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**HUMAN RESOURCE MANAGEMENT, EMPLOYEE ATTITUDES AND BUSINESS
PERFORMANCE IN POST OFFICE LTD**

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ABSTRACT

Whilst a consistent link between the adoption of human resource management (HRM) practices by organisations and their performance has been confirmed by numerous studies, there is a need for greater understanding of why such effects occur. Recently, the attention of researchers has shifted towards understanding the so-called 'black box' linking HRM and business performance. This study focuses on this area of research by testing processes through which HRM may affect performance, in particular the process of HR implementation, mediation mechanisms, and fit with internal and external boundary conditions.

This research was based on a sample of 136 Post Office branches in the UK and investigated the role of HR implementation, employee attitudes and competitive environment. The study revealed that HR implementation, a climate for service, job satisfaction and affective organisational commitment predicted independent measures of economic and service performance in branches. Employee attitudes moderated the relationship between implemented HRM and service performance, and both job satisfaction and commitment were found to mediate relationships between a climate for service and service performance. Finally, relative levels of competition faced by branches moderated the relationship between employee attitudes and sales.

The findings demonstrate how the process of HR implementation, interactions with employee attitudes and moderation by external competition all influence the impact of HR systems on service and economic performance outcomes. These results illustrate the need for greater attention to processes of internal and external fit within HRM research in order to develop theory relating to why HR systems affect performance. Greater understanding of how the effects of HRM can be optimised may also yield significant practical benefits for organisations.

1. INTRODUCTION: HRM AND ORGANISATIONAL PERFORMANCE

A growing body of research evidence has identified links between the human resource management (HRM) strategies adopted by organisations and their performance. Whilst much of the HRM research literature to date has focused on the role of HRM at the level of organisational policies and explored fit with business strategy, only more recently has attention shifted towards the actual implementation of HR practices (Khilji & Wang, 2006), the role of intervening psychological processes (Neal, West & Patterson, 2004; Guest, Michie, Conway & Sheehan, 2003; Katou & Budhwar, 2006) and external industry characteristics (Datta, Guthrie & Wright, 2005). This research seeks to add to the knowledge base by exploring the following questions within this context:

- How much impact does the implementation of HR practices have on business performance?
- How do psychological variables such as job satisfaction, organisational commitment and perceptions of organisational climate link to organisational performance and intervene in the impact of HR practices?
- What role do external market characteristics have in influencing the strength of relationship between HR practices, psychological variables and performance outcomes?

This research was conducted in Post Office branches across the UK and examines HR practices designed to support quality of service to customers, intervening psychological processes and comparative service and economic performance. Relationships were hence analysed at the establishment level. Each branch provides services to customers in the areas of mail, banking, bill payment, travel and information services. These services are provided

in face-to-face customer interactions, placing this research clearly within the service sector. Additionally, the research was undertaken in the context of a major transition within Post Office Ltd from that of a monopoly service provider to operating in a commercially competitive environment. To date, there has been limited HRM research focused on the service sector and little specifically in the context of major public sector change or the postal industry.

Within this chapter, the emergence of HRM is outlined and its constituent elements and strategic purpose are explored. Existing theory relating to how HRM is linked to business performance is then described and discussed, with specific reference to the service sector and the organisational context of this research. Following this, outstanding gaps in the knowledge base and opportunities for this research to add to theoretical understanding are identified. Within chapter 2, the research literature identifying links between HRM and business performance is reviewed. In chapter 3, the evidence relating to why HR practices may be linked to business performance is further reviewed and opportunities for research identified. Subsequently, the theoretical framework and hypotheses for this research are covered in chapter 4 followed by the specific methodology in chapter 5. The remaining chapters 6, 7 and 8 detail the analysis of results, discussion of findings in relation to the extant research literature and key conclusions drawn.

Background: the emergence of Human Resource Management

Over the last 100 years, there has been growing interest within management research in understanding the human factor in organisational success. This journey began with the 'scientific management' school as characterised by the writings of Frederick Taylor (1911). Although often criticised today, the initial intentions of the scientific management approach were to clarify the responsibility of management in organisations, to find the best people for roles, train them to work efficiently and provide a system of pay which would incentivise productivity. The difficulty with scientific management, however, was that the approach rested on basic assumptions of workers being inherently lazy unless motivated to work and requiring close control to be exercised by management. Also, in the quest for efficiency and with the rise of mass production manufacturing techniques, jobs were made increasingly simple and routine. These factors led to an experience of work in which workers had limited control, jobs were deskilled and unsatisfying and wages were kept to a minimum. As a result, workers began to exert power through trades unions, seeking ways to protect their interests and exercise control over the demands put upon them.

Researchers such as Mayo (1933) and Roethlisberger and Dickson (1939) subsequently argued for consideration of the wider social needs of individuals, in particular because increased efficiency, through simplification of jobs, reduced the possibilities for workers to find satisfaction and meaning in their work. This view became known as the 'human relations' school of management. In contrast to the highly managerial perspective of the scientific management approach, a focus on the satisfaction of employees began to emerge. The social needs of employees were emphasised through increased communication, more people-oriented leadership and greater individual control over how work was done.

However, the 'human relations' model has been subsequently criticised for being oversimplified and to some extent manipulative in that the underlying focus was to ensure that employees comply with what is demanded of them. Models such as McGregor's (1960) 'Theory Y' and Schein's (1972) 'Complex Man' emerged, precipitating the development of 'human resource management' (HRM). This approach accepted that ensuring high performance from employees relies on a complex range of knowledge, skills and abilities, different strategies to motivate people and effective organisation of work to support this. The HRM approach is built on the assumption that people have a wide range of potential to offer the organisation and that the role of management is to tap into this talent and ensure people are skilled, motivated and have the opportunity to perform well. Rather than simply seeking to ensure employees deliver what is required, the approach seeks to align individual goals with those of the organisation so that employees have greater personal motivation to undertake their work (for instance meeting career aspirations, financial or lifestyle goals).

During the course of this evolution in both research and practice, two broad directions have emerged. One has focused on organisational behaviour, typically with the individual as the unit of analysis and a strong psychological emphasis on factors such as employee attitudes (e.g. job satisfaction), skills and abilities. The other has focused on the organisation as the unit of analysis and been driven by research into strategic management, seeking to understand which human resource management strategies are most effective in different business environments. With the increased uptake of information technology within organisations and the widespread use of integrated performance measurement techniques such as the balanced scorecard (Kaplan & Norton, 1996), over the 1990s a new stream of quantitative research began which sought to empirically test how HRM is related to organisational performance. Subsequent research to date has begun to address not only whether such a linkage exists, but

the processes through which HRM influences performance, drawing on the knowledge base from both the strategy and organisational behaviour literatures. This chapter explores the definition and nature of HRM, outlining the key models which seek to explain how HRM may be linked to business performance.

What constitutes human resource management (HRM)?

The term human resource management (HRM) has been widely used to describe a range of activities conducted by an organisation to manage its employees, including activities such as recruitment, training and design of work. Practices such as pay and reward systems, communication processes, employee participation, team-working and appraisal have also been included under the banner of HRM. Pfeffer (1998) argued that the way organisations manage their employees is fundamental to securing competitive advantage and through his review of the area, he identified seven key policy areas which he believed constitute 'best practice' HRM in all organisations, as follows:

- Providing secure employment
- Ensuring the best people are recruited
- Wide usage of self-managing teams and decentralised control
- Linking formal pay to the organisation's performance
- Extensive training and development of employees
- Reducing status differentials
- Open sharing of information across the organisation

Other writers have used alternative terms such as high performance work practices (HPWPs) (Huselid, 1995), high commitment management (HCM) (Walton, 1985; Wood, 1996), high involvement management (HIM) (Lawler, 1986) or high performance work systems

(Appelbaum & Batt, 1994), each definition stressing key differences between a progressive approach to HRM and traditional models of people management.

Walton (1985) drew a key distinction around the underlying philosophies for managing employees, in terms of a 'control' versus a 'commitment' approach. Walton also labelled organisations that lie somewhere between these two extremes as 'transitional', exhibiting a partial mixture of both sets of characteristics. This underlying philosophy of HRM being oriented towards a 'commitment' approach is reflected in the majority of research and underlies most subsequent definitions of high performance HR systems. This has been alternately described as the extent to which there is an 'investment' or a 'contractual' relationship with employees (Chadwick & Cappelli, 1998). It fits closely with McGregor's (1969) work on management thinking, whereby under 'theory X' employees are seen as a resource which needs to be controlled whilst under 'theory Y' employees are seen to perform best if they are developed and supported.

HRM can, in the first instance, be seen as an attempt to move away from previous Taylorist approaches to managing people at work towards a 'commitment-oriented' model.

Closely related to the contrasting philosophies of the control and commitment approaches, authors have talked of 'innovative' or 'high involvement' work practices (Ichniowski, Kochan, Levine, Olson & Strauss, 1996). Ichniowski, et al., 1996; Lawler, Mohrman & Ledford, 1995). For instance, Ichniowski, et al. (1996) assessed the nature of what they termed 'innovative work practices' and why it is difficult to measure their effects on organisational performance. They reviewed features of the research designs used up to 1996 and concluded that the nature of innovative work practices does not have a settled meaning, and may include a variety of practices, such as teams, employee participation, flexible job

design or communication mechanisms. They describe the commonality across different definitions as being a departure from the traditional work systems, i.e. tightly defined jobs, associated rates of pay, clear demarcation between 'workers' and 'managers', decisions made by managers only, and communications through formal channels and control structures for grievances. Innovations were seen to generally seek greater flexibility in how work is organized, and encourage cooperation and participation (Delaney, Ichniowski & Lewin, 1989; Lawler, Mohrman & Ledford 1995; Osterman 1994).

Another key distinction in the HRM research literature is that between 'transformational' and 'transactional' HRM, which has been closely linked with the idea of 'Strategic HRM' as opposed to the administrative functions of HR (Huselid, Jackson & Schuler, 1997).

Transformational HRM involves practices believed to generate competitive advantage for the organisation and explicitly designed to support and enable the delivery of wider strategy and business goals. Conversely, administrative practices are those which are often seen as the professional responsibilities of HR such as compliance with rules and regulations or administration of pay and benefits. Huselid, et al. (1997) demonstrated that strategic or transformational HRM was linked to perceptions of organisational performance, whilst administrative HR practices were related to perceptions of professionalism in the HR function but did not directly support key business objectives. This distinction has also been termed 'human-capital enhancing' versus 'administrative' HRM by Youndt, Snell, Dean and Lepak (1996).

The above characteristics of HRM as identified by a variety of authors all relate to the development of progressive approaches to HRM and a shift away from traditional, Taylorist approaches to managing employees. Hence, an underlying philosophy of commitment

(Walton, 1985), a focus on innovation (Ichniowski, et al., 1996) and linking HRM to strategy (Huselid, et al., 1997) are key elements underlying much of the research on HRM and organisational performance. In terms of the nature of HRM in practice, there is some evidence from inductive research using techniques such as factor analysis that HRM tends to be deployed in two broad categories; the organisation of core work tasks and supporting HRM policies (Huselid, 1995; MacDuffie, 1995; Patterson, West, Lawthom & Nickell, 1997). MacDuffie (1995) identified two distinct ‘bundles’ of practices in two key areas, firstly the ‘work system’ (how work is organised) and secondly ‘HRM policies’ (relating to selection and development of employees). Patterson, et al. (1997) similarly identified from factor analysis two distinct groupings of practices, ‘job design’ around how work is organised and practices related to the ‘acquisition and development of employee skills’. Huselid (1995) described HRM in terms of practices relating to two factors, ‘employee skills and organisational structures’ and ‘employee motivation’. Youndt, et al. (1996) identified four broad areas of HR practice that typically feature across HRM research designs, namely recruitment, training, compensation and performance appraisal, noting that such distinctions have largely been drawn by researchers through the use of statistical techniques such as factor or cluster analysis so are normative in nature. That is to say, they reflect which groups of practices tend to occur together within the particular organisations under study. There is no single agreed definition and the actual practices included by different researchers vary widely. To illustrate this, outlined in figure 1 below are the range of HR practices included across a selection of the key studies that tested the relationship between HRM and business performance.

Figure 1: HR practices included across different studies

HR practices	Authors						
	Arthur (1994)	Delery & Doty (1996)	Huselid (1995)	Guest & Hoque (1994)	MacDuffie (1995)	Patterson et al. (1997)	Pfeffer (1998)
Assessing employee attitudes			✓				
Benefits and services	✓		✓				
Broad job design	✓			✓		✓	✓
Compensation	✓		✓			✓	
Diversity programmes			✓				
Employee communications	✓		✓	✓		✓	✓
Employee participation	✓	✓	✓	✓	✓	✓	✓
Employee/industrial relations			✓				
Employment security		✓					✓
Executive development			✓				
Grievance procedures	✓		✓				
Harmonised pay				✓		✓	
Health and safety			✓				
Human resource information systems			✓				
Induction training			✓		✓	✓	
Induction: values				✓			
Internal career opportunities		✓		✓			✓
Job descriptions		✓		✓			
Job rotation					✓		✓
Lack of status differentiation					✓		✓
Management of labour costs			✓				
Market-leading pay	✓					✓	✓
No compulsory redundancy				✓			
Performance appraisal		✓	✓	✓		✓	
Performance/merit pay				✓		✓	✓
Profit-sharing and employee ownership	✓	✓			✓		✓
Responsible for quality tasks				✓	✓		
Retirement strategies			✓				
Selection testing			✓	✓	✓	✓	✓
Setting own targets				✓			
Social responsibility programmes			✓				
Strategic HR studies			✓				
Succession planning			✓				
Teamwork	✓		✓	✓	✓	✓	✓
Training and development	✓	✓	✓	✓	✓	✓	✓
Workforce flexibility			✓	✓		✓	
Workforce productivity and quality			✓				

It is clear looking across studies that the specific practices considered to be of interest varied between researchers. However, there are a number of broad areas of commonality that relate to the specific purpose of sets of practices. Walton (1985) outlined seven broad dimensions to HRM. The table below outlines these and the examples of relevant HR activities.

Figure 2: Walton's (1985) dimensions of HRM



As Walton's categories suggest, HRM involves a wide range of management activities intended to maximise the knowledge, skills, motivation and performance of employees. The higher level categories indicate the broader purpose behind these practices. In addition to the immediate role of particular types of HR practices (e.g. to select the best employees for a role, or to provide effective voice to employee concerns), many authors have viewed HRM in

line with Huselid, et al.'s (1997) distinction between 'transformational' and 'transactional' HRM, in that the system of practices adopted is a key enabler of business performance and a tool for executing business strategy. These broader goals are discussed in the following section below.

The strategic purpose of HRM

In the broadest sense, the strategic purpose of HRM is to help organisations generate optimal business benefit from their 'human resources', that is to say their employees. At an organisational level, this can involve a number of facets. For instance, Boxall and Purcell (2003) suggest that there are three core strategic aims for HRM, namely to (a) ensure labour productivity and cost effectiveness, (b) enable the organisation to be flexible in how it operates and (c) have legitimacy with its employees, hence gaining their commitment to organisational goals.

However, the extent to which organisations have historically used HRM techniques in a complex, strategic manner has varied. Under the 'scientific management' approach of Taylor (1911) people were essentially viewed as a cost and the focus was on ensuring productivity whilst keeping direct and indirect labour costs to a minimum (e.g. pay, time spent training and managing employees). However, research in the area of HRM (e.g. Walton, 1985; Huselid, 1995; Pfeffer, 1998) has had a strong focus on the use of HRM to support and enable the successful execution of business strategy. To be considered strategic, a system of HR practices should be clearly oriented towards facilitating the achievement of organisational goals. Ichniowski, et al. (1996) described this in terms of three levels of outcomes. Firstly, close or proximal outcomes may include having competent and motivated employees, engaged with the operational needs of the organisation in an efficient manner. Intermediate

outcomes include behavioural objectives such as productivity, care over quality or innovating more effective ways of working. Finally, a strategic system of HRM would be expected to contribute, via these employee behaviours, to key distal or ultimate strategic outcomes such as high quality outputs or profit. For example, ensuring that accurate salary payments are made to staff on time is an important administrative aspect of HR but is unlikely to be linked to achieving strategic goals, whilst involving employees effectively to improve the quality of outputs may be a key organisational goal to secure sustainable competitive advantage.

There are two key schools of thought in relation to the wider literature on competitive advantage between organisations which help explain how a strategic system of HRM might contribute to business performance. Under the resource-based view (RBV) (Penrose, 1959; Barney, 1991), organisations are seen as having a competitive advantage over their rivals through unique, difficult to copy characteristics that enable them to out-perform others. In the case of HRM, this may relate to having highly skilled, highly motivated staff that work together effectively in a productive and innovative manner. If this workforce out-performs that in rival companies on these terms, and the way of managing and developing the workforce is hard to copy, the system of HRM which facilitates this could be seen to provide the organisation with a sustainable competitive advantage.

Alternatively, the competitive strategy view as espoused by Michael Porter (1985), suggests it may not be the resources themselves that matter so much as how they can be applied to support the particular business strategy and deliver competitive advantage over other organisations. Porter outlines two fundamental business strategies. The first of these is differentiation, based on delivering value through a uniquely defined offering, for instance providing greater levels of quality than alternatives. The second, cost leadership, is focused

on efficiency and under-cutting rivals in terms of price. Porter also puts forward a third strategy, focus, which involves both of the above but in a tightly defined market segment. Under the competitive strategy view, a strategic approach to HRM would thus be expected to complement the business strategy of the organisation. In this case, it would seem likely that 'high commitment' HRM may be best suited to a differentiation or possibly focus strategy, as it seeks to empower and enable employees to innovate and be flexible in their approach with minimum supervision by management. Conversely an HR strategy focused on efficiency might better fit with the cost leadership approach, which would suggest a more Taylorist, control-based approach to promote efficiency and keep staffing costs to a minimum. Both theoretical standpoints nevertheless imply that an organisation needs to use the means at its disposal to out-perform its rivals, whether the emphasis is on the resources themselves or the strategy used to deploy them. In either case, a system of strategic HRM would be expected to enhance and focus employee efforts on the achievement of strategic goals.

What effect does HRM have on business performance?

Given the interest in HRM as a means of achieving strategic business goals, a growing body of organisational-level research has sought to understand relationships between the HR systems and practices employed by organisations and the subsequent benefits to their overall performance. Studies have addressed the issue in a number of ways. A number of cross-sectional studies have been published, correlating measures of HRM and organisational performance at the same point in time. These are both multi-sector (Osterman, 1994; Huselid, 1995; Koch & McGrath, 1996; Guthrie, 2001) and across organisations within single industry sectors (Delery & Doty, 1996; Guest & Peccei, 1994; West, Guthrie, Dawson, Borrill & Carter, 2006). A variety of industry sectors have been explored, including retail banking (Delery & Doty, 1996), steel mills (Arthur, 1994), car assembly (MacDuffie, 1995),

manufacturing (Youndt et al. 96), steel finishing (Ichniowski, Shaw & Prennushi, 1997), hotels (Hoque, 1999), steel, apparel and medical instruments (Appelbaum, Bailey, Berg and Kalleberg, 2000).

