for the investigation of the relationship between HRM, the institutional context and performance. First the analyses on the adoption of HRM in different contexts will be presented. This will be followed by an overview of the different analyses of the effectiveness of HRM. These analyses will be conducted in chapter 8 'HRM and the Institutional Context' and in chapter 9 'Effectiveness'.

HRM and the institutional context

The first sub research question that has been formulated is the following: "*Is there variation in the adoption of HRM bundles across different contexts?*" HRM bundles will be represented by a continuous variable (e.g. HRM from a numerative perspective) and/or a categorical variable (e.g. HRM clusters). Furthermore both business systems and sectors will be included as contextual variables.

For the continuous HRM variables analysis of variance (ANOVA) will be used to assess the difference between the different contexts. By using this technique the differences in the means of HRM bundles across business systems and sectors can be tested (Hair et al

1998, Pindyck & Rubinfeld 1998). If the difference is significant, this leads to the rejection of the null hypothesis of no difference. To run multiple comparisons between pairs of means the Scheffe test and the Bonferroni tests are helpful. These are common and conservative multiple comparison techniques.

For the categorical HRM variables contingency tables (also referred to as cross tabulations) will be constructed. A contingency table helps determine whether the value of one variable is associated with, or "contingent" upon, that of another (Hair et al 1998). This procedure is useful when each variable contains a few categories. The chi-square test for independence is used to obtain a measure of statistical significance. This tests the null hypothesis that there is no relationship between the variables. If this hypothesis were true, the proportions would be the same within each level. In other words, there should be little difference between *observed* and *expected* values. The expected values represent the numbers that would be in each cell when the variables are independent of each other. So the chi-square statistic evaluates the likelihood that the differences between the observed and expected values would occur under the null hypothesis of no difference between these values.

Effectiveness

The other sub research question that will be addressed is: "*Are there differences in effectiveness of HRM bundles in different contexts?*" For the examination of the relationship between HRM bundles and performance as well as the institutional context, several steps will be taken.

First, the focus will be on whether there is an association between HRM bundles and performance. In this research a distinction has been made between HR outcomes (labour turnover and absenteeism) and firm performance (revenue, expense and profit). HRM bundles can have a positive effect on either HR outcomes or firm performance or both performance indicators directly, but can also have an indirect effect on firm performance

via HR outcomes. Mediating effects will be tested by using two different protocols proposed by James and Brett (1984) and Baron and Kenny (1986).

The relationship between HRM bundles and performance can differ between business systems and/or sectors. The focus of these analyses will be on HR outcomes. There are a lot of different organizational practices that will have an influence on firm performance, which makes this link between HRM bundles and firm performance more difficult to interpret (Guest 1997). There is furthermore a need to specify how HRM bundles will interact with the context in realizing better organizational performance. Statistical interactions are estimated by adding a cross-product of variables to an equation that already contains the main effects. In the first step the main effects variables are included and in the second step the interaction terms. If the level of explained variance significantly increases by including the interaction terms, we can conclude that the context does have an effect on the relationship between HRM bundles and performance. Control variables (e.g. size) will finally be added to see whether the relationships still hold.

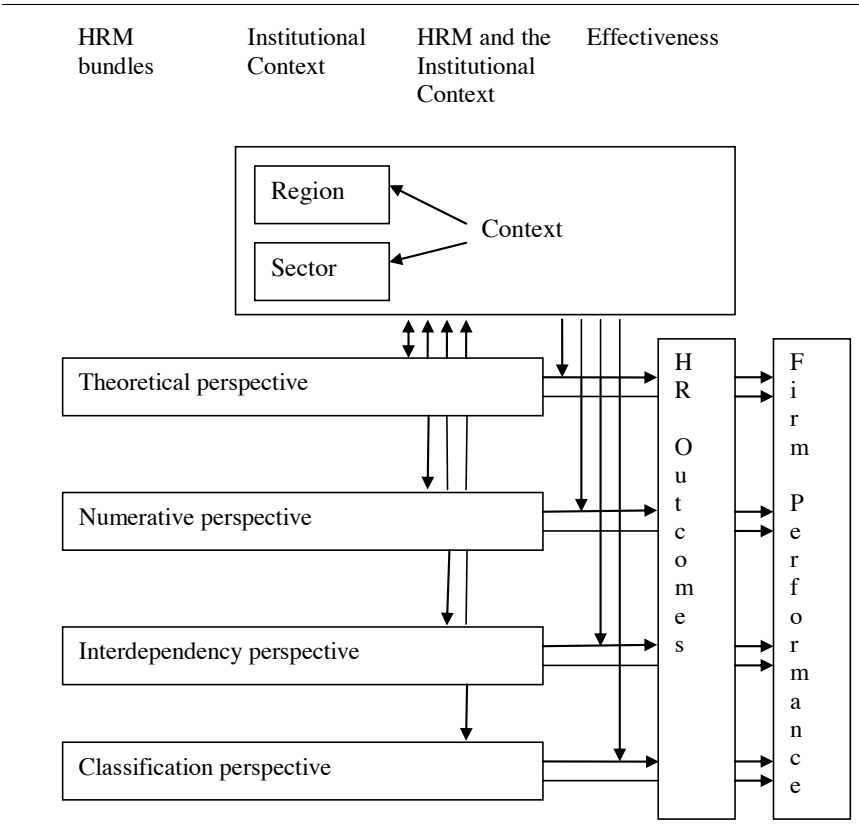
4.5 Conclusion

In this chapter a research design was presented. In this design the research is structured by showing how all the major parts of the research project (the survey design, measures and analysis plan) work together to try and address the central research question: '*Does the adoption and effectiveness of HRM bundles vary in different contexts?*'

We use figure 4.1 to organize our analyses plan and to show how subsequent analyses will take place. In the next chapter HRM is operationalised in bundles. Next the institutional context will be operationalised. We will then revisit our hypotheses and formulate expectations for our operationalisations of HRM and the Institutional context based on previous comparative research. After we have done that we are ready to continue with the analyses. First we will examine the relationship between HRM and the institutional. Do we find support for variation in the adoption of HRM across different contexts? Then we will consider the effectiveness of HRM. Are there differences in effectiveness of HRM in

different contexts? The last chapter is not depicted in the framework. This chapter presents a general discussion and an overall conclusion.

Fig 4.1 A visual representation of the Research Framework



Chapter 5

HRM bundles

5.1 Introduction

In this chapter a search for meaningful HRM bundles is conducted. In order to form HRM bundles HR practices will need to be combined. As we can recall from the review in the second chapter three important conceptual issues need to be addressed. It is important to identify whether HR practices have the potential of improving performance (e.g. Godard 2002). Then HR practices need to be combined into a HRM bundle (e.g. Delery & Shaw 2001). Different HR practices might finally be appropriate for different employee groups (Lepak et al 2007). These three issues will all be taken into account when bundling HR practices.

There are different approaches available for constructing HRM bundles. The option to construct HRM bundles from a purely theoretical standpoint will be addressed first. Does what we already know from HRM theory enable the bundling of HR practices? Next HRM bundles will be constructed from a numerative perspective by adding up HR practices. This approach represents a magnitude or amount measurement. More HRM is assumed to be better (e.g. Guest & Hoque 1994). Factor analysis will also be considered. This is a commonly used method to determine the interdependency between variables (e.g.

Huselid 1995). Finally, a cluster analyses will be performed (e.g. MacDuffie 1995). The results of the analyses will highlight the advantages and disadvantages of each approach. This will be addressed in the discussion section. A conclusion will form the last part of this chapter.

5.2 Theoretical perspective

The grouping of HR practices is ideally done purely based on theoretical rationale. In this case the researcher determines a priori with the help of theory how HRM influences performance and which combined measures of HR practices will need to be derived. Many researchers have operationalized HRM differently. HRM has been categorized as a 'High Performance Work System (HPWS)' (e.g. Huselid 1995, Applebaum et al 2000), 'High Commitment Management' (e.g. Arthur 1994, Pfeffer 1998) or 'High-involvement Management' (e.g. Guthrie 2001). What these measures all have in common is that HRM is supposed to yield performance gains above those associated with more traditional, Tayloristic or control approaches to HRM (Godard 2002, Wall & Wood 2005). These gains can be realized because the organization has a HR system in place that contributes to the skill and knowledge base within the organization and furthermore provides both motivation and opportunity for employees to perform well (Delery & Shaw 2001, Combs et al 2006)

In our study nine HR practices are considered: recruitment, selection, HR role, development, appraisal, salary systems, incentive pay, work/life balance and training. The first step is to verify whether these practices can be considered to be performance enhancing HR practices. Some consensus is emerging regarding which HR practices have the status of 'performance enhancing' HR practice. Wall & Wood (2005) examined 25 studies that have been published in reputable refereed journals. 17 of these studies are also incorporated in the meta-analysis of 92 studies performed by Combs et al (2006). Boselie et al (2005) looked at 104 articles published in international refereed journals. 25 to 36 of these studies overlap with either Wall & Wood (2005) or Combs et al (2006). From the studies conducted the conclusion can be drawn that the most popular performing

enhancing HR practices are careful 'recruitment & selection', 'training & development', 'contingent pay & reward schemes' and finally 'performance management, including appraisal' (Boselie et al 2005). Broad recruiting and selectivity in staffing bring the necessary knowledge and skills into organizations (Paauwe 2007). Training and development further advances knowledge and skills (Hoque 1999, Combs et al 2006). Contingent pay and reward schemes as well as performance management offer incentives to aid motivation for meeting or exceeding targets (Huselid 1995, Delery & Shaw 2001). These performance enhancing practices have been included in our study. Two additional HR practices are added to this list namely work/life balance programmes and HR role. Work/life balance programmes include programmes such as flexible work schedules. These programs and flexible work schedules in particular can increase motivation by increasing employee commitment (Youndt et al 1996, Pfeffer 1998, Den Dulk et al 2005). The other additional HR practice, that is included, is the HR role. The HR role represents whether or not the chief HR is a member of the highest ranking management team. This is an indication of the concerns of top executives with HR issues (Barney & Wright 1998). Most HR practices in our study have been identified as performance enhancing practices in previous studies. These last two practices can however also be considered to be performance enhancing. The conclusion can be drawn that all the HR practices included in our study can be considered to be performance enhancing HR practices. Three different groups of employees have furthermore been distinguished in the measures for recruitment and selection namely: (1) senior management, (2) middle management, and (3) operational staff. This enables us, to a certain extent, to examine differences for employee groups. Several researchers stress the different roles of staff categories (e.g. Lepak & Snell 2007).

This study focuses on a limited list of performance enhancing practices for several reasons. Besides the obvious reason that it is not possible to ascertain with absolute certainty that all possible performance enhancing practices have been included, there can be specific disadvantages in including other HR practices. Other potential performance enhancing HR practices such as teamwork, information sharing and participation (e.g. Applebaum et al 2000) are not included in this study. Via a straightforward procedure (e.g.

presence/absence) we can establish whether there is a bonus scheme in operation, but judgments of the extent of teamwork or participation are much more complicated to gauge (Wall & Wood 2005). Combs et al (2006) furthermore found no significant effects for several HR practices that researchers previously have deemed to be performance enhancing practices namely teamwork, information sharing and performance appraisal. The status of performance appraisal is however debated. Performance appraisals can have different foci including developmental, control- and results oriented (Youndt et al 1996). Delery and Shaw (2001) argue that performance appraisals need to be developmental to be effective. This means that developmental oriented performance appraisal is performance enhancing and the rest not. In our study individual learning and development is included as one of the performance appraisal aspects.

Based on previous research and research overviews we have been able to establish whether a HR practice can have the status of a performance enhancing practice. When HRM bundles are constructed a priori purely based on theoretical rationale, different ideal type configurations will need to be constructed. There is however little agreement about which HR practices make up a *coherent* HRM bundle (Becker & Gerhart 1996, Guest et al 2004). There are differences across studies in the particular practices covered (e.g. Becker & Gerhart 1996, Wright & Gardner 2003, Wall & Wood 2005). Combs et al (2006) found that the number of HR practices included in a HR system ranged between 2 and 23. A lot of different HR practices may enhance skills, motivation and opportunity in different ways (Delery 1998). Performance enhancing HR practices can furthermore reinforce and support each other in different ways when used in coordinated systems of HR practices (Huselid, 1995). HR practices can reinforce each other simply because of the cumulative effect of more performance enhancing HR practices (Guest 1999, Combs et al 2006), but also because synergies can occur when one practice reinforces another (Gerhart et al 1996, Delery 1998). Reinforcement is however not the case when a combination of HR practices are substitutes or form a 'deadly combination' together (Becker et al 1997). A well known example of a deadly combination is teamwork coupled with individual incentive pay. The way HR practices are measured in this study complicates the bundling of HR practices

even more. A distinction is made between HR practices and HR instruments. HR instruments are the different methods that can be applied within a HR practice (e.g. an 'assessment centre' is a HR instrument for the HR practice 'selection'). HR instruments provide an even richer diversity of possible combinations. More research is needed to be able to construct ideal type HRM ´profiles´ as well as to determine conditions under which deviation from this profile is critical. Due to a lack of a solid theoretical framework for combining HR instruments, this approach presents conceptual challenges (Guest et al 2004). Better theory development would be the solution for this problem. This option of bundling HR instruments will not be pursued any further in this study.

We can conclude that the HR practices included in our study all have a performance enhancing status, but combining these practices a priori purely based on a solid theoretical framework is not possible.

5.3 Numerative perspective

Organizations can try to improve performance by increasing the number of HR instruments they employ (e.g. Guest & Hoque 1994, Guest 1999). By increasing the number of HR instruments implemented, it is more likely that there are enough HR instruments in place to ensure a motivated, skilled and empowered workforce. This additive approach is only appropriate when each HR instrument actually has an equivalent and additive effect on performance.

The following HR practices are covered by counting the use of individual HR instruments in the questionnaire: Selection, HR role, Development, Appraisal, Salary systems & Incentive pay, Work/Life balance and Training (see also table 4.1 on page 56). The average number of training days will be considered separately since it is measured with a ratio scale. HR instruments for selection are included if they are adopted for one or more of the staff categories. The application of a selection instrument for more than one staff categories says something about how widespread this instrument is applied across staff categories not whether *more* kinds of HR instruments are utilized. Salary systems and

incentive pay are furthermore taken together because both have similar reference to pay. Recruitment will be left out when bundling HRM according to the numerative perspective. Recruitment has been measured with an ordinal scale and therefore eliminates the option to add up recruitment instruments. Ranked HR instruments (e.g. an indication of the importance of HR instruments) cannot be added up to reflect an amount measure, because the absence of an HR instrument has not been determined. HR recruitment instruments that have not been ranked can still be applied, but simply not considered in the ranking as an important recruitment instrument. This means six HR practices remain for bundling. When counting the number of HR instruments there is no theoretical basis to assume that one HR instrument in an area is more important than another let alone how these differences would need to be incorporated in a combined measure. For this reason but also in order to correct for the number of HR instruments that have been considered (for each practice) in this study, the number of HR instruments adopted will be divided by the total number of possible HR instruments (within each practice). In other words, the scope variable is measured as the weighted number of applied instruments where the weight of each instrument is the inverse of the total number of HR instruments within that HR practice. This ensures that each of the six included practices has an equal share in the scope variable. This variable thus represents how much of the HR instruments, within the six HR practices considered, have been adopted by each organization. This variable will be referred to as the HRM scope variable. The scope variable can range from 0-6. An average of 2,69 means that on average 45% of the HR instruments that have been considered in this study are adopted. As mentioned earlier training will be considered separately, since the average number of training days is a ratio measure. Together with the scope variable this operationalization of HRM will be referred to as HRM from a numerative perspective. This operationalization represents a HRM measure that captures magnitude and amount. The descriptive statistics are presented in table 5.1

Table 5.1 Descriptive Statistics HRM from a numerative perspective

	Mean	Standard Deviation	Minimum	Maximum	Number of observations
HRM Scope variable	2,69	0,85	0,17	5,02	864
Training	3,24	4,65	0,01	46,30	548

5.4 Interdependency perspective

One of the most common techniques researchers have used to identify coherent and consistent bundles of HR instruments is through some form of factor analyses (e.g. Huselid 1995). A small number of factors are extracted from the data by combining several items. By using factor analysis researchers assume the responses to items are "caused" by an underlying construct (Delery 1998). The HR items that define a specific construct are interpreted as indicators of this construct. These constructs can be interpreted by reflecting on the items.

There are methodological checks that help determine whether factor analysis is appropriate. Since the HR instruments will have to be strongly related to each other if they represent similar underlying constructs, high intercorrelations of the HR instruments are required (Hair et al 1998). If visual inspection of the correlation matrix reveals no substantial number of high correlations ($\rho > 0,30$), factor analysis is probably not appropriate. To check whether there are sufficient correlations to justify the application of factor analysis it is also possible to look at the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO). With this measure the appropriateness of applying factor analysis can be evaluated (Kaiser 1974, Hair et al 1998). This index ranges from 0 to 1. Each variable is perfectly predicted without error by the other variables when it reaches 1. Values above 0,50 indicate reasonable appropriateness.

Principal component analysis

A principal component analyses is a common analysis that is performed within these principles. Several principal component analyses have been conducted for *all* the HR

instruments. Although in factor analyses the data is assumed to be measured on an interval scale, this technique is not necessarily inappropriate for dichotomous and ordinal variables (DeKok 2003. DeKok et al 2006). "*In some cases dummy variables (coded 0-1), although considered nonmetric, can be used*." (Hair et al. 1998, p. 98). The presence of an HR instrument can imply that '*more*' is done than in the absence of this HR instrument. This is not the case when the dummy variable points towards a distinction (e.g. male/female). A principal component analyses however, hardly yielded any appropriate factors. The KMO measure sporadically hit 0,50 or slightly higher, the explained variance of the components with an eigenvalue larger than one hardly ever reaching above 50% and the screeplot did not give a clearer picture. The most notable finding was the strong relationship between HR instruments from the three different staff categories for recruitment and selection.

Several alternative approaches within factor analysis have been considered in an attempt to enhance interpretability. Changing the factor rotation is one of them. The factor rotation method most commonly used with survey data is varimax. This is an orthogonal factor rotation method, meaning that the correlation between the factors is determined to be 0. Mathematical independence of factor axes to each other (i.e. right angles or 90 degrees) is maintained throughout the rotation process. But in many situations relevant constructs may be conceptually linked, which implies a correlation between the factors. In this study, it is quite reasonable to expect that certain constructs could be correlated. Possible constructs can for example have reference to skills, motivation and opportunity and can be strongly intertwined. In this study an oblique factor rotation method has therefore also been considered. This method does not enforce the restriction that the underlying factors are independent constructs. SPSS provides oblimin as an oblique rotation method. The results however did not differ substantially.

Perhaps a priori thought about what patterns could be expected would result in better interpretable factors. One option was to group the data as reflected in earlier studies. Most of the studies are conducted in Anglo-American countries and within the manufacturing sector. The data file was split in several Anglo-American countries and the other

countries. The Anglo-American countries consist of the US, UK, Australia, Canada, Ireland and New Zealand. This had no result. Splitting the file by industry did not lead to any results either. Another alternative is to identify separate expected dimensions of the structure and then check whether the factor solution confirms it. Commonly used dimensions have some reference to skills, motivation and opportunity (e.g. Huselid et al 1997). Appelbaum et.al. (2000) speak of 'AMO' referring to ability, motivation and opportunity. The application of factor analysis on three (partly overlapping) groups of HR instruments from the dataset made no difference. The KMO measure hardly ever exceeded the lowest threshold value, indicating that the reduced set of variables does not meet the fundamental requirements for factor analysis

For every factor that exceeded the absolute minimum value of the KMO ($\geq$0.50), an attempt was made to identify appropriate variables for subsequent application. To this end, the HR instruments with the highest factor loading on a factor were combined into a scale and a Cronbach alpha test was conducted in order to assess the consistency of the scale. Cronbach's alpha measures of reliability range from 0-1, with higher values indicating higher reliability among indicators (Hair 1998). Values of 0,60 to 0,70 are deemed the lower limit of acceptability. This threshold was not met.

After all these different attempts the conclusion has to be drawn that factor analysis could not identify meaningful HRM bundles in this study. Before heading to a discussion of these results, another bundling option will be examined, namely cluster analysis.

5.5 Classification perspective

Clustering techniques and related approaches to classification have received a fair amount of attention from various researchers (e.g. Arthur 1992, MacDuffie 1995, Delery 1998). It is used to discover similar groups of respondents (Hair et al 1998). In the case of survey data this means that respondents, who provide similar responses on several questions, will be grouped together. Through this procedure greater understanding of similarities and differences between respondents can be gained.

5.5.1 Two step cluster analysis

There are several different techniques for conducting cluster analysis. The SPSS two-Step cluster method is a cluster analysis algorithm that offers a clear advantage over traditional clustering procedures: it can handle both continuous and categorical variables at once. Most other methods assume that all variables are either continuous or categorical, but not a combination of both. Training is measured as a continuous variable and the rest is categorical. The two-step cluster method is therefore appropriate.

In a cluster analysis groups are created based on their proximity to, or distance from, each other. The log-likelihood distance measure in SPSS two step cluster analysis is a probability based distance measure that can handle both continuous and categorical variables. In order to determine the number of clusters automatically, a two-step procedure has been developed that works well as a hierarchical clustering method. In the first step the respondents are pre-clustered into many small sub clusters and in the second step the initial estimate is refined into a (desired or automatically selected) number of clusters. A two step cluster analysis in SPSS 12 showed a five-cluster solution. A description of the profiles of the clusters will be presented in the next paragraph.

5.5.2 Cluster profiles

Five clusters have been distinguished via two-step cluster analysis. One small cluster (n=22), two medium-sized clusters (n=58 and n=77) and two large clusters (n=98 and n=101). By identifying the key HR instruments which discriminate between clusters, cluster profiles can be constructed (see appendix 3). Based on these profiles the clusters have been labelled: ‘extensive HRM’, ‘relational HRM’, ‘basic HRM’, ‘accommodating HRM’ and ‘sophisticated HRM’. The profile of each cluster will now be explained in more detail (see also table 5.2).

Table 5.2 Cluster profiles

HRM Clusters	**Focus**	**Characteristics**	**Exemplary HR instruments**
Extensive HRM	Widespread	Diverse & mixed for *all* staff categories	Recruitment instruments for *all* staff categories
Relational HRM	Strong relationships	Personal contact is important	Recruitment via personal contact, management development on training in people skills and leadership styles, selection mainly via face to face interviews,
Basic HRM	Orderly & customary	Methodological manageable and controllable	Recruitment via internal & external advertising Performance appraisal on professional/technical competencies
Accommodating HRM	Person centred	Employees are given more control over when, where and how they work	Management development in personal development workshops Work-life balance programmes such as 'telecommuting/home working', 'part-time work' and 'parent/child friendly' programmes
Sophisticated HRM	Formal & advanced	Refined innovative HR instruments are utilized	Management development programmes such as '360 degrees feedback', 'mentoring' and 'self based training (e.g. CDroms, books)' Selection via 'psychometric testing' as well as 'assessment centres'

Cluster1 'Extensive HRM'

This cluster represents organizations that incorporate HR instruments in a wide spread manner. The HR function is furthermore diverse and mixed. Recruitment instruments are especially most widely used by organizations in this cluster. It is exceptional that potential candidates for *all* staff categories are subjected to a wide variety of recruitment instruments. This is, for example, the case for recruitment instruments such as 'job centres' and 'career days', which are not as much utilized in organizations from other cluster as in this one. Organizations in this cluster less often have HR representation in the highest management team and the average number of training days is the lowest in this cluster compared to the others. Within this cluster however a wide variety of employee aspects are reviewed during performance appraisals. Organizations in this cluster also target a number of areas of management development. Gaining insight into personal strengths and development needs, through 'peer feedback', is in particular a little more common in this cluster. In addition, for the different staff categories some selection methods are used more than others. 'Telephone interviews' are, for example, mostly used for workers, while 'presentations' are mostly used to select middle management. These particular selection instruments are also used more in this cluster than in others. Pay represents another important element in the employment relationship. Performance based pay is common in this cluster and is applied in the form of individual bonus systems. Finally, several work-life balance programmes are in place. Reduced overtime is a specific work-life balance program that is offered more in this cluster. In short, organizations in this cluster have applied HR instruments *widespread* across all staff categories and *mixed* over several HR practices. This HRM cluster is therefore labelled as 'extensive'.

Cluster2 'Relational HRM'

Organizations in this cluster place a high priority on constructive relationships. Senior-, middle management but also workers are recruited via personal contacts. Internal- as well as external advertising are, compared to the other clusters, least popular in this one. This combination of HR instruments shows that (informal) networking activities dominate most processes. Other characteristics of this cluster don't form specific distinguishing features,

but don't contradict with this observation either, some even support it. In this cluster as well as in others the chief of HR is often a member of the highest ranking management team, the number of training days is close to the combined average and past performance of employees is evaluated via a variety of employee aspects. Concerning management development programmes the focus of organizations in this cluster is limited to a few programmes that however support our observation. Training in 'people skills' and 'leadership styles' are focused on improving relation management and 'on the job experience' incorporates a large informal and relational aspect. Relational features are therefore stressed, passing on the opportunity to utilize other development programmes that for example encourage personal advancement via personal development workshops. In addition, within this cluster face-to-face interviews are mainly used as a selection method. Other selection methods are scarcely used. Face to face interviews are the most personal way of selecting potential candidates. With regard to the compensation system no remarkable aspects need to be noted. Performance based pay is applied in this cluster in a comparable way to most of the others. The focus lies mainly on base pay and individual bonus systems. Concerning the work-life balance programmes, finally, relaxed dress code is mainly offered, followed by flexible working hours. These work-life balance programmes encourage an informal way of interacting. Organizations in this cluster apparently focus on building and managing strong relationships. This cluster will therefore be labelled 'relational HRM'.

Cluster3 'Basic HRM'

This cluster distinguishes itself by having several basic HR instruments in place and putting relatively less importance on the learning and development of employees. HR instruments that are orderly or customary are clearly preferred above others. Internal-, external advertising, recruitment agencies and/or internet is mainly used in the recruitment process for all the different staff categories. These are the more methodical manageable recruitment instruments, compared to career days for example. Some of the other characteristics are reasonably similar to other clusters. The HR manager is also in this cluster often a member of the board of directors and the number of training days is again

close to the combined average. One of the main distinguishing features lies in the learning and development aspect of the different HR instruments. While aspects, such as professional/technical competencies are often reviewed during performance appraisals in this cluster, individual learning and development as well as living up to company values is considered less in this cluster. Organizations in this cluster overall invest less in management development. Only two management development programmes are mainly utilized in this cluster: training in 'people skills' and 'leadership styles'. Only a small majority of organizations in this cluster, however, train in people skills and it is also least applied in this cluster compared to the rest. 'On the job experience' is also a management development programme which is common in all the other clusters with the exception of this one. There is also limited use of the different selection methods in this cluster. 'Face to face interviews' are often used but all the other options are not. In this cluster performance based pay is also less popular. Finally, a number of work life balance programs are applied in organizations in this cluster. Concerning work-life balance programmes a relaxed dress code is emphasized less in this cluster compared to the others. Overall it is clear that organizations in this cluster prefer HR instruments that are orderly and/or customary and put relatively less importance on the learning and development of employees. HRM in organizations within this cluster can therefore be characterized as being 'basic'.

Cluster4 'Accommodating HRM'

In organizations from this cluster emphasis is put on a person-centred, accommodating way of managing. The distinguishing features of organizations in this cluster lie mainly in the work-life balance programmes offered. Via work-life balance programmes employees are given more control over when, where and how they work (e.g. Den Dulk et al 2005). With regard to the recruitment process in this cluster 'internal-', 'external' and/or 'recruitment agencies' are once again often used for recruiting several staff categories. 'Personal contact' is only common for senior management and internet for both middle management and workers. The HR manager is also in this cluster part of the highest ranking management team and again the number of trainings days is close to the overall

average. In organizations in this cluster a wide variety of employee aspects are reviewed during performance appraisals, along with the allocation of a wide variety of management development programmes. 'Personal development workshops' is in particular a management development program that is only often utilized in one other cluster, besides this one. With respect to selection methods, 'face to face interviews' are mainly used. For senior- and middle management sometimes assessment centres are also called upon. In addition, different performance based pay schemes are frequently incorporated in organizations within this cluster not particularly in a different way compared to other cluster. As mentioned in the beginning the main distinguishing feature of this cluster lies in the work-life balance programmes. These programmes are aimed at improving the balance between professional and personal life. HR instruments such as 'telecommuting/home working', 'part-time work' and 'parent/child friendly' programmes are in particular more common in this cluster. Organizations in this cluster distinguish themselves by adopting 'accommodating HRM'.

Cluster5 'Sophisticated HRM'

The use of sophisticated recruitment and selection methods as well as a wide variety of management development programmes and a high average of training days is specifically common in organizations from this cluster. Recruitment for all employee categories is mainly done via '(internal and external) advertising' as well as 'recruitment agencies'. This cluster distinguishes itself by utilizing these specific HR instruments for *all* staff categories and only organizations from the extensive HR cluster do that as well. Other recruitment instruments are, however, hardly ever used in this cluster. 'Personal contact' is, for example, not even used much for recruiting senior management. In this cluster once again the HR manager is often a member of the highest ranking management team. Furthermore, even though several aspects are reviewed during performance appraisals, personal characteristics is less often one of them and only a small majority of organizations in this cluster commend 'living up to company values'. On the other hand a wide variety of management development programmes are in place. Advanced management development programmes, such as '360 degrees feedback', 'mentoring' and

'self based training (e.g. CDroms, books)' are more common in these organizations, compared to the rest. In addition the average number of training days is highest in this cluster. In reference to the selection process, 'psychometric testing' is customary for all staff categories and 'assessment centres' as well as 'presentations' for senior- and middle management. Psychometric testing as well as assessment centres are sophisticated selection methods that are used more often in this cluster than in any of the others. Performance based pay is also applied in organization from this cluster together with several work-life balance programmes. These are however not distinguishing features for this cluster. In conclusion, organizations in this cluster differentiate themselves mainly by the use of sophisticated recruitment and selection methods as well as a wide variety of management development programmes and a high average of training days and will therefore be labelled 'sophisticated' HRM

5.6 Discussion

Two approaches for bundling are appropriate for further analyses with HRM, namely HRM from a numerative perspective and HRM from a classification perspective. We will compare these two approaches. First we will however elaborate why in this study factor analysis, an often and successfully used way of bundling HR practices, did not provide any meaningful bundles. Our findings concerning differences in staff categories will be presented next. A distinction in different staff categories proved useful for one approach of bundling, namely for HRM from a classification perspective. We will conclude this section with a comparison of the two approaches we found to be appropriate for further analyses.

A frequently used bundling technique, namely factor analysis, did not result in any meaningful bundles. With a principal component analyses no underlying dimensions could be identified in this study. A reason for this result can lie in the way HR instruments have been measured. In our study HR instruments have been measured by establishing whether or not the HR instruments are applied. Other researchers might have used different HRM measures. Huselid et al (1997) for example found two dimensions of HRM capability,

labelled professional HRM capabilities and business-related capabilities. The HRM capabilities scales were measured by asking respondents to "indicate the extent to which HRM staff currently possesses the capabilities and attributes listed". Scales were used ranging from 1 (applies to most) to 5 (applies to very few). Studies, such as the study of Huselid, incorporate judgments concerning certain attributes of HRM staff which are related to constructs such as skills, motivation and opportunity. The level of skills, motivation and opportunity is ascertained. In our study instead the presence of HR items that can improve skills, motivation and opportunity is ascertained. This is in line with the way Delery (1998) suggests HR practices should be measured. According to Delery (1998) skills, motivation and opportunity are not *caused* by HR practices but a *result* of HR practices. The HR instruments don't represent underlying constructs. Instead the HR instruments are instruments for improving the skills and knowledge base as well as vehicles to provide motivation and opportunity for employees.

Differences in staff categories have been included for the HR practices recruitment and selection. In studies such as Lepak et al (1999, 2007) it is stressed that organizations may use different practices for different groups of employees. The way of differentiating between employee groups can, however, differ per study. In this study a distinction has been made in the managerial level, namely between senior management, middle management and operational staff. Other differentiations that have been made are for example between core- and noncore workers (Lepak & Snell 1999). In our study we found a relatively strong relationship between the same HR instruments for the different staff categories. When a principal component analysis was conducted for the HR instruments specified per staff category it resulted in factors that mostly combined the HR instruments from the different staff categories. A reason why there is a strong relationship between the HR instruments for the different staff categories can be found in the nature of the specified HR instruments. HR instruments for specific employee groups can serve as amendments to more general HR instruments rather than fundamentally altering them (Benschop 2001). The HR instruments are not fundamentally different for the different staff categories, but they are applied differently. The distinction in staff categories has been included in the

cluster analyses. A disadvantage can be that the HR practices with the most HR instruments tend to dominate the HR bundling. The big advantage of this distinction is that differences for the different staff categories can be included in the interpretation of clusters. In two clusters the differences in staff categories have attributed in determining distinguishing features. In 'extensive' HRM all staff categories are subjected to a wide range of recruitment instruments. In 'relational' HRM personal contacts are utilized in the recruitment of all staff categories. These distinguishing features are furthermore supported by other characteristics in the cluster profile.

This section will conclude with a comparison of the two approaches that will be used in further analysis. HRM will be operationalized from a numerative perspective as well as a classification perspective. The first operationalization represents an amount and coverage measure. The scope variable represents how much HRM is covered within an organization. The variable training is considered separately because this has been measured with a ratio scale. This approach is valuable because the cumulative effect of more HRM can be analyzed in further analyses, but this approach is limited because it does not distinguish between the kind of HR instruments that have been applied. On the other hand the other operationalization of HRM does address this issue. The second operationalization describes HRM profiles. HRM from a classification perspective shows the different focus in HRM compositions that have been applied by organizations in our study. HRM from either the numerative perspective or the classification perspective can realize motivation, skill development and/or opportunity. Increasing the number of HR instruments applied will offer more possibilities for employees. The compositions in the cluster are aimed at realizing motivation, skill development and/or opportunity in a specific way and in specific areas (e.g. specifically via advanced skill development or instead via personal contact). An ANOVA test on the scope variable and the clusters shows that we reject the null hypothesis of independence between the two operationalizations of HRM ($p<0,01$). An overview of the averages shows that the average number of HR instruments applied is relatively low for the HRM cluster that has been labelled 'extensive' (see table 5.3). This cluster distinguished itself by applying a wide

variety of HR instruments for all staff categories. In the operationalization of the scope variable the differentiation in staff category has, however, not been incorporated. The differentiation in staff category says more about how *widespread* HR instruments are applied within organizations and not whether *more* kinds of HR instruments are applied. Furthermore recruitment has also not been included in the scope variable. Recruitment is an ordinal variable, hereby excluding the option of adding up HR recruitment instruments. For these reasons HRM can be classified as being 'extensive' and still have a relatively low average score for the scope variable.

Table 5.3 Scope variable and clusters

HRM Cluster	Mean scope variable (absolute)	Mean scope variable (%)	Standard Deviation	Number of observations
'basic'	2,4	40,0 %	0,58	98
'extensive'	2,8	46,7%	0,73	22
'relational'	2,9	48,3%	0,64	76
'accommodating'	3,2	53,3%	0,72	101
'sophisticated'	3,5	58,3%	0,67	58
Total	3,0	50,0%	0,75	356

5.7 Conclusion

This chapter was aimed at constructing HRM bundles. Three important aspects, when bundling HR practices, have been taken into account. First HR practices that have the potential of improving performance have been determined. Next different ways of combining HR practices into a bundle have been examined. Finally possible distinctions for staff categories have been taken into account.

Previous research has shown that a number of HR practices can act as performance enhancing HR practices. What these practices all have in common is that they contribute to the skill and knowledge base within an organization and provide both motivation and opportunity for employees to perform well. Based on these reviews the conclusion can be drawn that the HR practices incorporated in this study can be considered to be performance enhancing HR practices.

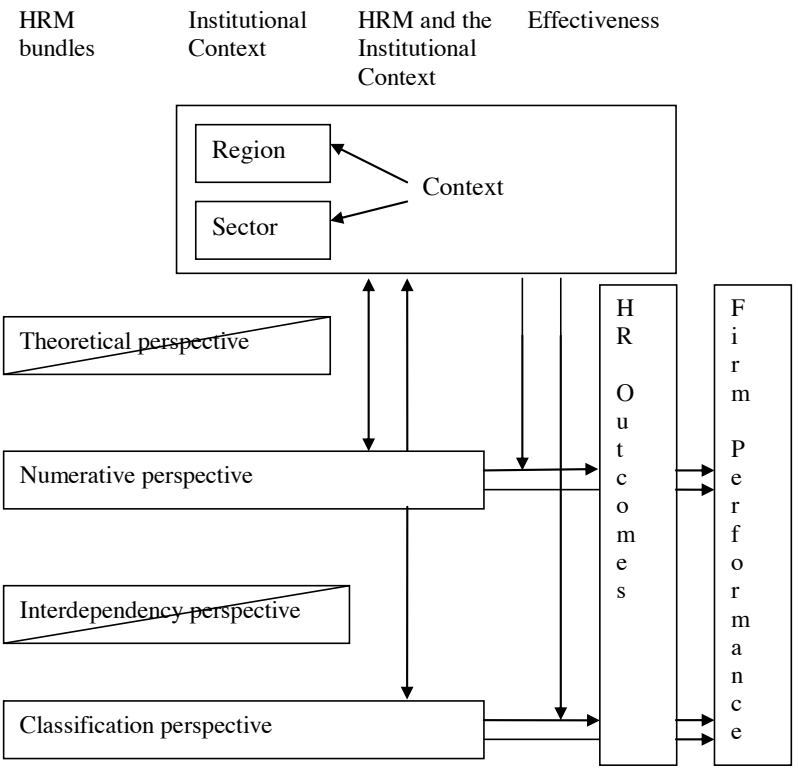
Identifying bundles of HR practices has proven not to be that simple. Even though there is consensus on whether a HR practice can have the status of a 'performance-enhancing' HR practice, there is no general consensus about how to derive HR bundles purely on a theoretical basis. This approach strands early in the operationalization phase. A numerative perspective only incorporates a magnitude and amount measure. Although it is likely to have an effect on performance, it does not address how HRM can differ between organizations with respect to the choices between different HR instruments. Other approaches have therefore also been considered. A lot of research has been done using factor analysis, but in this study a principal components analysis was unable to construct meaningful factors. This means we were not able to construct bundles from an interdependency perspective. An explanation for this result can be found in the way HR practices have been measured in this study. The HR practices don't represent underlying constructs. Cluster analysis did provide a meaningful classification. A two-step cluster analysis resulted in five cluster solutions: 'extensive HRM', 'relational HRM', 'basic HRM', 'accommodating HRM' and 'sophisticated HRM'.

A distinction in different staff categories for recruitment and selection provided additional insights. The HR instruments for different staff categories have been applied differently by organizations in our study. In the classification perspective the results show that different staff categories can be approached in different ways. The 'extensive' HRM cluster, for example, distinguishes itself by incorporating HR recruitment instruments for all staff categories. The 'relational' cluster typically uses personal contacts for recruiting all staff categories. This is not the case for the other HRM clusters.

In this chapter different ways of bundling HRM have been considered. The analyses have resulted in two kinds of operationalizations of HRM, namely HRM from a numerative perspective as well as a classification perspective. The numerative perspective looks at the scope or coverage of HRM while HRM from a classification perspective shows different foci in HRM profiles. These operationalizations of HRM will be included in subsequent

analyses. The research framework can be adjusted as depicted in figure 5.1. In the next chapter the context will be operationalized.

Figure 5.1 Adjusted research framework



Chapter 6

Institutional Context

6.1 Introduction

The institutional context plays a role in establishing who and how resources and legitimacy can be claimed. The nature of economic actors and how they collaborate and compete with each other will differ in different contexts (DiMaggio & Powell 1983). Dominant institutions, such as the government, will prescribe, constrain and also enable certain behaviour thus creating stable expectations of the behaviour of the social actors involved.

In this chapter the institutional context will be operationalized. Two dimensions are considered at which institutional influences are expected to occur. These dimensions are business systems and sector level. Business systems can be distinctive because different state structures and policies play a role in establishing the kinds of social collectivities that can claim resources and legitimacy (Whitley 1999). At the sector level the environment can also differ. Per production system there are distinctive ways of how economic transactions are organized (Datta et al 2005). Sectors have been registered directly in the questionnaire. Countries with similar institutional arrangements however still need to be grouped in business systems. After the grouping of the countries has been conducted, the

operationalization of both business systems and sectors will be presented together with a distribution of the sectors over the business systems. Before heading to the next chapters a conclusion will be drawn.

6.2 Grouping of countries

For the grouping of countries the characteristics of the business systems of Whitley (1999) will be used. As mentioned earlier our focus is on the institutional context, specifically on differences in the economic organization between nations. A short description of these business systems will be presented first. Whitley has however only mentioned a few countries as examples of his business systems. In order to group all the countries in the business systems the research conducted by The Heritage Foundation/Wall street journal will be used. In this research countries have been examined worldwide and scored on several institutional dimensions. A short description of these dimensions, referred to as factors, will be given in this chapter. The link of this operationalization with the business systems of Whitley will be presented in the paragraph that follows.

6.2.1 Business systems

Whitley (1999) has identified different forms of economic organization between countries. Economic organization depends on the way coordination over (economic) activities takes place. The authority over economic activities is entrenched in actors which are able to claim and/or control resources. The strongest control over resources can be realized through ownership via vertical integration within the production chain and/or horizontal integration between sectors. Collaboration also enables some control over resources. Collaboration is typically opposed to market-like forms of economic organization (e.g. Phillips et al 2000). In the case of market-like forms of economic organization transactions are done on strong impersonal markets (Whitley 1994). Collaboration forms such as alliances and cooperation are typically riskier when there is less commitment. In practice these opposing dimensions shade into each other. Particular stable interdependencies are likely to occur since contradictions can be expected to generate conflicts between institutional arrangements. These stable patterns result in quite distinct

business systems for different countries. Whitley (1999) elaborates extensively on the background of these business systems. A short description of each business system will be given here.

In *fragmented* business systems the overall level of coordination is low. The business environment can be classified as a low trust culture. Risks are therefore more difficult to share between the different economic actors. This context is exemplified by short-term commitments whether it concerns a particular market, skill etc. (Small) owner-controlled organizations engage in short term activities. People´s relatively shallow roots within this business system combined with economic growth leads to a certain degree of political apathy. Hong Kong is an example of such a business system. In Hong Kong organizations adapt rapidly as market conditions alter.

Coordinated industrial districts business systems combine relatively low levels of integration with some collaboration. They develop in environments where formal and informal institutions limit opportunism and provide an infrastructure for collaboration to occur. Entrepreneurs dominate the scene. Post-war Italian industrial districts and similar European regional business systems belong to this group.

Compartmentalized business systems exhibit low levels of collaboration between organizations and their business partners, but high levels of integration. Activities are integrated within production chains as well as across sectors so that leading organizations are quite large in terms of activities controlled. There is little commitment or collaboration between economic actors and market dynamics play an important role. Anglo-American countries, such as the US and UK, generally exhibit these specifications.

State-Organized business systems mainly distinguish themselves in their ownership patterns. The state plays an important role. It supports the growth of organizations and guides organizational behaviour. The state therefore has a strong influence on economic developments. They furthermore exhibit low levels of collaboration between organizations

and their business partners, but high levels of integration. South Korea demonstrates this type of interdependence between economic actors.

Collaborative business systems, finally, combine integration and extensive collaboration between economic actors. Collaboration between actors, such as the government and unions, is supported and encouraged. Many continental European countries resemble this kind of business system. This type of business system can be further differentiated by the extent of alliance integration between organizations. In highly coordinated business systems, such as Japan, the extent of intra- and inter-sector alliances is more sizeable. Ownership integration of activities takes place in technologically and market unrelated sectors. In this research collaborative business systems and highly coordinated business systems have been taken together, because of the many similarities in integration and collaboration specificities.

6.2.2 Factors economic freedom index

We have mentioned that business systems represent different forms of economic organization (Whitley 1999). The way coordination over (economic) activities takes place differs between business systems. Formal institutions have a crucial role in business systems in determining how resources, legitimacy and jurisdiction are coordinated. Only a few countries have explicitly been identified by Whitley as belonging to one of the business systems. In our study 47 countries have been included. In order to assist in determining which countries exhibit the specifications of a business system of Whitley, some of the factors of the index of economic freedom have been used. This index is the result of research conducted by the Heritage Foundation/Wall Street Journal in 2002. It covers numerous countries worldwide, including all the countries of our study. The purpose of the index of economic freedom is to reflect on the degree to which economies in every country can be regarded as having free market conditions. It identifies to what extent the government, government bodies, officials and/or agencies are involved in work, production, consumption and investment. These (economic) actors are influential in determining the economic organization of a country (Whitley 1999). Depending on the

strength of the actors and institutions the nature of relationships between owners and controllers of capital, employees, customers, suppliers and competitors will differ. They will compete and cooperate with each other in contrasting ways. Whitley (1999) explicitly addresses institutional features such as 'strength of market regulation' and 'risk sharing by banks'. For this reason several factors of the index of economic freedom are appropriate for constructing business systems. Several institutional factors have been identified that reflect the economic environment in countries (see table 6.1). A short description of the different factors that have been used in this study will suffice here. In appendix 4 we will present some additional background information. A detailed discussion of each of these factors can be found on the website of the Heritage Foundation.

Regulation is the first factor that will be considered in this study. Different kinds of regulation are considered varying from regulations associated with licensing new companies and businesses to labour regulations (e.g. workweeks paid vacation, parental leave). Another factor is *government intervention* in the economy. This measures government's direct use of scarce resources for its own purposes and comprises both government consumption and government production. The third factor that will be used is the *fiscal burden of government*. A government can acquire scarce (financial) resources with the idea to relocate them among its citizens. An additional factor that will be considered is *banking and finance*. Concerning financial systems a critical feature is the process by which capital is made available and is priced. Heavy bank regulation is prescriptive. *Wages and prices* is another factor that is incorporated in this study. Explicit price controls are a form of control as opposed to when the prices are set in the market. The last factor that will be used is *property rights*. By enforcing laws government protects private property and the ability to accumulate it. Secure property rights give citizens the confidence and reassurance when undertaking (commercial) activities. The organization of these property rights, the ways in which private property rights confer authority over the acquisition, use and disposal of resources and activities, including labour power, all play a role.

Table 6.1 Factors economic freedom index

Factor
Regulation
Government intervention in the economy
Fiscal burden of government
Banking and finance
Wages and prices
Property rights

All factors in the index of economic freedom are considered to be equally important, but not all factors are relevant in relation to Whitley's business systems. Several factors have therefore been removed from further analysis.

6.2.3 Connections

Several factors of the index of economic freedom will be helpful to cluster our 47 countries in five business systems. These factors of the index of economic freedom identify to what extent formal institutions are involved in economic activities. For each of the 47 countries the factors of the index of economic freedom are scored. The connections between the institutional factors and business systems are presented in table 6.2. Several levels are considered for the factors. These levels can be classified as: low, limited, some, considerable, and high. This corresponds well with the scales of the factors of the index of economic freedom which range from 1 to 5 (see appendix 5). The scores for representative countries proved helpful: For fragmented business systems the factor scores for Hong Kong are indicative. For coordinated industrial district business systems the scores for Italy were helpful. Compartmentalized business systems include Anglo-American countries such as the United States, Canada, the United Kingdom and Ireland. (South) Korea has been mentioned by Whitley as an example of a state organized business system. A country such as Malaysia will also fall in this category (e.g. Nesadurai 2000). Finally, countries such as the Netherlands and Japan are typical examples of collaborative & highly coordinated business systems. In order to be able to differentiate better between business systems, deviations from the factor scores have also been considered. For the

same reason a few scores in between a specific level have been considered (e.g. low/limited or limited/some). Preferably each factor score, however, has a specific level (e.g. low or high) for each business system. A description of the scores for each business system will be presented now.

Table 6.2 Business systems and factor scores[a]

Business system / Institutional Factor	Fragmented	Coordinated industrial district	Compart-mentalized	State Organized	Collaborative
Regulation	Low	Some	Limited	Some	Some
Government intervention	Limited	Limited	Limited	Considerable	Limited/some
Fiscal burden	Limited	Considerable	Some	Some	Considerable
Banking and Finance	Low	Low/limited	Low	Limited/some	Limited
Wages and Price controls	Limited	Low/limited	Limited	Limited/some	Limited
Property rights	Low	Limited	Low	Limited	Low/limited

[a] The levels correspond with the scales: low =1, limited = 2, some = 3, considerable = 4 and high would be 5

Regulation

Formal regulation of markets will influence entry and exit barriers. Different forms of government regulation are imposed in different countries. The strength of market regulation is low in the case of fragmented business systems. Market conditions alter easily in this context (Whitley 1999). The factor score of Hong Kong coincides with the classification 'low'. In compartmentalized business systems regulation is to ensure market openness and universal accessibility to information (Blanton 2002). Regulation is therefore limited in compartmentalized business systems, which the scores of the representative Anglo-American countries also show. The procedure for obtaining a business license is very simple in these contexts (e.g. Stephens 2004) as opposed to most of the other contexts. The process involved in obtaining a business license can require mailing in a registration form and paying a minimal fee opposed to (numerous) trips to government offices. In other contexts government regulation can increase even more once

an organization has started up its business. Anglo-American countries such as the US and UK can be contrasted with countries such as Japan (Levi-Fleur 2006 p.12). There is some regulation in all the other business systems. The factor scores of the representative countries all coincide with a classification of 'some' regulation. For coordinated industrial district business this is probably mostly organized locally. Various forms of market regulation at the local level can limit entry and exit for entrepreneurs (Whitley 1999). In collaborative & highly coordinated business systems entry and exit is stabilized by the government and other influential stakeholders. While the government possesses the ultimate power in society, many other groups and organizations can also be influential (Kaufman 2003). In state organized business systems the state dominates market regulation (Whitley 1999).

The government intervention in the economy

The strength of state's coordinating and developmental role will vary according to the degree that the state assumes responsibility for guiding economic development. State organized business systems score highest on this factor. Government intervention is considerable in this context. In these business systems economic coordination is centralized by the state (Whitley 1999). Organizations are therefore highly dependent on state agencies and officials. In collaborative & highly coordinated business systems the degree of government intervention is not as high. The state does encourage the development of organizations though (e.g. Paauwe & Boselie 2004). The scores on government intervention for the representative countries Japan and the Netherlands are very different. Japan scores in-between low and limited, while the Netherlands scores considerably. The score for Germany will therefore also be considered. Germany has been grouped with countries such as the Netherlands before (Paauwe & Boselie 2003). It is one of the Rhineland countries. Government intervention is limited in this country. A conservative average of these scores seems appropriate. The government intervention in these contexts is therefore classified as being in-between limited and some. The remaining three business systems all have limited government intervention. This coincides with the scores of the representative countries. In coordinated industrial district business systems,

such as Italy, entrepreneurs try to determine their own economic development (Catanzaro 1985 p.12). In compartmentalized business systems free market competition is valued as a steering mechanism for economic development (e.g. Nikell 1997). In fragmented business systems, such as Hong Kong, the steering role of the government through government consumption and production is limited. A free market approach is mixed with government intervention but only for reasons as social justice, instability avoidance and efficient allocation of resources (Lam 2000).

The fiscal burden of government

When a government acquires (financial) resources, it pulls them away from other potential use. In Fragmented business systems formal institutions, such as the government, are at best neutral (Whitley 1999). In these contexts the fiscal burden is therefore limited. This coincides with the score for Hong Kong. The argument that fiscal burdens are less appropriate in more market-like forms of economic organization (e.g. Mieskowski 1969), motivates adjusting the score of representative Anglo-American countries downwards. 'Some' fiscal burden is therefore appropriate in compartmentalized business systems. In compartmentalized as well as state organized business systems there is some fiscal burden. The score for state organized business systems coincide with a conservative average of the representative countries. In state-organized business systems one would perhaps expect more government involvement in the form of fiscal burdens. This government involvement is however not necessarily as much the case via fiscal burdens (see also Biersteker 2004). The state involvement in these contexts is mainly about exercising direct influence on organizations (Whitley 1994), not as much about relocating (financial) resources. State involvement is for example, as mentioned before, considerable when it concerns government intervention. The highest scores are for coordinated industrial district business systems, such as Italy, and collaborative & highly coordinated business systems, such as the Netherlands and Japan. In these contexts the fiscal burden is considerable. In coordinated industrial district business systems the preference for direct control by entrepreneurs is often coupled with tax arrangements for small organizations

(Whitley 1999). In collaborative & highly coordinated business systems governments use fiscal policy for relocating financial resources.

Banking and finance

In some states banks are controlled by the government through heavy regulation. This is different in countries where banks and similar organizations perform coordinating functions independently of state guidance. Lower barriers to entry permit other financial institutions to engage in banking, thus widening distribution channels and customer's choices. In the past, bank regulation has often been blamed for undermining competition and the functioning of market forces. Liberalization of bank regulation in turn should not lead to fragmented banking regulation between different regulatory agencies or overall neglect. In fragmented- and compartmentalized business systems bank regulation is low. The score for Hong Kong and representative Anglo-American countries confirm this. One of the main functions of banking regulation is to keep the banking risks under control. In fragmented business systems risk sharing in general is low (Whitley 1999). In compartmentalized business systems there are large and highly liquid financial markets with little regulation of market entry and exit. Exchange takes place on impersonal markets (Nikell 1997, Whitley 1994). In coordinated industrial district business systems structural controls, barriers to entry, restraints on assets and liabilities are in-between low and limited. It is close to limited because risks are limited. In order to prevent bank lenders from incurring losses, for example, tough solvency rules will be imposed. It is however slightly corrected downwards because of the nature of most of the risk sharing and activities in this context. A lot of the decision making process mostly takes place locally (Whitley 1999). In collaborative business systems bank regulation is limited. This is an average of the scores for Japan and the Netherlands. The government acts more as a facilitating agency than as a central structuring actor (Whitley 1994). Only one business system still needs to be addressed on the topic of bank regulation: state organized business systems. State organized business systems, such as South Korea have some bank regulation. Malaysia even has considerable bank regulation. Efforts to restructure domestic bank regulation have been made since the Asian crisis (e.g. Lam 2000). Bank

regulation is still expected to be large in (Asian) state organized business systems. Organizations depend greatly on the government for access to credit in state organized business systems (Whitley 1994). A conservative score, however, seems more appropriate to classify bank regulation in all these kinds of contexts. A score which is slightly higher than in all the other business systems, namely in-between limited and some, is an appropriate conservative measure of relatively high bank regulation.