There are, however, far fewer longitudinal studies from which the direction of relationships can be reasonably inferred, e.g. Huselid, Jackson and Schuler (1997) and Patterson, et al. (1997). Additionally, there are a number of studies where the evidence for relationships between HRM and performance is less clear (Guest & Hoque, 1994; Wood & De Menezes, 1998; Wright, McCormick, Sherman & McMahan, 1999). These studies largely focused on identifying evidence of a link between the adoption of a particular system of HR policies and greater levels of business performance. In terms of the magnitude of relationships between HRM and business performance, one of the clearest assessments of this to date has been provided by a meta-analysis of 92 studies which investigated associations between HRM and organisational performance (Combs, Ketchen, Hall & Liu, 2006). The findings revealed an average correlation between HRM and organisational performance of $r=0.2$. In terms of the effects on performance, a one standard deviation increase in adoption of HRM is related to a 4.6% average increase in return on assets (ROA) and a 4.4% decrease in labour turnover. This suggests there is significant potential for business benefit to be gained by organisations through increased understanding of the effects of HRM and the processes through which these effects occur. The research evidence concerning the extent of a consistent relationship between HRM and business performance is reviewed in depth in chapter 2.

Through what processes does HRM affect business performance?

Within the HRM literature researchers have articulated how HRM affects business performance in a number of ways, drawing key distinctions between different types of HRM. Firstly, what is the role of 'fit' externally between the business and HR strategies, and internally within the HR system? In this area, research has moved beyond viewing external factors simply in terms of the broad strategic positioning adopted by an organisation and has begun to examine the influence of industry and market context on the relative strength of HRM/performance links (Datta, et al., 2005). Secondly, what is the role of the extent of actual HR implementation in determining impacts on business performance? Thirdly, research has begun to focus on the intervening processes through which relationships between HRM and business performance may be linked, that is the 'black box' connecting HRM policies to organisational outcomes (Katou & Budhwar, 2006).

Strategic fit

Pfeffer proposed that there is a 'best practice' set of activities and goals that all HR systems should possess, based on the view that how people develop skills, are motivated and work together is consistent across organisational contexts. Similarly, research by authors such as Huselid (1995) and Patterson, et al. (1997) has largely supported the 'universalist' position that use of HRM practices is associated with improved organisational performance, independent of business strategy. However, the importance of 'strategic fit' in determining whether HR systems will influence performance and the search for evidence of its effects has been one of the key debates in the field of HRM. There are three key aspects to this debate in the literature.

Fit with business strategy: Research has centred around Porter's (1985) distinction between organisations pursuing a strategy of differentiation and those pursuing a strategy of cost reduction. A number of authors (Guest & Hoque, 1994; Delery & Doty, 1996; Becker & Huselid, 1998) have proposed that the fit between an HR system and business strategy ('vertical integration') is a key determinant of the effectiveness of HRM in facilitating performance. The logic is that organizations following what has been described by Walton (1985) as the 'commitment' approach to people management are more likely to reap the benefits if this is matched with the business strategy (for instance, where the organisation is trying to specialise and may have high demands on skill levels), whilst a 'control' approach is seen as more appropriate where people are seen as a resource to be utilised when needed and less as a valued asset to be developed. Moving beyond simply assessing the prevailing business strategy adopted by organisations, Datta, et al. (2005) have expanded the 'contingency' perspective (Delery & Doty, 1996) significantly by focusing externally on the characteristics of the industry within which companies are competing. This has revealed promising results showing that HRM has a greater effect on business performance within manufacturing industries where there is lower capital intensity and greater differentiation and growth. This indicates that it may not be simply the chosen strategy of the organisation that matters so much as the way that strategy relates to the external challenges.

Fit between HR practices: Another potential moderator proposed by authors has been the quality of integration between HR practices (horizontal integration). Described as the 'configurational' perspective by Delery and Doty (1996), MacDuffie (1995) suggested that 'bundles' of HR practices which work synergistically as a system are key to HRM generating gains in organisational performance. For instance, using validated testing methods to select the best candidates for a role, but not giving recruits any training for the role (or vice versa)

would logically seem less likely to lead to effective performance whilst doing both may have a synergistic, beneficial effect.

Fit with operating strategy: studies by Lawler, et al. (1995; 1998) of US manufacturing and service companies indicated HRM may be more effective when accompanied by an appropriate operating strategy within an organisation, in particular the implementation of a 'lean production' approach (MacDuffie, 1995; Wood, 1999). MacDuffie (1995) found similar effects and described this in terms of reducing 'buffers', that is processes and energy focused on accommodating the stresses and strains in a production system rather than directly improving its quality and efficiency. The key differentiator compared to the classic contingency approach is that the fit is in relation to how work is organised operationally, rather than external strategic positioning chosen by the firm, that is HRM delivers the greatest performance gains when combined with a system of operation or work that emphasises 'lean production'.

In summary, the proponents of the argument for effective 'fit' argue that HRM is successful through its effective integration with wider strategy or by HR practices mutually reinforcing each other. The evidence in this regard is discussed in detail in chapter 2. This has been a core debate within the field and has led to the universalist, contingency and configurational perspectives along with further consideration of the issue of 'fit' between HRM and the operating or production strategy (specifically lean production or total quality management approaches). Whilst the debate relating to strategic fit has explored the relationship between HRM and broader business strategy, it has not addressed broader questions relating to the processes through which HR practices take effect and to whether the extent and manner of implementation has an impact on performance.

HRM implementation and the strength of the HR system

Beyond the question of ‘fit’, a number of other criteria have been put forward by researchers to evaluate whether an HR system is effective. For instance, MacDuffie (1995) examined HR practices in terms of the frequency of use (number of employees affected) and Patterson et al. (1997) also measured the level of sophistication of practices. Huselid, et al., (1997) assessed HR practices in terms of their perceived effectiveness on the part of those affected by them, i.e. employees, rather than based on the judgments of key HR personnel as used in other studies. Khilji and Wang (2006) further drew a distinction between ‘intended HRM’ at the level of what organisational policies are in place and ‘implemented HRM’ in terms of the extent to which such policies are successfully implemented in practice. Ostroff and Bowen (2000) suggest a range of features of HRM that may be important in determining what they term ‘HR system strength’. They describe a strong HR system as fulfilling its purpose by ensuring that there is a strong and shared understanding of what the goals and ways of working are, what is expected of employees and what they can expect in return. Ostroff and Bowen (2000) suggest a number of characteristics that underlie the construct:

Visibility: This relates to whether the processes and outcomes are clear to employees, for instance is there openness about what different employees are paid and is it clear what behaviours are rewarded and which are not?

Clarity: Although HR practices may be visible, it would also seem important that they are easily understood by employees.

Acceptability: This concerns the extent to which employees are prepared to contribute time and effort to the design, implementation and use of HR practices.

Consistency of administration: For an HR system to be 'strong' it would seem logical that HR practices within it should be performed consistently across situations and locations.

Effectiveness of administration (validity): This relates to the issue of whether an HR practice does what it was designed to do, for instance that a selection system is effective in hiring the best candidates or training is effective in developing the knowledge, skills and behaviours needed for skilled performance.

Effectiveness of administration (skill): As well as an HR practice having validity in terms of its design and content, it is also important that those administering it do so in a skilled manner and the process for doing so is effective, otherwise the desired outcomes may not be achieved.

Internal consistency: This refers to whether the combination of HR practices within the system reinforce each other. This notion is closely related to the 'configurational' perspective (Delery & Doty, 1996).

Intensity: Ostroff and Bowen (2000) describe 'intensity' as involving three elements, namely the ease with which practices are implemented, the range of practices in use and the numbers of employees affected by them.

Inclusiveness: This relates to the extent that HR practices include all employees across the organisation in a consistent manner, rather than having differing sets of practices and goals for different groups across an organisation. An inclusive system would be expected to be consistent and communicated strongly, leading to strong shared perceptions of the system.

The overriding theme is that different HR practices that purport to achieve the same goals (e.g. appraisal systems) may vary in their effectiveness between organisations. Much of the HRM-performance research to date has measured the existence (or not) of a practice and some studies have measured how widely deployed practices have been. However, few studies have focused on the quality of design or implementation, which is likely to be an important variable influencing whether HRM delivers gains in organisational performance (Khilji & Wang, 2006).

Intervening processes between HRM and performance

It is clear from the research literature that strategic fit is a key area of interest. Recent research has also begun to focus on the role of implemented as opposed to intended HRM in organisations (Khilji & Wang, 2006). A third key area of inquiry is to understand the processes through which a system of HRM may facilitate the achievement of organisational goals, the so-called 'black box' linking HRM and organisational performance. A number of key contributions to theory relating to the processes linking HRM and performance are outlined below. These begin with broader, organisational-level explanations and expand to more complex multi-level models of how such effects may occur.

Huselid (1995) put forward a three part rationale to explain how HRM practices work, suggesting that practices such as selection and training help to develop skills, that work

design or empowerment initiatives create the opportunity to use those skills and that systems such as appraisal and internal promotion give direction and motivation for employees' efforts. This definition sought to outline the anticipated causal connections between specific HR practices and immediate employee outcomes. Ichniowski, et al. (1996) expanded on this, suggesting that 'high involvement work practices' work through the following mechanisms:

Helping workers work harder:

- so they enjoy work more if job characteristics make it more interesting, and give them feedback and rewards
- so they are more positive about the nature of the job if they help design it

Helping workers work more efficiently:

- workers have information that higher management lacks, around how to make their job roles more efficient
- participation may allow a greater range of views to be aired, allowing both redesign of jobs or tasks and better coordination between workers or teams

Allowing structural efficiencies, independent of motivation:

- flexible job assignment or cross-training may introduce redundancy of function and reduce the costs of absenteeism
- decentralising decision-making to self-directed teams can help reduce the number of managers needed, reducing costs and improving communication
- training in problem-solving, computer skills and quality processes can increase the benefits accrued from information technology

- worker and union involvement may improve communications and reduce conflict, improving operating efficiency

Theoretically ‘high involvement work practices’ can thus help improve performance through workers working harder and implementing more ideas, or through structural efficiencies due to less time and cost spent on tasks of managerial control. The theoretical explanations of the HRM/performance link described above begin to identify possible causal pathways.

However, they provide limited insight as to the steps linking practices to employee reactions, subsequent behaviour and then performance outcomes. Guest (1997) put forward a model that considered the impact of HRM on performance through a series of stages, including the mediating variables expected to intervene in the process. Initially, HRM may lead to key behavioural outcomes such as effort or cooperation. Following this, performance outcomes such as productivity, quality or cost efficiency may follow. Finally, financial goals such as profit and revenue may be affected. In this approach, Guest (1997) sought to develop an end-to-end model describing the process through which HR strategy and practices lead to organisational performance, as outlined below:

Figure 3: Guest’s (1997) model of HRM and outcomes



Ferris, Arthur, Berkson, Kaplan, Harrell-Cook and Frink (1998) proposed a 'social context' model which sought to describe both the intermediary processes and boundary conditions which may influence the relationship between HRM and performance at the organisational level. Within their model, they sought to integrate a number of elements. Firstly, they proposed that organisational culture may determine whether and in what form HRM is adopted by an organisation. They suggested that the system of HRM influences organisational effectiveness through effects on organisational flexibility, employee behaviours and organisational reputation. They accepted that some linkages between HRM and behaviours may be direct, e.g. training may lead to improved task performance. However, they placed a central role on climate perceptions, which then impact upon employee attitudes such as job satisfaction and organisational commitment. Subsequently, they described these variables as leading to higher levels of both task and contextual performance (Borman & Motowidlo, 1993).

As is illustrated above, authors have provided a range of theories to explain how linkages between HRM and business performance operate. However, much of this has examined these questions on a 'macro' level by relating organisational-level variables. Wood (1999) pointed out, however, that there has been an increasing neglect of the psychological processes that mediate or moderate the link between HR practices and performance. He suggested this may be due to the ascendancy of the strategy over social psychology literature and that what was being approached as a purely organisational-level issue should be explored from a multi-level perspective.

In seeking to understand exactly how HRM systems can influence organisational performance, authors have also identified the need to consider the multiple levels through which such effects may occur. Boxall and Purcell (2003) have explored how outcomes at the level of individual employees may aggregate to generate key organisational level outcomes. Similar to Huselid's (1995) view, they refer to the role of HRM in terms of an 'AMO' view of performance whereby HR practices have an impact by helping employees have the ability, motivation and opportunity to perform well. They propose that at the organisational level, performance is then facilitated through three key means, (a) increasing productivity, quality and efficiency, (b) creating social legitimacy for the organisation's activities and hence generating commitment and (c) giving the organisation flexibility to adapt to changing environments. In this regard, Neal and Griffin (1999) outlined the range of variables that may be linked to effective individual performance and how these further contribute at an organisational level. The primary routes to performance are seen as operating through employees having the knowledge and skills, motivation and technology to perform successfully.

Figure 4: Neal and Griffin's (1999) model of individual work performance

Neal and Griffin (1999) also suggest antecedents that may influence each of these areas, including both HRM practices and other psychological factors such as organisational commitment or leadership. Significantly, their model of subsequent performance is divided into two categories – task performance and contextual performance. They argue that truly effective individual, and subsequently organisational performance, is delivered only through a combination of performing the core task and the application of discretionary effort to achieve contextual performance. This is particularly relevant to service contexts where customer-facing employees deliver the service to the customer through real-time interactions.

Perhaps one of the most comprehensive multi-level models to link HR systems and performance is that proposed by Ostroff and Bowen (2000), which identifies the connecting mechanisms between HRM, intermediary variables and performance at multiple levels and how these combine to create organisational performance outcomes. The model proposes that

individual climate perceptions, attitudes, behaviours and skills are the foundation for performance outcomes. Collective climate perceptions, attitudes, behaviour and human capital are derived through the combination of individual attitudes and behaviour. For instance, this would occur at the levels of work groups within each establishment and at the level of business units and functions. The interactions within the model reflect the complexity of interactions within an organisation that lead from individual performance, through group levels to overall organisational performance as well as some of the key variables influencing different levels.

Figure 5: Ostroff and Bowen's (2000) model of HR systems and performance



The model allows theoretical integration of other important variables such as 'climate strength' (the level of agreement between respondents of perceptions about the organisation). Whilst developing research designs to provide a complete test of the model would be a significant practical challenge, it is clearly useful to articulate the complexity and range of

theoretical connections between variables which may help explain links between systems of HRM and business performance.

A number of authors have investigated the nature of the 'black box' between the HR system and performance empirically. For instance, Paul and Anantharam (2003) found evidence that employee competence and organisational commitment mediated relationships between HRM and performance within the Indian software industry. Katou and Budhwar (2006) identified employee skills, attitudes and behaviours as mediators of HRM/performance relationships within a survey of Greek enterprises. Neal, et al. (2004) demonstrated that organisational climate perceptions act as a moderator of relationships between HRM and company productivity within a study of UK manufacturing firms. Becker and Huselid (2006) have emphasised the importance of studies focusing not only on business performance measures, but the extent to which HRM is effective in generating 'strategic behaviours' to achieve competitive advantage. They propose that whilst much of HRM research has investigated whether the adoption of systems of HR practices is related to backward-looking measures of financial performance, the successful implementation of forward-looking business strategy is the crucial mediator within this relationship. They suggest a system of HRM should be designed specifically to generate the 'strategic behaviours' central to successful strategy execution and that research designs should take this into account in future studies.

In summary, increasingly complex models have been proposed by researchers to explain how HRM and business performance may be linked. These typically share a view that there are three key elements likely to be involved in such linkages, (a) the level of skills or abilities possessed by employees (b) employee attitudes and motivation to apply these capabilities towards organisational goals and (c) the opportunity or structures which enable these efforts

to have greatest impact. Emerging multi-level models also help to explain how individual-level variables may be aggregated or combined to achieve organisational-level effects, and what processes may influence this. Theoretical development in relation to how HRM and organisational performance are linked provides three main areas of inquiry, namely the role of strategic fit and external industry conditions, the role of implemented HRM (Khilji & Wang, 2006) and the intervening processes linking HRM and performance (Neal, et al. 2004; Katou & Budhwar, 2006). With the exception of research by Datta, et al. (2005) and Combs, et al. (2006), there has been little study of the effects of industry characteristics on HRM/performance relationships, or the appropriateness of different HR practices for particular industry contexts. Within the service sector, the specific challenges faced by employees differ to other sectors such as manufacturing where much HRM research has focused. This is likely to have implications for the appropriateness of particular HR practices and HR systems in each case.

The nature of HRM in the service sector

In their meta-analysis of studies investigating HRM and organisational performance, Combs, et al. (2006) found the strength of relationship between adoption of a system of strategic HRM and performance was significantly weaker in the service sector than for companies in manufacturing industries. Only 17 of the 92 studies they examined were specifically in the service sector, however, the variation in effect sizes indicates that the utility and operation of HRM may differ somewhat in a service context. Additionally, they suggest that many HR practices typically considered by researchers within systems of HRM may be best suited to manufacturing contexts and that practices which may be more important within a service context have received less attention.

Given the above findings, understanding the nature of service work and its implications for HRM is clearly important. Perhaps the key factor distinguishing the service sector is the inseparability of the customer from the service process (Leidner, 1993). Unlike within the manufacturing sector, the interaction with the customer has to largely be managed in real time by the customer-facing employee, rather than producing a product and controlling its quality prior to interaction with the customer. Lashley (1997) put forward two key factors distinguishing types of service work, namely the degree of customisation and the degree of intangibility (and intensity of labour). In particular, he develops the thinking of Heskett, et al. (1990) to identify key distinctions combining marketing, operations management and HRM perspectives. The implication is that the first two factors will shape the nature of customer service work from a people management perspective. His categorisation is shown in the table below:

Figure 6: Lashley's (1997) model of service work



In the 'service shop' setting, what is being delivered to the customer is very tangible (e.g. a tailor-made suit), however the product and service is highly customised. In the 'service factory' again the outputs are tangible but there is little customisation (e.g. a supermarket). Conversely, the 'professional service' requires services highly adapted to the customer needs, relatively intangible outputs and a high degree of specialist skill on the part of those delivering the service (e.g. an accountant or lawyer). Finally, a 'mass service' involves a

standardised service process with intangible outputs (e.g. workers in a call centre handling basic customer enquiries).

Under Lashley's (1997) classification, the organisation under study could fit fairly comfortably into Lashley's 'service factory' category. This is on the basis that firstly the Post Office provides a wide range of tangible services to customers (e.g. cashing a cheque, posting a parcel, buying stamps). Secondly, the cycle time for most customer transactions are relatively short (e.g. under one minute) and each has a standardised process for interaction with the customer (e.g. ask the customer to complete passport form, verify other supporting documents, run through checklist to ensure all details are completed).

As the above illustrates, there are a variety of factors that distinguish different forms of service work. Exploring this in greater detail, Fitzgerald, Johnstrom, Brignall, Silvestro and Voss (1991) posit six dimensions which differentiate between service roles, namely:

1. Customer contact time
2. Extent of customisation
3. Latitude for employees to exercise discretion
4. Focus on people versus equipment
5. The primary source of added value (front or back of house)
6. The extent to which the focus is on the product or the service process

As Fitzgerald, et al.'s (1991) dimensions suggest, the scope of what is described as 'service work' is very broad, from handling a very simple transaction such as selling an evening newspaper through to the delivery of comprehensive cancer care by a multi-disciplinary team of highly trained clinicians. However, both Lashley (1997) and Fitzgerald, et al.'s (1991)

models illustrate how service work differs from other forms of work due to the behaviour of customer-facing employees being integral to the customer's experience.