Wages and prices

In a free-market economy prices allocate resources to their highest use. Direct price controls can influence this allocating mechanism. The highest score for price controls is understandably for state organized business systems. The state will be inclined to exercise direct control on wages and prices within this context (e.g. Biersteker 2004). The state organized business systems can satisfactory be classified with the average of South Korea and Malaysia being in between limited and some price controls. In fragmented, compartmentalized and collaborative business systems price controls are limited. The score for the representative countries resemble this. In Fragmented business systems little effort will be undertaken by the government or government bodies to control wages and prices. There is limited coordination by the government (Whitley 1999, Lam 2000). In compartmentalized business systems resources are usually allocated by price through market competition. Free market dynamics play an important role in this context (e.g. Nikell 1997). In collaborative & highly coordinated business systems strong collaboration between the different stakeholders limits price controls from any party in particular. High levels of risk sharing and mutual support between economic actors (e.g. trade unions) results in collaborative decision making (Whitley 1994). In coordinated industrial district business systems price controls are in between low and limited. In coordinated industrial district business systems large customers, such as the government for example, attempt to enforce cost reductions and price-based competition. The factor score is therefore close to limited. Entrepreneurs will, however, prefer direct control (Catanzaro 1985) also when it concerns wages and prices. This motivates adjusting the score downwards. This results in

a score in between low and limited concerning price controls for coordinated industrial district business systems.

Property rights

When considering the relations between owners and controllers of private property rights and controllers of economic resources, an important dimension for distinguishing economies will be the extent to which the government protects private property. When protection is high the score is low. All business systems exhibit a certain degree of property protection. Protection of private property is enshrined in the Anglo-American culture. Protection of private property is vital to a free market economy. Property rights ensure that orderly exchange of property can take place. The government needs to enforce laws of contract so that private ownership of property and legal permission to trade property rights is enabled (e.g. Kaufman 2003). The score is therefore low for compartmentalized business system. The protection of private property is understandably also of great importance in a fragmented business system. The representative business system, Hong Kong, shows a low score. In collaborative business systems private property is also quite secure. The protection is slightly less than in fragmented and compartmentalized business systems, but more than in the other business systems such as the state organized business systems. A score in between low and limited resembles a great deal of protection. Furthermore this in-between score also resembles the average of the scores of the representative countries, the Netherlands and Japan. Coordinated industrial district business systems as well as State organized business systems have the lowest private property protection compared to the other business systems and therefore score highest on this factor. Private property is secure, but the justice systems do not work as fast as in other contexts. In state organized business systems a lot of procedures incorporate politics (Whitley 1994). In coordinated industrial district business systems informal channels are frequently used (e.g. Pistaferri 1999). Disputes can even be settled out of court. Informal unwritten consent can be a part of a contract.

Table 6.3 Country groupings via K-means cluster analysis

Fragmented	Coordinated-Industrial-District	Compartmentalized	State-organized	Collaborative (& Highly Coordinated)
Hong Kong	Italy	Australia	(S.) Korea	Japan
Bahrain	Argentina	Canada	Hungary	Austria
Bermuda	Bolivia	Ireland	Brazil	Germany
Singapore	Czech republic	New Zealand	Bulgaria	Sweden
	Panama	UK	Colombia	Netherlands
		US	Costa Rica	Belgium
		Chile	Egypt	Portugal
		Denmark	France	Spain
		Estonia	Indonesia	
		Luxembourg	Jordan	
		Switzerland	Malaysia	
			Nigeria	
			Oman	
			Poland	
			Saudi Arabia	
			South Africa	
			Philippines	
			Turkey	
			U.A.E	

In order to be able to group comparable countries in business systems a k-means cluster analysis has been conducted. K-means cluster analysis assumes data fall into a known number of clusters. Homogeneous groups of countries have been identified based on the patterns of the economic freedom factor scores for each business system. The result of clustering the countries in business systems is presented in table 6.3. Some notable findings are worth mentioning. Most European countries resemble collaborative business systems, but the scores of the factors for Denmark, Estonia, Luxembourg and Switzerland resemble those of compartmentalized business systems (with Anglo-American countries) most. France, a European mainland country, has been grouped in state organized business systems, because of the high score for government intervention. France scores 'considerable' on government intervention.

6.4 Operationalisations of context

In this study we will work with two different operationalisations of the context: countries and sectors. Sectors have been measured directly in the questionnaire (see table 6.4). By grouping countries together we are also able to distinguish between a limited number of business systems (see table 6.5).

Table 6.4 Sectors

Sector	Share in number of observations
Product	35,28%
Energy&Utilities	6,90%
Financial Services	20,81%
Services	14,29%
Government&Non-profit	9,78%
Information,Communication&Entertainment	12,94%
Total	**1043 (=100%)**

Table 6.5 Business systems

Business systems	Share in number of observations
Fragmented	5,30%
Coordinated-industrial district	8,81%
State organized	29,45%
Compartmentalized	37,97%
Collaborative & Highly coordinated	18,47%
Total	**1056 (=100%)**

A distribution of the sectors over the business systems is given in table 6.6. We furthermore conducted a Chi-square test of independence. We reject the null hypothesis of independence (p=0,000). We can conclude that the distribution of both contexts is dependent of each other. This finding is in line with what Whitley (1999) has mentioned on this topic. Institutional arrangements within business systems structure economic activity in such a way that it privileges some sectors and discourages others (Whitley 1999 p.3). Whitley gives the example of the late-twentieth-century UK economy, which has strong capabilities in financial services but relatively weak ones in construction. We

however cannot rule out that this finding might be a result of unintended differences in sample strategies across (clusters of) countries.

Table 6.6 Distribution of sectors over business systems

Industry	Business systems Frag-mented	Coord Ind District	Comp-artmentalized	State Organized	Collab-orative & Highly Coord.	Total (%)
Products	30,4%	37,6%	22,1%	45,8%	35,1%	35,3%
Energy & Utilities	0,0%	6,5%	8,1%	8,1%	4,7%	6,9%
Financial Services	25,0%	23,7%	22,1%	19,5%	18,8%	20,8%
Services	16,1%	17,2%	13,3%	11,9%	18,8%	14,3%
Government & non-profit	8,9%	1,1%	24,0%	1,0%	9,4%	9,8%
Information, Communication & Entertainment	19,6%	14,0%	10,4%	13,7%	13,1%	12,9%
Total	**56 (=100%)**	**93 (=100%)**	**308 (=100%)**	**395 (=100%)**	**191 (=100%)**	**1043 (=100%)**

6.6 Conclusion

The institutional context has been operationalized with a distinction between business systems and sectors. Distinctive economic organization can be established on a national and a sector level. Sectors have been measured directly from the questionnaire. The sectors considered are: product, energy & utilities, financial services, services, government & non-profit and information, communication & entertainment. In this study countries with similar institutional characteristics have been grouped together according to the classification of national business systems by Whitley (1999). He has distinguished between the following business systems: fragmented (e.g. Hong Kong), coordinated-

industrial district (e.g. Italy), state organized (e.g. South Korea), compartmentalized (e.g. USA) and collaborative & highly coordinated (e.g. the Netherlands) business systems.

In the previous chapter HRM has been operationalized from a numerative perspective as well as a classification perspective. In this chapter the institutional context has been operationalized. With these operationalizations in place we will revisit our hypotheses and examine whether we can formulate more precisely what we can expect to find with our operationalisations of HRM and the institutional context. This will be done in the next chapter.

Chapter 7

Hypotheses revisited

7.1 Introduction

Now that we have operationalized HRM and the institutional context we will revisit our research questions and hypotheses. The central research question of our study is: '*Does the adoption and effectiveness of HRM bundles vary in different contexts?*' Previous (international) comparative research can help us formulate more specifically what contextual differences we can expect to find for our operationalizations of HRM and the institutional context.

Research on HRM is dominated by the US (Brewster 2007) and mostly conducted in the manufacturing sector (Boxall 2002). Our aim is to do an exploratory research of a broader context than commonly considered. We will furthermore focus on bundles of HR practices instead of individual practices. We will examine HRM operationalised from a numerative perspective as well as a classification perspective. In this chapter we will first elaborate on differences in the *adoption* of HRM across different contexts. We will then address the differences in *effectiveness* of HRM. This means that we will first address the hypotheses:

2a Organizations adoption of HRM bundles varies across countries.

3a Organizations adoption of HRM bundles varies across sectors.

Then we will continue with the remaining hypotheses:

1a. There is a direct relationship between HRM bundles and HR outcomes.

1b. There is a direct relationship between HRM bundles and firm performance.

1c. There is an indirect relationship between HRM bundles and firm performance via HR outcomes

2b The relationship between HRM bundles and HR outcomes varies across countries.

3b The relationship between HRM bundles and HR outcomes varies across sectors

This chapter will end with a conclusion.

7.2 Differences in the adoption of HRM

Our central research question can be divided in two sub questions with the first one being *I. Is there variation in the adoption of HRM bundles across different contexts?* The assumption is made that the HRM bundle mainly adopted is a result of natural selection or managerial selection in order to adapt and survive in the context. We will first focus on country differences in the adoption of HRM and then turn to sector differences in the adoption of HRM.

We will consider differences in the adoption of HRM for both of our operationalizations of HRM. HRM is considered from a quantitative approach (more or less HR instruments) as well as from a classification approach in which a classification is given to the choice of HR instruments in the HRM bundle (different focus).

7.2.1 Country differences in the adoption of HRM bundles

We have formulated the following hypothesis in order to test for differences in the adoption of HRM across countries: *2a Organizations adoption of HRM bundles varies across countries*. Since we have constructed clusters of countries that form business systems we can rephrase our hypothesis as follows: *2a Organizations adoption of HRM bundles varies across business systems*. Anglo-American principles dominate the research on HRM (Brewster 2007). The US context is however not typical for the world (Trompenaars 1993). In previous comparative research Anglo-American countries have in

particular been contrasted with continental west European (Rhineland) countries (e.g. Germany, the Netherlands) (e.g. Amable 2003, Paauwe & Boselie 2003, Poutsma et al 2006, Farndale et al 2008). Both contexts can be found in our data. Our study considers 47 countries, which we have clustered in five business systems. The US has been clustered together with other countries with similar institutional characteristics in the compartmentalized business systems. Rhineland countries and other countries with similar institutional characteristics have been clustered together in the highly coordinated & collaborative business systems. From previous comparative research we can distil expectations concerning differences between compartmentalized business systems (e.g. Anglo-American countries) and highly coordinated & collaborative business systems (e.g. Rhineland countries).

Anglo-American countries versus Rhineland countries

In various studies it is suggested that there is a contrast between Rhineland countries and Anglo-American countries (e.g. Albert 1991, Gooderham et al 1999, Dore 2000, Hall & Soskice 2001). Anglo-American capitalism is considered to be a 'shareholder economy', while the Rhineland model is a 'stakeholder economy' (Albert 1991). The shareholder economy is about maximizing short-term profits for investors and thus incorporates a calculative approach. Liberal market dynamics play an important role. Interference by the state is as little as possible. Government intervention is limited, there are less legislative requirements (e.g. on pay and work hours) and also less legislated employee protection (e.g. hire and fire). The trade union movement is furthermore weak in countries such as the USA. Membership is low (just a fraction of the working population) as well as the levels of state subsidy, support and control. Union activities are predominantly site-based. This all means that there is more autonomy for organizations in Anglo-American countries. One of the business systems that we have distinguished in our study is the compartmentalized business system (Whitley 1999). In this business system Anglo-American countries, such as the US and UK, have been clustered together.

This can be contrasted with a stakeholder model (Albert 1991). The Rhineland model may be seen as a regulated market economy. The state variously acts as a referee, guarantor, employer and owner. There is also a comprehensive system of social security. Government, labour unions and employers consult each other about a variety of subjects such as (shared) economic goals. There is however less freedom and autonomy of organizations from the state in Rhineland countries compared to Anglo-American countries. In our study the Rhineland countries have been clustered together in the collaborative & highly coordinated business systems.

Implications for our study

Business systems theory assumes that differences in national business systems are translated into differences in organizational level practices (Whitley 1999). Various researchers in capitalism literature claim this (e.g. Applebaum et al 2000, Hall & Soskice 2001, Amable 2003). There are different organizational level practices that can be taken into consideration. Since all organizations in one way or another recruit, develop and manage employees (Wall & Wood 2002), HR practices can also be considered. Several researchers have examined whether HR practices are done differently in different contexts (e.g. Paauwe & Boselie 2003, Farndale et al 2008).

Central to the notion of Anglo-American principles of HRM is an assumption of considerable organizational independence and autonomy (Brewster et al 2007). Decisions on the management of personnel include the freedom to adopt a variety of HR instruments, including contingent pay policies (Brewster 1994, Sparrow & Hiltrop 1997). In Rhineland countries in contrary legislation limits the ways people can be recruited, how much they can be paid etc. The range of HR practices open to organizations is much more controlled in Rhineland countries than in Anglo-American countries (Farndale et al 2008). Organizations have a narrower scope of choice in regard to personnel management in Rhineland countries than in Anglo-American countries. This could imply differences between these two contexts for HRM from a numerative perspective. Will we find that more HR instruments are adopted in compartmentalized business systems (e.g. Anglo-

American countries) compared to collaborative & highly coordinated business systems (e.g. Rhineland countries) in our study?

There may, in addition, be substantial differences between both contexts directed towards particular HR practices. There are subtle institutional influences on HRM in Rhineland countries via taxation, employment legislation and/or national government policy that encourages corporate responsibility and discourages employers from making employees redundant (Sparrow & Hiltrop 1997). Countries, such as the Netherlands, are for example considered to be leaders in flexible work arrangements (Farndale et al 2008). Will this have implications for our study concerning the kind of HRM clusters adopted in the collaborative & highly coordinated business systems? Previously mentioned research (e.g. Sparrow & Hiltrop 1997, Farndale et al 2008) seems to point towards the adoption of accommodating HRM in collaborative & highly coordinated business systems. In this HRM cluster more use is made of accommodating HR practices such as management development instruments and work life balance programs.

We will however consider more business systems than the compartmentalized business systems and the collaborative & highly coordinated business systems. We will also examine differences for fragmented business systems (e.g. Hong Kong), state organized business systems (e.g. South Korea) and coordinated industrial district business systems (e.g. Italy). We will not only investigate whether we find any evidence for the differences suggested earlier in this paragraph, we will also explore whether different choices are appropriate for all the different contexts considered in our study. A summary of this discussion is presented in table 7.1.

Table 7.1 Expected country differences in the adoption of HRM bundles

Business systems (clusters of countries)	Number of HR instruments adopted	Dominant HRM cluster adopted
Fragmented	?	?
Coordinated-industrial district	?	?
State organized	?	?
Compartmentalized	More (than in Collaborative & Highly coordinated business systems)	?
Collaborative & Highly coordinated	Less (than in Compartmentalized business systems)	Accommodating HRM

7.2.2 Sector differences in the adoption of HRM bundles

The other hypothesis addressing differences in the adoption of HRM across contexts is the following: *3a Organizations adoption of HRM bundles varies across sectors*. Research on HRM and performance started in manufacturing oriented sectors (e.g. MacDuffie 1995). These findings are not necessarily also applicable in other sectors. Production systems as well as market characteristics can differ between sectors. Traditional manufacturing organizations have particularly been contrasted with emerging knowledge-intensive service organizations (e.g. Boxall 2002). There are distinctive ways how economic transactions are organized in different production systems for different customer needs (Datta et al 2005). Our study also distinguishes between several sectors. From previous comparative research we can formulate expectations concerning differences between manufacturing oriented sectors and service oriented sectors in the adoption of our operationalizations of HRM.

Manufacturing versus knowledge intensive services

Organizations in manufacturing oriented sectors will be inclined to maintain a certain degree of 'control' over work processes. Costs, including labour costs, are in competition because customers in the product sector are price sensitive (Boxall 2002). In knowledge intensive service sectors employees play a crucial role, the employees literally *are* the business (Boxall 2002). In such environments, organizations require that employees are capable of not only technical service and product knowledge, but are equally capable of critical thinking skills, team building skills etc. (Drost et al 2002).

Implications for our study

In our study we distinguish between six sectors namely products, energy & utility, financial services, services, government & non-profit and finally information, communication & entertainment. The products sector and the energy & utilities sectors can be considered to be manufacturing oriented sectors. The other sectors can be considered to be more service oriented sectors. In service oriented sectors employees are the business, which means that high levels of employee discretion are needed (Boxall 2002). This means that it is probably advantageous to utilize more HR instruments in order to attract and retain employees. If this is the case we should be able to see that in our study when we examine sector differences for HRM from a numerative perspective. We expect to find more HR instruments adopted in the service oriented sectors compared to the manufacturing oriented sectors.

Conservative and inexpensive HR practices are prevalent in the manufacturing oriented sectors and are likely to remain so as long as they are cost-effective (Boxall 2002). This steers to the adoption of more basic HR instruments. In manufacturing oriented sectors we would expect to find more traditional control-oriented approaches to managing resources. Our operationalisation of HRM from a classification perspective incorporates a HRM cluster labelled `basic´. We could thus investigate whether we find `basic HRM´ to be appropriate in the manufacturing oriented sectors.

In our study we will examine whether we find support for the differences mentioned earlier and also explore whether more differences can be found between sectors (see table 7.2).

Table 7.2 Sector differences in the adoption of HRM bundles

Sector	Number of HR instruments adopted	Dominant HRM cluster adopted
Product	Less (than in a service oriented sector)	Basic HRM
Energy&Utilities	Less (than in a service oriented sectors)	Basic HRM
Financial Services	More (than in a manufacturing oriented sector)	?
Services	More (than in a manufacturing oriented sector)	?
Government&Non-profit	More (than in a manufacturing oriented sector)	?
Information,Communication&Entertainment	More (than in a manufacturing oriented sector)	?

7.3 Differences in effectiveness of HRM

The second part of the central research questions is as follows *II. Are there differences in effectiveness of HRM bundles in different contexts?* Analyses concerning the effectiveness of HRM bundles in different contexts show how variations in organizational performance exist. In our study we will examine whether or not HRM choices have a different effect on performance in different contexts.

HRM bundles have been constructed with two different perspectives: HRM from a numerative perspective (more is better) and HRM from a classification perspective (different foci can be more effective). From a numerative perspective (HRM scope variable & training) the reasoning is that when more HR instruments are implemented more possibilities and stimulation is offered. This can have a positive effect on performance (e.g. Guest & Hoque 1994, Guest 1999). For HRM from a classification perspective (clusters) we will examine whether certain HRM compositions are more effective than others (e.g. MacDuffie 1995).

Before we examine the moderating effect of the institutional context on the relationship between HRM and HR outcomes, we will first examine whether we can establish direct and indirect effects of HRM bundles on performance. Several researchers have established effects of HR practices on HR outcomes (turnover and/or absenteeism) and/or firm performance (revenue, expense and/or profit) before (Boselie et al 2005, Combs et al 2006). In our study the following hypotheses have been formulated:

1a There is a direct relationship between HRM bundles and HR outcomes.

1b There is a direct relationship between HRM bundles and firm performance.

1c There is an indirect relationship between HRM bundles and firm performance via HR outcomes

We will then turn to the analyses in which we can examine whether there are contextual differences in the effectiveness of HRM.

7.3.1 Country differences in the effectiveness of HRM bundles

The original hypothesis formulated in chapter three is *2b The relationship between HRM bundles and HR outcomes varies across countries*. Since we have clustered countries together to form business systems our hypothesis can be rephrased as follows: *2b The relationship between HRM bundles and HR outcomes varies across business systems*. Human resource management has in particular heavily been influenced by research from the US. The compartmentalized business systems (e.g. Anglo-American countries) will therefore act as our reference context.

Effectiveness of HRM in Anglo-American countries

Two HR outcomes will be considered namely turnover and absenteeism. Absenteeism is preferably low (e.g. Guest & Peccei 2001). Absenteeism can be quite costly to organizations because of expenses such as paid sick leave or costs of employee replacement (Harrison & Martocchio 1998). Turnover can influence the organization's return on investment in employees (Dess & Shaw 2001) and is therefore also preferably low. Costs of turnover can be high when it is difficult to replace employees´ skills and knowledge (e.g. Dess & Shaw 2001, Batt & Valcour 2003). Previous research therefore shows that retention can be considered to be a positive outcome. Researchers from Anglo-American countries have examined the effect of HR practices on absenteeism as well as turnover. They found that a compilation of HR "best" practices have a substantial negative impact on turnover (e.g. Huselid 1998). Furthermore various HR practices have been studied in relation to absenteeism (e.g. Dalton & Mesch 1990, Leigh 1991). The implementation of a flexible-scheduling program has, for example, led to a reduction in the absence rate (Dalton & Mesch 1990).

Implications for our study

We will examine whether we find differences in the effectiveness of both of our operationalisations of HRM for other contexts in comparison to compartmentalized business systems (e.g. Anglo-American countries). Researchers from Anglo-American countries found that a compilation of HR "best" practices have a substantial negative

impact on turnover (e.g. Huselid 1998). All our HRM clusters can be considered to be compilations of HR "best" practices, but with different foci. Are there however differences between business systems in the effect of one cluster compared to another? For HRM from a numerative perspective we can assume that more is probably better. Will the effect of more HR instruments on retention, however, be higher or lower in other contexts compared to the compartmentalized business systems?

We will also consider differences in effectiveness for the HR outcome absenteeism. In previous research from Anglo-American contexts implementation of a flexible-scheduling program has led to a reduction in absence rate (e.g. Dalton & Mesch 1990). Flexible-scheduling programs are most pronounced in our accommodating HRM cluster. Will other HRM bundles however be more influential in reducing absenteeism in the context of other business systems? Will we perhaps also find differences in effectiveness for our other operationalization of HRM, namely HRM from a numerative perspective? Different institutional arrangements incorporated in our five business systems might influence the way in which our operationalizations of HRM bundles can attribute to lower absenteeism and/or turnover.

7.3.2 Sector differences in the effectiveness of HRM bundles

After having addressed differences in the effectiveness of HRM across business systems, we will also examine the differences in the effectiveness of HRM bundles across different sectors. The hypothesis *3b The relationship between HRM bundles and HR outcomes varies across sectors* will be addressed. Because research on HRM and performance started in the manufacturing sector, this will be our reference context.

Effectiveness of HRM in Manufacturing oriented sectors

From research conducted in the manufacturing sector we have learned that there is a relationship between HRM and performance (e.g. MacDuffie 1995). The performance enhancing effect of our HRM bundles are furthermore expected to be higher in the manufacturing oriented sectors compared to the more service oriented sectors (e.g. Combs

et al 2006). Our HRM bundles are expected to be able to realize more in manufacturing than in service, because of the role they can play in improving performance. Combs et al (2006) give several reasons for a stronger effect in manufacturing than in services. Bundles of performance enhancing HR practices, also referred to as high performance work systems (HPWs), aid in adaptation to environmental change. In a context with standardized procedures and complex machinery the added value of HPWs is assumed to be higher (e.g. Lawler et al 1995). Another reason is that in manufacturing it is likely that HPWs mainly influence the motivation, skills and ability of the workforce while in services the motivation, skills and ability can also be influenced through informal socialization (e.g. Erickson 2004) or external organization such as professional associations (e.g. Konrad & Mangel 2000). The third reason is that customers can have a strong influence on (HR) outcomes in services (e.g. Bowen 1986). The interaction with customers is an important element that cannot be ignored. The last reason mentioned by Combs et al (2006) is that HPWs seem better aligned with manufacturing work. Manufacturers can therefore rely more on HPWs. For all these reasons HPWs performance enhancing effects are expected to be greater among manufacturers than in services. Combs et al (2006) for example found that HPWs have a stronger negative effect on turnover in manufacturing than in service. The effect size among manufacturers was almost twice as large as among services.

Implications for our study

We expect to find a stronger negative effect of HRM in manufacturing oriented sectors than in service oriented sectors for turnover and absenteeism. This expectation is mainly of importance for HRM operationalized from a numerative perspective, because for our other operationalization of HRM we can only determine whether one cluster is more effective than another. Even though a stronger negative effect of HRM in manufacturing than in service is probably applicable for both HR outcomes (turnover and absenteeism), Combs et al (2006) have only explicitly mentioned turnover.

7.5 Conclusion

In this chapter we have drawn on previous (comparative) research in order to formulate expectations concerning differences in the adoption and effectiveness of HRM across different contexts. It was crucial to first operationalize HRM and the institutional context. This is necessary in order to be able to determine more precisely how this study can build on findings from previous research.

We already know considerable about the adoption and effectiveness of HRM bundles in Anglo-American countries as well as manufacturing oriented sectors. We can formulate expectations based on research from these contexts. We can furthermore examine whether we find support for the differences we distilled from research in which Anglo-American countries have been contrasted with Rhineland countries and manufacturing has been contrasted with services. In this study we will consider several countries and sectors. Since more countries and sectors are incorporated in our study, we will finally also explore whether there are more contextual differences to be found. The necessary analyses will be conducted in the next chapters.

Chapter 8

HRM and the Institutional Context

8.1 Introduction

Globalization discussions are accompanied by claims of growing convergence (e.g. Von Glinow et al 2002). Countries would increasingly resemble each other due to increased global connectivity. Despite numerous claims of growing convergence, the way in which (economic) activities are organized can still differ considerably across institutional contexts (e.g. Brewster 2007, Wright et al 2007, Farndale & Paauwe 2007). Rather than simply presume that the adoption of HRM is identical across different settings the following research question will be addressed in this chapter:

"*Is there variation in the adoption of HRM bundles across different contexts?*"

In this study a distinction has been made in economic organization at country and sector level. Furthermore, two operationalizations of HRM bundles will be considered: the *number* of HR instruments applied as well as the *focus* of HRM bundles. As we can recall from chapter 5 "HRM bundles", a distinction has been made between HRM from a numerative perspective and HRM from a classification perspective. For the numerative perspective a HRM bundle consists of two variables: (1) a HRM scope variable, in which

the number of HR instruments have been added up, and (2) the average number of training days. In the classification perspective organizations have been clustered based on the HR instruments they have adopted. These HRM compositions all have a different focus and have been labelled: 'extensive HRM', 'relational HRM', 'basic HRM', 'accommodating HRM' and 'sophisticated HRM'. Different HRM bundles might be appropriate in different contexts. The analyses that will be conducted are aimed at answering previously mentioned research question. Two hypotheses will be addressed in this chapter:

2a Organizations adoption of HRM bundles varies across business systems.

3a Organizations adoption of HRM bundles varies across sectors.

In this chapter first countries will be considered as a source of variation. The findings will be given for HRM from both the numerative as well as the classification perspective. The same sequence will be applied for sectors as a source of variation. This chapter will continue with a discussion of the results. A conclusion will form the last part of this chapter.

8.2 Business systems as a source of variation in HRM

Variations in the adoption of HRM bundles are investigated for different business systems. Countries have been grouped together according to the characteristics of the business systems of Whitley (1999). Five business systems have been distinguished: fragmented (e.g. Hong Kong), coordinated industrial district (e.g. Italy), compartmentalized (e.g. USA), state organized (e.g. South Korea) and collaborative & highly coordinated (e.g. the Netherlands & Japan).

8.2.1 Business systems differences in the adoption of HRM bundles

We will first conduct analyses for HRM from a numerative perspective followed by analyses for HRM from a classification perspective. With these analyses we will be able to establish whether there are differences across business systems in either the number of HR practices adopted and/or the focus of HRM bundles.