One of the significant influences in management theory on the role of HRM in the service sector has come from the 'service management school', as outlined in the idea of the service-profit chain (Heskett, et al., 1994; 1997) which proposes a set of mutually reinforcing relationships between employee satisfaction, customer satisfaction and financial performance. This school of thought has tended to focus attention on 'best practice' case studies of particular firms. One emergent theory in the service management school has been the idea of the 'employee-customer satisfaction mirror', a self-reinforcing relationship between employee attitudes and customer satisfaction. This involves good customer service helping achieve positive reactions from customers. The experience of positive reactions and feedback from customers then reinforces positive attitudes amongst employees, leading to continuing motivation and good service. Due to the case study methodology employed by Heskett, et al. (1997) there is limited quantitative, empirical evidence to clearly support or dismiss the assertions put forward. However, there are a number of studies (e.g. Schneider & Bowen, 1985; 1993; Schmidt & Allscheid, 1995; Ryan, Schmit & Johnson, 1996) that identify correlations between measures of employee attitudes, customer satisfaction and performance across operating units in the organisations studied. However, there are fewer studies to date within the service sector which specifically test the role of HR practices. Key industries within the service sector where research has been conducted include banking (Delery & Doty, 1996; Khilji & Wang, 2006), hotels (Hoque, 1999) and health care (West, et al., 2006). However, the role of either HRM systems or employee attitudes in the context of the postal services industry has not been previously researched in the extant literature.

Critical theorists on management in the service sector (e.g. Ritzer, 1996; du Gay & Salaman, 1992) point out that much of what the service management school describe as exemplary case studies, in fact compare poorly in terms of the quality of HRM in relation to other industry sectors, for instance in terms of how employees are treated or have discretion within their jobs. However, definitions of what constitutes HRM in the service sector may need to include techniques which are focused on optimising the quality of customer interactions to meet organisational goals. For instance, this may include performance feedback systems focused on customer service to enable employees to improve how they do their work, or training specifically focused on developing the behaviours required for the effective customisation of service or contextual performance (Neal & Griffin, 1999).

Another issue pertinent to conducting research in the service sector is how the notions of organisational performance are constructed. There is on the one hand the financial perspective with the focus on growth, profitability and financial efficiency. However, there is also a competing view that performance also needs to be examined in terms of satisfying the expectations of customers – that the quality of the service matters and is a source of competitive advantage for commercial organisations. More sales-oriented organisations may be seen as placing a greater emphasis on the financial side and generating profits, as compared with organisations that may promote an emphasis on service to the customers or end-users as a goal in itself (e.g. in the public sector). Parasuraman, Zeithaml and Berry (1988) have shown that customer perceptions of service quality typically involve a number of constructs, namely reliability, responsiveness, tangibles (that any physical ‘products’ meet expectations), assurance (knowledge and courtesy) and empathy. An important facet of the service organisation is hence its ability to ensure that customer-facing employees can successfully achieve the joint and potentially contradictory goals of financial effectiveness

and customer-oriented performance. Many organisations in the service sector promote a superior customer experience as a key source of competitive advantage (Heskett, et al., 1997). In terms of Becker and Huselid's (2006) model, the employee behaviours involved in achieving superior customer service may be key strategic behaviours through which a supporting system of HRM may influence business performance. In measuring organisational performance in the service sector, it is therefore likely to be important that quality of service measures relevant to achieving the business strategy are considered as important outcome variables, alongside more traditional measures of economic performance.

In summary, there are four main issues specific to the service sector to be considered when investigating the role of HRM in this context. The first is the nature of service work, and the inseparability of employee behaviour from the customer's experience of service. Secondly, given the importance of the interaction between employees and customers in the overall customer service experience, it is likely that employee attitudes may be of particular importance in this context. Thirdly, the constituents of HRM within a service context may be different to that which is appropriate within manufacturing contexts. For instance, HR systems may also need to include practices designed to help maintain and improve customer service levels. Finally, the construction of organisational performance should include both financial performance outcomes and performance in terms of meeting customer needs and expectations.

HRM and business performance in the context of the postal service in the UK

The postal industry plays a strategic economic role in supporting the broader economy within the UK, as is also the case in other countries. Within the UK, the postal industry is dominated by the state-owned Royal Mail Group, which has an annual turnover of

approximately £8bn and employs over 190,000 people (near to 1% of the UK working population) with some 50,000 agents running or working in smaller sub-post offices across the country. The rapid growth during the 1990s of communication technologies such as the internet and mobile telephony has driven significant change within the postal industry. Whilst the growth of e-mail usage has had an impact on the use of traditional 2-dimensional mail, there has also been considerable growth in both direct marketing and use of the internet in the retail sector, accompanied by growing demand for timely delivery of 3-dimensional mail items. As such, the performance of the postal industry continues to be a critical key element within the supply chain to enable retailers to capitalise on the efficiencies available through the use of the internet.

This research focuses on the UK network of Post Office branches which forms the customer-facing arm of the Royal Mail Group. It comprises 590 directly-managed branches and over 14,000 agency sub-post offices. It provides access to the postal network, government services and commercial products in markets such as banking, insurance and travel. With increasing liberalisation of the postal market and a government move for welfare benefits to be paid into bank accounts as an alternative to the Post Office, the organisation has faced a major transition from reliance on a virtual monopoly in these two areas to facing full commercial competition. Along with considerable automation and transformation of back office functions, this has required significant changes for frontline employees in terms of the introduction of management practices specifically aimed at facilitating higher levels of customer service and cost efficiency.

Conducting research within this context affords a number of advantages. Firstly, given that the HR policies in place are consistent across directly-managed Post Office branches, it is

possible to investigate the impact of implemented HRM (Khilji & Wang, 2006) on performance whilst keeping HRM at the policy level constant. Secondly, postal services have not previously been subject to HRM research and the applicability of the knowledge base to this strategically important industry will be tested. Finally, building on the study by Datta, et al. (2005), this research will allow the investigation of contextual market factors by assessing the impact of increasing commercial competition on linkages between HRM and intervening variables with business performance.

Key questions for research

Having outlined key theories relating to the HRM/performance link, it is clear there are a number of outstanding areas for further research. Firstly, there is a need to develop understanding of the process and importance of HR implementation rather than conducting analysis simply at the organisational level and relating the adoption of particular HR practices ‘as policy’ to organisational performance measures. Khilji and Wang (2006) in their study of implemented HRM in Pakistani banks, argued for the need to include HR implementation effectiveness as a key dimension within research designs. Whilst their sample was restricted to only 12 organisations, they nevertheless illustrated the importance of both the practical extent of implemented HRM and perceptions of effectiveness as held by employees and line managers. Becker and Huselid (2006) argue that future research should specifically examine the role of HRM as an enabler of strategy execution, demanding that research should focus not simply on policies but how these are applied to deliver the strategy. On this basis, this study will explore how HR practices are actually implemented by line managers and their effectiveness in delivering the business strategy (for instance, through facilitating the desired strategic behaviours by employees).

There is a clear need for research to focus on the intervening processes or ‘black box’ between HRM and organisational performance (Becker & Huselid, 2006; Katou & Budhwar, 2006). For instance, do HR practices act via mediating variables such as employee competence or organisational commitment? Is performance facilitated through generating the social context for superior performance (Ferris, et al., 1998)? Or does HRM drive the utilisation of slack resources when levels of organisational commitment or climate perceptions are lower (Neal, et al., 2004)? Given the somewhat lower effect sizes that have been observed in studies of the HRM/performance link in the service sector (Combs, et al., 2006), it is likely that research will benefit from focusing on those practices specifically designed to support performance in a service environment rather than practices which may be more suited to a manufacturing context. Additionally, developing understanding of the relationships between key psychological variables, such as evaluative climate perceptions and measures of employee affect (Neal, et al., 2004) will be key to revealing the processes within the so-called ‘black box’ between HRM and performance within service contexts. This study will seek to address these questions by focusing on the implementation of practices relevant to supporting the delivery of customer service behaviours and the intervening role of climate perceptions and employee affect in these processes.

Whilst Datta, et al. (2005) have identified the role of industry characteristics as a moderator of the strength of HRM/performance relationships, the level of commercial competition faced by organisations or operating units has not to date been explored as a potential moderator within the extant literature. Given the increasing levels of competition being experienced by post offices in the face of significant structural market change and liberalisation, it is likely that both the implementation of practices to support a customer service strategy and the impact of intervening variables such as organisational commitment or job satisfaction will

have the greatest impact on business performance where competition is stronger. Conversely, as Heskett, et al. (1997) suggest, where units face much lower levels of commercial competition it would be expected that there is less scope for customer service behaviours and their antecedents to significantly impact business performance. Investigation of the role of competition in the service sector, where the quality of customer service is often viewed as a key strategic differentiator within an organisation's business strategy, will further develop understanding of the contextual conditions which influence the level of impact of HRM on business performance.

In pursuing these key research questions, it is essential for studies to use robust designs seeking to avoid the methodological limitations of previous work. Many published studies have used survey approaches with a senior line or HR manager to collect data on HR practices and systems and business performance variables. It is important for research designs to utilise independent and multiple data sources so that the knowledge base can be developed with confidence that common-method bias and associated measurement errors or inflation of effect sizes are avoided. In order to allow directionality of relationships to be clearly understood and help rule out reverse causation hypotheses (e.g. higher financial performance leads to greater capacity to invest in HRM), it is also essential that measurements of economic performance control for prior performance. In order to investigate the processes linking HRM systems to organisational performance, it will also be helpful for research designs to encompass key stakeholders such as line managers and frontline employees, and measure the execution of forward-looking strategic behaviours (Becker & Huselid, 2006) as well as backward-looking accounting measures of performance. This study seeks to advance understanding of these outstanding areas for research by investigating the role of implemented HRM and employee attitudes in a service sector

context, specifically in relation to facilitating customer service and economic performance within Post Office Ltd. The next chapter reviews the organisational-level evidence for an HRM/performance link in depth, whilst chapter 3 reviews the evidence and rationale for moving from a view of HRM 'as policy' towards research focused on understanding how HR practices are implemented in practice and how the intervening processes influence their successful impact on performance.

2. THE EVIDENCE FOR RELATIONSHIPS BETWEEN HRM AND ORGANISATIONAL PERFORMANCE

In chapter 1, key theories regarding HRM and how it relates to performance were explored. In this chapter, the evidence for organisational-level relationships between HRM and performance is reviewed. There has been considerable variability in the robustness of studies in this area and this issue is taken into account in reviewing the relevant literature. A number of seminal studies demonstrated relationships between HRM and organisational performance but relied on self-report measures of performance, which may be less robust than truly independent measures (Arthur, 1994; Guest & Hoque, 1994; Youndt, et al. 1996). A number of other key studies have used independent measures of performance (Huselid, 1995; MacDuffie, 1995; Ichniowski, et al. 1996; Delery & Doty, 1996), however they are cross-sectional in design and prior economic performance is not controlled so the directionality of relationships between HRM and business performance is uncertain. Some studies in the field have overcome these methodological limitations (Patterson, et al. 1997; Huselid, Jackson & Schuler, 1997) and provided stronger evidence of the positive benefits of HRM to organisations. Additionally, there are also exceptions where the evidence for relationships between HRM and performance is less clear (Wood & De Menezes, 1998; Wright, McCormick, Sherman & McMahan, 1999). In their meta-analysis of the area, Combs, et al. (2006) aggregated 92 studies addressing the HRM/performance link and through their research have been able to provide an estimate the typical effect size of HRM across studies.

This chapter begins by addressing the conceptualisation and measurement of organisational performance. Following this, the key research examining links between HRM and organisational performance is reviewed and critiqued. Key theoretical and methodological

issues emerging from this research base are discussed and key issues for future research are identified, setting the context for chapter 3 which reviews subsequent research in the HRM field relating to the importance of implementation of HR practices and the intervening processes linking HRM with performance, and the impact of market and industry characteristics on HRM/performance links.

Understanding and measuring organisational performance

A persistent finding in organisational research has been that organisational performance is multi-dimensional (Ostroff & Bowen, 2000). How organisational performance is measured is naturally a key concern to any research investigating the impact of HRM in organisations. There are broadly two historical approaches to this issue, the goal approach and system resource approach (Price, 1972). The economic performance of companies as measured in terms of net profit is a classic example of the goal approach to performance. The system resource view, however, takes much more account of the effectiveness of organisational processes in relation to their constituent inputs. For instance, the focus would be on how well a company has optimised the use of its basic resources (employees, technology, capital) rather than simply on the final 'bottom-line' figures.

Developing from this, it is also important for any model of organisational performance to take account of the different constituencies or stakeholder groups involved and understand performance from their alternate perspectives. A political model of organisations has increasingly been the basis for performance measurement in organisations, which as Kanter and Brinkerhoff (1981) put it:

“...views organisations as battlegrounds for stakeholders, both inside and outside, who compete to influence the criteria for effectiveness so as to advance their own interests.”

Kanter and Brinkerhoff (1981), p. 323

As such, what constitutes effectiveness may be both multidimensional and contingent on specific stakeholder goals. For instance, in a commercial organisation economic performance for shareholders may centre around the share price and dividends, employee views of performance may relate more to the pay and rewards, career development and quality of working life they enjoy, whilst customers will be more concerned with getting the product or service they want at the right level of quality, easily and at a good price. From this logic, the balanced scorecard approach to performance measurement has grown rapidly in recent years (Kaplan & Norton, 1996). In this approach, a balanced set of performance measures are used to manage the organisation, covering the key stakeholder groups. A balanced scorecard will typically involve four areas:

- a) meeting financial targets
- b) meeting customer needs
- c) meeting employee needs
- d) having efficient business processes

In the case of public sector organisations, this may even include evaluation of the ‘social value’ of the organisation to the wider society in which it operates. Additionally, many profit-making organisations also have broader ‘social accounting’ measures related to their corporate responsibilities to society (Kanter & Brinkerhoff, 1981).

One of the key aspects of the balanced scorecard approach (Kaplan & Norton, 1996) is not only that the needs of different stakeholders should be met, but also that these goals are often interdependent. Hence, the balanced scorecard rationale assumes that optimum organisational performance occurs when a wide range of stakeholder interests are met. For instance, financial performance may be dependent on effective delivery in other key areas (e.g. efficient business processes, good service to customers and motivating and retaining employees). The approach is grounded in the resource-based view of the organisation (Penrose, 1959) which proposes that to secure competitive advantage and be ultimately effective (e.g. financially), the organisation must successfully generate value from the resources it possesses.

Research on HRM and organisational performance needs to take account of the specific performance measures relevant for the industry sector or organisation under study. For instance in manufacturing, productivity and quality may well be key outcome measures, whilst in the service sector meeting the subjective expectations of customers may have a greater prominence. In the following section, key studies investigating relationships between HRM and performance are reviewed and the key points to be learnt identified.

Review of key studies

This section reviews key studies exploring the relationship between systems of HRM at the policy level and organisational performance, ordered by the robustness of the research designs employed. Following this, the overall evidence is reviewed with reference to meta-analysis of the area (Combs, et al., 2006) and the emerging theoretical and methodological issues are discussed.

Cross-sectional studies with self-report measures of organisational performance

Numerous studies have been conducted investigating the relationship between HRM and organisational performance which have utilised self-report methods to assess organisational performance using a cross-sectional research design. These studies have been significant in demonstrating evidence of a relationship between a system of HRM and performance, however, the objectivity of performance data is uncertain and limits the confidence with which findings can be interpreted. The findings and implications of key studies in this body of research are reviewed below, including Arthur's (1994) study of steel mini-mills, Guest and Hoque's (1994) study of UK firms, MacDuffie's (1995) research in the automotive industry and the research by Youndt, et al. (1996) in manufacturing.

Arthur's (1994) study of steel mini-mills

One of the first studies of HRM as a system and its relationship to organisational performance was Arthur's (1994) research of steel mini-mills in the US. This study involved a relatively small sample of 29 mini-mills and sought to test relationships between organisational performance and two systems of HRM, classified as 'control' or 'commitment' in line with the theoretical distinction drawn by Walton (1985). HRM was measured in relation to a number of indices relating to the extent of a commitment or control approach, as follows:

Decentralisation: Degree to which non-supervisory employees monitor data on quality, costs, productivity and scrap; determine work flow or order of tasks; invest in new equipment and technology; develop new products.

Participation: Percentage of mill employees who received training in group problem-solving, meet on a regular basis in small groups to discuss production or quality problems, or are involved in joint union-management or employee-management committees.

General training: Part of general training and development activities for production and maintenance employees accounted for by seminars, classes, and training not directly related to employees' immediate work area: general skills training not directly related to the employee's current job, or people skills training such as in communication or problem solving

Skill: Number of maintenance or craft workers as percentage of mill employees

Supervisor: Number of production workers per supervisor

Social: Number of times per year management organises social gatherings for employees, such as company picnics or bowling

Due process: Percentage of total employee complaints or grievances that are handled through formal grievance procedures involving several steps, up to and including binding third-party arbitration

Wages: Average total employment cost per production and maintenance worker, including wage rate, benefits, bonus or incentive payments and taxes

Benefits: Percentage of total average employment cost accounted for by employee benefits

Bonus: Percentage of total average employment cost accounted for by bonus or incentive payments

Percentage unionised: percentage of workers who are union members

A cross-sectional survey was completed by an HR manager and the most senior line manager within each mill. Company performance was assessed in terms of employee turnover, scrap rate (quantity of steel not meeting necessary standards) and labour efficiency (person hours used to produce one tonne of steel). Using cluster analysis, an initial six clusters were reduced to two to provide the two groupings of HR systems. Both t-tests and regression analyses were used to test relationships between the HR systems and performance outcomes, controlling for unionisation within mills. Arthur notes a significant biserial correlation ($r=.46$, $p<0.05$) between the strategies employed by mills, i.e. Porters (1980) cost reduction and differentiation strategies, and the adoption of 'control' or 'commitment' HR systems. In terms of labour turnover, the results were also statistically significant ($t=2.19$, $p<0.05$), showing this was approximately twice as high in the 'control' HR system. Arthur's regression analysis showed that scrap rates correlated (Std. Beta=-.14, $p<0.05$) with HR system, whilst a stronger relationship was found between HR system and labour efficiency (Std. Beta=-.79, $p<0.05$).

Overall, the study indicated that the application of a 'commitment' HR system was related to improved performance in terms of both quality and productivity. In particular, Arthur drew out the point that no trade off was apparent between quality and efficiency, as both scrap rates and labour efficiency were correlated with a 'commitment' approach to HRM. A

commitment approach was more frequent amongst mills using a differentiation strategy, though any cause and effect between business strategy and HR strategy was unclear due to the cross-sectional nature of the research design. However, as performance information was collected via self-report the study does not test whether this information is accurately related to comparable measures of operational and financial performance between mills. Similarly, the sample size was limited, affecting confidence in the strength of relationships reported.

Guest and Hoque's (1994) study of UK firms

In the United Kingdom, Guest and Hoque (1994) pioneered research in this area with their study of 'the good, the bad and the ugly' in terms of people management practices adopted by UK firms. In this study of 119 establishments, Guest and Hoque defined HRM in terms of the incidence of 23 'good' practices, namely: harmonised terms and conditions; single status; internal promotion the norm; no compulsory redundancy; trainability as a major criterion; use of psychological tests for selection; realistic job previews; system to communicate values to new staff; deliberate development of a learning organisation; minimum annual training requirements for all; flexible job descriptions; jobs designed to make full use of skills; teamworking for majority of staff; staff involved in setting performance targets; staff responsible for own quality; majority involved in quality circles; regular use of attitude surveys; team briefing/information cascades; information of market position/company performance; merit pay for all; formal appraisal at least annually; HR policy integrated with business strategy; HR policies integrated with each other.