Differences in the adoption of HRM from a numerative perspective are analyzed using ANOVA. With this technique differences in the means of HRM bundles across different business systems can be established. We did not find significant differences for the different business systems in the number of training days (p=0.366), but there is a significant difference between the weighted number of HR instruments in the different business systems (p=0.000). The HRM scope variable thus differs significantly over countries.

For HRM from a classification perspective differences have been examined via contingency tables and a chi square test of independence. The null hypothesis is that the probabilities for each HRM cluster are independent of the context. With this technique significant differences are established if the observed values differ significantly from the expected value. The expected value is calculated based on a distribution of observations that represents independence from the context. The chi square test of independence is significant (p=0,000). This means that significant differences are present.

From both of the analyses conducted we can conclude that differences are present for HRM from a numerative perspective as well as from a classification perspective. This means we find support for our hypothesis "*(2a) Organizations adoption of HRM bundles varies across business systems*".

Now that we have established differences across business systems we will examine what kind of differences can be found. First differences will be examined for the adoption of HRM from a numerative perspective. This will be followed by an analysis of country differences for the adoption of HRM from a classification perspective.

8.2.2 Differences for HRM from a numerative perspective

With ANOVA we have been able to establish differences across business systems for the HRM scope variable. We will first present the means for the different business systems.

Then post hoc tests will be conducted. This will enable us to examine contrasts between business systems.

Findings

The means of the HRM scope variable for the different business systems are presented in table 8.1. The means for the business systems have been presented as absolute values as well as percentages. Both measures show how many HR instruments (within the six HR practices considered) have been adopted on average. An average of 2,69 means that on average 45% of all the HR instruments that have been considered in this study have been adopted. We found the following absolute values for the different business systems: compartmentalized business systems (e.g. Anglo-American countries) have the highest average of applied HR instruments (3,02). Two business systems have average scores that fall in the middle. The collaborative business systems (e.g. the Netherlands) have an average of 2,68 and fragmented business systems (e.g. Hong Kong) have an average of 2,67. The lowest averages are for state organized business systems (e.g. South Korea) with an average score of 2,54 and coordinated industrial district business systems (e.g. Italy) with an average of 2,44.

Table 8.1 Averages of the HRM scope variable across business systems

Business systems	Average (absolute)	Average (%)	N
Coordinated industrial district	2.44	41	72
State Organized	2.54	42	346
Fragmented	2.67	45	37
Collaborative & highly coordinated	2.68	45	167
Compartmentalized	3.02	50	242
Total	**2.69**	**45**	**864**

Even though the averages don't differ much, a significant difference has been detected (p=0.000). The rejection of the null hypothesis in ANOVA establishes that at least one of the means is not the same as the other means. In order to figure out where the differences lie, additional tests are conducted in which contrasts are examined. A Scheffe test as well

as a Bonferroni test examines contrasts. The Scheffe test and the Bonferroni point towards an exceptional position of the compartmentalized business systems. Significant differences ($p<0,01$) have been established in the mean of this business system compared to all the others, with the exception of only the fragmented business systems ($p=0,216$ Scheffe and $p=0,163$ Bonferroni).

Table 8.2 Differences between business systems in the adoption of HRM from a numerative perspective

Business systems	Number of HR instruments adopted	Implication of finding
Fragmented	-	-
Coordinated-industrial district	Less (than in Compartmentalized business systems)	New finding
State organized	Less (than in Compartmentalized business systems)	New finding
Compartmentalized	More (than all other business systems)	Expectation supported[a]
Collaborative & Highly coordinated	Less (than in Compartmentalized business systems)	Expectation supported

[a] We expected to find more HR instruments adopted in compartmentalized business systems compared to collaborative & highly coordinated business systems.

Implication of findings

In table 8.2 the expectations that have been formulated in our previous chapter are confronted with our findings. Anglo-American countries have been contrasted with Rhineland countries. We expect to find significantly less HR instruments implemented in the collaborative & highly coordinated business systems (e.g. Rhineland countries) compared to compartmentalized business systems (e.g. Anglo-American countries). This

is indeed the case. This means we find support for our expectations for these business systems. The average number of HR instruments implemented in compartmentalized business systems is significantly higher compared to almost all the others.

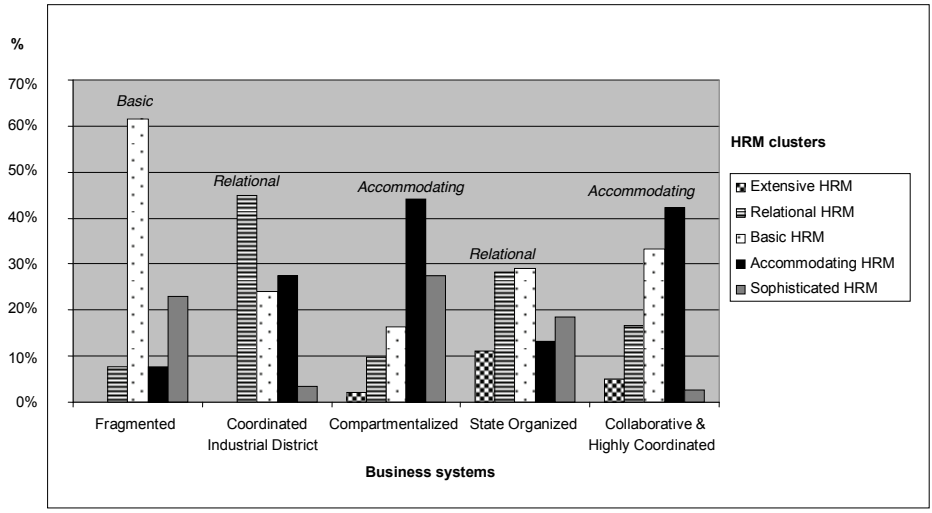
8.2.3 Differences for HRM from a classification perspective

A chi square test of independence has established significant country differences for the adoption of HRM clusters. We will examine the distribution of the HRM clusters across the different business systems. This will be helpful in determining what kind of country differences can be found in our study. First the findings of our analyses will be presented, followed by the implication of our findings.

Findings

Contingency tables have been made for the analyses of country differences for HRM form a classification perspective. The distribution of the HRM clusters within each of the different business systems is presented in figure 8.2. An overview of the differences between the observed and expected values can be found in the appendix (see appendix 6a). The following results stand out. In the fragmented business systems (e.g. Hong Kong) the results show that 'basic HRM' has often been found in this context (61,5%). In the coordinated industrial district business system (e.g. Italy) 'relational HRM' is mainly adopted (44,8%). The opposite is true for 'sophisticated HRM'. This cluster has rarely been found in this context (3,4%). In the compartmentalized business systems (e.g. USA) 'accommodating HRM' is mainly applied (44,0%). The results furthermore show that 'basic HRM' is frequently adopted (29%) in the state organized business systems (e.g. South Korea). This value is however not specific for this context (see appendix 6a). The values for 'relational HRM' and 'accommodating HRM' are specific for this context. 'Relational HRM' is well represented (28,3%) while 'accommodating HRM' is notably underrepresented (13,1%). In the collaborative & highly coordinated business systems (e.g. the Netherlands), finally, 'accommodating HRM' dominates (42,3%). Sophisticated HRM, on the contrary, has rarely been found in this context (2,6%).

Figure 8.2 Bar chart business systems and HRM clusters



Implications of findings

Several differences have been found in the adoption of HRM clusters across business systems. In table 8.3 our expectations have been presented in combination with our findings. As expected we find that 'accommodating HRM' is dominant in collaborative & highly coordinated business systems. We found that similar as well as different HRM clusters match with the other contexts considered in our study. In compartmentalized business system, such as the USA, we also mostly find 'accommodating HRM' compositions. This is the same composition that we find in collaborative & highly coordinated business systems. Fragmented business systems, such as Hong Kong, exemplify low-commitment economies with short-term commitments also to particular skills for example (Whitley 1999). In organizations from these countries we mostly find 'basic HRM' clusters. In coordinated- industrial district business systems, such as Italy, a high priority is placed on building strong networks. Informal channels are intensively used

(e.g. Pistaferri 1999). We mainly find 'relational HRM' in this context. In state-organized business systems (e.g. South Korea) we also find ´relational HRM´ to be most dominant.

Table 8.3 Country differences in the adoption of HRM from a classification perspective

Business systems (clusters of countries)	Dominant HRM cluster adopted	Implication of finding
Fragmented	Basic HRM	New finding
Coordinated-industrial district	Relational HRM	New finding
State organized	Relational HRM	New finding
Compartmentalized	Accommodating HRM	New finding
Collaborative & Highly coordinated	Accommodating HRM	Expectation supported

8.3 Sectors as a source of variation in HRM

The other context variable that has been taken into consideration is the sector to which an organization belongs. Six sectors have been distinguished: products, government & non-profit, financial services, services, energy & utilities and information, communication & entertainment.

8.3.1 Sector differences in the adoption of HRM bundles

Different kinds of analyses have been conducted for the different HRM perspectives.

ANOVA has been conducted to determine whether there are differences between the average number of HR instruments adopted in different sectors. This is done for the HRM scope variable as well as training. We found no significant difference for organizations concerning the number of training days ($p = 0.144$). Organizations in different sectors, however, do differ significantly in the number of the other HR instruments implemented ($p = 0.017$).

Contingency tables have been constructed in order to examine whether HRM clusters differ across sectors. We find that the chi square test of independence is significant for sector differences (p= 0,037). This means significant differences are present. The probabilities for each cluster are not independent of the context.

Based on these analyses we can conclude that our results also support the other hypotheses "*(2b) Organizations adoption of HRM bundles varies across sectors*".

Now that we have been able to established sector differences, it is worthwhile to take a closer look and examine what kind of differences can be found. Post hoc tests can be conducted for this purpose. Findings of these analyses and the implications of these findings will be presented for HRM from a numerative perspective as well as HRM from a classification perspective.

8.3.2 Differences for HRM from a numerative perspective

ANOVA has been conducted in order to examine sector differences for HRM from a numerative perspective. Significant differences have been established for the HRM scope variable. First the averages of the HRM scope variable for the different sectors will be presented. This will be followed by the results of post hoc tests. These post hoc tests will be helpful in identifying contrasts between sectors.

Findings

The averages for the different sectors are presented in table 8.4 both in absolute measures as well as percentages. On average 2,69 or 44,83% of all the HR instruments that have been considered in this study have been adopted. The products sector has the lowest average (2,55), followed by the government and non-profit sector (2,73). The financial sector has an average of 2,74 and the services sector has an average of 2,76. The information, communication and entertainment sectors has a relatively high average of 2,82. The highest average is however for the energy and utilities sector (2,83)

Table 8.4 Averages of the HRM scope variable

Sectors	Average (absolute)	Average (%)	N
Product	2.55	42,50	304
Government&Non-profit	2.73	45,50	111
Financial Services	2.74	45,67	191
Services	2.76	46,00	120
Information,Communication&Entertainment	2.82	47,00	63
Energy&Utilities	2.83	47,17	71
Total	2.69	44,83	860

Posthoc tests namely the Scheffe test as well as the Bonferroni test have been conducted. The Sheffe test does not reveal significant differences between sectors ($p>0.10$), but the Bonferroni test did reveal a marginally significant difference between the products sector and the information, communication & entertainment sector ($p=0,071$).

Implication of findings

Our findings as well as the implication for our expectations are presented in table 8.5. Less HR instruments are implemented in a *manufacturing* oriented 'products sector' compared to a knowledge intensive *service* sector namely 'the information, communication & entertainment sector'. This marginally significant difference is the only significant difference that could be identified via the posthoc tests. This means that we do not find support for our expectations for the other sectors. We expected to find less adopted HR instruments in the other manufacturing oriented sector, namely energy & utilities and we expected to find more HR instruments in financial services, services and the government & non profit sector.

Table 8.5 Sector differences in the adoption of HRM from a numerative perspective

Sector	Number of HR instruments adopted	Implication of finding
Product	Less (than in a service oriented sector)	Expectation supported
Energy & Utilities	-	Expectation not supported
Financial Services	-	Expectation not supported
Services	-	Expectation not supported
Government & Non-profit	-	Expectation not supported
Information, Communication & Entertainment	More (than in a manufacturing oriented sector)	Expectation supported

8.3.3 Differences for HRM from a classification perspective

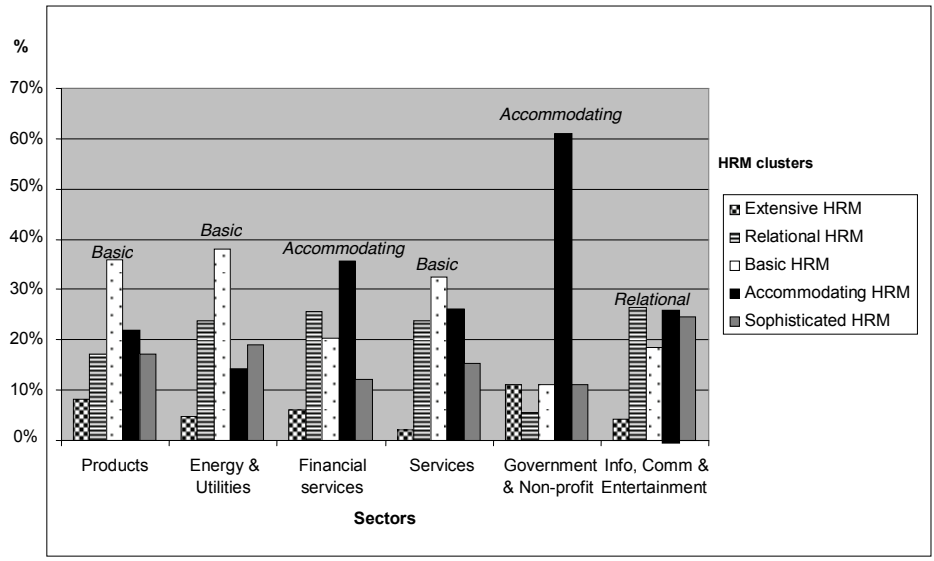
Differences in sectors have also been examined for HRM from a classification perspective. Contingency tables have been constructed and a chi square test of independence has been conducted. The conclusion can be drawn that sector differences are present. We will examine the values in the contingency tables in order to identify which differences are apparent. We will first present our findings followed by an interpretation of our findings.

Findings

The averages for each sector are presented in figure 8.3. An overview of the differences between the observed and expected values can be found in the appendix (see appendix 6b). This study shows the following percentages: In the products sector ‘basic HRM’ is

most dominant (35,8%). This cluster is also quite common in the services sector (32,6%). 'Basic HRM' can also be found in the energy & utilities sector (38,1%). In this sector 'accommodating HRM' is notably less often applied (14,3%). This is exactly the other way around in the financial sector. In the financial sector 'accommodating HRM' is mainly adopted (35,7%), while 'basic HRM' is underrepresented (20,4%). Furthermore 'accommodating HRM' clearly stands out in the government & non profit sector (61,1%). This cluster is also often adopted in the information, communication & entertainment sector (26,5%). 'Accommodating HRM' is however not distinctive for this sector (see appendix 6b). It is therefore not particular for this context. In the information, communication & entertainment sector 'relational HRM' (26,5%) followed by 'sophisticated HRM' (24,5%) are often applied and this is specific for this context. This is not the case for 'basic HRM' (18%). It is applied less in this context than would be expected in the case of independency.

Figure 8.3 Bar chart sectors



Implications of findings

Different HRM compositions match with different sectors (see table 8.6). In this study the composition of HRM in the products sector can mostly be classified as 'basic HRM'. The dominant configuration of HRM in the energy and utilities sector is also 'basic HRM'. These findings are in line with our expectations. We expected to find the adoption of basic HRM in the manufacturing oriented sectors. The other matches we have found are new findings. In our study 'accommodating HRM clusters' are well represented in the financial services sector. 'Basic HRM' compositions are often adopted in the service sector. We furthermore find a match for accommodating HRM with the government & non-profit sector. We finally find that 'relational HRM' is well represented in the information, communication & entertainment sector.

Table 8.6 Sector differences in the adoption of HRM from a classification perspective

Sector	Dominant HRM cluster adopted	Implication of finding
Product	Basic HRM	Expectation supported
Energy&Utilities	Basic HRM	Expectation supported
Financial Services	Accommodating HRM	New finding
Services	Basic HRM	New finding
Government&Non-profit	Accommodating HRM	New finding
Information, Communication & Entertainment	Relational HRM	New finding

8.4 Discussion

The analyses that have been conducted have confirmed an influence of the context on HRM. We have found support for differences in the adoption of HRM across business systems as well as sectors. In this section first our most noteworthy findings will be

addressed. Before concluding this discussion, several limitations and suggestions for future research will be addressed.

We have found support for differences in the adoption of HRM across business systems. When we take a closer look at the kind of differences that can be found, we however also encounter similarities. A noteworthy finding is a similarity between collaborative & highly coordinated business systems (e.g. the Netherlands) and compartmentalized business systems (e.g. U.S.A.) in the adoption of HRM. In previous research Rhineland countries and Anglo-American countries have been contrasted (e.g. Paauwe & Boselie 2003). In our study compartmentalized business systems stand out in the number of HR instruments adopted. In these business systems the number of HR instruments adopted is larger than in most of the other business systems. Even though previous research emphasizes differences between these contexts, our study also shows similarities. As mentioned before, accommodating HRM matches well in both contexts. This similarity can be explained. This HRM composition can be appropriate in both contexts for similar reason as well as for different reasons. Accommodating HRM distinguishes itself from the others in the adoption of work-life balance programmes as well as learning and development programmes. Collaborative & highly coordinated business systems typically incorporate forms of collaboration and commitment between the different stakeholders (Paauwe & Boselie 2004). Collective agreements or other forms of collaboration between social partners (e.g. trade unions and employee representatives) protect the balance between professional and personal life. In compartmentalized business systems there is also attention for the 'softer' management practices. In compartmentalized business systems, such as the U.S.A., during economic upheaval the emphasis has been shifting from economic goals of material wellbeing toward humanistic goals and therefore also towards an increase in importance of the 'softer' management practices (Bowen et al 2002, Drost et al 2002). The same HRM composition can also be appropriate in these different contexts for different reasons. 'Accommodating HRM' not only enables a balance between professional and personal life (e.g. parent/child friendly programmes), but also allows for flexibility in organizing work (e.g. telecommuting/home working).

Employees are given more control over when, where and how they work via 'accommodating HRM'. This can be an additional reason why this HRM composition is also often present in compartmentalized business systems. Market-like forms of economic organization dominate in compartmentalized business systems (e.g. Nickell 1997). More flexibility will make it easier to adapt to changes in the market. Accommodating HRM can therefore finally also be appropriate in both contexts for different reasons.

Significant sector differences have also been confirmed in the analyses. When we examine the differences we find that, as we might have expected, less HR instruments are implemented in the 'products' sector compared to a more 'knowledge intensive service oriented' sector namely information, communication & entertainment'. This is a marginally significant difference. Also for HRM from a classification perspective sector differences have been found. One similarity is however in particular worth mentioning. A notable finding is the match of 'basic HRM' with the service sector as well as the products sector. The same HRM composition that is most appropriate for the products sector is also most appropriate for the service sector. There is a plausible explanation for this finding. The heterogeneity of the service sectors needs to be taken into account (e.g. Hoque 1999). The service *oriented* sectors comprise of financial companies, transport operations etc. In our study we have distinguished between different kinds of service oriented sectors (e.g. *financial* services). Different kinds of skills are needed in knowledge-intensive service sectors compared to more manual labour oriented service sectors. In transportation or mail, packages and freight, for example, more generic know how is needed (Boxall 2002). Because these kinds of organizations are included in the service sector, this sector is comparable with the products sector. The main composition of HRM in the service sector is therefore understandably 'basic'.

We have found that our study not only confirms differences between contexts, but also points towards similarities between contexts. Another noteworthy finding is that HRM bundles also seem to be less appropriate in different contexts. Our results for example show that in coordinated industrial district business systems, such as Italy, 'sophisticated

HRM' is less often applied. In the knowledge intensive service sectors, namely financial services and information, communication & technology, 'basic HRM' seems to be less appropriate. It is not only important to consider which HRM bundles are appropriate within a given context, but also which HRM bundles are inappropriate. Examining this in more depth would be beneficial in taking this field of research an additional step forward.

These analyses have provided valuable insights. Conducting this kind of comprehensive research can however not be done without any limitations. These limitations can be considered to be suggestions for future research. More sophisticated analyses would enable us to determine whether our findings (and interpretations) hold with different control variables. Other characteristics could play a role in the adoption of HRM bundles, such as size, country of origin etc. In the study conducted by Toh et al (2008) they also examined fit between HR configurations and the organizational context. They incorporated size as a covariate in their analyses of covariance (ANCOVA) and found organization size to have a relatively small effect on the results. Their HR configurations are however operationalized differently and the organizational context is interpreted in terms of cultural values and structures within the organization. We did not incorporate control variables such as the size of an organization because of the limited role it seemed to play in previous research. The other reason why we did not incorporate any control variables is because more sophisticated analyses is needed to control for variables in the analyses with ratio variables as well as categorical variables. In future research it is recommended to control for characteristics, such as size, in order to be able to establish for certain whether or not these characteristics play a role in the adoption of HRM. Another limitation in this study is that the number of cases left for analyses is reduced by variables such as 'training'. With a limited number of cases it becomes more difficult to generalize and it is also more difficult to detect significant differences. The findings show that extensive HRM is not often applied in any context. This can be the case because a specific focus in the composition of HRM is appreciated above applying a widespread and mixed set of HR instruments. In order to check whether the limited number of observations for this category influenced our results, we ran additional analyses. In contingency tables the

expected frequencies for each category should be at least 1 and no more than 20% of the categories should have expected frequencies of less than 5. This restriction is considered by many statisticians to be too restrictive (e.g. Yarnold 1970, p 864-886, Hogg & Tanis 1996). To be safe a double check was conducted for the analyses of the contingency tables anyway. For a number of cells the expected cell count is low. Eliminating a row of small-expectation cells can be realized by combining cells. This would however change the distinctive features of the different categories. The results of analyses have therefore been checked by leaving these low counts out. Only a limited number of organizations have adopted extensive HRM. Without this HRM cluster in the analyses the results still resemble previous findings. The results remain significant and the percentages hardly change. Despite a reduction in observations a large number of cases still remain for the examination of the relationship between HRM and its context. The main limitation of this study is that the survey was not set out for this study. Our analyses have been conducted on a convenience sample. This survey has however provided us with the opportunity to examine the relationship between HRM bundles and the institutional context in more detail. Partnerships between researchers and other beneficiaries, such as practitioners, will probably become increasingly important for research in this area (Wall & Wood 2005).

8.5 Conclusion

In this chapter we found support for differences across business systems as well as sectors. Based on these analyses the question: "*Is there variation in the adoption of HRM bundles across different contexts?*" can be answered affirmatively. In addition we found support for most of our expectations addresses in the previous chapter, which means that the findings of our study are in line with the conclusions drawn in previous research. Our findings also provide new insights.

We have found support for the hypothesis *2a Organizations adoption of HRM bundles varies across business systems*. When we take a closer look at the results of our analyses we furthermore find that our study not only confirms differences between countries but also points towards noteworthy similarities. We, for example, not only find differences in

the adoption of HRM between compartmentalized business systems (e.g. Anglo-American countries) and collaborative & highly coordinated business systems (e.g. Rhineland countries) but also similarities. In both contexts accommodating HRM is appropriate. The distinguishing feature of this HRM cluster is a focus on management development programs as well as work life balance programs such as telecommuting/home working.

We have also found support for the hypothesis *3a Organizations adoption of HRM bundles varies across sectors*. Our study furthermore illustrates the heterogeneity of the service oriented sectors. Between the service oriented sectors there are differences in the HRM composition mainly adopted. In services (e.g. construction) we mainly find basic HRM, while in *financial* services we find accommodating HRM.

A logical next step is to incorporate performance in the analyses. This will be done in the next chapter.

Chapter 9

Effectiveness

9.1 Introduction

Organizational effectiveness can be realized in many different ways. Increased effectiveness can be attributed to a specific composition of HR practices or a fit among relevant factors and HR practices (Boxall & Purcell 2003). In this chapter the following question will be addressed: "*Are there differences in effectiveness of HRM bundles in different contexts*?" In order to identify whether HRM bundles can predict performance the following hypotheses will be tested empirically:

1a There is a direct relationship between HRM bundles and HR outcomes.

1b There is a direct relationship between HRM bundles and firm performance.

1c There is an indirect relationship between HRM bundles and firm performance via HR outcomes

2b The relationship between HRM bundles and HR outcomes varies across business systems.

3b The relationship between HRM bundles and HR outcomes varies across sectors.

The results will be presented for HRM from a numerative perspective as well as from a classification perspective. Furthermore different performance indicators are incorporated

in this study. HR outcomes (labour turnover and absenteeism) as well as firm performance (revenue, expenses and profit) are considered.

HRM bundles can have a direct and/or indirect effect on performance. The relationship can also be dependent on the context in which an organization operates. The context variables incorporated in our analyses are countries and sectors. Different institutional arrangements can result in different economic organization (DiMaggio and Powell 1983, Whitley 1999, Paauwe 2004). The context can have an influence on the effectiveness of (certain) HRM bundles. Main effect and interaction models will be tested for this purpose. Certain *combinations* of HRM bundles and the context may be better predictors of performance.

Regression analyses with categorical variables require special attention because the different values cannot all be entered together (e.g. Hair et al 1998). Reference categories must be chosen. Much of the research is from Anglo-American countries (Geringer 2004, Brewster et al. 2005, Wright et al 2007). These countries have been clustered together in the compartmentalized business systems. Comparisons to these business systems are therefore appropriate. In the analyses the compartmentalized business systems will be the reference category. The same reasoning is applicable for the products sector. Most research is conducted in this sector (Boxall 2002, Datta et al 2005). The products sector is therefore an appropriate reference. For the analyses with HRM clusters we also need a reference cluster. Accommodating HRM will be the default cluster for the analyses with the universal models as well as the analyses examining country and sector differences. Accommodating HRM is the cluster that is mostly found in compartmentalized business systems (e.g. USA) and therefore a good standard to compare against.

The analyses will start off with an examination of bivariate comparisons. Next previously mentioned analyses will be conducted. A general discussion about the effectiveness of HRM bundles will be presented before concluding this chapter.

9.2 Bivariate comparisons

Bivariate comparisons are a first indication of an association between variables. The means, standard deviations and correlations among the main study items are shown in table 9.1, 9.2, and 9.3. The bivariate comparison of HRM clusters and the HRM scope variable has already been addressed in chapter 5 (see table 5.3. on page 89) Moderate correlations between HRM variables and performance measures indicate that HRM is not independent. Correlations with r> 0,60 need special attention, because multicollinearity problems can arise. The only bivariate correlation that exceed this threshold is between revenue and profit ($r = 0,91$, $p<0.001$). These variables are dependent variables in separate analyses, so these correlations will not influence the results.