They classified organisations into four categories, the 'good' which made heavy use of HR practices and had integrated this with business strategy, the 'bad' with little use of HRM and no link to strategy, the 'ugly' with a control-oriented HR strategy linked to business strategy

but little use of HR practices and the ‘lucky’ with good use of HRM but no link to business strategy. Performance was assessed by self-report from the organisations within the study, in terms of meeting quality targets and how well they had coped with the recession in the UK immediately prior to the research. Productivity and quality information was compared with UK and global benchmarks.

Perhaps surprisingly, the evidence suggested that of the different classifications, self-reports of performance by the ‘bad’ organisations were highest for meeting quality targets. However, the ‘good’ organisations outperformed others in terms of coping with the recession and on quality when benchmarked across UK organisations. Whilst revealing mixed results, this study was again significant as a seminal piece of research seeking to understand the prevalence and impact of systems of progressive HRM on organisational performance. However, as the assessment of performance is via self-report measures, its objectivity and accuracy is unclear.

MacDuffie’s (1995) study in the automotive industry

MacDuffie’s (1995) study investigated the role of HRM across 70 plants in the automotive industry and is significant due to its focus on the relationship between the system of HRM adopted and its integration with the broader operating strategy of the organisations studied. He proposed that HRM would be most effective when employees have knowledge that managers lack, are motivated to expend discretionary effort and where the strategy is best achieved when discretionary effort is made by employees. This fits broadly with the ‘commitment’ approach espoused by Walton (1985), stressing the importance of harnessing otherwise hidden knowledge and skills held by employees through motivating them to make use of these capabilities. He also tested the extent to which HRM practices operate as

‘bundles’ to influence performance. He proposed that synergies between particular clusters of mutually reinforcing practices would have a greater aggregate effect than simply having a subset. For instance, this rationale would suggest that a company which both selects people with strong generic knowledge and skills and gives them thorough training in the company’s own ways of working to ensure these capabilities can be applied to the full, might achieve a significantly greater impact on performance than an organisation which employs one practice or the other. This would be an example of a ‘bundle’ working through a process of internal fit.

MacDuffie measured the type of production systems in use via an index of ‘buffers’ to assess the extent to which they employed a flexible approach (e.g. minimising inventory held) as opposed to a mass production approach. This additional variable provided an index of the production strategy and as such provided a measure for assessing external fit. The hypothesis in this regard was that the flexible production approach is intended to be more holistic in nature, facilitating problem-solving between workers to improve overall effectiveness. In the case of a rigid mass production strategy, the opposite is assumed to be the case, in that such flexibility is engineered out of the system to ensure costs are kept to a minimum. In doing so, the opportunity for discretionary effort by employees being harnessed to improve performance is greatly reduced or eliminated.

His research identified two ‘bundles’ of HR practices, based on key areas that differentiated ‘flexible production’ plants from ‘mass production’ plants. MacDuffie used cluster analysis to identify his bundles, by identifying clusters of automotive plants using similar sets of HR practices. He argued against the use of factor analysis on the basis that this technique is useful for identifying items in a scale that all relate to one underlying construct. Instead, he

suggested cluster analysis was more appropriate as it groups observations that are closely related multidimensionally for a given set of variables. On this basis he identified two 'bundles'. He called these the 'work system' and 'HRM policies', each measured through five equally weighted items and assessed by surveys completed by HR or line managers and observation through field visits.

Figure 7: MacDuffie's (1995) model of HRM



MacDuffie's 'buffers' index included three specific elements relating to how much slack was built into the production system to accommodate downtime or other problems within the production process. These were space dedicated to final assembly repair as a percentage of total assembly area space; average number of vehicles held in 'work in progress' buffer between paint and assembly areas as a percentage of one shift's output and average level of inventory stocks. The outcome variables he used were labour productivity and product quality. MacDuffie saw his approach as consistent with social-technical systems theory (Trist & Bamforth, 1951; Emery & Thorsrud, 1976; Pasmore, 1988) in stressing the need for social systems (as managed through HRM) to be integrated with technical systems of production (i.e. flexible versus mass production). He differs, however, in placing the stress on organisational learning rather than team autonomy. He argued such an approach often builds in buffers to ease stresses on the production process, as opposed to flexible or 'lean' production which aims to minimise buffers, reducing energy diverted away from the core production process and incentivising quality improvement.

The results revealed significant correlations between the three indices and the two output measures, ranging from $r = -.43$ ($p < 0.01$) to $r = -.67$ (correlations are negative due to the measurement of performance in terms of lower production times per vehicle and lower quality defects). The correlations for each bundle are noted as being higher than for individual practices. To control for problems of multicollinearity inflating the standard errors (Blalock, 1979), the author made use of centering to change the structural relationship between the variables (Cronbach, 1987) where the mean value for a variable is subtracted from each score. MacDuffie also controlled for country differences between the US and Japan (where in fact there was no significant effect). Productivity was significantly predicted by MacDuffie's three indices of Buffers, Work System and HRM Policies. There was

evidence of incremental validity, with $R^2=0.543$, $R^2=0.597$ and $R^2=0.649$ respectively, with significant interaction effects. Quality showed similar findings, with the Work System index producing an $R^2=0.149$, and multiplicative indices of HR policies showing $R^2=0.241$ and with Buffers increasing to $R^2=0.293$. However, in this case the additive model showed a greater $R^2=0.429$, suggesting that, in relation to quality, an additive model would appear to have greater validity.

Overall, the results show some good evidence of the effect of HRM on organisational performance, for both productivity and quality in terms of both the organisation of work and supporting HR policies. Additionally, the significant interactions found suggest that the use of a lean production approach appears to act as a moderator in terms of productivity, though for the quality measure this was not apparent given the higher R^2 for an additive model. As MacDuffie (1995) points out, an obvious limitation of the study is the use of cross-sectional data, limiting the ability to infer directionality. Additionally, the use of survey data from plant managers does not provide more detailed information on the extent to which the elements within the Work System and HRM Policies index were put into practice within each plant. The study shows clear support for the impact of HRM on organisational performance and supports the argument for an interaction effect with a 'lean production' manufacturing approach.

Youndt, Snell, Dean and Lepak's (1996) study in manufacturing

This study aimed to explicitly test universalist and contingency perspectives on links between HRM and performance. The authors divided HR practices into two broad categories, firstly those seen to be 'human capital enhancing' and focused on facilitating delivery of organisational aims and secondly those primarily seen as administrative. Human-capital enhancing HR practices were identified in four groupings as follows:

Staffing: selectivity in hiring, selection for technical skills, selection for problem-solving skills

Training practices: comprehensiveness, training for technical skills, training for problem-solving skills

Performance appraisal practices: developmental focus, behaviour-based appraisal

Compensation systems: hourly pay, salary, skill-based pay, group incentives, external equity

The administrative HR practices were similarly grouped in four categories, covering selection for manual and physical skills, training policies and procedures, administrative and results-based appraisal, hourly pay, individual incentives and internal equity. Confirmatory factor analysis showed that the two-factor solution to cluster HR practices had a good statistical fit. For each scale, Cronbach's alpha exceeded 0.7 indicating a good degree of internal consistency. The authors surveyed a total of 512 manufacturing plants operating in different areas of the metal-working industry in the US. By focusing on plants at the establishment-level, the intention was to control for differences in management approaches that might occur

between sites within the same corporate entity. Surveys were sent to operations managers, production managers, quality managers and HR managers to provide multiple perspectives on each site. Only plants where at least two managers had replied were included in the initial sample. After an 18 month period, a second wave of questionnaires were sent out to managers who had responded in the first wave, measuring manufacturing strategy and performance, providing a final sample of 97 plants. To test for bias in which plants had responded, the authors compared the sample to plants not taking part and found no significant differences in terms of size, industry type and unionisation, finding no significant differences.

Moderated hierarchical regression was used to test the impact of HR systems. Firstly, environment control variables were entered, followed by strategy, extent of each HR system, followed by the cross-products to test interaction effects (e.g. strategy vs. HR system).

Within this approach, moderation is seen to occur when statistically significant variance is accounted for by interaction effects over and above the main effects. The analysis showed statistically significant main effects for human-capital enhancing HR systems and employee productivity ($\Delta R^2 = 0.14$). Beyond this, there were significant interaction effects between a quality strategy and human-capital enhancing HR system in relation to each of the performance measures, namely employee productivity ($\Delta R^2 = 0.07$) and customer alignment ($\Delta R^2 = 0.12$). In relation to equipment efficiency, quality strategy interacted with human-capital enhancing HRM and cost strategy interacted with administrative HRM ($\Delta R^2 = 0.09$).

An important distinction to be made in this study is the focus on strategy in terms of how the business operations are run (i.e. focus on quality or efficiency in manufacturing processes) as opposed to business strategy in terms of how the organisation positions itself within its environment (Porter, 1980). This is perhaps more akin to the lean production approach, rather than the competitive positioning of products or services within a market.

Overall, the results provided evidence both that the human-capital enhancing system of HRM was linked to improved productivity, quality and efficiency and also that there were some clear interaction effects in relation to the production strategy employed. The configurational perspective was not assessed within the analyses. The authors note that the study assesses relationships at the establishment level, but to fully understand the complexity of relationships and analysis at multiple levels would be preferable. Also worthy of note is the limited range of HR practices covered, which include supporting HRM policies (MacDuffie, 1995) but do not provide any significant coverage of practices related to the organisation of work itself, such as workforce planning, job design, or employee participation systems. Whilst the authors ensured that responses were gathered from at least two line managers to aim to ensure reliability of measurement, again there is a reliance on a survey-based methodology to measure organisational performance.

Ichniowski, Shaw and Prennushi's (1997) study of steel finishing lines

This study used data from 36 steel finishing lines in US companies. HRM was assessed in terms of the existence of four different 'systems'. System 1 incorporated a full range of 'innovative' HR practices, namely: profit-sharing; incentives for meeting production targets; selective screening of recruits; employee participation; job rotation; team-based working; employment security; wide information-sharing; regular meetings between managers and production workers; management-union cooperation and extensive training. Organisations using system 4 ('traditional HRM') were seen as having no innovative practices and instead tended to utilise Taylorist approaches such as narrow job designs, extensive rules and regulations, focus on individuals rather than teams and limited information-sharing or

training. System 3 was similar to system 4, but involved team-based working and broad communication and information-sharing. System 2 involved extensive training, effective use of teams and increased use of communication between managers and staff.

Ichniowski, et al. (1997) assessed two key outcome variables, productivity (essentially lack of downtime on the production line) and quality (the percentage of output that was to standard) using site visits and extensive interviews with line managers. Regression analysis was used to test relationships between HR systems and outcome variables and they also included a wide range of control variables to enable comparability across finishing line operations (e.g. extent of automation).

Their analysis indicated that system 1, comprising the full range of innovative HR practices, delivered the greatest productivity and quality, and the progression followed through their other systems through to system 4 showing the worst performance. Further analysis to test the impact of individual HR practices indicated that they had little effect on their own, lending some support to a configurational perspective that the overall system is important to deliver performance gains. Again, the study demonstrated evidence of a relationship between HRM and organisational performance within a manufacturing context, but was limited by the reliance on self-report rather than objective measures of performance.

In summary, a number of seminal HRM studies were reviewed above (Arthur 1994; Guest & Hoque, 1994; MacDuffie, 1995; Youndt, et al., 1996; Ichniowski, et al., 1997). These studies revealed consistent evidence for a relationship between the adoption of HRM and organisational performance, with strong effect sizes found in some studies (e.g. MacDuffie, 1995). Whilst there is some evidence to support the validity of subjective measures of

performance (Wall, et al., 2004), nevertheless the objectivity of performance measures and risk of criterion contamination, which may inflate effect sizes, are a significant concern (Guest, Michie, Conway & Sheehan, 2003). Finally, the cross-sectional nature of the research designs means that it is not certain whether the adoption of HRM leads to improved performance, or vice versa that organisations which are more financially successful are more likely to invest in HR systems.

Cross-sectional studies with independent measures of organisational performance

As illustrated above, a number of studies have demonstrated evidence of links between the adoption of systems of HRM and higher levels of organisational performance as measured through self-report from the organisations studied. However, there is clearly the opportunity for common-method bias and potentially criterion contamination when respondents are reporting on both the adoption of HRM and performance simultaneously. However, authors such as Huselid (1995) and Delery and Doty (1996) conducted cross-sectional studies which overcame this issue through the use of entirely independent measures of performance.

Huselid's (1995) multi-sector study of US firms

His study was perhaps one of the most comprehensive in this area, as it involved data from a usable sample of 968 US companies across industry sectors. Huselid sought to examine the impact of HRM practices as a system and undertake a comprehensive analysis, including both intermediate outcome measures such as labour turnover, productivity and ultimate economic outcomes. He also explicitly tested the three 'fit' perspectives: universalism, external and internal fit. Company level data on the proliferation of HRM practices was collected by questionnaire from senior human resources professionals in each organisation (producing an overall response rate of 28% from an initial sample of 3,452). Huselid built on the measures

used by Delaney, Lewin and Ichniowski (1989) in their measurement of HRM, categorising HRM or 'High Performance Work Practices' into two areas, 'employee skills and organisational structures' and 'employee motivation'. His measurement of HRM was structured as follows:

Employee skills and organisational structures

What is the proportion of the workforce:

Who are included in a formal information sharing programme (e.g. a newsletter)?

Whose job has been subject to a formal job analysis?

Who are administered attitude surveys on a regular basis?

Who participate in a QWL (quality of working life) programme, quality circles and/or labour-management participation teams?

Who have access to company incentive schemes, profit-sharing and/or gain-sharing?

Who have access to formal grievances and/or complaint resolution system?

Administered an employment test before hiring?

What proportion of non-entry level jobs have been filled from within in recent years?

What is the average number of hours training received by a typical employee over the last 12 months?

Employee motivation

What is the proportion of the workforce:

Whose performance appraisal is used to determine their compensation?

That receives formal performance appraisals?

Which of the following decision rules do you use most often: (a) merit or performance rating alone, (b) seniority only if merit is equal, (c) seniority among employees who meet a minimum merit requirement, (d) seniority?

For the five positions your firms hires most frequently, how many qualified applicants do you have per position (on average)?

The measures of HRM as outlined above were derived using factor analysis based on the frequency of occurrence so were empirically grounded in terms of which clusters of HR practices tend to be deployed together. The internal consistency of each scale as measured by Cronbach's alpha was 0.67 for 'employee skills and organisational structures' and 0.66 for 'employee motivation'. This is less reliable than levels of internal consistency that would be typically expected with a measurement scale, suggesting there is still considerable variability in the adoption of practices within each of the scales used. Internal fit was assessed in terms of both moderation and the degree of match between the two factor scales for HRM. External fit was assessed through respondents' answers in relation to the proportion of sales derived from each of Porter's (1985) competitive strategies and the moderating impact of these factors. This was also assessed in terms of the extent to which respondents said they attempted to align HRM with strategy.

In terms of outcome measures, turnover was assessed based on questionnaire responses and captured annual turnover as a percentage. Huselid acknowledges that this measure contains both voluntary and involuntary turnover so may be an overstated measure of employees choosing to leave the organisation. Productivity was measured in terms of the log of sales in dollars per employee. Corporate financial performance was assessed through two measures. Tobin's q was used as a market-based measure. This is calculated by dividing the market

valuation of the company by the replacement cost of assets (Hall & Torrington, 1988; Hirsch, 1991). As such it gives an indication of the added value created by how the company is managed. The second, accounting-based measure used was GRATE (gross rate of return on assets), calculated by dividing cash flow by gross capital stock (Hall & Torrington, 1988). Whilst the measurement of turnover was gathered through self-report questionnaires, the measurement of productivity and corporate performance was taken from an independent database of company performance, ensuring there was no risk of common-method bias.

The results from Huselid's analysis showed consistent impact of HRM on the performance measures. A one standard deviation increase in the use of HRM practices related to a 7.05% decrease in annual labour turnover, increase in annual sales per employee (productivity) of \$27,044, increase in market valuation (derived from Tobin's q) of \$18,641 per employee and increased profitability (derived from GRATE) of \$4,669 per employee (based on an assumed 8% per year discount rate on the investments in HRM). A number of important factors were also controlled for in the analysis, including company size (number of employees), capital intensity, sales growth over last five years, industry profitability and unionisation, company unionisation. Turnover was also included as a control variable in the analyses of links to productivity. Huselid points out that the financial measures used are only partially intercorrelated (for instance, Tobin's q and GRATE were correlated 0.35) so the study provides good evidence of an overall, beneficial effect of the use of progressive HRM. There was also clear evidence that the intermediate measures of performance accounted for some of the relationship between HRM and financial performance. When labour turnover and productivity were entered into the model together, they reduced the impact of the HRM measures on q by 74% and GRATE by 77%, clearly suggesting they are the primary route through which HRM enables financial performance.

Overall, Huselid's results also provide strong support for the universalist perspective.

Analysis of fit showed a mixed picture, with a significant interaction effect found between the two HRM scales and both Tobin's q and GRATE. Also, there was a significant relationship between GRATE and the interaction between the 'Employee Motivation' index and strategic alignment of HRM. Beyond this, however, all other tests of external fit were non-significant. Overall, there was little evidence of either external or internal fit adding a significant incremental effect over and above the main effect of HRM.

In his discussion of results, Huselid suggests that whilst strong evidence has been found for the universal effect of HRM, the theoretical case for the 'fit' hypotheses is still strong.

However, given the substantial sample size and use of independent data on economic performance, this study gave strong support from an empirical perspective for a largely universal link between adoption of systems of HRM and greater levels of business performance. However, given that prior performance was not controlled, the hypothesis that more successful companies have the ability to invest more heavily in the HRM systems cannot be readily discounted.

Delery and Doty's (1996) study in retail banking

Whilst many of the earlier studies of HRM as a system were grounded in manufacturing industries, Delery and Doty surveyed HR managers in 216 US banks, yielding usable questionnaire returns from 114 bank presidents. The use of practices were grouped theoretically into three categories, the two extremes being a market-type system focused on use of profit-sharing and appraisals versus an internal system focused on employed security and internal progression. A 'middle-of-the-road' system was specified in between. Business

strategy was also assessed within the survey, using Miles and Snow's (1978) typologies of 'prospector', 'analyser' and 'defender'. Prospectors are described as constantly searching for new products and markets, whilst defenders operate in stable markets and tend to focus on defending their existing market share with an emphasis on efficiency. Analysers typically follow changes initiated by prospectors as they happen, moving significantly more quickly than defenders. Financial performance was assessed using two measures, return on average assets (ROA) and return on equity (ROE), obtained through an independent database of bank performance in the same year as the surveys were conducted.

In this study Delery and Doty set out specifically to test the three emergent perspectives relating to 'fit' in HRM research to identify which were most strongly supported, that is the universalist, contingency and configurational viewpoints. They identified seven practices as common to the much of the literature for inclusion in their study: internal career opportunities; training; results-oriented appraisals; profit-sharing; employment security; participation and job descriptions.

The results showed a significant impact after controls on ROA ($\Delta R^2 = 0.13$) and ROE ($\Delta R^2 = 0.09$), supporting a universalist perspective. In terms of the contingency perspective, of the 14 regressions run in their analysis, only one interaction term showed a significant relationship with ROA. Support for a configurational perspective was similarly lacking, with either non-significant results or a limited amount of variance explained. In summary, the results showed strongest support for a universalist perspective and some inconsistent, weaker interaction effects in relation to the contingency or configurational positions. The 'market type' system as specified by the authors was also the most strongly associated with higher financial performance. Through the use of independent measures of performance, this study

provides good evidence of links between HRM and business performance in a service sector context. In a similar manner to Huselid's (1995) study, it is not however possible to discount the hypothesis that economic success may also lead to greater adoption of HRM by providing the capacity to invest in these practices.

Studies which have controlled for prior financial performance

A number of key studies identified links between HRM and performance using self-report measures of performance, and others such as Huselid (1995) and Delery and Doty (1996) successfully demonstrated similar relationships using independent company performance measures. This body of research has supported the existence of a relationship between adoption of HRM by organisations and higher levels of performance, but the directionality of such relationships has been unclear from this research. Subsequent studies (e.g. Patterson, et al., 1997; Huselid, et al., 1997) have sought to control for prior economic performance, ensuring that the direction of relationships can be understood with greater confidence. Where prior performance is controlled, HRM/performance links will be related to changes in performance having taken account of the organisation's greater or lesser ability to invest in HRM and as such give considerably greater confidence in the directionality of the relationship.

To summarise, the two HRM studies reviewed above illustrated evidence showing a link between the adoption of HRM and higher levels of performance using independent measures. Given the lack of opportunity for common-method bias, their results give greater confidence than many other studies in the existence of a link between HRM and performance. Both Huselid (1995) and Delery and Doty (1996) observed significant effect sizes in terms of their management implications, ranging from 7% to 13% of variance in performance measures

explained by HRM. Whilst significant, these effects are of a lower magnitude than those observed in some studies utilising subjective performance measures which may be prone to inflating the true size of relationships. These studies strengthened the case for a HRM/performance link, but the question of the causal processes and directionality of the relationship remain in need of investigation.

Patterson, West, Lawthom and Nickell's (1997) study in UK manufacturing

This longitudinal study examined data collected from 67 manufacturing companies in the UK. In order to control for the multi-level issues inherent in analysing data from many large companies, which are distributed across many locations and where interactions between different units or establishments may affect outcomes such as productivity or profit, only single-site, single-product companies were included. Data collection used multiple sources, including interviews with senior managers to assess the extent of HRM, business strategy and investment of effort in other key areas of activity such as quality, strategy development and research. Organisational climate was also measured using employee surveys and related to organisational performance. Performance was assessed through two outcome measures. The first of these was productivity (sales/employee for the company as a proportion of sales/employee in the industry) and profit before tax (controlling for company size and produce price index for the industry). Regression analysis was used, controlling for prior performance over the previous 3 years. HRM was measured by the extent and sophistication of a range of practices including: selectivity in hiring; induction training; training in post; appraisal; skill flexibility; job responsibility; job variety; use of teams; quality improvement teams; communication processes; harmonisation of pay; comparative pay; performance-based pay systems. Factor analysis identified two main factors, which were labelled 'Acquisition and Development of Skills' and Job Design'.

In terms of direct links between HRM and organisational performance, significant effect sizes were identified. Overall, the extent and sophistication of HRM (both of the factors combined) accounted for 18% of the variance in productivity and 19% of the variance in profit between companies. Importantly, performance measures were independent of HRM measures. Given prior performance was controlled, although not providing absolute evidence of causality, this feature of the analysis provides considerably stronger support than in cross-sectional studies of the likely direction of the relationship by demonstrating that the extent of HRM adoption was related to subsequent improvements in performance.

Huselid, Jackson and Schuler's (1997) study of US firms

Huselid, et al. (1997) were specifically interested in investigating their distinction between 'strategic' and 'technical' HRM and how each linked to company performance. They set out specifically to test four hypotheses. Firstly they anticipated that companies had achieved higher effectiveness in their 'technical' HRM than their strategic 'HRM'. Secondly, they posited that both of these dimensions of HRM would be positively related to company performance. Beyond this, they tested whether HR managers had greater professional rather than business-specific capabilities. Finally, they tested whether strategic HRM effectiveness would be correlated with both types of capability, whilst technical HRM effectiveness would correlate only to professional HR capabilities.

HRM effectiveness and capabilities were assessed through a survey of senior executives in HRM and line positions across 293 publicly-owned US companies (there were no significant differences in responses between managers whether they were in HR or line management roles). They constructed indices based on factor analysis of the survey data they collected.

From the 23 items assessing effectiveness of HRM practices, the two dimensions were comprised as follows.

Strategic HRM focused on how well employees were developed and managed to support business needs. This was measured by senior executives perceptions of the effectiveness of 8 practices: teamwork; employee participation and empowerment; workforce planning – flexibility and deployment; workforce productivity and quality of output; management and executive development; succession and development planning for managers; advance issue identification/strategic studies and employee and manager communications. This scale had a reasonable degree of internal consistency with a Cronbach's alpha of .75 for the 8 items.

Technical HRM effectiveness involved senior executives' perceptions of 14 practices which the authors categorised as administrative functions of HR: benefits and services; compensation; recruiting and training; health and safety; employee education and training; retirement strategies; employee/industrial relations; social responsibility programmes; equal opportunities for women, minority groups, etc.; management of labour costs; selection testing; performance appraisal; human resource information systems and assessing employee attitudes.

The performance of companies was assessed via three measures, obtained for the 293 firms used in this study. This was obtained for the year prior (1991) and year following the collection of survey data (1992). Productivity was assessed as the logarithm of net sales per employee as previously used in an earlier study by Huselid (1995). As in Huselid's previous (1995) study of 968 US firms, profitability was assessed using two measures, GRATE (gross rate of return on assets) and Tobin's q.

The results indicated that labour productivity and GRATE were predicted by the strategic HRM index, whilst Tobins q was predicted by technical HRM. In terms of effect sizes, an increase in use of overall HRM by one standard deviation equated to a 5.2% increase in sales (\$44,380) per employee, 13.3% increase in cash flow (\$9673) per employee and 6% in market value (\$8882) per employee. In relation to Huselid's (1995) study, the effect sizes were almost double for productivity and GRATE, whilst around half for Tobin's q. Also important from the study in terms of how HRM is managed, the results indicated that effectiveness in strategic HRM related to a combination of business and professional HR capabilities, whilst technical HRM was related to professional HR capabilities only. The implication of this is that HR functions within organisations need to have a strong knowledge of the wider business and integrate with it effectively in order for strategic HRM to add value to economic performance. Because the research design involved independent performance measures, a large sample size and controlled for prior economic performance, the results provide compelling evidence that HRM has a positive impact on the economic performance of the firms studied.

In summary, Patterson, et al. (1997) and Huselid, et al. (1997) made significantly more robust research designs than previous cross-sectional studies, looking at relationships over time and utilising independent measures of performance. These studies help make the case for HRM as a determinant of improved organisational performance, with a similar approach taken in subsequent large scale studies (e.g. Guest, et al., 2003). Notably, however, all the studies reviewed above tended to use slightly differing definitions of HRM including different sets of HR practices. In this regard, what practices constitute an effective HR system in different settings (e.g. manufacturing versus service sector organisations) remains unclear and an important avenue for research.

Meta-analysis of links between HRM and organisational performance

The above review of key studies illustrates that whilst the robustness of studies has varied considerably, nevertheless there has been consistent evidence of a relationship between HRM and organisational performance. However, given the variety of research designs employed, the specific practices examined and performance measures used, it is perhaps unsurprising that the strength of relationships observed have also varied widely. To help provide greater clarity in this regard, meta-analytic techniques are typically used to statistically aggregate the evidence gathered across a large number of studies and identify the typical effect sizes between predictive and criterion variables. Hunter and Schmidt (1990) observed that methodological artefacts are often the cause of variability between studies and once these are accounted for, effect sizes can be more accurately estimated. In this regard, the meta-analysis of 92 HRM studies by Combs, Liu, Hall and Ketchen (2006) provides a helpful overview of the extant literature regarding the relationship between HRM and organisational performance.

Through their research, Combs, et al. (2006) sought to address four significant research questions. Firstly they estimated the average effect size of relationships between HRM and organisational performance. Secondly, they investigated whether effect sizes for systems of high-performance work practices are significantly greater than the effects of individual practices, as has been consistently hypothesised by HRM researchers (Huselid, 1995; MacDuffie, 1995). The third area of investigation was whether such effects are stronger for operational measures of performance, which are considered more proximal to the HRM system, than for more distal financial measures. Finally, they tested whether the effects of HRM on performance were stronger in studies of the manufacturing sector when compared with research in service industries.

Their meta-analysis encompassed 92 studies which had quantified relationships between HRM practices or systems and measures of organisational performance. Many of these were not specific to an industry sector, whilst 29 were specifically focused in manufacturing and 19 were specific to the service sector. Examples of service sector studies included research in retail banking (Delery & Doty, 1996) and hotels (Hoque, 1999). The research covered 13 individual practices as follows, with the number of studies where they occurred shown in brackets: incentive compensation (31), training (29), compensation level (18), participation (18), selectivity (15), internal promotion (12), HR planning (10), flexible working (8), performance appraisal (8), grievance procedures (8), teams (8), information sharing (7) and employment security (6). Of the 92 studies, 38 of these explicitly measured whether organisations possessed a system of HR practices. The number of practices in each system ranged from 2 to 13, with a mean of 6.2 and median of 5 practices. This observation in terms of the frequency of practices across studies illustrates the diversity and lack of consistency in terms of which HR practices have been included within different research designs. The average reliability of HRM measures across studies (based on alpha coefficients or inter-rater reliability) was $r=0.74$ and for measures of organisational performance was $r=0.82$, indicating measurement was within typical expectations for reliability. Based on this, 37% of the variance between studies could be explained by sampling and measurement error, suggesting that moderators are likely to be responsible for variation between studies. This is a significant finding in relation to the development of the theory of how HRM influences organisational performance as there is clearly significant statistical variance in need of further explanation.

In relation to their first hypothesis, which predicted that HRM and organisational performance are related, the results of meta-analysis confirmed this is the case. What is

perhaps most useful, however, is the point estimate of the average effect size across studies which Combs, et al. (2006) provide. This gave an average correlation between HRM and organisational performance of $r=0.15$, which when corrected for measurement error gives a correlation of $r_c=0.20$. However, they found no significant effects for three practices: performance appraisal, teams and employment security, though it is worthy of note that there were relatively few studies assessing each of these practices within their sample. Whilst the authors acknowledge that the average effect size may not appear large, they note this is higher than that found for many other organisational-level phenomena (Dalton, Daily, Ellstrand & Johnson, 1998). They state that the results mean that 20% of the utility available to predict differences in performance across organisations is explained by HRM, with tangible managerial significance. Within their sample, a one-standard deviation increase in use of HRM relates to a 4.6% increase in gross return on assets and 4.4% decrease in labour turnover.

The second hypothesis, that systems of HRM have greater effect than individual practices, was also supported. The average correlation between individual practices and organisational performance measures was $r=0.11$ ($r_c=0.14$) whilst for systems of HRM this was $r=0.21$ ($r_c=0.28$), a statistically significant difference ($p<0.01$). The design of this study did not enable analysis of interaction effects to test whether there is support for the configurational perspective of strategic fit, leaving it unclear whether the greater effect size found for HRM systems is simply additive in nature (MacDuffie, 1995) or due to synergies when practices are combined (Huselid, 1995). As Becker, et al. (1997) note, there is also the theoretical possibility of negative effects from combining practices, such as strongly rewarding individual performance whilst trying to implement team-based working. Nevertheless, the

results clearly indicate that more extensive systems of HR practices have greater effects than individual practices.

In relation to their third hypothesis, Combs et al. (2006) proposed that more proximal measures of performance such as turnover or productivity would be expected to be more directly influenced by HRM via theoretical HRM outcomes, such as greater motivation, the application of skills or opportunities to use them (Huselid, 1995; Neal & Griffin, 1999). As a result, they predicted the size of relationships should be greater than for more distal accounting measures where a broader range of variables may influence performance outcomes. However, no significant differences were found in this regard across measures of performance. Finally, the authors found that there was a significant difference in the size of the HRM/performance relationship when comparing studies in manufacturing and service sectors, indicating that differences between manufacturing and service environments have a significant moderating effect. This issue is addressed in more detail in the following chapter when the moderating effects of industry and market characteristics are explored in depth.

One of the implications drawn by the authors is that different HR practices have different average effect sizes and hence may vary in their contribution to the effects of a broader system of HRM. As Huselid, et al. (1997) suggested, some practices may largely have an effect simply by being in place at the policy level whilst other may be more contingent on the effectiveness with which they are implemented in practice across the organisation. Given the variety in observed effect sizes across studies after sampling and measurement have been controlled, the authors indicate it is likely that moderating effects are present influencing the strength of HRM/performance relationships. The authors suggest that future research should seek to understand the role of HRM implementation effectiveness as well as the use or not of

different HR practices within a particular system. Additionally, given the different effect sizes found for manufacturing and service sector studies, they also suggest that the conceptualisation of HRM would benefit from being clearly linked to the needs of the particular industry or organisation. Significantly, although the finding was not statistically significant, the correlation between HRM and performance was somewhat higher when performance was measured via survey responses as compared to the use of independent, archival measures of business performance. If the correlation between HRM and performance is corrected for unreliability (based on inter-rater reliability), the strength of relationship is significantly higher compared to archival data sources. This adds to concerns that the gathering of data on HRM and performance from the same source within an organisation (often a senior HR or line manager) may involve common method bias and introduce both inaccuracy and inflation of effect sizes.

Evaluation of evidence

As the review of key studies indicates, there is some strong and growing evidence for a consistent relationship between HRM and organisational performance. Statistically significant relationships have been shown across a wide range of industry sectors, both private and public, and in relation to a broad range of outcome measures. The effect sizes of relationships between HRM and business performance measures vary considerably across studies, for example, 6% of market value (Huselid, et al. 1997) or over 50% of variance in productivity (MacDuffie, 1995). Although much of the research to date has been cross-sectional, there are also a number of studies which have controlled for prior performance and hence given greater cause to imply directionality between HRM and performance outcomes (Patterson, et al. 1997; Huselid, et al. 1997; Guest, et al. 2003).

In Wood's (1999) comprehensive review of the research evidence in relation to the main strategy-driven perspectives of HRM, he notes that the evidence is greatest for the universalist perspective, with empirical findings in the research base strongly supporting this viewpoint. The contingency perspective, suggesting HRM's impact is contingent on business strategy as expressed by Porter's (1980) cost leadership and differentiation, has gathered relatively little support empirically. This hypothesis was explicitly tested in Delery and Doty's (1996) study and Huselid's (1995) research, with largely non-significant results. Conversely, there is some evidence of incremental impact of contingency effects beyond the main effect in Youndt, et al. (1996), however, it can be argued that the assessment of strategy in this study is more akin to a lean production approach than measuring market-oriented business strategy.

The configurational perspective, again, appears to show mixed evidence. MacDuffie's (1996) study of automotive plants and Huselid, et al.'s (1997) study of US firms both suggest a role of different 'bundles' of HR practices in influencing different performance outcomes. However, evidence of interaction effects between specific HR practices that make up indices is unclear (i.e. that these relationships are multiplicative rather than additive). Additionally, the evidence for interaction effects between different indices of HRM varies within studies. For example, in MacDuffie's (1996) study there is a significant interaction between his 'Work System' and 'HRM policies' indices in relation to productivity, however, for his quality measure an additive model explains significantly greater variance.

The evidence is far more supportive of the view that HRM has greater impact if it is integrated with the way business operations are managed and organised, as exemplified by 'lean production' manufacturing (MacDuffie, 1995; Wood, 1999). For instance, evidence

from Lawler, et al. (1995), MacDuffie (1995) and Youndt, et al. (1996) all revealed significant interactions effects between HRM and the application of an operating strategy involving a 'lean production' approach.

An examination of HRM in terms of 'HR system strength', as espoused by Ostroff and Bowen (2000), suggests that a range of factors are likely to influence the effectiveness of an HR system. These include the extent to which practices are clear and acceptable to employees, administered consistently and effectively, well designed for their purpose and used both intensively and inclusively. This has received limited coverage in the literature and primarily been assessed in terms of the proportion of employees affected and relative sophistication of HR practices (e.g. Huselid, 1995; MacDuffie, 1995; Patterson, et al. 1997). These studies support the view that it is not simply having the HR policies in place that matters, but the extent to which they are implemented in practice throughout the organisation. In the following sections, key theoretical and methodological issues are discussed in relation to the existing research base, followed by a summary of the key points and directions for further research.

Theoretical issues

The published research investigating links between HRM and organisational performance at the organisational level has consistently shown that statistically significant relationships exist between the two sets of variables. In critically evaluating the research to date, there are a range of theoretical issues worthy of discussion, which are outlined below.

Conceptualisation of HRM: What constitutes HRM varies considerably across studies and contexts. On the one hand, greater standardisation and a clearer focus on the purpose of

practices as well as their content would be helpful in this regard so different studies can be compared. However, as Combs, et al. (2006) indicated, it is also important that the HR practices studied are relevant to the industry context in which research takes place. Overall, the precise groupings of items into indices of HRM are inconsistent between studies, certain practices are often not included (such as those relating to communication or employee involvement) and there has been little consideration of the relative importance of different practices.

Empirically-driven attempts to define HRM suffer from two key weaknesses, firstly they reflect the extent to which organisations ‘at a point in time’ happen to have implemented various policies, so may be susceptible to whatever is currently perceived to be of interest by management and researchers, and secondly are clearly limited by the imagination used by organisations in developing and implementing more innovative practices. One can hence describe what policies currently are in organisations, but analysis of the frequency of different practices does not necessarily help answer why different practices were implemented and how they generate performance benefits. Much of the extant literature is lacking a clear theory about exactly what HRM entails and how it works (Guest, 1997).

The majority of studies have examined what HRM practices organisations have in place, i.e. the existence of an HRM practice or policy. As previously noted, some studies have looked more deeply at this, e.g. measuring respondents’ satisfaction with HRM processes (Huselid, et al., 1997) or the extent and sophistication of HRM practices (Patterson et al., 1997; West, Borrill, Dawson, Scully, Carter, Anelay, Patterson & Waring, 2002). Beyond this, with the exception of Khilji and Wang (2006) there is little evidence which moves beyond the existence of practices to consider the extent to which the quality of design, quality of

implementation and acceptance of HR practices by staff has an impact on their effectiveness. Much of the research which relates HRM to organisational-level performance outcomes demonstrates there are relationships, but reveals little evidence about why such relationships exist and how they operate.

Conceptualisation of business strategy: There is a lack of clarity across the literature regarding the difference between marketing strategy and operating strategy within firms. Whilst the measures of the former (e.g. Arthur, 1994) are generally based on Porter's (1985) differentiation and cost leadership dimensions, others such as Youndt, et al. (1996) discuss strategy in relation to the level of quality or quantity focus in operations, which would equate more closely to the application of a 'lean production' approach (MacDuffie, 1995; Wood, 1999).