Table 9.1 HRM clusters and performance indicators

HRM Cluster	Absence[1]	Turnover[2]	Revenue	Expense	Profit
Extensive HRM	8,3	16,0	235,9	67,4	187,4
	(6,75)	(15,84)	(268,30)	(53,76)	(259,33)
Relational HRM	6,4	21,7	195,5	120,6	67,4
	(6,26)	(19,69)	(197,18)	(146,22)	(153,45)
Basic HRM	8,4	13,9	222,6	119,5	67,1
	(6,79)	(13,65)	(272,25)	(137,13)	(131,18)
Accommodating HRM	9,2	15,2	202,2	128,2	50,6
	(6,45)	(13,45)	(238,24)	(125,64)	(133,03)
Sophisticated HRM	6,8	17,0	291,4	178,3	155,72
	(5,43)	(14,71)	(231,25)	(206,54)	(225,57)
Total	7,9	16,6	222,0	127,4	83,93
	(6,42)	(15,55)	(240,89)	(145,67)	(168,74)
N	185	284	212	206	183

The means are presented with the standard deviations in parentheses
[1] Average number of days absent (per fte)
[2] Percentage employee turnover

Table 9.2 Correlation matrix for HRM from a numerative perspective and performance indicators

Variable	Mean	SD	N	Absence	Turnover	Revenue	Expense	Profit
HRM Scope	2,7	0,85	864	-0,02	-0,06	-0,01	0,06	-0,05
Training	3,2	4,65	548	-0,01	-0,03	0,01	0,05	-0,06

: significant at 10%, **: significant at 5%, *: significant at 1%*

Table 9.3 Correlation matrix for dependent variables (HR outcomes and firm performance indicators)

	Variable	M	SD	N	1	2	3	4	5
1	Absence	7,8	5,88	429	1				
2	Turnover	17,2	16,52	652	-0,06	1			
3	Revenue	222,0	253,67	522	-0,10	-0,01	1		
4	Expense	123,5	151,11	480	0,02	-0,10**	0,61***	1	
5	Profit	82,4	176,03	429	-0,20***	0,144**	0,781***	-0,02	1

: significant at 10%, **: significant at 5%, *: significant at 1%*

9.3 HRM bundles and performance

In this section direct effects of HRM bundles on several performance outcomes will be investigated. HRM bundles are directly related to HR outcomes as well as firm performance. If incorporating HRM bundles in the equation of the different performance indicators significantly increases the level of explained variance, this indicates that significant influences of HRM bundles on performance indicators occur. Control variables (e.g. size) will finally be added to see if the relationships still hold.

Ten models have been examined via regression analyses (see table 9.4). Relationships of HRM from a numerative perspective as well as HRM from a classification perspective

have been examined in relation to HR outcome variables (absenteeism and turnover) and firm performance indicators (revenue, expenses and profit).

Table 9.4 R-square change of regression models

Dependent variable / Independent Variable	Absence	Turnover	Revenue	Expense	Profit
HRM Scope variable & training	0,002	0,006	0,000	0,003	0,005
HRM clusters	0,025	0,036**	0,017	0,032	0,070**

**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

Direct relationships have been detected. The level of explained variance increases significantly for the model with labour turnover and the HRM clusters (R square change=0,036, p=0,038) as well as the model with profit and HRM clusters (R square change=0,070, p=0,012). This means we find support for the hypotheses '*1a There is a direct relationship between HRM bundles and HR outcomes*' and '*1b There is a direct relationship between HRM bundles and firm performance*' but only for two of the models examined.

Now that we have established relationships for two of the models we will take a closer look at the specific compositions of HRM clusters that are significantly associated with performance outcomes. First the analyses for HRM bundles with HR outcomes will be presented; this will be followed by the analyses of HRM bundles with firm performance.

9.3.1 HRM bundles and HR outcomes

Our regression analyses began with main effect models in which HRM variables are related to HR outcome variables. The level of explained variance increases significantly

for the model with HRM clusters and labour turnover. The significant estimated regression coefficients indicate which type of HRM bundles are predictors of performance.

Table 9.5 Regression analysis HRM clusters and HR outcomes[a]

Variables	Model with HR outcome
	Turnover
(Constant)	29,02***
	(5,01)
HRM Clusters:	
"Extensive HRM"	1,48
	(3,81)
"Relational HRM"	5,92**
	(2,69)
"Basic HRM"	-1,97
	(2,45)
"Sophisticated HRM"	0,14
	(2,82)
Control variables:	
Size	-1,55***
	(0,56)
Energy & utilities	-7,99**
	(3,78)
Financial services	-1,39
	(2,27)
Services	5,11*
	(2,77)
Government & non-profit	9,36**
	(4,31)
Info,comm&entertainment	2,79
	(2,88)
Fragmented business systems	10,93**
	(4,60)
Coordinated Ind business systems	2,50
	(3,70)
State Organized business systems	-3,32
	(2,42)
Collaborative business systems	-7,61***
	(2,59)
R-square	0,189
Adjusted R-square	0,146
N	283

[a] standard errors are in parentheses

: significant at 10% ,: significant at 5%, ***: significant at 1%*

Findings

A relationship between HRM and labour turnover has been found for the model that incorporates HRM from a classification perspective. There is a positive association between 'relational HRM' and labour turnover (b=5,92 (2,69) p<0,05) (see table 9.5). No other significant associations have been detected (see appendix 7a and 7b).

Implication of findings

We are now able to say more about the kind of relationships we have found for our operationalizations of HRM and HR outcomes (see table 9.6).

Table 9.6 Direct relationships between HRM and HR outcomes

Dependent variable / Independent variable	Absence	Turnover
HRM Scope variable & training	X	X
HRM clusters	X	+ Relational

+ significant positive association
- significant negative association
x no significant association

No direct relationships have been detected for absenteeism with either of the operationalisations of HRM. For turnover we did detect a direct relationship.

We only detected a direct relationship for one of the HRM operationalisations. Only in the model with HRM operationalized from a classification perspective did we find a significant association. One cluster, namely 'relational HRM', is related to turnover. Relational HRM represents a network oriented way of organizing HRM. Relational HRM distinguishes itself from all the other HRM compositions with a focus on strong relationships.

9.3.2 HRM bundles and Firm Performance

In the previous section the associations of HRM bundles with HR outcomes have been examined. In this section our findings for the more distal firm performance measure will be examined.

Table 9.7 Regression analysis HRM clusters and Firm Performance[a]

Variables	Model with firm performance
	Profit
(Constant)	228,21***
	(68,50)
HRM Bundles:	
"Extensive HRM"	119,86**
	(52,61)
"Relational HRM"	-2,70
	(35,85)
"Basic HRM"	-0,55
	(33,80)
"Sophisticated HRM"	117,90***
	(39,53)
Control variables:	
Size	-27,08***
	(7,38)
Energy & utilities	95,68*
	(55,43)
Financial services	56,42*
	(30,54)
Services	49,98
	(36,91)
Government & non-profit	-81,54
	(65,21)
Info,comm&entertainment	-8,15
	(39,74)
Fragmented business systems	13,86
	(71,56)
Coordinated Ind business systems	-77,56
	(48,69)
State Organized business systems	15,57
	(33,38)
Collaborative business systems	52,07
	(37,59)
R-square	0,198
Adjusted R-square	0,130
N	182

[a] standard errors are in parentheses

: significant at 10%, **: significant at 5%, *: significant at 1%*

Findings

When examining the relationship between the different HRM variables and firm performance the only model for which the level of explained variance increased significantly was the model of HRM from a classification perspective with profit. Both 'sophisticated HRM' (b=117,90 (39,53), p<0,01) as well as 'extensive HRM' (b=119,86 (52,61), p<0,05) are associated with higher profit levels (see table 9.7). This is in comparison to the default cluster 'accommodating HRM'. The other regression analyses for which the level of explained variance did not increase significantly are presented in the appendix 8a and 8b.

Implication of findings

From the different models we have analyzed with our operationalizations of HRM and firm performance one of the models stands out (see table 9.8).

Table 9.8 Direct relationships between HRM and firm performance

Independent variable / Dependent variable	Revenue	Expense	Profit
HRM Scope variable & training	X	X	X
HRM clusters	X	X	+ Extensive + Sophisticated

+ significant positive association
- significant negative association
x no significant association

Direct relationships have been detected for one of the firm performance indicators, namely profit. For the separate components, revenue and expenses, we are not able to find support for direct relationships. We haven't found any significant associations with HRM from a numerative perspective. We did find that HRM from a classification perspective shows significant associations with profit. Two clusters, 'sophisticated HRM' and 'extensive HRM' are positively associated with profit. Sophisticated HRM distinguishes itself by

incorporating advanced HR instruments such as assessment centres. 'Extensive HRM' is also positively associated with profit. The distinctive feature of this cluster is that diverse and mixed HR instruments are implemented for *all* staff categories.

9.4 Mediating effect

In this paragraph the focus will be on determining whether HR outcomes mediate the relationship between HRM bundles and firm performance. Besides a direct effect on HR outcomes and firm performance, HRM bundles can also have an effect on firm performance *via* HR outcomes. In order to determine whether mediating effects occur, a relevant step is to examine whether HR outcomes have any effect on firm performance at all. This analysis will be conducted first. Then by recalling the established associations between HRM, HR outcomes and firm performance possible indirect pathways can be visible. In order to be sure whether indirect effects apply protocols suggested by James & Brett (1984) and Baron & Kenny (1986) will be applied.

9.4.1 HR outcomes and firm performance

First HR outcomes are related to firm performance indicators. For HR outcomes to mediate between HRM and firm performance they need to have an effect on firm performance (James & Brett 1984, Baron & Kenny 1986). The level of explained variance does not increase significantly for the model with the HR outcomes and expenses (R square change=0,002, p=0,810), but does increase significantly for the model with HR outcomes and both revenue (R square change=0.035, p=0,012) as well as profit (R square change=0.173, p=0,000). We will now take a closer look at the significant coefficients.

Findings

An examination of the relationship between the HR outcomes (labour turnover and absenteeism) with the different firm performance indicators (revenue, expenses and profit) resulted in positive associations for turnover with both revenue (b=3,02 (1,08), p<0,01) and profit (b=3,91 (0,68), p<0,01) and negative associations for absenteeism with both revenue (b=-5,36 (2,71), p<0.05) and profit (b=-5,02 (1,72), p<0,01) (see table 9.9). There is no significant association between the HR outcomes and expenses (see appendix 9).

Table 9.9 Regression analysis HR outcomes and Firm performance[a]

Variables	Models with firm performance	
	Profit	Revenue
(Constant)	105,53*	204,03**
	(60,04)	(92,17)
HR outcomes:		
Absenteeism	-5,02***	-5,36**
	(1,72)	(2,71)
Turnover	3,91***	3,02***
	(0,68)	(1,08)
Control variables:		
Size	-4,41	5,06
	(6,79)	(10,46)
Energy & utilities	-22,55	-50,13
	(48,46)	(77,56)
Financial services	13,95	-4,09
	(26,94)	(41,41)
Services	-22,73	-88,85**
	(29,72)	(43,63)
Government & non-profit	-54,28	-85,92
	(41,44)	(59,13)
Info,comm&entertainment	-28,74	-36,85
	(30,83)	(47,63)
Fragmented business systems	-77,24	-6,18
	(49,75)	(76,83)
Coordinated Ind business systems	-89,64**	-101,57*
	(39,80)	(58,23)
State Organized business systems	-27,20	-60,67
	(28,08)	(42,51)
Collaborative business systems	14,39	67,03
	(31,75)	(46,65)
R-square	0,223	0,106
Adjusted R-square	0,176	0,060
N	213	247

[a] standard errors are in parentheses

: significant at 10%, **: significant at 5%, *: significant at 1%*

Implications of findings

The relationship between the two performance outcomes has been examined. HR outcomes are associated with firm performance. This was a relevant step in the examination of mediation. HR outcomes need to have an effect on form performance if HR outcomes mediate between HRM and performance (James & Brett 1984, Baron & Kenny 1986)

Between HR outcomes and firm performance several significant associations have been found (see table 9.10). A negative association has been detected between absenteeism and revenue as well as profit. Lower absenteeism levels have been associated with positive profits before (e.g. Guest & Peccei 2001). Revenue and profit can negatively be influenced by absenteeism since a high level of absenteeism can unfavourably reduce the workforce and it can also be negative for morale within the workforce.

Table 9.10 Direct relationships between HR outcomes and firm performance

Variable	Expense	Revenue	Profit
Absenteeism	X	-	-
Turnover	X	+	+

+ significant positive association
- significant negative association
x no significant association

Turnover is however positively associated with revenue as well as profit. We would have expected to find the opposite. Lower rates of turnover are considered to be a desirable outcome (Huselid 1995, Dess & Shaw 2001). Even researchers that stress the dangers of high (voluntary) turnover because of replacement costs and the loss of productive employees, however acknowledge that organizations can also realize benefits from (higher) turnover (e.g. Dess & Shaw 2001). Labour turnover can realize improvements in

innovation, reductions in stagnation, separation of poor performers, payroll reductions etc. A certain degree of refreshing and revitalization of the workforce may have a positive influence on revenue and profit.

9.4.2 (Partial) mediation

The next step for determining mediation is to recall the established associations between HRM, HR outcomes and firm performance. This will provide an indication of whether indirect effects are present. In the analysis of HRM in relation to firm performance significant positive associations have been found for 'sophisticated HRM' and 'extensive HRM' with profit. An examination of the indirect pathway provides a different picture. 'Sophisticated HRM' and 'extensive HRM' are not associated with either of the HR outcomes (turnover or absenteeism). Another HRM cluster, namely 'relational HRM', is significantly associated with turnover and no HRM variable is significantly associated with absenteeism. Even though both HR outcomes are significantly associated with profit and revenue, different HRM variables are associated with *either* a HR outcome *or* a firm performance indicator. These results mean that mediation is not likely to occur.

The protocols suggested by both James and Brett (1984) and Baron and Kenny (1986) are used in order to verify the absence of full mediation. There is a mediating effect when the following requirements are met: a) there is a significant effect of HR outcomes on firm performance, b) there is a significant effect of HRM on firm performance; and c) There is *not* a significant effect of HRM on firm performance when HR outcomes are added to a model with HRM and firm performance (James and Brett 1984) and there is also *not* a significant added effect (R^2 change) when HRM is added to a model in which HR outcomes have first been related to firm performance (Baron and Kenny 1986). Since we have only found a significant association for HRM with turnover we will focus our attention on mediation by turnover. Two HRM clusters are furthermore significantly associated with profit so our focus will be on the firm performance indicator profit. In sum, we will examine mediation by the HR outcome ´turnover´ for the relationship between 'HRM clusters' and 'profit'.

Table 9.11 Mediation check according to the protocol of James and Brett 1984[a]

Variables	Models with firm performance	
	Profit	Profit
(Constant)	207,33***	161,59**
	(71,79)	(77,46)
HRM bundles:		
"Extensive HRM"	126,16**	121,77**
	(53,62)	(53,47)
"Relational HRM"	3,86	-8,27
	(38,14)	(38,79)
"Basic HRM"	6,47	7,19
	(35,45)	(35,30)
"Sophisticated HRM"	106,67**	107,70***
	(40,77)	(40,60)
HR outcome:		
Turnover	-	1,29[1]
		(0,84)
Control variables:		
Size	-25,92***	-23,12***
	(7,89)	(8,06)
Energy & utilities	102,68*	108,69*
	(56,39)	(56,28)
Financial services	64,27**	65,88**
	(31,78)	(31,66)
Services	60,42	53,04
	(38,83)	(38,96)
Government & non-profit	-76,43	-94,77
	(76,98)	(77,57)
Info,comm&entertainment	-0,49	-9,77
	(41,98)	(42,24)
Fragmented business systems	15,09	19,03
	(72,62)	(72,35)
Coordinated Ind business systems	-71,20	-69,23
	(51,32)	(51,11)
State Organized business systems	16,54	27,04
	(35,09)	(35,61)
Collaborative business systems	63,25	76,21*
	(39,66)	(40,38)
R-square	0,182	0,195
Adjusted R-square	0,108	0,116
N	169	169

[a] standard errors are in parentheses

*: significant at 10%, **: significant at 5%, ***: significant at 1%*

[1] Turnover is no longer significantly associated with profit with the reduced number of observations.

We find that turnover does not mediate the relationship between 'sophisticated HRM' and 'extensive HRM' with profit. When we follow the protocols developed by James and Brett (1984) we see that the relationship between 'sophisticated HRM' and 'extensive HRM' with profit is significant ($p<0,05$) when the model does not contain labour turnover, but also when it does contain this variable ($p<0,05$) (see table 9.11). This is confirmed when using the protocol by Baron and Kenny (1986). The explained variance increases significantly (R square change=0,071, $p<0,05$) when the HRM clusters are added to an equation that already contains turnover and profit (see appendix 10). Based on these results the conclusion seems to be that there is no full mediation by turnover. We must however note that turnover is no longer significantly associated with profit with the reduced number of observations. Perhaps a global examination of partial mediation will provide more insight.

Partial mediation cannot yet be ruled out by using the protocols suggested by both James and Brett (1984) and Baron and Kenny (1986). An *'indirect'* coefficient can be estimated by computing the difference between the partial regression coefficient (from the model that includes both HRM and turnover in relation to profit) and the simple regression coefficient (obtained from the model with only HRM in relation to profit) (Judd & Kenny 1981). These regression coefficients hardly differ. The partial regression coefficient from the model that includes both HRM and turnover in relation to profit (b=126,16 (53,62) for 'extensive HRM' and b=106,67 (40,77) for 'sophisticated HRM') hardly differs from the simple regression coefficient obtained from the model with only HRM in relation to profit (b=121,77 (53,47) for 'extensive HRM' and b=107,70 (40,60) for 'sophisticated HRM') (see table 9.11). The conclusion can be drawn that partial mediation does not seem to occur.

9.4.3 Determining mediation

After having established a relationship between HR outcomes and firm performance we took a closer look at a possible mediating role of HR outcomes. Because the results of the regression analysis with HRM bundles predicting firm performance do not correspond

with the indirect pathway via HR outcomes, it is not likely that mediation occurs. Different HRM clusters are associated with *either* a HR outcome *or* firm performance. This conclusion is supported by additional analyses. Based on previous results we focused our additional analyses on mediation by turnover in the relationship between HRM clusters and profit. We found that full mediation seems to be excluded according to the protocols suggested by both James and Brett (1984) as well as Baron and Kenny (1986). Partial mediation is also not present since the regression coefficients of HRM in a model without the HR outcome variable hardly differs from the regression coefficient with the possible mediator in the model (Judd & Kenny 1981). The conclusion can be drawn that in this study no mediation of labour turnover in the relationship between HRM bundles and profit is present. There is no support for the hypothesis '*1c There is an indirect relationship between HRM bundles and firm performance via HR outcomes*'.

9.5 HRM bundles, performance and the context

Next we will determine whether the context in which an organization operates, influences the relationship between HRM bundles and performance. Differences for business systems and sectors will be examined via contingency models. Regression analyses will be conducted for both HRM from a numerative perspective (HRM scope variable & training) and HRM from a classification perspective (HRM clusters). We will start with the examination of differences in effectiveness between business systems before heading to the examination of sector differences.

9.5.1 Differences in effectiveness between business systems

First, differences in effectiveness between business systems are examined. If adding interaction terms of HRM bundles and the different business systems to an equation that already contains HRM variables significantly increases the level of explained variance, influences of business systems occur.

Influences of business systems have been detected (see table 9.12). Adding interaction terms to an equation that already contains HRM bundles and HR outcomes increases the

level of explained variance for the models of labour turnover and absenteeism with both operationalisations of HRM. The level of explained variance however only increases marginally significant for the model of absenteeism with the HRM clusters (R square change=0,120, p=0,088). This means we have found support for the hypothesis '*2b The relationship between HRM bundles and HR outcomes varies across business systems*'.

Table 9.12 R-square change of regression models for differences between business systems

Variable	Absence	Turnover
HRM Scope variable & training	0,163***	0,072***
HRM clusters	0,120*	0,088**

: significant at 10%, **: significant at 5%, *: significant at 1%*

Now that we have found support for differences between business systems in the effectiveness of HRM bundles we will take a closer look at the HRM bundles for which these differences have been found. The significant estimated regression coefficients will indicate which type of HRM bundles are predictors of performance in the different business systems. Compartmentalized business systems (e.g. Anglo-American countries) are incorporated in the analyses as reference value. For the regression analyses with HRM clusters, accommodating HRM will act as reference value.

Findings

Several significant associations have been found. In table 9.13 we can see that turnover is marginally positively associated with the scope variable (b=3.044 (1,611), p<0,1). This association has meaning for the default business system, namely compartmentalized business systems. This general effect in the model can also have an influence on the other significant associations that have been detected. Interaction terms of the HRM scope variable with fragmented business systems and state organized business systems are also

significantly associated with turnover. The coefficients of the interaction terms need to be corrected for the general effect. In order to determine whether the corrected regression coefficients remain significant additional analyses have been conducted in which the relevant business systems (subsequently fragmented- and state organized business systems) act as default value instead of the initial one (compartmentalized business systems). All the detected significant associations with labour turnover hold in these analyses.

For fragmented business systems several significant associations have been found. In this context turnover is significantly associated with both operationalizations of HRM. Negative associations have been detected for HRM from a numerative perspective with turnover. This is reflected in the regression coefficients of the interaction terms of the scope variable (b=-27,978 (5,645), p<0,001) as well as training (b=-1,112 (0,625), p<0,1) (see table 9.13). Significant associations have also been found for HRM from a classification perspective. Positive associations have been found for two of the clusters with turnover. Interaction terms of fragmented business systems with sophisticated HRM (b=36,60 (17,40), p<0,05) and basic HRM (b=39,22 (16,69), p<0,05) are significantly associated with turnover (see table 9.14).

In the state organized business systems HRM from a numerative perspective is significantly associated with turnover (see table 9.13). The interaction term of the HRM scope variable is negatively associated with turnover (b=-5,535 (1,989), p<0,01).

Not only for turnover but also for absenteeism several significant associations have been found. Both operationalizations of HRM show significant associations with absenteeism in coordinated industrial district business systems. The interaction term of the HRM scope variable is positively associated with absenteeism (b=3,54 (1,70), p<0,05) (see table 9.13). Training is negatively associated with absenteeism in this business system (b=-0,69 (0,33), p<0,05) (see table 9.13).

Table 9.13 Regression analysis with HRM scope variable & training interaction terms[a]

Variables	Models with HR outcomes	
	Turnover	Absence
(Constant)	19,64***	4,73
	(5,57)	(3,00)
HRM bundle:		
HRM Scope	3,04*	-1,03
	(1,61)	(0,87)
Training	-0,47	0,35
	(0,41)	(0,23)
Interaction terms:		
HRM Scope x Fragmented	-27,98***	2,53
	(5,65)	(3,13)
HRM scope x Coordinated Ind	-0,67	3,54**
	(4,11)	(1,70)
HRM scope x State Organized	-5,53***	1,12
	(1,99)	(1,09)
HRM scope x Collaborative	-3,19	0,75
	(2,29)	(1,17)
Training x Fragmented	-1,11*	-0,35
	(0,62)	(0,31)
Training x Coordinated Ind	0,67	-0,69**
	(0,63)	(0,33)
Training x State Organized	0,40	-0,29
	(0,45)	(0,24)
Training x Collaborative	0,27	0,07
	(0,73)	(0,43)
Control variables:		
Size	-1,52***	0,78***
	(0,46)	(0,24)
Energy & utilities	-6,65**	-1,61
	(2,90)	(1,71)
Financial services	-0,42	-2,40**
	(1,74)	(0,93)
Services	5,32**	-1,43
	(2,05)	(1,06)
Government & non-profit	3,87	0,47
	(3,06)	(1,48)
Info,comm&entertainment	3,30	-2,92**
	(2,32)	(1,20)
Fragmented business systems	101,90***	-9,68
	(17,57)	(9,54)
Coordinated Ind business systems	4,17	-2,94
	(10,46)	(4,43)
State Organized business systems	12,98**	-2,74
	(6,08)	(3,21)
Collaborative business systems	3,37	1,42
	(6,90)	(3,50)
R-square	0,211	0,249
Adjusted R-square	0,171	0,185
N	415	256

[a] standard errors are in parentheses, **: significant at 10%, **: significant at 5% and ***: significant at 1%*

Table 9.14 Regression analysis with HRM clusters interaction terms[a]

Variables	Models with HR outcomes	
	Turnover	Absence
(Constant)	30,01***	-1,02
	(5,37)	(3,15)
HRM bundles:		
"Extensive HRM"	7,01	-0,14
	(14,72)	(2,93)
"Relational HRM"	8,11	5,48
	(5,75)	(3,88)
"Basic HRM"	-7,59	4,87
	(4,75)	(2,97)
"Sophisticated HRM"	-0,88	3,29
	(4,02)	(2,40)
Interaction terms:		
"Extensive HRM" x State Organized	-6,74	
	(15,75)	
"Extensive HRM" x Collaborative	-9,52	-0,35
	(16,69)	(4,72)
"Relational HRM" x Fragmented	22,04	-1,19
	(21,61)	(9,37)
"Relational HRM" x Coordinated Ind	4,32	-8,63*
	(9,74)	(5,05)
"Relational HRM" x State Organized	-5,12	-6,68
	(7,62)	(4,69)
"Relational HRM" x Collaborative	-2,96	-8,66*
	(7,73)	(5,03)
"Basic HRM" x Fragmented	39,22**	-0,68
	(16,69)	(7,11)
"Basic HRM" x Coordinated Ind	9,72	-7,02
	(10,31)	(4,81)
"Basic HRM" x State Organized	3,89	-6,06
	(6,87)	(3,95)
"Basic HRM" x Collaborative	8,02	-3,94
	(6,32)	(3,66)
"Sophisticated HRM" x Fragmented	36,60**	3,32
	(17,40)	(8,92)
"Sophisticated HRM"x Coordinated Ind	-12,03	7,26
	(16,45)	(6,83)
"Sophisticated HRM"x State Organized	-0,91	-6,66
	(6,78)	(4,30)
"Sophisticated HRM" x Collaborative	8,63	-3,14
	(15,39)	(6,56)

Control variables:		
Size	-1,56***	0,86**
	(0,58)	(0,34)
Energy & utilities	-8,24**	-1,43
	(3,84)	(2,25)
Financial services	-1,62	-1,68
	(2,32)	(1,28)
Services	4,56	-1,12
	(2,85)	(1,56)
Government & non-profit	11,48**	2,58
	(4,56)	(2,26)
Info,comm&entertainment	2,49	-1,72
	(2,96)	(1,58)
Fragmented business systems	-20,65	-4,46
	(15,14)	(6,36)
Coordinated Ind business systems	-1,77	7,57**
	(7,06)	(3,02)
State Organized business systems	-2,24	3,50
	(4,99)	(2,91)
Collaborative business systems	-8,98**	6,11***
	(3,74)	(2,16)
R-square	0,221	0,283
Adjusted R-square	0,135	0,144
N	283	167

The following variables are constants or have missing correlations: "Extensive HRM" x Fragmented interaction term, "Extensive HRM" x Coordinated Ind interaction term. They will be deleted from the analysis.

[a] standard errors are in parentheses

: significant at 10%, **: significant at 5%,*: significant at 1%*

We also found significant associations for HRM from a classification perspective with absenteeism. In coordinated industrial district business systems relational HRM is negatively associated with absenteeism (b=-8,63 (5,05), p<0,1) (see table 9.14).

For one more business system type significant associations have been found. This is the collaborative & highly coordinated business system. A marginally negative association with absenteeism has been detected for the interaction term of these business systems with relational HRM (b=-8,66(5,03), p<0,1) (see table 9.14).

Implications of findings

Differences in effectiveness between business systems have been found for HRM from the numerative perspective as well as HRM from a classification perspective in relation to both HR outcomes (see table 9.15 and 9.16).

Table 9.15 Differences between business systems for absenteeism [a]

Variable	Fragmented	State Organized	Coordinated Industrial district	Collaborative & highly coordinated
HRM Scope variable & training	X	X	+ Scope -Training	X
HRM clusters	X	X	-Relational	-Relational

[a] Compartmentalized business systems and accommodating HRM are the reference values
+ significant positive association
- significant negative association
x no significant association

We will first address differences in effectiveness for the HR outcome absenteeism (see table 9.15). In our analyses compartmentalized business systems (e.g. Anglo-American countries) are the reference value to which all results should be compared. In previous research from this context various practices have been studied in relation to absenteeism (Harrison & Martacchio 1998). A flexible scheduling intervention, for example, resulted in a reduction in absenteeism (Dalton & Mesch 1990). In our study the reference HRM cluster in the analyses is accommodating HRM. This HRM bundle distinguishes itself by an emphasis on management development as well as work-life balance programmes such as telecommuting/home working etc. HRM is furthermore also operationalized from a numerative perspective (scope variable & training). When we look at our results for the analyses with absenteeism we find differences between compartmentalized business systems (e.g. Anglo-American countries) and collaborative & highly coordinated business systems (e.g. Rhineland countries) as well as coordinated industrial district business systems (e.g. Italy). In compartmentalized business systems market dynamics play an

important role (Nikell 1997, Whitley 1999). On the contrary, in collaborative & highly coordinated business systems long term commitments between the different stakeholders are normal. The distinguishing feature of the coordinated industrial district business systems is an emphasis on (informal) personal contacts (e.g. Whitley 1994, Pistaferri 1999). For these business systems we find differences in the effect of HRM on absenteeism. We for example find that absenteeism is lower with the application of relational HRM in collaborative & highly coordinated business systems as well as coordinated industrial district business systems. Relational HRM distinguishes itself from other HRM clusters, such as our reference HRM cluster, by its emphasis on personal contacts.

Table 9.16 Differences between business systems for turnover[a]

Variable	Fragmented	State Organized	Coordinated Industrial district	Collaborative & highly coordinated
HRM Scope variable & training	- Scope - training	- Scope	X	X
HRM clusters	+ Basic + Sophisticated	X	X	X

[a] Compartmentalized business systems and accommodating HRM are the reference values
+ significant positive association
- significant negative association
x no significant association

We have found country differences in effectiveness for absenteeism, but also for turnover. In competitive environments, such as the compartmentalized business systems, employers desire full commitment from employees but at the same time want the flexibility to lay off employees virtually at will (e.g. Tsui et al 1997). Incorrect hiring decisions can be remedied relatively easy through termination (e.g. Shaw et al 1998). In previous research compilations of HR best practices have been found to have a negative impact on turnover (e.g. Huselid 1995). In our analyses we find significant differences in effectiveness for the two other contexts considered, namely fragmented business systems (e.g. Hong Kong) as

well as the state organized business systems (e.g. South Korea). The two contexts for which we have found significant associations with turnover have distinctive features. Fragmented business systems develop in low trust cultures where risks are more difficult to share (Whitley 1999). In state organized business systems low levels of cooperation, but strong vertical ties, will limit the room to manoeuvre for organizations, particularly in comparison to more market oriented contexts such as compartmentalized business systems. Limited delegation of decision making limits the flexibility to respond rapidly to changes (e.g. Bae et al 2003). In both business systems we, for example, see a negative association between the scope variable and turnover. More investments in HRM can help retain employees.

9.5.2 Sector differences in effectiveness

The same procedure that has been used to determine differences between business systems in the relationship between HRM and HR outcomes will be used to determine sector influences. Cross products of HRM and the different sectors will be added to an equation that already contains HRM and HR outcomes. If the level of explained variance significantly increases sector influences occur.

We find sector differences for the effectiveness of HRM (see table 9.17). Sector influences have been detected for labour turnover in relation to the HRM scope variable & training (R square change=0,082, p=0,000) as well as HRM clusters (R square change=0,127, p=0,007). For the last hypothesis '*3b The relationship between HRM bundles and HR outcomes varies across sectors*' we also find support.

Table 9.17 R-square change of regression models for sector differences

Variable	Absence	Turnover
HRM Scope variable & training	0,060	0,082***
HRM clusters	0,117	0,127**

: significant at 10%, **: significant at 5% and *: significant at 1%*

The level of explained variance did not increase significantly for all the models. For the other HR outcome variable, namely absenteeism the level of explained variance did not increase significantly, neither for the HRM clusters (R square change=0,117, p=0,435) nor the HRM scope variable & training (R square change=0,060, p=0,120).

An examination of the significant regression coefficient in the models with turnover will determine which combinations predict performance. The products sector will act as the default sector, since most research is conducted in this sector (Boxall 2002, Datta et al 2005). We will furthermore maintain accommodating HRM as the default cluster for analyses with HRM from a classification perspective.

Findings

The findings for the models for which the level of explained variances increased significantly will be presented here. The other models are presented in appendix 11a and 10b). In the regression analyses two sectors stand out concerning sector differences in effectiveness.

One of the sectors for which we found significant associations is the government & non-profit sector. In this sector the HRM scope variable & training are both significantly associated with turnover (see table 9.18). These are both significant associations, but one is negative and the other is positive. Training is negatively associated with turnover (b=-3,916 (1,056), p<0,001) while the scope variable is marginally positively associated with turnover (b=5,946 (3,481), p<0,1).

We also found another association for HRM from a classification perspective with turnover (see table 9.19). The significant associations of relational HRM with turnover (b=9,55 (4,71), p<0,05) is a general effect that can have an influence on other associations. An additional analysis is needed to determine for which sector(s) this significant association is relevant. The products sector is our default sector. Analyses have also been conducted in which different sectors subsequently act as default value instead of the initial

one (products sector). With this procedure we are able to determine for which sector(s) regression coefficients remain significant. In these analyses with differing default values significant associations of the interaction term of relational HRM and the service sector with labour turnover hold. We can therefore establish a significant association for relational HRM with turnover in the service sector.

Table 9.18 Regression analysis with HRM scope variable interaction terms[a]

Variables	**Models with HR outcomes**
	Turnover
(Constant)	28,52***
	(4,88)
HRM bundle:	
HRM scope	-1,33
	(1,24)
Training	-0,05
	(0,22)
Interaction terms:	
HRM scope x Energy & utilities	1,07
	(4,30)
HRM scope x Financial services	1,36
	(2,13)
HRM scope x Services	1,97
	(2,38)
HRM scope x Government & non-profit	5,95*
	(3,48)
HRM scope x Info,comm.& entertainment	-1,37
	(2,53)
Training x Energy & utilities	0,10
	(0,87)
Training x Financial services	0,37
	(0,40)
Training x Services	-0,23
	(0,37)
Training x Government & non-profit	-3,92***
	(1,04)
Training x Info,comm.& entertainment	-0,52
	(0,57)
Control variables:	
Size	-1,14**
	(0,47)
Energy & utilities	-10,63
	(13,17)
Financial services	-5,57
	(5,99)
Services	0,19
	(6,69)
Government & non-profit	-0,47
	(9,54)

Info,comm&entertainment	9,88
	(7,16)
Fragmented business systems	15,42***
	(3,85)
Coordinated Ind business systems	3,02
	(2,90)
State Organized business systems	-1,40
	(1,85)
Collaborative business systems	-5,53***
	(2,03)
R-square	0,187
Adjusted R-square	0,142
N	415

[a] standard errors are in parentheses
*: *significant at 10%, **: significant at 5%, ***: significant at 1%*

Table 9.19 Regression analysis with HRM clusters interaction terms[a]

Variables	**Models with HR outcomes**
	Turnover
(Constant)	31,11***
	(5,45)
HRM bundles:	
"Extensive HRM"	-1,90
	(5,65)
"Relational HRM"	9,55**
	(4,71)
"Basic HRM"	1,74
	(3,92)
"Sophisticated HRM"	-2,14
	(4,75)
Interaction terms:	
"Extensive HRM" x Energy & utilities	-6,27
	(18,24)
"Extensive HRM" x Financial services	6,90
	(8,45)
"Extensive HRM" x Services	6,09
	(15,97)
"Extensive HRM" x Government&non-profit	-11,99
	(16,04)
"Extensive HRM" x Info,comm&entertainment	17,08
	(12,47)
"Relational HRM" x Energy & utilities	-13,16
	(12,78)
"Relational HRM" x Financial services	-7,55
	(6,22)
"Relational HRM" x Services	10,57
	(7,91)
"Relational HRM" x Government & non-profit	
"Relational HRM" x Info,comm&entertainment	-11,69
	(8,30)
"Basic HRM" x Energy & utilities	1,74

	(12,30)
"Basic HRM" x Financial services	-8,25
	(5,85)
"Basic HRM" x Services	-2,14
	(7,02)
"Basic HRM" x Government & non-profit	-14,66
	(1,78)
"Basic HRM" x Info,comm&entertainment	-8,37
	(8,14)
"Sophisticated HRM" x Energy & utilities	0,41
	(13,21)
"Sophisticated HRM" x Financial services	2,24
	(7,08)
"Sophisticated HRM" x Services	-1,40
	(8,56)
"Sophisticated HRM" x Government & non-profit	20,08
	(12,16)
"Sophisticated HRM" x Info,comm&entertainment	8,70
	(8,53)
Control variables:	
Size	-2,02***
	(0,57)
Energy & utilities	-4,60
	(10,54)
Financial services	1,52
	(4,07)
Services	3,13
	(5,16)
Government & non-profit	10,70*
	(5,61)
Info,comm&entertainment	4,68
	(5,78)
Fragmented business systems	10,17**
	(4,72)
Coordinated Ind business systems	2,58
	(3,68)
State Organized business systems	-3,51
	(2,45)
Collaborative business systems	-6,32**
	(2,64)
R-square	0,273
Adjusted R-square	0,176
N	283

Turnover: The following variables are constants or have missing correlations: "Relational HRM" x Government & non-profit interaction term. They are deleted from the analysis.

[a] standard errors are in parentheses

: significant at 10%, **: significant at 5%, *: significant at 1%*

Implication of findings

In our study sector differences in effectiveness could only be established for turnover and not for absenteeism (see table 9.20). The results furthermore show sector differences in effectiveness for both operationalisations of HRM. Several relationships can be distilled from the analyses.

Table 9.20 Sector differences for turnover [a]

Variable	Energy & utilities	Financial services	Services	Government & non profit	Info, comm &entertainment
HRM Scope variable & training	X	X	X	+ Scope -Training	X
HRM clusters	X	X	+ Relational	X	X

[a] Products sector and accommodating HRM are the reference values
+ *significant positive association*
- *significant negative association*
x no significant association

HRM bundles are expected to have a stronger negative effect on turnover in a manufacturing oriented sector compared to a more service oriented sector (e.g. Combs et al 2006). We did not find support for this expectation. The government & non-profit sector can be considered to be a more service oriented sector. For the government & non-profit sector we however find that the number of training days is *negatively* associated with turnover and the number of HR instruments implemented is *positively* associated with turnover. These associations can possibly be explained with reference to differences in market characteristics. We will address this in the discussion section.

We also find another association that supports differences in effectiveness between sectors. We find that relational HRM is positively associated with turnover. This association holds for the service sector. This finding does not show a *stronger* effect, but the effect of a different *focus* in HRM bundle.

9.6 Discussion

Our findings will shortly be discussed. Before concluding this discussion the main limitations of the analyses will be presented.

This study seems to support direct relationships between HRM and performance. For two models relationships have been found. This does not seem to be a lot. Eight more models have been tested. A broad examination of different models is however appropriate when the aim of the exploratory research is to identify whether relationships are present. The models differ in the kind of performance indicators taken into account as well as the operationalisation of HRM. It is therefore understandable that results differ for different relationships. A broad examination of possible relationships can be helpful in pointing towards which kind of relationships between HRM and performance are present. In our study direct relationships could only be found for compositions of HRM with a specific *focus* and not when *more* HR instruments are utilized. 'Relational HRM' is positively associated with one of the HR outcome variables namely, turnover. In addition 'sophisticated HRM' as well as 'extensive HRM' are positively associated with profit. The finding for HRM from a classification perspective and the lack of significant findings for HRM from a numerative perspective are actually consistent with each other. The two HRM clusters that are positively associated with profit include both the HRM cluster with the highest average numerative score and a cluster with one of the lowest numerative scores (sophisticated HRM and extensive HRM). The HRM cluster positively associated with turnover has a numerative score in the middle (relational HRM). These results do not suggest the presence of a linear effect of HRM on either profit or turnover. For this reason the results for the different analyses can be considered to be consistent. We must however note that some caution is needed in interpreting these findings as a causal effect. Reversed

causality is not ruled out and might be the case for our findings. HRM investments can increase profit, but as profit increases it is also better possible to invest in more HRM (Rogers & Wright 1998). This form of relationship is less probable for the HR outcomes because it is unlikely that these variables widely influence the selection of performance enhancing HR practices (Huselid 1995). It is for example unlikely that organizations with high turnover will turn to relational HRM as a remedy. The other detected relationships could represent cases of reversed causality. Sophisticated HRM is characterized by a relatively high use of advanced HR instruments. These advanced HR instruments are aimed at increasing effectiveness. With assessment centres, for example, a lot of time and effort is put in selecting ´the right´ person for the job. These advanced HR instruments are however also expensive. Organizations with more profit can afford to invest more in expensive HR instruments. Also for the other detected association between HRM and profit it cannot be excluded that this might be a case of reversed causality. Implementing HR instruments in a diverse and mixed manner and particularly wide spread over different staff categories can also be seen as an act of wealth distribution. As profit increases earnings are shared (equally) in the organization amongst different activities (Paauwe & Richardson 1997, Rogers & Wright 1998). In order to be able to determine whether reversed causality is the case this relationship will need to be examined over a period of time (e.g. D'Arcimoles 1997, Guest et al 2003). This kind of analyses is however beyond the scope of our study and will therefore be mentioned as a suggestion for future research. In sum, based on our results the conclusion can be drawn that there is a positive relationship between several compositions of HRM with a specific *focus* and several performance outcomes. We have thus found support for direct relationships. The direction of these relationships has however not been determined. Reversed causality cannot be ruled out.

For the influence of the context on the effectiveness of HRM bundles we constructed contingency models. The focus of these analyses was on HR outcomes because these are closer to HRM. Relationships will therefore be better interpretable. The compartmentalized business systems (e.g. Anglo-American countries) and the products

sector acted as reference value since most research is conducted in these contexts (Boxall 2002, Brewster 2007). First country differences in effectiveness have been examined. Anglo-American countries have been contrasted with Rhineland countries (e.g. Albert 1991, Gooderham et al 1999, Dore 2000, Hall & Soskice 2001). The first are incorporated in the compartmentalized business systems and the latter in collaborative & highly coordinated business systems. We have found support for differences in effectiveness between compartmentalized business systems and collaborative & highly coordinated business systems in the effect HRM can have on absenteeism. We have found more differences in effectiveness across the different business systems. Significant associations were dispersed over the combinations of HRM bundles and contexts. Several country differences in effectiveness have been detected. Different operationalizations of HRM have differing effects on either turnover or absenteeism.

We also examined sector differences in effectiveness. We only found differences for the analyses with turnover. Previous research shows a stronger negative effect of HRM on turnover in manufacturing oriented sectors compared to service oriented sectors (Combs et al 2006). The government & non-profit sector has been considered to be one of the more service oriented sectors. This sector is however particular because it also has a distinguishing characteristic concerning the exposure to market dynamics. This characteristic might explain why we find that the number of training days is negatively associated with turnover and the number of HR instruments implemented is positively associated with turnover. In order to reduce their demands on taxpayers, organizations from the government & non-profit sector have come under pressure to become more efficient and effective (Brignall & Modell 2000, Gould-Williams 2003). Training is a powerful instrument for advancing knowledge and skills (e.g. Hoque 1999, Combs et al 2006). It can also attribute in the retention of employees. This can explain why we find a strong negative association for the number of training days and turnover in the government & non-profit sector. For this context we also found a positive association between the number of HR instruments implemented and turnover. Incorrect hiring decisions can be remedied through termination of contracts (e.g. Shaw et al 1998). More

HR instruments can help support an adequate evaluation of the existing workforce. Turnover can also increase because more attention is paid to having 'the right person on the right place'. Another finding of our study is that the *focus* of HRM can also play a role in sector differences in effectiveness. In the service sector relational HRM is positively associated with turnover. With relational HRM more emphasis is put on personal contacts within HRM. High levels of networking activities can increase mobility (e.g. Dess & Shaw 2001). Our study shows that particularly in the service sector mobility will increase due to the adoption of relational HRM. We thus find that the effectiveness of HRM bundles varies across sectors.

The analyses on the effectiveness of HRM bundles are insightful in the conclusions that can be drawn from them. They are however not without their limitations. These limitations can also be considered to be suggestions for future research. The use of cross-sectional data implies that associations can be established, but that cause and effect has yet to be determined. Future longitudinal research can adequately deal with this issue. It is furthermore not likely that, in the case of the HRM scope variable, increasing the number of HR instruments will indefinitely keep on increasing performance. Considering a nonlinear relationship (e.g. Konter et al 2004) would enable an examination of the linearity of the relationship between HRM and performance. It is quite reasonable to assume there is a maximum in increase (and perhaps eventually even a decline) of positive outcome, when additional HR instruments are added. Another limitation of this study is that missing observations on firm performance indicators reduced sample size for these analyses. A smaller sample size reduces the probability of detecting significant associations (Wall & Wood 2005). If there are any systematic patterns in the missing values, this will also change the composition of the population under investigation. For all organizations turnover and absenteeism are relevant outcome measures. In many cases measures of profit, revenue and expenses will also be appropriate. The measures are very appropriate for for-profit organizations, but for government & non-profit organizations these measures won´t always be appropriate. Other than the absence of several organizations from the government and non-profit sector for the analyses with *firm*

performance, no reasons have been identified to assume that there are any systematic patterns in the missing values. The sample size is comparable to other studies with heterogeneous samples. Huselid et al (1997) for example examined 293 US firms from different sectors. Fey et al (2000) analyzed 101 foreign owned firms in Russia. Guthrie (2001) studied 164 different New Zealand firms and Ahmad & Schroeder (2003) looked at 107 manufacturing plants in the USA, Germany, Italy and Japan. There are more studies that have conducted analyses with heterogeneous samples and similar sample size. We should however remain cautious when drawing causal inferences, because the sample size is too small for the many interaction terms included to ensure precision in the estimation (e.g. King et al 1994). Finally, this study is conducted on a convenience sample that was not made for the purpose of these analyses. More research is needed to bolster our findings. This study has particularly been helpful in pointing towards new directions in research on the relationship between HRM, performance and the institutional context.

9.7 Conclusion

The focus of this chapter was on the relationship between HRM bundles and performance. The sub research question "*Are there differences in effectiveness of HRM bundles in different contexts*?" has been addressed. We first explored whether we could find support for relationships between HRM and performance. Direct effects of HRM bundles on HR outcomes as well as firm performance have been examined. Indirect effects of HRM bundles on firm performance *via* HR outcomes have also been considered. We then turned to the main focus of our study and examined contextual differences in the effectiveness of HRM bundles.

We find little support for a direct effect. Two of the ten different models with different combinations of HRM bundles and performance indicators provide support for the hypotheses *1a There is a direct relationship between HRM bundles and HR outcomes* and *1b There is a direct relationship between HRM bundles and firm performance*. We found that several compositions of HRM with a specific *focus* have a universal relationship with performance indicators. No universal relationships have been found for *more* HR

instruments with any of the performance outcomes. We should be cautious when interpreting the causal direction of our universal relationships. Reversed causality might be the case. HRM activities might be the result of an improvement in performance instead of having realized the improvement in performance.

HRM can have a direct effect on HR outcomes and on firm performance, but also an indirect effect on firm performance *via* HR outcomes. No mediating effect has however been found. Our results show a direct relationship between HRM and *either* a HR outcome *or* a firm performance indicator. We did not find support for the hypothesis *1c There is an indirect relationship between HRM bundles and firm performance via HR outcomes*.

We did find support for the hypothesis *2b The relationship between HRM bundles and HR outcomes varies across business systems*. In the previous chapter we found differences in the adoption of HRM between compartmentalized business systems (e.g. Anglo-American countries) and collaborative & highly coordinated business systems (e.g. Rhineland countries). In this chapter we also find differences in effectiveness between these two contexts. We find that a different focus can be more effective. A focus on personal contacts, namely relational HRM is associated with less absenteeism in collaborative & highly coordinated business systems. For the other business systems that have been considered we have also found differences in effectiveness. There are differences between contexts whether more HRM and/or a different focus has effect. There are also differences between the other contexts concerning the effect HRM has on either absenteeism or turnover.

We also found support for the last hypothesis considered namely *3b The relationship between HRM bundles and HR outcomes varies across sectors*. We only detected differences for the analyses with turnover. We did not find support for our expectation namely a stronger negative effect of HRM in manufacturing oriented sectors compared to more service oriented sectors. Instead we found a stronger negative and even a positive effect on turnover in the government & non-profit sector compared to the products sector.

We have considered the government & non-profit sector to be a more service oriented sector, but realize that this sector is not only different concerning its production process, but also concerning market dynamics. In order to reduce their demands on taxpayers this sector has come under pressure to become more effective and efficient. This can explain why we find a stronger effect (negative as well as positive). Besides a difference in the strength of the effect of HRM on turnover we also find that a different focus of HRM can have an effect on turnover. Both operationalisations of HRM can therefore be of importance when it concerns sector differences in effectiveness.

These analyses have provided several insights concerning the relationship between HRM bundles, the institutional context and performance. In the next chapter the whole research will be discussed and recommendations for future research will be given.

Chapter 10

Discussion and conclusion

10.1 Introduction

The central question that framed this research is the following: '*Does the adoption and effectiveness of HRM bundles vary in different contexts?*'. The answer to this question is affirmative: in this study we find support for differences in the adoption and effectiveness of HRM across different contexts

In this final chapter we will discuss what we have learned and can conclude from this study. We will first revisit our intended contribution to research. What did we set out to learn and have we been able to realize this? While examining the relationship between HRM, the institutional context and performance different fit concepts have been addressed. We will align our main contributions with these concepts of fit. We will also discuss what our results imply for the discussion on best practice versus best fit. This discussion will be followed by the limitations of this research and suggestions for future research. We will also formulate implications for practitioners. A final note will conclude this study.

10.2 Research contribution

This study has shed more light on the complex relationship between HRM, the institutional context and performance. In this paragraph we will summarize the main results of our study in the framework of fit concepts.

This dissertation deals with two different types of fit that are related to the two main parts of the study. In the first part the measurement of HRM is addressed. We focus on the main principle of internal fit, which is that a combination of HR practices is expected to have a greater influence on performance than any single isolated HR practice (e.g. Wall &Wood 2005). Hence, rather than analyzing HR practices independently, we set out to analyze internally consistent configurations of such practices (Wood 1999, Guest et al 2004). There are different ways in which the bundling of HR practices can be approached (e.g. Mac Duffie 1995, Huselid et al 1997, Guest et al 2004). For that reason there is not one consistent way in which HR bundles are constructed.

In the second part of this dissertation we have examined the adoption and effectiveness of HRM. This part is based on the concept of environmental fit. This is a fit between HR practices and the organization's environment (Wood 1999). This concept of fit lies at the heart of this thesis. Most research draws on a national and sector-specific sample (Datta et al 2005, Brewster 2007, Boon 2008). The contribution of this study is that we consider a broader context. We have examined whether previous findings, mostly limited to the manufacturing sector and Anglo-American countries, are applicable in other contexts as well.

We will now summarize the main results of the two parts of this dissertation.

Measuring HRM: bundles of HR practices

Two ways of bundling proved useful for further analyses: HRM bundled from a numerative perspective and HRM bundled from a classification perspective. The first way

of bundling represents a magnitude or amount measurement to HRM (more is better). This is a quantitative approach to bundling.

The second approach to bundling is a qualitative approach. Cluster analyses provided a meaningful classification of HRM into five different clusters. Each cluster has a distinctive focus and has been labelled accordingly:

- Extensive HRM (*widespread*),
- Relational HRM (*strong relationships*),
- Basic HRM (*orderly & customary*),
- Accommodating HRM (*person centred*) and
- Sophisticated HRM (*formal and advanced*).

Several HR practices have been measured for different staff categories. The contribution of this distinguishing feature in our study turned out to be limited to a more refined classification of HRM bundles. A distinctive feature of relational HRM, for example, is that 'personal contact' is considered to be important in the recruitment of *all* staff categories (senior management, middle management as well as operational staff).

Adoption and effectiveness of HRM: considering the institutional context

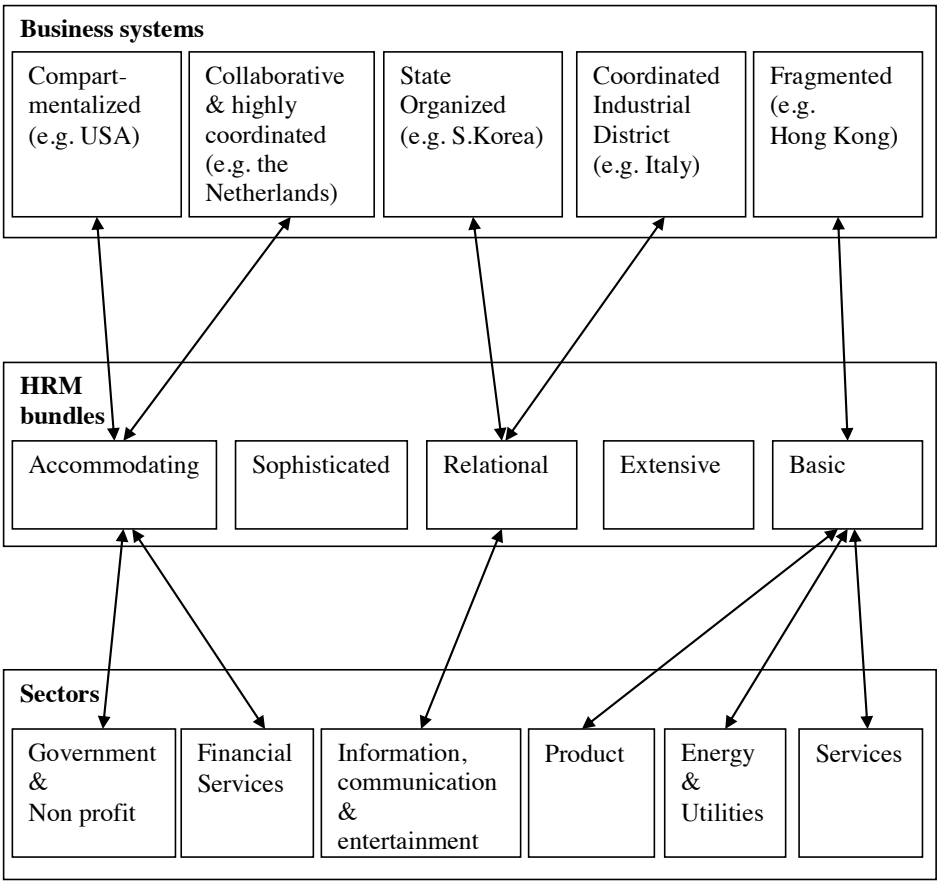
After having identified bundles of HRM we turned to the main objective of our study. Differences in the *adoption* and *effectiveness* of HRM have been examined for different business systems and different sectors. Countries have been clustered together based on similar characteristic in order to form business systems.

We have found support for differences in the adoption of HRM bundles across different business systems as well as sectors. We can conclude that this kind of fit is of importance to consider in future research.