Conceptualisation of intervening processes through which HRM influences organisational performance: The evidence indicating that organisations that adopt a comprehensive HRM system tend to perform better is increasingly clear. However, much of the research literature has also not taken account of the role that may be played by numerous psychological variables which HRM is typically designed to influence, as pointed out by Wood (1999):

"...there has been an increasing neglect of the psychological processes that mediate or moderate the link between HR practices and performance. This may be a reflection of the ascendancy of the strategy over social psychology literature, in which so many of the early foundations of HRM were based. The issue has been treated as an organizational-level matter, when it is in fact a multi-level question",

Wood (1999), p.408.

Overall, there is strong support for the universalist perspective and also evidence supporting an interaction effect with a 'lean production' approach (Wood, 1999) and in favour of the role of 'HR system strength' (Ostroff & Bowen, 2000). However, with some exceptions (e.g. Patterson, et al. 1997) the main body of the HRM/ organisational performance literature has tended to neglect the role of psychological variables, e.g. organisational commitment, organisational climate or job satisfaction.

The need for multilevel research designs: The different levels of analysis across studies also complicate our understanding of relationships between HRM and business performance. Within organisations there are a complex range of relationships between people, technology and people, teams, business units and the wider market or environment in which the organisation operates. Difficulties occur when HRM and performance measures are from different organisational levels (e.g. Huselid, et al., 1997) as these sources of variance are not adequately controlled. The level of analysis also needs to be borne in mind when comparing across studies and wider use made of multi-level research designs to more fully take account of issues across levels of analysis.

Methodological issues

The methodologies used in much of the HRM/performance research have tended to involve assessment of HRM by senior managers such as HR directors and relating this survey data to more objective financial performance data from commercially available databases. Such an approach is clearly a very practical way of testing potential linkages across large numbers of companies with relative ease, however, a number of methodological issues arise which are worthy of consideration and have implications for the conduct of future research.

Reliability and validity of surveying key organisational members: Using responses from key organisational members, such as HR directors or senior operational managers, to assess both sophistication of HR practices and level of organisational performance has a number of inherent weaknesses. Firstly, to what extent is the individual rating reliable and valid in terms of (a) the view across the organisation and (b) an objective assessment compared to other units of analysis (e.g. firms, business units)? If the reliability of ratings is limited this may lead to lower observed correlations when relating perceptions to more objective measures of performance. On one level, one would expect an HR director to have a good overall view of what is happening within the company, however, responses do not necessarily reflect the wider views held across the organisation or how well HR policies have been put into practice throughout the workforce.

Common-method variance and independence of performance measures: Where responses from key organisational members are used to assess both sophistication of HRM and employee involvement practices alongside quantifying organisational performance, this raises the issues of common-method variance and potential sources of bias. If both aspects are measured from the same source, then results may have limited validity but still show inflated correlations due to other factors (e.g. individual differences in perception). Evidence from Wall, Michie, Patterson and Wood (2004), examining the validity of subjective versus objective business performance measures, suggests that such concerns should not be overstated but there is room for improvement. In their analysis of three samples, they found good divergent and construct validity between subjective and objective measures. However, the correlations between each tended to be in the order of .40 to .60, suggesting that although

subjective measures are related to objective measures they may only share around 16% to 36% of variance.

Existence of HR practices versus quality of implementation: The majority of studies have examined what HRM practices organisations have in place, i.e. the existence of an HRM practice or policy. Some studies have looked more deeply at this, e.g. measuring respondents' satisfaction with HRM processes (Huselid, et al., 1997) or the extent and sophistication of HRM practices (Patterson et al., 1997; West et al., 2006). Overall, there is little consistency in how HRM is measured across studies, making meaningful comparisons difficult. Whilst Khilji and Wang (2006) have tested the importance of implemented HRM in a study of 12 banks, beyond this there is little evidence which moves beyond measuring the existence of practices to consider the extent to which the quality of design, quality of implementation and acceptance of HR practices by staff has an impact on their effectiveness, described holistically by Ostroff and Bowen (2000) as the 'HR system strength'.

Multilevel issues: The different levels of analysis across studies also complicate our understanding of relationships between HRM and business performance. Within organisations there are a complex range of relationships between people, technology and people, teams, business units and the wider market or environment in which the organisation operates. It is important that the level of analysis is borne in mind when comparing across studies in order to draw appropriate conclusions from results.

Longitudinal versus cross-sectional research designs: The majority of the studies described in this chapter, due to their cross-sectional research designs, show a relationship between HRM and performance at one point in time. However, this is problematic when attempting to

identify the directionality of relationships. For instance, it is equally possible to argue that firms which are successful are able to invest more in their people management practices, hence the incidence of wider and better implementation of HRM. In practice the relationship may well be two-way in that if HRM practices have a positive impact on performance, then it is not unfeasible that an organisation will invest in further HRM innovations. Cross-sectional research designs allow less confidence to be placed in the directionality of relationships, however, there are significant practical difficulties relating to attrition and commitment from organisations to participating in longitudinal research designs.

Summary

The extant literature provides good evidence of statistically significant relationships between HRM and organisational performance outcomes in organisations. Research has been conducted across a wide range of industries, with a main effect of HRM being evident across a large number of studies. In terms of the role of strategic fit, there is limited evidence of the importance of either the contingency or configurational perspectives explaining significantly greater variance than the main effect of HRM. In light of this, the universalist view is largely supported by the literature, with evidence of significant interaction effects with a 'lean production' approach in some studies (MacDuffie, 1995; Wood, 1999).

In terms of the role of 'HR system strength' (Ostroff and Bowen, 2000), there is evidence across numerous studies (Huselid, 1995; 1997; MacDuffie, 1995; Patterson, et al. 1997; West, et al., 2002) that the extent and sophistication of HR practices plays an important role in their impact on performance. However, beyond measuring the diffusion of HR practices within organisations, most studies of the HRM/performance link have taken little account of the validity, acceptability and effective implementation of HR practices. Additionally, the

largely strategy-led body of HRM/organisational performance research has paid scant attention to the processes through which HRM is believed to influence performance. In particular, a wide range of psychological variables such as knowledge and skills, motivation, job satisfaction, organisational climate and design of work would benefit from further research within a multilevel framework, as suggested by a number of writers (Wood, 1999; West, et al. 2002).

In summary, there is growing evidence that HRM plays an important role in organisational performance, but why this is the case demands further research. In order to more fully understand relationships between HRM practices and organisational performance, such research should assess 'HR system strength' (Ostroff & Bowen, 2000) more fully and include likely mediating and moderating variables to allow testing of why linkages occur between HRM and organisational performance. The following chapter examines the existing evidence relating to the role of HRM implementation, potential mediators of HRM/performance links and processes of internal and external fit which may moderate the strength of links between HRM and organisational performance.

3. THE EVIDENCE FOR FACTORS INFLUENCING RELATIONSHIPS BETWEEN HRM AND ORGANISATIONAL PERFORMANCE

The theory behind the HRM/performance link was explored in chapter 1, and the evidence for the existence of such a link in chapter 2. In this chapter, the evidence relating to how and why HRM is linked to performance is discussed. Ferris, Hochwater, Buckley, Harrell-Cook and Frink (1999) indicated that there is significant opportunity for research to explore both the intermediate linkages and boundary conditions which may influence relationships between systems of HRM and business performance outcomes. As outlined in chapter 1, many HRM theorists have suggested explanations as to why the adoption of HRM may be related to increased business performance. However, empirical evidence in this regard has only begun to emerge more recently.

The majority of HRM research has focused on how the adoption of a particular system of practices at the organisational level relates to performance. However, it has been argued that the extent to which HRM is not only adopted as policy but accepted and actually put into practice within organisations is likely to be a significant factor in subsequent impacts on performance (Khilji & Wang, 2006). Ostroff and Bowen (2000) defined this in terms of a multi-dimensional construct which they labelled 'HR system strength', relating to how consistently an HR system is applied, how well designed its processes are and how universally understood it is within the organisation. Whilst some authors have examined this to a limited degree (Huselid, et al. 1997; Patterson, et al., 1997), only recently has the distinction between implemented rather than intended HRM been the subject of focused research (Khilji & Wang, 2006).

Authors have also highlighted the need for research to understand the nature of the ‘black box’ linking HRM and business performance (Katou & Budhwar, 2006). For instance, competence, organisational commitment or cost efficiency were suggested by Beer, Spector and Lawrence (1984) as potential mediating variables. Skills, motivation and the design of work structures or ‘opportunity’ to perform well have also be suggested as variables which may mediate HRM/performance linkages (Becker & Huselid, 1998). Park, et al. (2003) found satisfaction, motivation, and climate were mediators of the HR/performance link, similarly Paul and Anantharam (2003) identified the mediating role of competence, teamwork, organisational commitment and customer orientation within their path analysis. Subsequently, Katou and Budhwar (2006) found evidence that HRM outcomes of skills, attitudes and behaviours are both directly linked with business performance and partially mediate relationships between HRM and performance. Becker and Huselid (2006) have stressed the importance of behaviours that support strategy execution as the key mediator of the HRM/performance relationship and Neal and Griffin (1999) outlined how the combination of both task and contextual performance may be central to understanding how organisational-level performance effects occur.

The social context model proposed by Ferris, et al. (1998) suggests that factors such as organisational climate, job satisfaction and organisational commitment may not simply be mediators within a linear chain of causality between HRM and performance, but that these variables could play a moderating role via processes of internal fit with HRM (Neal, et al., 2004). For instance, HR practices such as training may improve skill levels, and work design may increase cost efficiency and flexibility, with both practices directly influencing performance independently of employee attitudes. The combination of this with a social context within which employees are satisfied and motivated may lead to synergistic

relationships between HRM implementation and variables such as climate, job satisfaction and organisational commitment. Conversely, where employees are dissatisfied and poorly motivated, they may be less likely to accept and positively support the use of HR practices, potentially reducing impacts on performance. Whilst there is evidence to indicate HRM outcomes partially mediate HRM/performance linkages (Katou & Budhwar, 2006), within their study of manufacturing organisations, Neal, et al., (2004) found that climate moderates the relationship between HRM and business performance. This research supported a resource allocation hypothesis, that HRM helps ensure slack resources are directed towards greater performance and suggests this may be an important line of investigation to more fully understand the contexts where HRM has the greatest impact.

Finally, Datta, et al. (2005) illustrated the importance of industry characteristics such as differentiation, capital intensity and growth as moderators of the strength of HRM/performance relationships. This has extended the contingency theory approach that has been a strand within earlier HRM research (Huselid, 1995; Delery & Doty, 1996) and focused on Porter's competitive strategies. Whilst the research by Datta, et al. (2005) was conducted in the manufacturing sector, there is considerable opportunity for research to further explore what market and industry variables may influence external fit within service sector environments where typical effect sizes of HRM on business performance have been weaker (Combs, et al., 2006).

Within this chapter, the evidence briefly outlined above is reviewed in depth, covering the impact of HRM implementation and acceptance by managers and employees in organisations, the intermediary processes which may be involved, the role which the social context may

play as a moderator of HRM/performance linkages, and the external industry and market factors likely to be significant in service contexts.

Implemented HRM

In line with Ostroff and Bowen's (2000) 'HR system strength', for HRM to be effective it may be important for it to be implemented thoroughly and positively accepted by employees and managers. A number of authors have identified that there is frequently a difference between the intended HRM system and what is actually implemented in practice (Khilji, 2002; Purcell, 1999; Truss, 2001). Khilji and Wang (2006) have described this distinction in terms of 'implemented' versus 'intended' HRM and criticised the existing research base for the failure to consider HRM implementation within research designs:

"One factor that potentially contributes to varied findings is the tendency of researchers to explore HRM at the top management levels or within HR departments, which at best only captures the intended human resource (HR) policies and ignores implemented HR practices."

Khilji and Wang (2006), p.1172

If practices are considered unhelpful by line managers or employees and not implemented as intended, it may be unlikely that they will be fully adopted, consistently applied or effective. The research literature exploring HRM and its impact on organisational performance has been driven heavily by strategic management researchers, focusing on how HR strategies and systems interact with business strategies (Arthur, 1994; Delery & Doty, 1996) or operate as 'bundles' (MacDuffie, 1995). However, there is a significant opportunity for HRM research to take greater account of the organisational behaviour literature and focus in more detail firstly on how well HR systems and designed and implemented, and secondly on the labour

relations aspects (Boxall, 1996) relating to how HR systems are accepted, appraised and used by their recipients.

The extent to which HR practices are implemented within an organisation has been measured in a number of ways. For instance MacDuffie (1995), Huselid, et al. (1997) and West, et al. (2006) measured the frequency of use in terms of the number of employees affected or included. Patterson, et al. (1997) also assessed the sophistication of practices, for instance in terms of the breadth of criteria used for selecting new employees into the organisation.

Ostroff and Bowen (2000) suggested that HR systems are effective insofar as they create a strong set of shared perceptions amongst employees which act to clarify goals, boundaries and expectations. Through this social process it is suggested that the HR system serves to guide behaviour towards achieving organisational goals. As outlined in chapter 1, they suggested a number of broad criteria that may be useful in assessing the quality of an HR system, including whether it is visible, clear to employees and acceptable to them.

Additionally, an HR system may be expected to have practices that work together synergistically as a system (MacDuffie, 1995) and be valid and well administered. The HR system would be expected to be implemented with consistency and an appropriate level of intensity across employee groups to achieve its optimal affects.

In addition to considering the manner of HRM implementation, as Guest (1999) pointed out, it is also important to consider the employee perspective on HRM. In his survey of 1000 employees in the UK, the reactions of employees to HRM were generally positive. This suggests that the critical management perspective that HRM is simply a more subtle form of exploitation is not borne out in the reactions of workers, which are generally more positive when HRM is in place within an organisation than when it is not. The impact of HRM

implementation on employee outcomes and the role this may subsequently play in influencing the impact of HRM on organisational performance has, however, received relatively little attention in research designs.

Khilji and Wang (2006) responded to this issue with their study of HRM implementation within Pakistani banks. Rather than simply measuring HRM as perceived by senior HR or line managers, they also surveyed employees and managers across 12 banking organisations to understand the extent to which HRM implementation positively influences satisfaction with the HR practices and subsequent company performance. Initially they conducted 27 interviews with HR managers and senior managers across their sample to understand the nature of the intended HR practices. There was considerable commonality across organisations, with all organisations having adopted selective recruitment, training and development, performance evaluation, reward and compensation systems and job design. Following this, they interviewed 168 employees across the participating organisations (40% were managers, 60% were non-managers) to understand the extent to which these HR practices had been implemented in practice. The closeness of the match between the measures of intended and implemented practices was used to assess whether an organisation was high, typical or low on HR implementation. The authors also surveyed 508 managers and employees to assess their satisfaction with the implementation of the HR practices studied, providing a reliable measure with a Cronbach's alpha of .90. They emphasise that the ratings of satisfaction gathered involve evaluation of the HR practices and as such are not a measure of broader job satisfaction. Objective measures of company performance were obtained using archival data sources one year after the collection of survey data. Prior performance in the previous year was controlled in their analysis, along with ownership and company size.

Their results indicated that the extent to which HR practices were implemented was significantly related to both HR satisfaction and organisational performance. Their results indicate that satisfaction with HR practices was also linked to performance. However, the authors concede the sample size at the organisational level is small with only 12 different organisations studied and represents a significant limitation. Whilst this study provides initial indications that HRM is likely to have greater impact on organisational performance if there is less discrepancy between intended and implemented HRM, further research is needed with larger samples and in other sectors to confirm the validity and generalisability of the findings.

Despite its limitations, Khilji and Wang's (2006) study illustrates an important avenue for future research. Intended HRM is perhaps best explored through research with senior HR or line managers within an organisation as it is likely that individuals in these coordinating roles have a reasonable breadth of knowledge of the HR strategies in place and how they are supposed to work. However, in terms of understanding the process of HRM implementation, there may be value in differentiating between the perspectives of line managers who are regular users of HR practices and employees who may interact with HR practice less frequently. Line managers are likely to be important in the HRM/performance link given they are expected to actually implement many HR practices. For instance, a manager may regularly be involved in recruiting new employees, identifying employees to engage in training, and appraising the performance of several direct reports. Conversely, an employee in a non-management role may be involved in an annual appraisal and attend certain training courses. As a result, their view of the HR system may be significantly narrower than that of a manager for whom HR practices are one of the tools available to help them deliver performance through their people. As such, line managers are regular users of these practices

and are likely to have a broader perspective on their utility than employees. It is also likely that line managers who use HR practices are likely to play a key role in how well they are implemented. As key users of practices they may be able to provide valuable information on the actual levels of deployment of practices and importantly, how well accepted and useful practices have been in ensuring high performance within their domain of operation. Within research designs, it is likely that employees may provide a more limited view of HRM implementation based on their own, less frequent exposure to practices. However, the impact of HRM on their attitudes (e.g. job satisfaction, climate perceptions) may be a significant factor in the effectiveness or otherwise of HRM. However, it is likely that line managers will be able to give more in depth information as to the actual implementation and perceived utility of HRM.

Khilji and Wang's (2006) research has highlighted the need for HRM implementation to be the subject of further research to understand how HRM influences business performance. Measuring HRM effectiveness from the perspective of line managers and employees will be important given their role in the implementation and subsequent impact of HRM. Future research would benefit from addressing the issues raised by Ostroff and Bowen (2000), such as the quality of design of the HR system, the extent and intensity of implementation and the perceived usefulness of practices in helping deliver organisational goals.

Intermediary processes

Authors have identified a wide selection of variables which may play an intermediary role in the processes through which HRM influences performance, including competence, organisational commitment and cost efficiency (Beer, et al., 1984), knowledge, skills, motivation and the design of work structures (Becker & Huselid, 1998) and employee

behaviours, employee attitudes and organisational climate (Ferris, et al., 1998). In order to more fully understand the 'black box' linking HRM and organisational performance, research examining intermediary processes is of crucial importance. The evidence relating to mediators of the HRM/performance link is reviewed and discussed below, focusing on employee behaviours, employee attitudes in relation to performance and research testing their intermediary role.

Employee behaviours

Perhaps one of the obvious factors that might be expected to play a role in the relationship between HRM and organisational performance is the level of task performance delivered by employees. A range of HR practices are specifically concerned with ensuring an organisation possesses a workforce which is highly skilled and performs well in the relevant tasks needed to deliver business performance. For instance, there is strong evidence at the individual level linking the robustness of selection procedures to higher levels of job performance by employees (Smith & Robertson, 1986; Barrick & Mount, 1991; Schmidt & Hunter, 1998), similarly levels of experience and skills have also been linked to improved organisational outcomes (Pennings, Lee & van Witteloostuijn, 1998; Carpenter, Sanders & Gregerson, 2001).

At the individual level, it would be reasonable to expect that within a service environment where employees interact with customers on a largely one-to-one basis, those employees showing high levels of task performance would be expected to deliver better service to customers and as a result achieve improved business results. Campbell, McCloy, Oppler and Sager (1993) outlined eight elements that constitute the key dimensions of task performance across different roles, namely: job specific task proficiency, non-job specific task proficiency,

written and oral communication task proficiency, demonstrating effort, maintaining personal discipline, facilitating co-workers, leadership and supervision, and management and administration. Within a service setting, task performance may be expected to relate to service outputs related to meeting customer needs (Parasuraman, et al., 1988). It is likely that there will be a process of aggregation through which a large number of positive customer interactions collectively contribute towards generating business performance outcomes at the organisational level.