We have examined differences for HRM from a classification perspective (see figure 10.1) as well as HRM from a numerative perspective (see figure 10.2). We actually found differences as well as similarities in the dominant HRM cluster adopted (see figure 10.1).

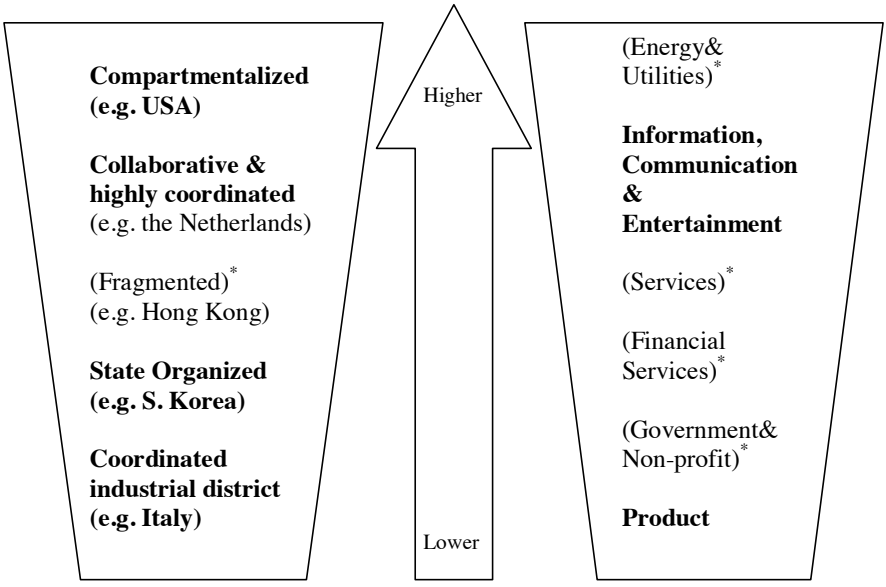
We for example mainly find accommodating HRM (person centred) in compartmentalized business systems (e.g. USA) as well as collaborative & highly coordinated business systems (e.g. the Netherlands).

Fig 10.1 Differences between business systems and sectors in the adoption of HRM from a classification perspective



We also examined differences for HRM from a numerative perspective (see figure 10.2). When we look at our results for differences between sectors we for example find that the number of instruments implemented in a *manufacturing* oriented 'products sector' is lower compared to a *knowledge intensive service* sector namely 'the information, communication & entertainment sector'.

Figure 10.2 Differences between business systems and sectors in the adoption of HRM from a numerative perspective



*No significant differences in the number of HRM instruments implemented.

Besides differences in the *adoption* of HRM there can also be differences in the *effectiveness* of HRM across different contexts. In our study we have examined whether the relationship between the relevant independent variables (HRM bundles) and the dependent variables (HR outcomes) depends on the contingency variables (business systems and sectors). To this end, we have incorporated interactions between HRM bundles and contingency variables.

Regression analyses have been conducted for the models of labour turnover and absenteeism with both operationalisations of HRM. Influences of business systems have been detected (see table 10.1). Several interaction terms of HRM bundles and business systems show regression coefficients that differ significantly from zero. We for example see that *more* investments in HRM (scope variable & training) can help retain employees in Fragmented business systems (e.g. Hong Kong).

Table 10.1 Differences between business systems for turnover and absenteeism[a]

	Turnover		**Absenteeism**	
Interaction terms of: **Business systems →** **&** **HRM bundles ↓**	**Fragmented**	**State Organized**	**Coordinated Industrial district**	**Collaborative & highly coordinated**
HRM Scope variable & training	- Scope - training	- Scope	+ Scope -Training	X
HRM clusters	+ Basic + Sophisticated	X	-Relational	-Relational

[a] Compartmentalized business systems and accommodating HRM are the reference values
+ significant positive association
- significant negative association
x no significant association

Sector influences have only been found for turnover and not for absenteeism (see table 10.2). Several interaction terms of HRM bundles and sectors show regression coefficients that differ significantly from zero. We for example find that relational HRM is positively associated with turnover for the service sector. This finding illustrates the effect of a different *focus* in HRM bundle.

Table 10.2 Sector differences for turnover [a]

	Turnover				
Interaction terms of: Sectors → & HRM bundles ↓	**Energy & utilities**	**Financial services**	**Services**	**Government & non profit**	**Info, comm &entertainment**
HRM Scope variable & training	X	X	X	+ Scope -Training	X
HRM clusters	X	X	+Relational	X	X

[a] Products sector and accommodating HRM are the reference values
+ *significant positive association*
- *significant negative association*
x no significant association

We have found support for the hypothesis that the effectiveness of HRM bundles varies between business systems as well as between sectors. We therefore conclude that it is also valuable to conduct research on contextual differences in effectiveness.

The main conclusion that can be drawn from our study is that relationships in specific contexts (such as the manufacturing industry and the USA or UK) will not always hold in other contexts as well. It is therefore worthwhile to consider the institutional context in which an organization operates. It is in this spirit that we start the debate of 'best practice' versus 'best fit' (Purcell 1999, Boxall & Purcell 2003 p.47).

10.3 Beyond best practice and best fit

We have examined different relationships between HRM, the institutional context and performance. In our study we have found support for the importance of research on (internal and environmental) fit. Before we address what this means for the discussion on 'best practice versus best fit' we will first address what our findings imply for the universalistic perspective.

Fit is not an issue in the universalistic approach. The universalistic approach adopts the "best practice" approach to SHRM, arguing that some HR practices are always better than others and that all organizations should adopt these best practices (e.g. Pfeffer 1994). Researchers have previously established direct effects between HR practices and performance indicators (e.g. Huselid 1995, Delery & Doty 1996). These effects are only universal effects when they occur in different contexts. In our study we find support for direct effects. In particular, we find that some HRM clusters (extensive HRM, sophisticated HRM and relational HRM) are associated with higher performance. In order to be able to classify this direct effect as a universal effect, this effect should be found in every context considered. When we take the different contexts in account and look at the results of the analyses with the interaction terms, we however do not see recurring similar relationships. The direct effects that occur in a model without interactions, are most likely average effects rather than universal effects.

As mentioned before, we have found direct effects regarding the impact of HRM clusters. At the same time, we have not found any direct effects regarding the impact of HRM from a numerative perspective. Although this may seem counterintuitive, the lack of significant findings for HRM from a numerative perspective and the finding for HRM from a classification perspective are actually consistent with each other. The two HRM clusters that are associated with relatively high profit levels include both the HRM cluster with the highest average numerative score and a cluster with one of the lowest numerative scores

(sophisticated HRM and extensive HRM[1]). This result does not suggest the presence of a linear positive effect of HRM from a numerative perspective on profit. The HRM cluster positively associated with turnover furthermore has a numerative score in the middle (relational HRM). Again, this result does not suggest a linear positive association for HRM from a numerative perspective with these finding for our HRM clusters. In this sense, the results for the different analyses are consistent.

What fits best?

The results of our study do not necessarily mean that universal best practices are not present. First of all, Boxall and Purcell (2008) pointed out that in the micro domains of HRM there are aspects of best practices which can be important. The psychology-oriented studies in the micro domains of HRM cover areas such as recruitment and selection, performance management, training and development etc. From these studies we can learn much about how HR practices can enhance performance. In our study we have already incorporated HR practices likely to be able to enhance performance such as recruitment and selection (Boselie et al 2005, Wall & Wood 2005, Combs et al 2006).

A second argument is that in our operationalization of HRM, these HR practices have been approached from a numerative perspective as well as a classification perspective. For the numerative perspective it is likely that there is a maximum to the increase that an additional HR practice can realize. This kind of relationship has, however, not been considered explicitly in our study.

Following Becker and Gerhart (1996) as well as Boxall and Purcell (2008) it is also important to make a distinction between the surface level of HR policies and practices in an organization and an underpinning level of HR principles. This can be illustrated with findings from our study. In our study we find differences between contexts in the adoption

[1]Extensive HRM says more about how *widespread* instruments are applied and not whether *more* kind of instruments are applied. It distinguishes itself by applying a wide variety of HR instruments for all staff categories. In the operationalization of the scope variable the differentiation in staff category has not been incorporated.

of HRM clusters. Relational HRM can for example more often be found in business systems with characteristics present in Italy and accommodating HRM is more often found in business systems with characteristics from the Netherlands. The different contexts can however be similar in that in both cases the policies and practices are aligned with the interests of employees (e.g. strong relationships or more accommodating). The underlying HR principle is then to make sure to align HR practices with the interests of employees. In Italy high priority is placed on building strong networks and informal channels are intensively used (e.g. Pistaferri 1999, Hofstede 1991). Employees are therefore more likely inclined to appreciate relational HRM with a focus on strong relationship. The Netherlands is considered to be one of the leaders in flexible work arrangements (Farndale et al. 2008). Statistics Netherlands continues to report on the popularity of part-time work in the Netherlands. Employees in the Netherlands are therefore more likely inclined to appreciate accommodating HRM with a focus on work-life balance programs.

Finally, even though adaptation to the context of a core set of principles can be considered to be important it does not render the search of best practices useless. There is, for example, still a role for identifying better HRM bundles within a specified context.

Several researchers have examined why (best) practices are or on the contrary are not applied (e.g. Purcell 1999, Paauwe 2004). Purcell (1999) provided several reasons why best practices, despite their merits, are *not* necessarily applied. He for example referred to limitations by the institutional context, stating that the usual suspects like power, politics, financial reporting etc could be a reason why organizations fail to adopt best practices. This again stresses the importance of considering the context in which an organization operates.

We have found support for the relevance of (internal and environmental) fit. This however does not discard the existence and importance of best practices. More research is needed for us to learn more about best practices versus best fit. From the discussion conducted

above, we can conclude that best practices as well as best fit might very well coincide. Both aspects are important to consider in future research when studying HRM and performance in a globalizing world. When we learn more about the relationship between HRM, the institutional context and performance, we will learn more about the possibilities as well as the limitations of HR activities.

10.4 Limitations and suggestions for future research

There are several limitations of this study that at the same time form suggestions for future research. These limitations have to do with the research method, HRM, the institutional context and performance. These topics will subsequently be addressed.

Research method

For the process of collecting data in various contexts, comparability of information of the samples from the different contexts is needed. Survey research with structured questionnaires enables this and has therefore been used. The entire process of developing a questionnaire that explores the research question, finding a suitable sample of potential respondents, administering the questionnaire and then analyzing the responses is a challenging undertaking.

Despite its practical advantages, there are also limitations associated with the use of a cross-sectional research design. Statistical correlations do not per se indicate causality (Wright et al 2005). It is therefore difficult to draw inferences. It cannot be ruled out that the relationships found are cases of reversed causality. Way (2002 p.779) furthermore describes cross-sectional studies as 'temporally backward predictive'. This claim cannot be ruled out without additional (longitudinal) analyses preferably in a controlled setting. Way however seems to focus on HRM *interventions* and states that the effect of an intervention needs time before it can realize changes in performance. When HRM activities are already *established* these changes in performance can already have been realized. Particularly if the focus is on *sustained* competitive advantage. Changes in performance due to performance enhancing HRM investments can be assumed to have a

long-lasting effect on skills, motivation and opportunity and not only an incidental boost. Finally, it is not clear how much time is required for effects to be clear. Some studies (e.g. Guest et al 2003, Wright et al 2005) have incorporated measures in three consecutive years (namely T-1, T and T+1). This approach can call in question the interpretation of causal effects in previous cross-sectional research, but as Guest et al (2003) observed themselves it predominantly tests the impact of HRM on *changes* in performance. Longitudinal research of several successive years would be very valuable in addressing the issue of causality. In a longitudinal research design it will also be possible to establish whether convergence or divergence tendencies occur.

Furthermore, when studying entire organizations, as opposed to small organizational units, data collected via triangulation seems appropriate. In this study the head of HR or the most senior person responsible for HRM has been asked to fill in the questionnaire. Because a variety of questions have been asked respondents differed between questions (e.g. financial managers answered questions about financial performance and HR managers answered questions about HR practices). Even though respondents have differed between practices, single-source responses were given. It would also be possible to ask the CEO and/or representatives of employee groups to fill in the questionnaire *as well*. Individual's perceptions can, however, vary significantly and there is no clear consensus on how researchers can best address this issue (e.g. Huselid & Becker 2000, Gerhart et al. 2000, Wright et al 2001).

Another area of methodological improvement includes investigating alternative methods of adjusting for incomplete observations (such as imputation of missing data). Each form of (additional) analysis reduced the sample size. When, for example, firm performance was included in the analysis the observations reduced due to missing data. Firm performance is, however, a performance measure that is appealing to certain stakeholders (such as shareholders) and has been considered for that reason anyway. No systematic patterns in the missing data have been identified that might affect our results. The sample size is furthermore similar to other studies with heterogeneous samples (e.g. Huselid et al

1997, Fey et al 2000, Guthrie 2001, Ahmad & Schroeder 2003). In our study, however many interaction terms have been included. The sample size is not large enough to ensure precision in the estimations. We should be very cautious when drawing causal inferences. We furthermore are not able to make one on one comparisons of our results with previous research because of different operationalizations of HRM bundles and performance.

Finally, more studies are needed to strengthen the findings of our study. When similar results are obtained repeatedly, this increases the likelihood that those results are representative of a wide population (rather than just the sample). Due to possible differences in sample strategies across countries, we furthermore cannot claim our sample to be a fully reliable representation of organizations in each country. Convenience sampling through personal contacts provides limitations for extrapolation of the results.

HRM

This research provides us with meaningful compositions of HR instruments: HRM from a classification perspective as well as a numerative perspective. Thus enabling further analysis with HRM operationalized from a qualitative and a quantitative point of view. As is the case in any research, however, more (HR) practices could have been included and more approaches of bundling HRM could have been considered. A number of participation practices have not been included in this research such as information sharing meetings (Godard 2002). Stakeholders like union representatives will stress the importance of these kinds of practices. Besides more possibilities in the choice of (HR) practices, there are also more possibilities for bundling HR practices. Guest et al (2004), for example, have conducted a sequential tree analyses. Attempts can also be made to theoretically construct ideal type configurations of HR practices.

Institutional context

The analyses provide useful information on how HRM can match with the context. Both business systems (clusters of countries) and sectors have been considered. Now that we have established that the adoption and effectiveness of HRM bundles varies between

countries with different business systems, future cross-country comparisons can focus on a limited number of countries or business systems, and come up with theoretical frameworks that *predict* similarities and differences between all these countries.

Even though a sample from 47 countries is large, it is still limited with respect to the set of cultures incorporated. Sub-Saharan African countries are, for example, underrepresented (Kamoche 2002). In future research, hypotheses can be formulated for a study in which the target population has been narrowed down to a specific context (e.g. new rising economies in Asia) or on the contrary is expanded to include more and/or different countries (like sub Saharan countries).

Furthermore, in this research differences *between* institutional contexts have been examined. It is however also possible to have a closer look *within* specific contexts and investigate whether organizations in some contexts have more homogeneous HRM than organizations in other contexts (e.g. Gooderham et al 1999, Paauwe & Boselie 2005, Farndale et al 2008). Certain highly institutionalized contexts can provide less leeway to deviate. Some institutional contexts could therefore lead to more coherent and integrated patterns than others do.

(Future) analyses can also focus on cross-national isomorphism (e.g. Harzing & Sorge 2003). In multinational organizations HR practices can, for example, resemble the (main) foreign parent organization more closely than those of local organizations or the other way around.

In addition, divergence/convergence issues (e.g. Glinow et al 2002, Brewster et al 2004) have not fully been addressed here. Future longitudinal analyses can determine whether changes are occurring in either direction. This investigation could be expanded by incorporating analyses whether the influence of different contexts is shifting. Is the influence of country difference for example getting smaller in comparison to the influence of sector differences?

Finally, besides an examination of appropriate matches with the context future research could also more explicitly address how, when and why HRM bundles are *in*appropriate in a certain context.

Performance

The findings in this study provide more understanding of relationships between HRM, the institutional context and performance. Both HR outcomes (e.g. absenteeism and labour turnover) as well as firm performance indicators (profit, revenue and expenses) have been considered in the analyses. The list of performance measures is however never complete. Future research could consider introducing additional performance measures for different stakeholders (e.g. job security for union representatives) (see Paauwe 2004).

Furthermore, in this study a linear relationship between HRM and performance has been considered. Particularly for HRM from a numerative perspective it is imaginable that there is a limit to the benefits of increasing the number of HR instruments, perhaps even a decline. This kind of relationship can be studied by considering a non-linear relationship (e.g. Konter et al 2004).

Examining the influence of the context has been our main objective. The effectiveness of HRM bundles differed between contexts. Contingency models showed significant associations between HRM and performance in differing contexts. The cross product in regression analysis however limits the form of the interaction only to acceleration and deceleration effects. This means only one of different sorts of interaction has been examined.

10.5 Implications for practitioners

This study is able to raise awareness and understanding of the role of HRM in different contexts and in relation to performance. Although there have been several empirical investigations of the effectiveness of HRM, there is relatively little empirical evidence to

suggest that considering the institutional contexts is necessary or beneficial. In this exploratory research we found support for relationships between HRM bundles, the institutional context and performance. Several suggestions for practitioners can be distilled from the findings of this study.

First of all different HRM compositions have been identified. These examples of HRM bundles can aid in the process of choosing HR instruments within organizations. This process can be approached by stressing the importance of scope (number of HR instruments from a numerative perspective) and/or focus (HRM cluster from a classification perspective).

We furthermore found that the findings from Anglo-American countries and the manufacturing sector are not always appropriate in other contexts. We even found differences between service oriented sectors (e.g. Hoque 1999). We have found support for differences in the adoption as well as the effectiveness of HRM. It is worthwhile to choose HR practices wisely. Simply adopting more HR practices can for example be appropriate in contexts like Anglo-American countries. More can be better, but the focus of the kind of HR practices can also be of importance. In a country like the Netherlands for example accomodating HR practices, like work-life balance programs, seem to be appropriate. Accommodating HR practices can also be found more in the government & non profit sector as well as the financial sector. Differences as well as similarities between contexts have been found. Decision makers can compare their organization and their context with these combinations. This forms a starting point for determining how a particular (HRM) organization and context can be matched. This study furthermore shows that HRM can affect performance differently in different contexts.

These findings can be insightful for practitioners. Our results can create awareness about possibilities and limitations of HRM within different contexts.

10.6 A final note

There is no doubt that what is presented is not conclusive either in the range of subjects covered or the treatment that is accorded to them. Nevertheless this research has managed to provide perspectives on HRM, the institutional context and performance at a time when there is a heated debate about the true effects of globalization and related phenomena.

We live in a world of boundaries and borders, geographic borders, institutional boundaries, but also disciplinary boundaries. Different backgrounds and perspectives sometimes divide us. Differences however also provide opportunities for cross-fertilization and possibilities for thinking about topics in new ways as diverse perspectives and experiences are shared. While boundaries and borders sometimes create barriers to mutual understanding and communication, crossing borders and boundaries can offer opportunities for more understanding, new insights, new syntheses and creative partnerships. This study has contributed to the SHRM field with an inquiry of contextual differences in the adoption and effectiveness of HRM. This study advances the SHRM literature with its insights on HRM bundles and the relationship of HRM with the institutional context and performance and has pointed toward how subsequent inquiry might best move forward. In the interest of the further development of the SHRM field this dissertation has taken relevant steps necessary for “crossing borders with HRM”.

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Appendices

APPENDIX 1 QUESTIONNAIRE

Part of Global Capital Survey

Independent variables

HRM

Recruitment Please rank the top 3 recruitment processes you use to recruit in order of importance for each of the following staff categories: Internal advertising, External advertising, Recruitment agencies/Head-hunters, Internet, Job Centre, Personal contacts/acquaintances, Career days, school contacts, Other processes) (Q6.1) Senior Management/Executive Middle Management, Consultants, Specialists Workers, Operational, Office Staff
Selection Which of the following methods do you use to select candidates for each of the following staff categories: Face to face interviews, Telephone interviews, Psychometric testing, Assessment centre, Presentations, Other testing, e.g. verbal reasoning) (Q6.2) Senior Management/Executive Middle Management, Consultants, Specialists Workers, Operational, Office Staff
HR role Is chief of HR a member of highest ranking management team? (Q3.10)

Appraisal Which of the following employee aspects are reviewed during performance appraisals? Responsibilities taken, Professional/technical competencies, Personal characteristics, Individual learning and development (improvement), Results achieved (targets fulfilled), Living company values, Other aspects, Not applicable (Q6.6)
Salary system Please indicate which of the following salary systems, if any, you apply in your organization: Competency based pay, Salary scales with fixed increments, Open salary scales (with minimum and maximum value), Broad banding (broad salary/job families, large difference between minimum and maximum value), Individual arrangements, Performance based pay, eg sales based targets/commissions, None apply (Q6.15)
Incentive pay If your organisation implements performance based pay, to which of the following components of pay does it apply? Base pay, Individual bonus system, Group bonus, Profit sharing, Stock options, Non cash rewards, eg incentive travel, Others, Not applicable (Q6.7)
Work/Life balance Which types of programmes do you offer to support Work/Life balance? Relaxed dress code, Flexible hours, Part-time work, Telecommuting/home working, Parent/child friendly policy, eg childcare, Reduced overtime, Home services at work, Reduction in company travel, Other programmes, None of the above (Q6.19)
Development Which of the following performance management approaches are part of any management development programmes in your organisation? Performance appraisal feedback, Peer feedback, 360 feedback, Personal development workshops, Training in people skills, Training in leadership styles, Mentoring, One to one coaching, On the job experience, Self based training eg CD Rom, books, Do not have leadership development programme (Q6.8)
Training Average number of training days per employee (Q6.11a)

Dependent Variables

HR outcomes

Absenteism What was the average number of days absence due to sickness/maternity and paternity per annum per employee in 2001? (Q2.10) Excluding maternity and paternity leave – Number
Labour turnover % new employees in 2001 % employees terminated in 2001 – total % employee turnover
voluntary terminated % employees voluntary terminated in 2001
compulsory terminated % employees compulsory terminated in 2001

Firm performance

Revenue Average revenue per fte (revenue3)
Operating expense Average operating expenses per fte (expense3)
Market capitalisation Average market capitalisation per fte (markcap 3)

Control variables

Size Ln (Average FTE)

Industry Industry category groups 1 to 6 (industry) Which of the following industry sectors does your organisation primarily operate in? *Products* – Aerospace & Defence, Automotive, Chemicals, Consumer Packaged Goods, Engineering & Construction, Forest & Paper, Pharmaceuticals, Retail/Wholesale, Steel and Aluminium, General Manufacturing, *Energy & Utilities* - Energy and Utilities, Metals and Mining, *Financial Services* - Banking and Capital Markets, Insurance, Investment Management, Real Estate, Pension Fund, Other Financial Institution, *Services* – Aviation, Hospitality & Leisure, Mail, Packages and Freight, Transport, Engineering, Construction, Business Services, Labour Recruitment and Provision of Personnel, Miscellaneous Services, Healthcare, *Government & Non Profit* – Education, Government, Healthcare, Social Security, Miscellaneous Non Profit Organisations, *Information, Communications & Entertainment* - Entertainment & Media, Technology, Telecommunications, Publishing (Q1.3)
Countries Argentina, Australia, Austria, Belgium, Bermuda, Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Czech Republic, Denmark, Estonia, France, Germany, Hong Kong, Hungary, Indonesia, Ireland, Italy, Japan, Korea, Luxembourg, Malaysia, Middle East – Egypt, Middle East – Oman, Middle East - U.A.E, Netherlands, New Zealand, Philippines, Poland, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, UK, US, Saudi Arabia, Bahrain, Nigeria, Portugal, Panama, Costa Rica, Jordan

APPENDIX 2 ANGLO-AMERICAN COUNTRIES

Overview Anglo-American countries

Australia Canada Ireland New Zealand UK US

APPENDIX 3 TWO STEP CLUSTER ANALYSIS

Within cluster percentage:

100%	complete cluster yes
+	> 60%
+/-	50% < x < 60%
-/+	40% < x < 50%
-	< 40%
0%	complete cluster no

Cluster	N	%	% of Total
1	22	6.2%	2.1%
2	77	21.6%	7.3%
3	98	27.5%	9.3%
4	101	28.4%	9.6%
5	58	16.3%	5.5%
Total	356	100%	33.7%

Average number of training days per employee

TwoStep Cluster Nr	Mean	Std Deviation
1 'extensive'	1,92	2,92
2 'relational'	3,41	4,23
3'basic'	3,58	6,05
4'accommodating'	3,26	3,24
5 'sophisticated'	5,04	6,04
Combined	3,58	4,87

Variable (Recruitment)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5
Internal advertising sr	+	-	-	-	+
Internal advertising md	+	-	+/-	+/-	+
Internal advertising wk	+	-	+	+	+
External advertising sr	100%	-/+	+	-/+	+
External advertising md	100%	+	+	+	+
External advertising wk	100%	-/+	+	+	+
Recruitment agencies sr	+	+	+	+	+
Recruitment agencies md	+	+	+/-	-/+	+
Recruitment agencies wk	+	-	-	-	+
Internet sr	+	-	-	-	0%
Internet md	+	-/+	+/-	+	-
Internet wk	+	+/-	-	+	-
Job centre sr	+	-	-	-	-
Job centre md	+	-	-	-	0%
Job centre wk	+	-	-	-	-
Personal contacts sr	+	+	-/+	+	-
Personal contacts md	+	+	-	-	-
Personal contacts wk	+	+	-	-	-
Career days sr	+	-	-	-	-
Career days md	100%	-	-	-	0%
Career days wk	+	-	-	-	-

Variabele (HR role)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5
Chief HR in highest management team	-/+	+	+	+	+

Variable (aspects appraisal review)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5
Responsibility taken	+	+	+	+	+
Professional/technical competencies	+	+	+	+	+
Personal characteristics	+	+	+	+	-/+
Indiv learning and dev	+	+	+/-	+	+
Results achieved	100%	+	+	+	100%
Living company values	+	+	-	+	+/-

Variable (man development)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5
Perf appraisal feedback	+	+	+	+	+
Peer feedback	-/+	-	-	-	-
360 feedback	-	-	-	-/+	+
Personal development workshops	-/+	-	-	+	+
Training in people skills	+	+	+/-	+	+
Training leadership styles	+	+	+	+	+
Mentoring	-	-	-	-/+	+
One to one coaching	+	-	-	+	+
On the job experience	+	+	-	+	+
Self based training (e.g.CDrom,books)	-	-	-	-/+	+

Variable (Selection methods)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5
F-F interviews sr	100%	+	+	+	+
F-F interviews md	100%	100%	+	+	100%
F-F interviews wk	100%	+	+	+	100%
Telephone interviews sr	-	-	-	-	-
Telephone interviews md	-	-	-	-	-
Telephone interviews wk	+/-	-	-	-	-
Psychometric testing sr	-	-	-	-	+
Psychometric testing md	-/+	-	-	-	+
Psychometric testing wk	-	-	-	-	+
Assessment centre sr	-/+	-	-	-/+	+/-
Assessment centre md	+/-	-	-	-/+	+/-
Assessment centre wk	-	-	-	-	-
Presentation sr	-/+	-	-	-	+/-
Presentation md	+	-	-	-	+/-
Presentation wk	-	-	-	-	-

Variable (Salary system)	Cl 1	Cl 2	Cl 3	Cl 4	Cl 5

Competency based pay	-/+	-	-	-	-
Scales w fixed increments					
Open salary scales					
Broad banding					
Individual arrangements					
Performance based pay	+	+	-/+	+	+
Variable (Comp perf based pay)	**Cl 1**	**Cl 2**	**Cl 3**	**Cl 4**	**Cl 5**
Base pay	+/-	+	-/+	+	+
Individual bonus system	+	+	+	+	+
Group bonus	+/-	-	-/+	-	-
Profit sharing	-	-	-	-	-
Stock options	-	-	-	-	-
Non cash rewards	-	-	-	-	-

Variable (Work-life balance)	**Cl 1**	**Cl 2**	**Cl 3**	**Cl 4**	**Cl 5**
Relaxed dress code	+/-	+	-/+	+/-	+
Flexible hours	+/-	+/-	+/-	+	+
Part-time work	-/+	-/+	-/+	+	+/-
Telecommuting/Home working	-	-	-	+	-
Parent/child friendly policy	-	-	-	-/+	-
Reduced overtime	+	-	-	-	-
Home services at work	-	-	-	-	-
Reduction company travel	-	-	-	-	-

APPENDIX 4 FACTORS INDEX OF ECONOMIC FREEDOM

Factors included
Regulation
Government intervention in the economy
Fiscal burden of government
Banking and finance
Wages and prices
Property rights

Factors excluded
Trade policy
Capital flows
Foreign investment
Informal market activity
Monetary policy

The factor monetary policy is not included in the analysis because it mostly says something about the wealth of a country. This factor largely shapes the value of a country's currency. It focuses on the inflation rate over a period of time. Factors that deal with actual international activity have also not been included in this study. These factors say more about the outward focus towards and interaction with other countries, while our focus is on the economic organization within each country. The factors 'trade policy (flow of foreign commerce)' and 'capital flows and foreign investment' have therefore not been included in this study. The factor 'informal market' has, finally, also not been used. This factor captures the effect of government interventions which have resulted in activities such as corruption. Heavy regulation or restriction in a certain area can create incentives for informal market activity. Smuggling, for example, results from trying to avoid the high barriers to trade. These barriers can result from laws intended to protect the domestic market from import of foreign goods. This factor furthermore relies on perceptions and is therefore also not incorporated in this study.