In situations where there is significant task interdependence between individuals, an important question is how the individual efforts combine to achieve performance as a team. Beyond this, there is a further question of how the performance of different teams or units combines to deliver performance at the business unit or organisational level. However, there is perhaps a surprising lack of research evidence to test links between measures of performance at the individual or team levels and organisational performance outcomes. As Neal and Griffin (1999) point out, practices such as selection, training or job redesign are based on assumptions about the determinants and components of individual performance. The model they propose, as discussed in chapter 1, is helpful by making these assumptions explicit in terms of how and why practices influence performance. Becker and Huselid (2006) have emphasised the importance of the performance of 'strategic behaviours', that is to say different groups of employees demonstrate consistent high performance in relation to the behaviours underpinning execution of the business strategy. They describe HRM systems as facilitating the performance of these strategic behaviours and through this achieving the desired business performance outcomes. Whilst there is a range of evidence to indicate that HR practices may facilitate improved performance of core tasks, as Neal and Griffin (1999) suggest, the theory and evidence for mechanisms through which HR practices influence

individual performance and consequent organisational-level benefits require further development. In particular, there is a need to understand more fully the role of contextual performance as a mechanism through which employee behaviour influences organisational performance outcomes.

Borman and Motowidlo (1993) argued for a clear distinction to be made between task and contextual performance. They described task performance as involving the technical activities required to perform the core tasks of a role. Contextual performance, however, relates to activities which are outside the core technical demands of the role, and are involved with maintaining the organisational, social and psychological environment within which the core tasks are undertaken (Motowidlo, Borman & Schmitt, 1997). Contextual performance thus involves behaviours undertaken by employees on their own initiative to respond positively to the context at any one time. Such activities may include cooperation and help given to co-workers or customers, extra effort expended, volunteering to help on working groups and promoting the organisation. Evidence from Van Scotter and Motowidlo (1996), analysing supervisor ratings of performance, supports a two-factor solution with contextual performance adding unique variance towards overall performance ratings incremental to that from assessments of core task performance. The concept is closely related to the ideas of extra-role behaviour and organisational citizenship behaviour. Organisational citizenship behaviour (OCB) has been investigated in a number of studies (Moorman, 1991; Moorman, 1993; Organ & Ryan, 1995) and is derived from Katz's (1964) notion of extra-role behaviour. Organ (1988) defined OCB as...

“...individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and that in the aggregate promotes the effective functioning of the organisation”

Organ (1988), p.4

Empirical links have been made between organisational citizenship behaviour and attitudinal variables such as job satisfaction (Bateman & Organ, 1983; Moorman, 1993; Williams & Anderson, 1991), perceptions of fairness and procedural justice (Farh, Podsakoff & Organ, 1990; Moorman, 1991) and organisational commitment (Scholl, 1981; Weiner, 1982; Williams & Anderson, 1991). Meta-analysis of studies by Organ and Ryan (1995) indicated these areas as the key variables related to OCB. Further research by Schappe (1998) indicated that organisational commitment may be the primary antecedent of OCB over and above job satisfaction and fairness perceptions. Van Dyne and Le Pine (1998) also demonstrated in a study of 597 employees that extra-role behaviour explained a significant proportion of variance in ratings of employee performance over a 6-month period. Ratings from supervisors, peers and employees differentiated ‘in-role’ task performance from ‘extra-role’ behaviours, which broke down into two categories – helping behaviours and ‘voice’ - participation in improving ways of working. Extra-role behaviours may be a key factor responsible for the greater effect sizes obtained at unit or organisational levels of analysis when correlating employee attitudes with unit or organisational-level performance outcomes (Ostroff, 1992). The concept of contextual performance and extra-role behaviours may be crucial in helping to understand the mechanisms through which organisational performance may be dependent not only on the additive individual contributions, but how teams or groups of people succeed in working collectively together and adapting to different customer needs.

Becker and Huselid (2006) stressed the importance of strategic behaviours as the key mediator of relationships between HRM and future business performance, and suggested future research should focus less on backward-looking accounting measures of performance and more on evidence of successful strategy implementation which would be expected to generate subsequent business results. Studies by Arthur (1994) and MacDuffie (1995) included measures such as scrap rates, productivity and turnover which may be important determinants in this context of subsequent profitability, as well as being performance measures in themselves. In the context of the service sector, a range of measures may be expected to play a role in mediating links between HRM and financial performance. In particular, writers such as Heskett, et al. (1997) have proposed a causal chain of relationships between employee attitudes and performance, customer satisfaction and loyalty, and financial performance. Given the strength of relationship between customer attitudes and customer intentions (Schneider & Bowen, 1985) in competitive service environments, ensuring that the delivery of service meets customer expectations is likely to be paramount in ensuring customers purchase the service and hence generate financial returns. The opportunity for customers to exercise choice between suppliers is also likely to be influenced by the ease of switching and overall level of competition in a particular market or location (Heskett, et al., 1997). The provision of high standards of service to customers is likely to be an important intermediary variable between HRM and financial performance outcomes in the service sector and if service is seen as a fundamental source of competitive advantage, can be seen as an example of strategic behaviours underpinning the execution of business strategy as outlined by Becker and Huselid (2006). Parasuraman, et al.'s (1988) work in this area suggests that service quality may consist not of one construct but several, including reliability and consistency (e.g. few errors in the service process), speed of response, quality of tangible elements or products, and good knowledge and empathy on the part of service employees. In

terms of achieving subsequent profitability, it is also likely that the services would need to be provided to customers cost effectively. This would therefore suggest that measures relating to cost efficiency and efficient labour utilisation are likely to be key factors in ensuring business performance outcomes such as productivity and profitability.

As numerous authors have indicated (Becker & Huselid, 2006; Neal & Griffin, 1999; Ferris, et al. 1998), employee behaviours are likely to be a crucial element in understanding how and why HRM may be linked to business performance. HRM research would hence benefit from a clearer focus on task and contextual performance, and within the service sector, on the performance of employee behaviours related specifically to the execution of a customer-focused business strategy. Kopelman, Brief and Guzzo (1990) also suggested that evaluative perceptions of organisational climate and affective employee states may be key antecedents of both task-related and contextual employee behaviours. Given this, it is also important to consider the role of organisational climate and employee attitudes such as job satisfaction and organisational commitment in predicting organisational performance and influencing the HRM/performance link through their impact on employee behaviours.

Climate perceptions and employee attitudes

A considerable body of research in the field of organisational behaviour has been concerned with the role of employee's attitudes, due to the role they play in ensuring employees are motivated and satisfied with their work. Specifically, positive attitudes on the part of employees are believed to be important both to ensure core tasks are performed and importantly, for employees to engage in 'extra-role' behaviours on their own initiative, adapting to prevailing issues and circumstances. This is particularly significant in service organisations where frontline employees are simultaneously engaged in the customer

interaction and production aspects of the service. Guest (1997) described a number of people management outcomes in his model of HRM, including effort, cooperation, involvement and organisational citizenship which might be expected to depend at least in part on positive attitudes on the part of employees. Such a relationship between satisfaction and performance was suggested by researchers such as Mayo (1933) and Likert (1961). However, research investigating the relationships between employee satisfaction and performance at the individual level has tended to show evidence of a weak relationship, for instance a meta-analysis by Iaffaldano and Mcuhinsky (1985) estimated the correlation at 0.17. However, research investigating relationships between employee attitudes and performance at the organisational level has revealed greater effect sizes compared to the individual level (Ostroff, 1992).

There are a number of key constructs in relation to employee attitudes which may play a significant role in mediating the implementation of HR practices and business performance outcomes. In particular, the role of climate perceptions has received significant research interest (Schneider & Bowen, 1985; Schmit & Allscheid, 1995; Ryan, Schmit & Johnson, 1996; Neal, Patterson & West, 2004). The constructs of organisational commitment and job satisfaction have also received considerable attention in the extant research (Mathieu & Zajac, 1990; Meyer & Allen, 1991; Ostroff, 1992; Patterson, et al. 1997), and employee affect has also been considered as an important variable related to organisational performance (Patterson, West & Warr, 2004).

Organisational climate

Direct linkage between organisational climate and performance has been the subject of a number of studies (Schneider & Bowen, 1985; Schmit & Allscheid, 1995; Ryan, Schmit &

Johnson, 1996) and considered as a mediating variable in relation to the HRM/performance link (Guest, 2001; Boselie, Pauwwe & Janssen, 2001; Park, et al. 2003; Paul and Anantharam, 2003; Katou and Budhwar, 2006). Perceptions of organisational climate relate to individual's perceptions of the policies and practices within their organisation (Schneider, 2000; Ashkenasy, Wilderom and Peterson, 2000). Denison (1996) draws a clear distinction between organisational culture, which refers to the deeper social structure in an organisation, such as norms of behaviour and values, and climate which concerns the elements of the social environment which are consciously recognised by individual employees.

Kopelman, Brief and Guzzo (1990) presented a model explaining how organisational climate influences organisational productivity through 'cognitive and affective states' and 'salient organisational behaviours'. They viewed employee affect as consisting of work motivation and job satisfaction. Cognitive aspects of climate would hence relate to specific elements of the experience of work, for instance the quality of line management or utility of systems to support the delivery of core tasks as outlined in Schneider and Bowen's (1985) model of climate for service. Kopelman, et al. (1990) suggested climate perceptions will involve five key areas. Firstly, this involves the emphasis placed on goals and the clear communication of these to employees. Secondly, they describe climate in terms of perceptions of the means available to achieve desired outcomes, such as standard operating procedures and performance expectations. Thirdly, they describe a component of climate relating to employees perceptions of how performance is rewarded. Task support then relates to the extent to which the organisation provides employees with the equipment, tools and resources they need to perform well. Finally, socio-emotional support relates to the extent to which employees feel their own welfare is considered and addressed by managers. Subsequent salient organisational behaviours relate to attachment (low turnover, low absenteeism), role-

prescribed behaviours (completing key tasks required by the role) and citizenship behaviours (additional, contextual behaviours beyond the basic role requirements). There has also been a focus on the business purpose of a particular organisational climate, for instance a climate to support service or to support innovation. Schneider and Bowen (1985) in particular have emphasised the need for the operationalisation of climate to be specific to the business context, and tested a climate model based around key features of the work environment considered to be of importance in a service context.

Job satisfaction

Job satisfaction has also been the subject of considerable research attention at both the individual and organisational levels of analysis. Iaffaldano and Mcuhinsky's (1985) meta-analysis demonstrated a weak though consistent relationship between job satisfaction and job performance at the individual level of analysis. Organ and Ryan's (1995) meta-analysis also demonstrated consistent relationships at the individual level between job satisfaction and organisational citizenship behaviour, illustrating at this level of analysis that job satisfaction plays an important role in influencing contextual performance (Neal and Griffin, 1999). Research at the organisational level (Ostroff, 1992; Patterson et al. 1997) has illustrated stronger relationships between job satisfaction and organisational performance at the organisational level, compared to those observed between job satisfaction and performance at the individual level of analysis. The link between job satisfaction and extra-role behaviours has been suggested as a likely mechanism through which greater effects sizes are observed at group and organisational levels of analysis (Ostroff, 1992; Ostroff and Bowen, 2000).

Organisational commitment

Organisational commitment relates to an individual's level of commitment in terms of preparedness to expend effort towards agreed goals and stay with the organisation. It has been shown to correlate with job satisfaction (Bagozzi, 1980; Bateman & Strasser, 1984), job performance (Matheiu & Zajac, 1990) and extra-role or organisational citizenship behaviour (Meyer & Allen, 1991). Meyer and Allen (1991) identified three components of organisational commitment. The first is 'affective commitment', essentially an affective attachment to the organisation and consequent commitment to achieve organisational goals. Secondly, 'normative commitment' involves employees feeling they should fulfil their obligations or commitments to the organisation and colleagues within it. Thirdly, 'continuance commitment' relates to the perceived attractiveness of staying in the organisation compared with work opportunities outside the organisation. Research in this area has also identified further different aspects of commitment at work. Morrow (1983) explored the different foci for work-related commitment in addition to organisational commitment, such as commitment to one's own personal values, to developing a career, to the job itself, and to a union or trade body. Allen (1996) has further made the distinction between commitment to the wider organisation and commitment to the 'immediate' organisation or work group. Whilst commitment is likely to be a multi-faceted concept, the evidence suggests that commitment to achieving the organisation's goals would be expected to be a relevant predictor of task and contextual performance. Given affective commitment in particular is associated with the broader concept of employee affect that has been shown to mediate relationships between climate dimensions and organisational performance (Patterson, et al., 2004), this may be a particularly important aspect of organisational commitment to consider within research designs.

Key studies linking employee attitudes with organisational performance

A range of published research studies have provided consistent evidence of relationships between employee attitudes and organisational performance. Outlined below are the findings from key studies in this area of research.

Schneider and Bowen (1985)

The study examined how employee perceptions of HR practices which support service, or 'service climate', were related to customers' perceptions of the service they received. The authors' basic premise is that where employees perceive HR practices as facilitating their performance and providing for needs such as career development or supervision, they will be enabled to focus more effectively on delivering service to customers. This would in turn be expected to lead to improved customer perceptions of service. Turnover intentions were also included in the research design, in relation to both employees and customers. It was anticipated that employees who felt the service climate was poor would be more likely to leave and that the same would apply to customers who would switch to other suppliers if dissatisfied.

Their study involved a dataset of 28 branches of a bank in the US, with responses from 142 employees and 968 customers. Employee surveys assessed the individual's own service orientation and their perceptions of management's service orientation, perceptions of the service-related practices of the bank, of wider HR practices and attitudes relating to service quality and evaluation of role stress, frustration and turnover intentions. 'Climate-for-service' was divided into four main areas: Branch Management, Systems Support, Customer Attention/Retention and Logistics Support. Assessment of HR practices was divided into Work Facilitation, Supervision, Organisational Career Facilitation, Organisational Status and

New Employee Socialisation. Customer survey data was analysed through principal components analysis and revealed five 'climate-for-service' factors as follows:

Courtesy/Competency, Utility/Security (relating to range of products and services), Adequate Staff (relating to capacity), Employee Morale and Branch Administration (relating to the frequency of errors in processing transactions or services).

Analysis of results linking employee and customer attitudes about service quality across branches showed a strong relationship ($r=0.63$, $p<0.01$). Specifically, the authors found that two customer scales, Employee Morale and Branch Administration, showed consistent relationships to employee perceptions of HR practices within their branch. This supported the hypothesis that the greater the extent to which employees feel their work is being facilitated by HRM, the more positive the impact on customer perceptions. Overall, the results indicated that in face-to-face service settings in banking, customer perceptions appear to be clearly related to the experience of employees providing the service. In particular, Schneider and Bowen raise the issue that both employees and customers interact in the provision of the service and that the experiences of either are inter-dependent. They contrast this with the evidence relating to manufacturing organisations, where employees primarily interact with the materials in the production process. Their results also showed a strong relationship ($r=0.61$, $p<0.01$) between customer's views of service quality and their intention to stay with their bank or find alternative service providers. On this basis, they emphasised the need for organisations to satisfy customer needs in order to secure their loyalty and from this continued revenue.

Ostroff (1992)

In her study of 364 schools in the US and Canada, Ostroff (1992) collected a range of data relating to satisfaction and performance. School principals provided information on the school, performance of the administrative team and school performance measures. A survey was then distributed amongst teachers, who reported on satisfaction, attitudes to the job and turnover intentions. Surveys were also distributed to students, providing information on student satisfaction. In total, usable data was collected from 352 principals with total survey samples of 13,808 teachers (a 41% response rate) and 24,874 students. The measures included nine items covering satisfaction with key aspects of work such as the school, co-workers, supervision, pay, administration, career advancement, student discipline, curriculum, external support, physical facilities and communication. Attitudinal commitment, relating to the strength of involvement and identification with the organisation was measured using a nine-item scale based on Porter and Smith's (1970) 'Organizational Commitment Questionnaire'. Additional items also covered adjustment to working at the school and teachers' experience of workload and stress. Structural aspects of the school relating to size, resources and proxies for socioeconomic factors relating to the student population were included as control variables. Organisational performance was assessed in terms of five criteria, namely academic achievement, student behaviour, student satisfaction, teacher turnover and administrative performance.

Overall, strong evidence of relationships between satisfaction and performance was found at the organisational level. Across the range of performance measures, satisfaction correlated between 0.11 and 0.54 with a mean correlation of 0.28 and commitment/performance correlations varied between 0.05 and 0.60 with a mean of 0.22. Lower but statistically significant correlations were also observed between performance and the measures of

adjustment and stress. Regression analyses of attitudinal measures on performance outcomes, taking account of the control variables showed a mean 10% of variance explained, with a range from 2% to 49%. Overall, the strongest results were found in relation to employee satisfaction.

Ostroff (1992) suggests that future research should be focused on understanding if specific facets of satisfaction are related to different facets of performance. Issues relating to other variables that may be involved are also raised. For instance, some aspects of a school that are related to performance (e.g. teacher/student ratios, school size and socio-economic background of students) may also contribute to satisfaction amongst teachers. Additionally, there may be other moderators of the satisfaction-performance relationship at the organisational level, for example employee empowerment or situational constraints.

Schmit and Allscheid (1995)

The authors build on the work of Schneider and Bowen (1985) and base their analysis on Bagozzi's (1992) model of attitudes, intentions and behaviour to illustrate the importance of employee attitudes in contributing towards organisational performance. Their dataset comprised survey responses from 160 offices within a US security systems company.

Employees were asked to complete an attitude survey comprised of a number of sub-scales with good internal consistency shown by Cronbach's alphas of 0.71 or higher. Measures included climate dimensions relating to Supervisor Support, Management Support, Service Support and Monetary Support and a measure of Perceived Service-Product Quality. A total of 3,464 individuals responded, giving a response rate of 57%. A customer survey was also developed, giving an overall Customer Satisfaction Scale and an internal consistency of $\alpha=0.95$. Responses were collected from 31,362 customers representing a response rate of

10.7%. Using structural equation modelling, a model was tested linking the climate dimensions to a latent variable representing 'employee affect'. This was then linked to perceived service/product quality and then customer ratings of satisfaction. Cross-validation having split the data into two samples showed a good fit of the model to the data, $X^2(9)=28.23$, $p<0.05$; RMSEA=.12; NFI=.93; CFI=0.95. A strong relationship was shown by the standardised path coefficients between affect and service intentions (.83; $t=9.85$, $p<0.05$) and a more moderate relationship between service intentions and customer satisfaction (.33; $t=3.71$, $p<0.05$). The results of the analysis showed a good fit for Bagozzi's (1992) model, with climate perceptions influencing affect, in turn influencing service intentions and subsequent behaviour (as measured by customers' perceptions of service quality). By using more complex analytical techniques, the study helps develop understanding of the possible pathways through which employee attitudes may be related to organisational outcomes such as higher levels of customer service.

Johnson (1996)

Building on existing studies, Johnson sought to identify how specific components of a climate for service relate to customer satisfaction. Using a similar methodology to previous studies, he surveyed employees and customers across 57 branches of a large US bank. In total, responses were obtained from 538 employees and 7,944 customers. A number of dimensions of a service climate were measured, including service strategy, service support, service systems, information seeking (feedback systems), training, reward and recognition, management service orientation, employee service orientation, sales and service working relationships and employee assessment of customer satisfaction.