APPENDIX 5 SCORES FACTORS INDEX OF ECONOMIC FREEDOM

Country	Fiscal Burden	Banking	Gov Intervention	Wages & Prices	Property Rights	Regulation
Argentina	4,3	2,0	2,0	1,0	3,0	3,0
Australia	4,1	1,0	2,0	2,0	1,0	2,0
Austria	4,3	2,0	2,0	2,0	1,0	3,0
Bahrain	1,5	1,0	4,5	3,0	1,0	2,0
Belgium	4,5	2,0	2,5	2,0	1,0	3,0
Bermuda/The Bahamas	1,6	2,0	2,0	2,0	1,0	1,0
Bolivia	3,1	2,0	2,0	2,0	4,0	4,0
Brazil	2,1	3,0	4,0	2,0	3,0	3,0
Bulgaria	3,8	3,0	2,5	2,0	3,0	4,0
Canada	3,0	2,0	2,0	2,0	1,0	2,0
Chile	2,8	2,0	1,5	2,0	1,0	2,0
Colombia	3,9	2,0	3,0	2,0	4,0	3,0
Costa Rica	3,8	3,0	2,5	2,0	3,0	3,0
Czech Republic	3,4	1,0	2,0	2,0	2,0	3,0
Denmark	3,9	1,0	3,0	1,0	1,0	2,0
Egypt	3,8	4,0	4,0	3,0	3,0	4,0
Estonia	2,3	1,0	2,5	1,0	2,0	2,0
France	4,5	3,0	5,0	3,0	2,0	3,0
Germany	3,5	3,0	2,0	2,0	1,0	3,0
Hong Kong	2,4	1,0	2,0	2,0	1,0	1,0
Hungary	2,3	2,0	1,5	2,0	2,0	3,0
Indonesia	3,4	4,0	3,0	2,0	4,0	4,0
Ireland	2,8	1,0	2,0	2,0	1,0	2,0
Italy	4,3	2,0	2,0	2,0	2,0	3,0
Japan	3,9	3,0	1,5	2,0	2,0	3,0
Jordan	3,3	2,0	4,0	2,0	3,0	3,0
Republic of South Korea	3,4	3,0	3,5	2,0	1,0	3,0
Luxembourg	3,8	1,0	4,0	2,0	1,0	2,0
Malaysia	3,3	4,0	4,0	3,0	3,0	3,0
New Zealand	3,8	1,0	2,0	2,0	1,0	2,0
Nigeria	3,9	4,0	4,0	2,0	4,0	4,0
Oman	1,3	3,0	4,5	3,0	3,0	3,0
Panama	3,3	1,0	3,0	2,0	4,0	3,0
Poland	3,5	2,0	2,0	3,0	2,0	3,0
Portugal	4,0	3,0	2,0	2,0	2,0	3,0
Saudi Arabia	3,6	4,0	5,0	3,0	3,0	3,0
Singapore	2,9	2,0	4,0	2,0	1,0	1,0
South Africa	3,9	3,0	2,0	2,0	3,0	3,0
Spain	4,1	2,0	4,0	2,0	2,0	3,0
Sweden	3,8	1,0	3,0	2,0	1,0	3,0
Switzerland	3,0	1,0	2,0	2,0	1,0	3,0
The Netherlands	4,3	1,0	4,0	2,0	1,0	3,0
The Philippines	3,5	3,0	2,0	3,0	3,0	4,0
Turkey	4,3	3,0	2,5	3,0	3,0	4,0
United Arab Emirates	1,8	3,0	4,0	3,0	2,0	2,0
United Kingdom	3,8	1,0	2,0	2,0	1,0	2,0
United States	3,9	1,0	2,0	2,0	1,0	2,0

APPENDIX 6a

The differences between the observed and expected values show which HRM composition is more dominantly present in a business system than would be expected based on the assumption of no differences.

Observed - Expected

Business system / Cluster	Fragmented	Coordinated-Industrial-District	Compart-mentalized	State Organized	Collaborative & highly coordinated
"Extensive"	-0,8	-1,8	-3,6	7,0	-0,8
"Relational"	-1,8	6,7	-10,7	9,6	-3,9
"Basic"	4,4	-1,0	-10,1	2,1	4,5
"Accommodating"	-2,7	-0,2	14,2	-22,1	10,9
"Sophisticated"	0,9	-3,7	10,2	3,4	-10,7

Clusters and business systems

Cluster	Frag-mented	Coordinated Industrial District	Comp-artment-alized	State-organized	Collab-orative (& Highly Coord-inated)	Total
"Extensive"	0.0%	0.0%	2.2%	11.0%	5.1%	6.2%
"Relational"	7.7%	**44.8%**	9.9%	**28.3%**	16.7%	21.6%
"Basic"	**61.5%**	24.1%	16.5%	29.0%	33.3%	27.5%
"Accommodating"	7.7%	27.6%	**44.0%**	**13.1%**	**42.3%**	28.4%
"Sophisticated"	23.1%	**3.4%**	27.5%	18.6%	**2.6%**	16.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0% = 356

APPENDIX 6b

The differences between the observed and expected values show which HRM composition is more dominantly present in a business system than would be expected based on the assumption of no differences.

Observed-Expected						
Sector / **Cluster**	**Products**	**Energy & Utilities**	**Financial Services**	**Services**	**Government & non-profit**	**Information, Communication & Entertainment**
"Extensive"	2,4	-0,3	-0,1	-1,9	0,9	-1,0
"Relational"	-5,3	0,5	4,0	1,2	-2,9	2,5
"Basic"	10,0	2,2	-7,1	2,3	-3,0	-4,5
"Accommodating"	-8,0	-3,0	7,1	-1,1	5,9	-0,9
"Sophisticated"	0,9	0,6	-4,0	-0,5	-0,9	4,0

Clusters and sectors

Sector / **Cluster**	**Product**	**Energy & Utilities**	**Financial Services**	**Services**	**Gov & Non-profit**	**Info,Comm& Enter-tainment**	**Total**
"Extensive"	8.1%	4.8%	6.1%	2.2%	11.1%	4.1%	6.2%
"Relational"	17.1%	23.8%	**25.5%**	23.9%	5.6%	**26.5%**	21.4%
"Basic"	**35.8%**	**38.1%**	**20.4%**	**32.6%**	11.1%	**18.4%**	27.6%
"Accommodating"	22.0%	**14.3%**	**35.7%**	26.1%	**61.1%**	26.5%	28.5%
"Sophisticated"	17.1%	19.0%	12.2%	15.2%	11.1%	**24.5%**	16.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0% =355

APPENDIX 7a REGRESSION ANALYSIS: HRM and HR OUTCOMES[a]
No significant associations for HRM from classification perspective with absenteeism

	Absenteeism
(Constant)	1,04
	(2,96)
HRM bundles:	
"Extensive HRM"	1,04
	(1,96)
"Relational HRM"	-0,15
	(1,50)
"Basic HRM"	0,76
	(1,30)
"Sophisticated HRM"	1,06
	(1,65)
Control variables:	
Size	0,92***
	(0,32)
Energy & utilities	-1,51
	(2,19)
Financial services	-2,19*
	(1,22)
Services	-1,68
	(1,47)
Government & non-profit	1,49
	(2,09)
Info,comm&entertainment	-2,38
	(1,55)
Fragmented business systems	-3,03
	(2,18)
Coordinated Ind business systems	3,98**
	(1,84)
State Organized business systems	-0,22
	(1,48)
Collaborative business systems	3,65**
	(1,48)
R-square	0,226
Adjusted R-square	0,154
N	167

[a] standard errors are in parentheses
**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

APPENDIX 7b REGRESSION ANALYSIS: HRM and HR OUTCOMES[a]
No significant associations for HRM from numerative perspective

	Absenteeism	Turnover
(Constant)	2,77	28,42***
	(2,14)	(4,13)
HRM bundle:		
HRM scope	-0,01	-0,72
	(0,42)	(0,84)
Training	0,06	-0,16
	(0,06)	(0,15)
Control variables:		
Size	0,78***	-1,27***
	(0,24)	(0,46)
Energy & utilities	-1,92	-7,19**
	(1,68)	(2,97)
Financial services	-2,55***	-0,74
	(0,91)	(1,78)
Services	-1,37	4,73**
	(1,04)	(2,10)
Government & non-profit	0,53	3,75
	(1,45)	(3,13)
Info,comm&entertainment	-2,78**	3,88*
	(1,18)	(2,35)
Fragmented business systems	-3,96**	15,31***
	(1,67)	(3,85)
Coordinated Ind business systems	3,49	2,94
	(1,33)	(2,90)
State Organized business systems	-0,58	-1,49
	(1,01)	(1,86)
Collaborative business systems	3,46***	-5,72***
	(1,07)	(2,03)
R-square	0,22	0,146
Adjusted R-square	0,18	0,121
N	256	415

[a] standard errors are in parentheses
**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

APPENDIX 8a REGRESSION ANALYSIS: HRM and FIRM PERFORMANCE[a]
No significant associations for HRM from numerative perspective with revenue, expense and profit

	Revenue	Expense	Profit
(Constant)	438,45***	159,05***	240,48***
	(88,48)	(50,21)	(65,08)
HRM bundle:			
HRM scope	-9,55	-4,28	-0,72
	(17,24)	(10,44)	(13,00)
Training	1,11	1,59	-1,45
	(2,91)	(1,69)	(2,06)
Control variables:			
Size	-15,14	0,59	-18,56***
	(9,52)	(5,53)	(6,89)
Energy & utilities	-0,98	68,58*	10,73
	(64,63)	(35,86)	(46,05)
Financial services	-28,19	-3,98	30,02
	(37,37)	(21,73)	(27,36)
Services	-97,71**	-46,70*	-15,39
	(42,20)	(26,47)	(32,51)
Government & non-profit	-196,74***	-67,53*	-80,78*
	(65,89)	(36,43)	(47,29)
Info,comm&entertainment	-24,87	37,42	-15,83
	(49,14)	(30,30)	(36,72)
Fragmented business systems	-37,63	27,90	2,15
	(86,04)	(45,67)	(59,65)
Coordinated Ind business systems	-144,85**	-76,39**	-87,21**
	(57,44)	(33,34)	(43,66)
State Organized business systems	-80,98**	-51,78**	-17,97
	(39,16)	(22,99)	(29,24)
Collaborative business systems	40,12	8,01	6,31
	(43,65)	(26,06)	(33,51)
R-square	0,078	0,081	0,058
Adjusted R-square	0,043	0,043	0,016
N	328	307	279

[a] standard errors are in parentheses
**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

APPENDIX 8b REGRESSION ANALYSIS: HRM and FIRM PERFORMANCE[a]
No significant associations for HRM from a classification perspective with expenses
Significant associations for HRM from a classification perspective with Revenue, but the level of explained variance did not increase significantly (R square change 0,017, p=0,459) so these results will not be taken into account.

	Expense	Revenue
(Constant)	192,11***	434,40***
	(57,46)	(95,42)
HRM bundles:		
"Extensive HRM"	-44,54	51,35
	(43,49)	(72,89)
"Relational HRM"	7,18	16,50
	(29,91)	(49,23)
"Basic HRM"	-14,00	19,53
	(28,45)	(45,36)
"Sophisticated HRM"	47,64	110,13**
	(33,02)	(53,30)
Control variables:		
Size	-5,61	-28,63***
	(6,21)	(10,31)
Energy & utilities	111,60**	136,84*
	(43,46)	(80,18)
Financial services	-9,01	0,76
	(25,65)	(42,36)
Services	-46,68	-52,68
	(32,16)	(49,24)
Government & non-profit	-80,32*	-202,98**
	(47,89)	(94,55)
Info,comm&entertainment	19,09	-16,34
	(34,41)	(52,34)
Fragmented business systems	64,97	-4,20
	(54,83)	(103,55)
Coordinated Ind business systems	-58,42	-142,41**
	(39,37)	(69,08)
State Organized business systems	-55,89**	-59,74
	(28,19)	(45,96)
Collaborative business systems	21,84	88,85*
	(30,51)	(49,75)
R-square	0,141	0,139
Adjusted R-square	0,078	0,077
N	205	211

[a] standard errors are in parentheses
*: *significant at 10%*, **: *significant at 5%*, ***: *significant at 1%*

APPENDIX 9 REGRESSION ANALYSIS:
HR OUTCOMES and FIRM PERFORMANCE[a]
No significant associations for absenteeism and turnover with expenses

	Expense
(Constant)	98,39*
	(51,45)
HR outcomes:	
Absenteeism	1,75
	(1,59)
Turnover	-0,19
	(0,63)
Control variables:	
Size	-2,55
	(5,92)
Energy & utilities	96,09**
	(38,76)
Financial services	26,84
	(23,74)
Services	-17,83
	(27,39)
Government & non-profit	-18,55
	(36,64)
Info,comm&entertainment	51,18*
	(28,38)
Fragmented business systems	75,10*
	(44,02)
Coordinated Ind business systems	-39,92
	(35,50)
State Organized business systems	-5,75
	(24,13)
Collaborative business systems	31,73
	(26,86)
R-square	0,085
Adjusted R-square	0,036
N	237

[a] standard errors are in parentheses
**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

APPENDIX 10 REGRESSION ANALYSIS: MEDIATING EFFECT

Baron and Kenny (1986): .
- y=f(m) and y=f(m,x)
- added effect of x (R squared change) not significant then m mediates .

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,352	,124	,063	162,18455	,124	2,019	11	157	,030
2	,441	,195	,116	157,50550	,071	3,367	4	153	,011

a Predictors: (Constant), Turnover, Size, Size, Energy & utilities, Financial services, Services, Government & non-profit, Info,comm.&entertainment, Fragmented, Coordinated Ind, State Organized, Collaborative
b Predictors: (Constant), Turnover, “Extensive HRM”, “Relational HRM”, “Basic HRM”, “Sophisticated HRM”, Size, Size, Energy & utilities, Financial services, Services, Government & non-profit, Info,comm.&entertainment, Fragmented, Coordinated Ind, State Organized, Collaborative
c Dependent Variable: Profit

APPENDIX 11a REGRESSION ANALYSIS: SECTOR DIFFERENCES[a]
Significant associations for HRM from a classification perspective with absenteeism, but the level of explained variance did not increase significantly (R square change 0,117, p=0,435) so these results will not be taken into account.

	Absenteeism
(Constant)	-2,03
	(3,36)
HRM bundles:	
"Extensive HRM"	2,23
	(2,85)
"Relational HRM"	4,53*
	(2,51)
"Basic HRM"	3,77*
	(2,07)
"Sophisticated HRM"	1,57
	(3,40)
Interaction terms:	
"Extensive" x Energy & utilities	
"Extensive" x Financial services	-2,08
	(5,32)
"Extensive HRM" x Services	-3,43
	(6,95)
"Extensive HRM" x Government&non-profit	1,81
	(7,03)
"Extensive HRM" x Info,comm&entertainment	-2,08
	(5,44)
"Relational HRM" x Energy & utilities	
"Relational HRM" x Financial services	-7,13**
	(3,43)
"Relational HRM" x Services	-6,91
	(4,72)
"Relational HRM" x Government & non-profit	-5,65
	(6,90)
"Relational HRM" x Info,comm&entertainment	-10,59**
	(4,42)
"Basic HRM" x Energy & utilities	-4,86
	(5,10)
"Basic HRM" x Financial services	-3,25
	(3,12)
"Basic HRM" x Services	-7,53**
	(3,64)

"Basic HRM" x Government & non-profit	1,91
	(6,76)
"Basic HRM" x Info,comm&entertainment	-5,19
	(4,31)
"Sophisticated HRM" x Energy & utilities	3,49
	(6,26)
"Sophisticated HRM" x Financial services	0,73
	(4,39)
"Sophisticated HRM" x Services	-2,09
	(4,94)
"Sophisticated HRM" x Government & non-profit	-4,03
	(7,27)
"Sophisticated HRM" x Info,comm&entertainment	-3,23
	(5,29)
Control variables:	
Size	0,95***
	(0,34)
Energy & utilities	-1,62
	(3,53)
Financial services	0,79
	(2,40)
Services	2,45
	(2,49)
Government & non-profit	3,61
	(2,91)
Info,comm&entertainment	1,88
	(2,71)
Fragmented business systems	-2,12
	(2,32)
Coordinated Ind business systems	5,09**
	(1,96)
State Organized business systems	0,78
	(1,60)
Collaborative business systems	4,09**
	(1,59)
R-square	0,303
Adjusted R-square	0,137
N	167

Absenteeism: The following variables are constants or have missing correlations: "Extensive HRM" x Energy & utilities interaction term. They will be deleted from the analysis.

[a] standard errors are in parentheses

*: *significant at 10%*

**: *significant at 5%*

***: *significant at 1%*

APPENDIX 11b REGRESSION ANALYSIS: SECTOR DIFFERENCES[a]

No significant associations for HRM from a numerative perspective with absenteeism

	Absenteeism
(Constant)	2,22
	(2,57)
HRM bundle:	
HRM scope	0,24
	(0,63)
Training	0,06
	(0,09)
Interaction terms:	
HRM scope x Energy & utilities	0,85
	(2,27)
HRM scope x Financial services	-0,22
	(1,24)
HRM scope x Services	-0,86
	(1,15)
HRM scope x Government & non-profit	-1,66
	(1,74)
HRM scope x Info,comm&entertainment	0,09
	(1,35)
Training x Energy & utilities	-0,33
	(0,53)
Training x Financial services	0,00
	(0,18)
Training x Services	-0,02
	(0,16)
Training x Government & non-profit	-0,36
	(0,48)
Training x Info,comm&entertainment	0,40
	(0,38)
Control variables:	
Size	0,77***
	(0,25)
Energy & utilities	-3,15
	(6,17)
Financial services	-1,99
	(3,40)
Services	1,03
	(3,25)
Government & non-profit	6,38
	(4,75)
Info,comm&entertainment	-4,40
	(3,53)

Fragmented business systems	-3,52**
	(1,72)
Coordinated Ind business systems	3,46**
	(1,40)
State Organized business systems	-0,47
	(1,04)
Collaborative business systems	3,26***
	(1,11)
R-square	0,237
Adjusted R-square	0,165
N	256

[a] standard errors are in parentheses
**: significant at 10%*
***: significant at 5%*
****: significant at 1%*

Nederlandse Samenvatting (extended summary in Dutch)

Grensoverschrijdende HRM: Een onderzoek naar de invloed van contextuele verschillen in de toepassing en effectiviteit van HRM bundels

Grenzen krijgen een nieuwe afwijkende betekenis en rol in een internationaliserende en globaliserende economische wereldmarkt. Er is geen consensus onder onderzoekers of door het vervagen van grenzen verschillen tussen organisaties minder zijn geworden of juist prominenter. Wat betekent dit voor de interne bedrijfsvoering, in het bijzonder voor de toepassing en effectiviteit van human resource management (HRM)? Toonaangevend onderzoek op het terrein van HRM wordt gedomineerd door Anglo-Amerikaanse landen en bevindingen uit de productie sector. In ons onderzoek nemen we daarom ook andere contexten in ogenschouw. Hierbij richten we ons op de institutionele context op zowel nationaal als sector niveau omdat instituties een belangrijke rol spelen bij de toepassing en effectiviteit van HRM.

Wij zijn nagaan wat de invloed is van *meer* HRM evenals de invloed van een andere *focus* ten aanzien van HRM. Bij de eerste operationalisatie zijn HRM bundels geconstrueerd vanuit een kwantitatieve invalshoek. Er is gekeken naar het aantal HR instrumenten dat is ingezet (bv of interviews evenals assesments worden gebruikt bij het selecteren van medewerkers). In de andere operationalisatie van HRM wordt een kwalitatief perspectief gehanteerd, verschillen in de focus bij de invulling van het HRM beleid worden duidelijk aan de hand van de keuze van HR instrumenten. Via een clusteranalyse hebben we een vijftal clusters kunnen onderscheiden: (1) extensieve HRM (uitstrekkend over verschillende personeelscategorieën), (2) relatiegerichte HRM (sterke relaties), (3) elementaire HRM (ordelijk & gebruikelijk), (4) accommoderende HRM (persoon staat centraal) en (5) geavanceerde HRM (formeel & vooruitstrevend).

Uit ons onderzoek kunnen we concluderen dat zowel voor de toepassing als de effectiviteit van HRM de context een rol kan spelen op nationaal evenals op sector niveau. In ons onderzoek zien we verschillen, maar ook overeenkomsten in de toepassing van HRM. We zien verschillen in het *aantal* HR instrumenten dat wordt ingezet. In de *focus* van de HRM bundel die wordt ingezet zien we niet alleen verschillen maar ook overeenkomsten. Zo zien we bijvoorbeeld dat in de landencluster met Anglo-Amerikaanse landen weliswaar het meeste *aantal* HR instrumenten wordt ingezet, maar dat zowel in die context als de landencluster waar Nederland in zit *accommoderende HRM* (persoon staat centraal) het meest toegepast wordt.

Verder vinden we ook contextuele verschillen in de effectiviteit van HRM. Wij hebben bij deze analyses gekeken naar ziekteverzuim en verloop omdat dit prestatiemaatstaven zijn die dichter bij HRM liggen dan bijvoorbeeld winst en omzet Als we uitgaan van de productiesector als voorbeeld dan vinden we in vergelijking met de dienstensector alleen verschillen als het gaat om de *focus* van de HRM bundel en niet het *aantal*. We vinden een positief verband tussen relatiegerichte HRM (sterke relaties) en verloop voor de diensten sector. Daarnaast zien we ook andere sector- evenals nationale verschillen in effectiviteit voor beide operationalisaties van HRM.

Ook al ondersteunen onze onderzoeksresultaten het belang van een goede koppeling tussen HRM en de institutionele context, hiermee wordt nog geen afbreuk gedaan aan het belang en de meerwaarde van universele HRM activiteiten. Dit gaat prima samen. Naarmate we meer te weten komen over de complexe relatie tussen HRM, de institutionele context en prestaties kunnen we de mogelijke toegevoegde waarde van HRM steeds beter ontrafelen.

Tenslotte beoogt dit onderzoek uiteindelijk ook het bedrijfsleven te inspireren waarmee dit onderzoek ook de grens tussen wetenschap en de praktijk kan overschrijden.

Summary

(short summary in English)

Crossing borders with HRM: An inquiry of the influence of contextual differences in the adoption and effectiveness of HRM

The increased global connectivity urges us to look across borders, for previous boundaries may have been broken down or on the contrary have become more visible. In this thesis we explore what it means to cross borders with human resource management (HRM). Many believe in the virtues of the American way of doing business, but does this also mean that the American way of doing business is applicable in other countries? Human resource studies furthermore started in the manufacturing sector, while considerable differences can be expected for other sectors like the service sector. By moving research from Anglo-American countries and the manufacturing sector to a broader context, national and sector borders are crossed. On both the national and the sector level formal institutions have a crucial role in the adoption and effectiveness of HR practices. We have examined whether organizations across different institutional contexts embrace different ways of managing human resources and whether different results can be achieved. Even though our research provides support for the relevance of a fit of HRM with its context, the importance of best practices cannot be discarded. Both aspects are important to consider in future research when studying HRM and performance in a globalizing world. By providing useful insights for practitioners this research can finally also crossover from academia back to practice.

About the author

Daina Konter (Leiderdorp, the Netherlands,1975) received her Masters of Science degree in business economics, ´organisation and management´ from Rotterdam school of economics (Erasmus University Rotterdam) in 2000. During her studies she worked as a student assistant at the department of Organisation. Due to her study as well as her work for the department she became enthusiastic about researching. She pursued her fascination with the topic Human Resource Management (HRM) and performance. While completing her PhD, the focus of her research switched from an investigation of time lagged effectiveness to the (institutional) context of HRM. The increased global connectivity urges us to look across borders. International research represents a challenging undertaking. This kind of large-scale research therefore benefits from partnership between researchers and practitioners. A partner was found in the IBM Business Consulting Services, Human Capital Management Practice. IBM regurlarly collects benchmarking information. Daina has presented papers at various international conferences, including the Academy of Management and the International Conferences of the Dutch HRM network. She has also been involved in thesis supervision at both graduate and undergraduate level and has tought courses on organization, human resource management and consultancy. Daina currently works as a business consultant to the Secretary General at the Ministry of Education, Culture and Science.

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CROSSING BORDERS WITH HRM

AN INQUIRY OF THE INFLUENCE OF CONTEXTUAL DIFFERENCES IN THE ADOPTION AND EFFECTIVENESS OF HRM

The increased global connectivity urges us to look across borders, for previous boundaries may have been broken down or on the contrary have become more visible. In this thesis we explore what it means to cross borders with human resource management (HRM). Many believe in the virtues of the American way of doing business, but does this also mean that the American way of doing business is applicable in other countries? Human resource studies furthermore started in the manufacturing sector, while considerable differences can be expected for other sectors like the service sector. By moving research from Anglo-American countries and the manufacturing sector to a broader context, national and sector borders are crossed. On both the national and the sector level formal institutions have a crucial role in the adoption and effectiveness of HR practices. We have examined whether organizations across different institutional contexts embrace different ways of managing human resources and whether different results can be achieved. Even though our research provides support for the relevance of a fit of HRM with its context, the importance of best practices can not be discarded. Both aspects are important to consider in future research when studying HRM and performance in a globalizing world. By providing useful insights for practitioners this research can finally also crossover from academia back to practice.

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The Netherlands

Tel. +31 10 408 11 82
Fax +31 10 408 96 40
E-mail info@erim.eur.nl
Internet www.erim.eur.nl