The results of Johnson's analysis showed that the dimensions relating to information seeking, training and rewards and recognition showed the strongest relationships with overall customer satisfaction (correlations ranged from $r=0.48$, $p<0.01$ to $r=0.38$, $p<0.01$). Service support, management service orientation and employee service orientation showed the weakest relationships and were statistically non-significant. Overall, this study suggests that there may be specific management practices, intended to foster a service climate, that are more strongly associated with positive customer outcomes. The results suggest that specific elements of a climate-for-service may have greater impact than others in facilitating successful customer service.

Ryan, Schmit and Johnson (1996)

In this study, the authors investigated relationships between employee attitudes, customer satisfaction, turnover and organisational unit performance over time using data over a two year period. Their analysis covered 142 branches in an automobile finance company, though due to branch closures this number fell to 131 for their longitudinal analyses. Factor analysis revealed employee attitudes could be broken down into eight factors with internal consistency of $\alpha=0.76$ upwards. These were Supervision, Job and Company Satisfaction, Work Group and Teamwork, Quality Emphasis, External Customer Focus, Workload and Stress, and Training and Development. There was also one overarching general satisfaction item. A number of organisational performance measures were included, such as profit, market share, sales volumes, controllable operating costs, turnover and measures relating to risk and debt repayment by customers. Customer satisfaction was measured by one item assessing overall satisfaction with the service. Relationships between employee attitudes and performance outcomes were assessed using partial correlation and regression analyses, controlling for

branch size. Beyond this, structural equation modelling was used to assess fit of models of the relationships between measures over time.

A wide range of models were tested, and overall mixed findings emerged. There were significant relationships linking shared attitudes with branch performance indicators, customer satisfaction and turnover (specifically Teamwork, Training and Job/Company Satisfaction). The evidence suggested that customer satisfaction was a cause of employee affect and there was little evidence to indicate the causal nature of relationships between employee affect and productivity. Also of interest was an inverse relationship found between financial performance and customer satisfaction within the organisation under study. The researchers suggest that this may be due to the nature of the business, where branches with high levels of debt delinquency have less satisfied customers but may also be making profits from outstanding debts.

Overall, the study allowed a comprehensive analysis of relationships between employee attitudes, customer satisfaction and business performance. However, due to the nature of relationships between customer satisfaction, debt delinquency and profits within the sector, clear linkages between employee attitudes, customer satisfaction and financial performance were unclear. Ryan, et al. (1996) also suggest that future research should be conducted that specifically measures the proposed mediator of relationships between employee attitudes and organisational performance measures, that is to say cooperative/collaborative behaviours. Doing so may help explain the processes through which employee attitudes may be related to organisational performance outcomes.

Patterson, West and Warr (2004)

The studies outlined above have explored relationships between a number of facets of employee attitudes and organisational performance and given clear evidence of such relationships. Schmit and Allscheid's (1995) study also gave support for the role of employee affect as a mediator of climate/performance linkages, although this was a latent variable in their analysis rather than being directly measured. Patterson, et al. (2004) drew on Kopelman, et al.'s (1990) model and hypothesised that relationships between descriptive, evaluative measures of organisational climate and company performance would be mediated by job satisfaction, a measure of employee affect. As Patterson, et al. (2004) indicated, to conduct a full test of all the elements within a model such as that put forward by Kopelman, et al. (1990), or Sparrow's (2001) even more comprehensive extension of this including person-organisation fit and psychological contract perceptions, is unlikely to be practicable within one single study. On this basis, they sought to specifically test the mediating role of job satisfaction in relation to organisational climate and company performance.

The sample used in this research involved 42 manufacturing companies in the UK, all of which were single-site operations ranging in size from 70 to 1,150 employees.

Questionnaires to assess company climate, job satisfaction and organisational commitment were distributed to employees in the companies sampled, providing 4,503 responses and a response rate of 54%. The measure of organisational climate broke down in 17 sub-scales identified through exploratory factor analysis, with these and the job satisfaction and organisational commitment scales all reaching Cronbach's alphas over 0.7. Company performance was assessed through accounting measures of productivity and profitability, with performance over the three years prior to data collection controlled within the analysis.

Their analysis followed Baron and Kenny's (1986) methodology for assessing mediation and revealed that eight aspects of organisational climate predicted subsequent company performance, as did job satisfaction and organisational commitment. Their regression analysis revealed that the inclusion of job satisfaction rendered the relationship between each aspect of climate and company performance as non-significant, giving clear support for the role of job satisfaction as a mediator. Analysis of the average percentage decrease in regression beta values gave a mean of 65%, indicating that this proportion of variance in climate/performance linkages was mediated through job satisfaction.

This study is particularly significant for two reasons, the first of these being clear evidence that measures of organisational climate, job satisfaction and organisational commitment predict subsequent economic performance after prior performance had been controlled within a manufacturing context. Secondly, the evidence indicated that job satisfaction mediates the relationship between climate measures and economic performance. This provides support for Kopelman, et al.'s (1990) model, suggesting that climate perceptions influence cognitive and affective states which in turn may lead to higher levels of behaviours relating to task performance, contextual performance and reduced labour turnover.

Summary

The research outlined above provides evidence across a range of contexts demonstrating consistent linkages between measures of employee attitudes, including organisational climate, job satisfaction and organisational commitment, with organisational performance. Patterson, et al. (2004) drew a key distinction between climate as a descriptive, evaluative construct and measures of employee affect, such as job satisfaction or organisational commitment, building on the work of Kopelman, et al. (1990). Schmit and Allscheid's (1995) research indicated

employee affect mediates relationships between climate and organisational performance in 160 branches of a US security systems company. Patterson, et al. (2004) also demonstrated that job satisfaction (a measure of employee affect) mediated relationships between a number of cognitive aspects of organisational climate and business performance in a sample of 42 manufacturing companies. An emerging issue for researchers to consider is the nature of the relationships between organisational climate variables of a more evaluative, descriptive and cognitive nature, and affective variables such as job satisfaction in influencing organisational performance. As suggested by Ferris, et al.'s (1998) social context model, it is important for research to distinguish clearly between employee's evaluative perceptions of their work environment, which HRM is believed to directly influence, and measures of employee affect such as job satisfaction or organisational commitment.

Studies investigating mediators of the HRM/performance link

Whilst it has been argued theoretically (Kopelman, et al., 1990; Ferris, et al. 1998) that a range of variables including employee skills and competence, climate perceptions, employee affect and work design may all affect the relationship between HRM and organisational performance, empirical evidence in this regard has only begun to emerge recently. This research (Paul & Anantharam, 2003; Katou & Budhwar, 2006) has provided useful evidence in this regard, which is outlined and reviewed below.

Paul and Anantharam (2003) proposed a model whereby HRM practices may influence operational and financial performance through increasing individual employee competence, the extent of teamwork, the level of organisational commitment amongst employees, and finally the extent of orientation towards meeting the needs of customers. They conducted their study in the Indian software industry, on the basis that research within a specific

industry may yield more meaningful results given economic conditions are held constant across firms (Pfeffer, 1998). Their sample comprised 370 usable questionnaire responses taken from employees across a sample of 34 organisations. HRM and potential mediators were assessed by surveying employees, on the basis of the authors' observation that a policy only becomes a practice when it is actually implemented by line managers and employees. Within their model, financial performance may in turn be influenced by these factors as well as by direct linkage (e.g. through increased sales). HRM was measured in terms of the use of practices supporting selection, induction, training, job design, work environment, performance appraisal, compensation, career development and incentives.

Measures of HRM and mediators were all shown to have good internal consistency with Cronbach's alpha coefficients greater than 0.7. The authors described these variables as likely to then influence operational outcomes such as lower labour turnover, productivity, quality, speed of delivery and operating costs. The HRM measure involved a 70-item questionnaire developed specifically to support the research. Factor analysis indicated this was largely unidimensional, with one factor accounting for 53% of variance. Firm performance was measured subjectively by each of the organisations participating in the study. Given the sample sizes, path analysis was conducted using multiple regression to establish the nature of linkages. The results indicated that whilst HR practices were significantly correlated with measures of financial performance, these effects were found to be indirect through the mediators of competence, teamwork, organisational commitment and customer orientation. However, direct linkages were found between training, job design, compensation and incentives with operational performance measures.

This study provides evidence to suggest that the mediating variables included play an important role linking HRM with organisational performance outcomes. Whilst it is important to understand whether a policy has indeed become an implemented practice within the organisation, the collection of data from employees on both HRM practices and intermediary variables introduces a concern in relation to common method bias and the possibility that results may be influenced by other factors such as overall positive or negative affect on the part of employees in a particular organisation. This is particularly an issue given that with two exceptions, all variables in the study were significantly correlated at $p < .05$ or $p < .01$. Additionally, the factor analysis indicating that the HRM measure was largely unidimensional raises a concern that employees did not demonstrate effective differentiation in their assessment of specific HR practices, but rather their responses may have reflected generalised perceptions of HRM. Similarly, the subjective measurement of firm performance also raises a possibility of common-method bias and unreliable measurement. Whilst the testing of mediating variables which may influence the HRM/performance relationship is clearly an important area for research, the lack of independent data collection between the variables studied means there are significant limitations which should be borne in mind when extrapolating from this research.

Another significant study of mediators was conducted by Katou & Budhwar (2006) within 178 Greek manufacturing firms, encompassing 23 industries. They hypothesised that a number of HRM outcomes relating to skills, attitudes and behaviours would play a mediating role between HRM systems and organisational performance. Within their theoretical model they hypothesised that HRM systems would have a positive effect on performance where there was a business strategy focused on quality or innovation, whilst the opposite may be true for a cost leadership business strategy. Data was collected by survey from one person

responsible for HR in each firm, which the authors acknowledge presents one limitation of the study.

The HRM measure covered 18 practices including selection, performance appraisal, employee participation and incentives schemes. Principal components analysis revealed two underlying factors or HRM systems, which the authors labelled 'resourcing and development' and 'reward and relations'. HRM outcomes were then defined in terms of skills (competence, cooperation between managers and employees, cooperation among employees), attitudes (motivation, commitment, satisfaction) and behaviours (turnover, absenteeism). Cronbach's alpha for the HRM system and outcome measures ranged from 0.85 to 0.95, significantly above the 0.7 level typically viewed as an acceptable level of internal consistency. A number of controls were also included within the research design, including the extent of quality and cost business strategies, business life cycle stage, union intensity, company age, capital intensity, company size, and industry. Business strategy was assessed in terms of brand image, innovation, cost reduction and quality enhancement. Organisational performance was assessed in terms of perceived effectiveness, efficiency, development provided to employees, satisfaction of employees, innovation and quality. These measures also demonstrated acceptable Cronbach's alpha coefficients above the 0.7 level.

Regression analysis revealed significant relationships between HRM systems, HRM outcomes and organisational performance. Correlations between HRM systems and outcomes were high, ranging from 0.63 to 0.79, which may indicate a degree of multicollinearity between these sets of variables. Overall measures of the HRM system and of HRM outcomes were created to help mitigate this. Mediation analysis conducted in accordance with Baron and Kenny's (1986) methodology indicated that the relationship

between HRM systems and organisational performance was partially mediated by HRM outcomes. The authors suggest that the large sample size may help limit the extent of common method bias, that the dependent variables followed the independent variables in the questionnaire design and that data gathering was exhaustive from one single respondent. They also cite that application of Harman's (1967) single factor test revealed seven factors with an eigenvalue of greater than one, supporting the case for independence of factors. Nevertheless, the authors acknowledge that respondent bias may involve upward or downward reporting across measures. Importantly, however, this research provides clear support for the view that employee outcomes of HRM play a key role in the processes through which HRM may influence business performance. Given the strength of relationship between measures within this study, it is clear that further research using independent measures of HRM systems, HRM outcomes and organisational performance would be helpful to test whether these findings can be replicated without the possibility of criterion contamination due the use of single data sources within organisations across measures.

In summary, there is considerable evidence to indicate that proposed mediators of the HRM/performance link such as employee behaviours, organisational climate, job satisfaction and organisational commitment are themselves related to organisational performance (Schneider & Bowen, 1985; Schmit & Allscheid, 1995; Ryan, Schmit & Johnson, 1996; Neal, Patterson & West, 2004). As has been shown from research into the mediators of the HRM/performance link (Paul and Anantharam, 2003; Katou and Budhwar, 2006), there is evidence that employee skills, attitudes and behaviours mediate the relationship between HRM and business performance. The HRM mediation research outlined has thus far not involved independent sources for HRM, mediating variables and performance outcomes, introducing concerns over whether common method bias may have influenced the effects

observed. Further research into the 'black box' linking HRM and organisational performance would benefit from multi-source research designs. Additionally, research designs should seek to explore the role of attitudes such as organisational climate and measures of employee affect. Similarly, task and contextual performance are believed to play a key role in relationships between HRM and performance (Neal & Griffin, 1999). Whilst Katou and Budhwar (2006) measured employee behaviours in terms of absenteeism and turnover, as Becker and Huselid (2006) suggest, it would be useful for research to focus on the relationships between HRM and behaviours underpinning strategy implementation. For instance, in service settings this may relate to the measurement of behaviours associated with successful execution of a customer-oriented business strategy.

Processes of internal fit

Many HRM theorists have described employee behaviours and attitudes as potential mediators of the HRM/performance link, and as outlined earlier there is some support for this from recent research studies. However, research has not demonstrated that the effects of an HRM system are fully mediated by particular variables such as organisational climate, rather partial mediation effects leave open the possibility that some HR practices may influence business performance through other mechanisms. For example, extensive training would be expected to influence performance through greater skill levels whilst effective use of work planning systems may lead directly to improved workforce flexibility and efficiency. Similarly, climate is a broader construct than simply employee perceptions of the impact of HR practices themselves and may encompass issues such as the quality of leadership from immediate line managers, direction given by the organisation, focus on customers or the equipment provided to undertake a particular role (Schneider & Bowen, 1985). Whilst it is reasonable to expect that HRM will have a positive influence on measures of employee affect

such as job satisfaction and organisational commitment, the application of a system of HRM is likely to be only one of several influences on employee affect (Guest, 1999). Again, broader climate perceptions relating to issues such as leadership, business direction and practical resources and support may play an important role. These factors alongside the nature of the work itself and feedback from customers would be expected to influence employee affect.

Given the above, it is feasible that there may be moderating processes involving the quality of internal fit between HRM and employee attitudes. If practices are implemented in a context where employees are satisfied with their work and have strong affective commitment to the organisation, this may result in an interaction effect. This may involve higher levels of task and contextual performance associated with these attitudes combining with the direct benefits from HRM in terms of greater skill levels or improved work organisation, producing greater performance than were each of these conditions to exist in isolation. Within a service context, practices such as appraisal, training, performance feedback and workforce planning may all help improve performance through skills or flexibility and via this task performance in relation to meeting consistent standards of customer service. At the same time, if employees have positive climate perceptions and higher levels of employee affect, they may be more motivated and likely to respond positively to practices which focus their efforts on delivering service. Conversely, if affective states are poor then employees may be less likely to engage constructively with line managers' attempts to utilise these practices and indeed may even resist their implementation. Such an explanation would fit with Ferris, et al.'s (1998) social context theory, within which HRM may have direct effects on performance through enhanced ability, motivation and opportunity for employees to perform well and secondly, may interact with boundary conditions which influence the outcome of these

processes. Similarly, Boxall (1996) suggested that interactions between HRM and labour relations within organisations may merit investigation. He suggested that studies of HRM have tended to view the application of practices as generic, when in actuality many organisations apply different people management strategies to different employee groups.

Neal, Patterson and West (2004) conducted a test of Ferris, et al.'s (1998) social context theory in their study in UK manufacturing firms to test whether relationships between the HRM system and company performance were contingent on organisational climate. Building on MacDuffie (1995), they argue that it is unlikely that outcomes of HRM such as greater knowledge and skills will lead to benefits unless the workforce is motivated to contribute discretionary effort to their work. They also tested an alternative resource allocation hypothesis, which proposed that when climate perceptions were more positive, HRM may have less impact on performance than when climate perceptions were low. They hypothesised that in the context of effort being a largely finite resource, HRM has an impact by improving the utilisation of slack resources which may be associated with poorer climate perceptions.

Their sample involved 41 UK manufacturing firms with data collected from 3,939 participants across these organisations. Organisational climate was assessed by questionnaire, capturing four aspects of climate relating to participation, autonomy, welfare and supportive leadership. Factor analysis revealed one single factor accounting for 51% of variance, on which basis the four sub-scales were combined to give an overall measure of psychological climate with a Cronbach's alpha of 0.79. An overall index of HRM in each organisation was generated through interviews with managers responsible for HRM activities and covered selective hiring, training, performance appraisal, non-monetary benefits and

work design. The economic performance of the companies in the study was measured in terms of productivity, controlling for prior performance over the three years before collection of the questionnaire data. Control variables included company size, unionisation, industry sector, environmental uncertainty and hostility, and use of technology.

Through hierarchical regression analysis, Neal, et al. (2004) revealed both a main effect for HRM predicting organisational performance, and a negative interaction effect between HRM and the climate measure. These results confirmed the resource allocation hypothesis rather than a positive multiplicative effect as suggested by Ferris, et al.'s (1998) social context theory. The results indicate that if levels of effort are already high, as would be expected with more positive employee attitudes, then the incremental benefits from HRM may be reduced. Effectively, in the sample studied the authors demonstrated that HRM and climate perceptions were to some extent substitutable in terms of their benefits for performance. This suggests that there can be conditions where HRM has a broadly positive impact, but the effects on performance are greatest where there is a correspondingly significant opportunity for improvement. This research clearly indicates that there may be conditions where organisational climate or other measures of employee attitudes can act as moderators of HRM/business performance linkages. There is significant opportunity for further research within service contexts to test whether processes of internal fit between HRM, climate perceptions and employee affect may influence the strength of relationship between HRM and organisational performance.

Processes of external fit

As was outlined in chapter 2, the study of HRM and organisational performance has been dominated by the question of strategic fit, leading to the emergence of three different theoretical positions, that is the universalist, contingency and configurational perspectives (Delery and Doty, 1996). In his review of the area, Wood (1999) concluded that overall there was strongest support for the universalist position, that is to say implementing progressive HRM will typically lead to positive performance gains. There is some evidence for the role of contingency theory in relation to business strategy, and similarly for the role of internal fit through self-reinforcing bundles of HR practices but this is largely additional to the main effect of HRM (Becker, et al. 1997). However, Boxall (1996) argued that conceptualisation of strategy suffered from over-simplification, tending to focus on Porter's (1985) competitive strategies rather than considering other elements in the broader conceptualisation of strategy in terms of HRM, technology, structure and finance. Rather, the evidence has supported the resource-based view (Penrose, 1959) that HRM acts to develop the human resources of an organisation in a positive way across situations. The evidence in support of an interaction between lean production methods and HRM (Wood, 1999) is an indication that a more refined view of what strategy entails and how HRM interacts with the strategy-making process within organisations will be required for theory to be significantly advanced.

Building on this, Datta, et al. (2005) moved beyond examining the relationships between an organisation's espoused business strategy and HRM to explore a more complex model of the external factors which may influence the HRM/performance link. In their study in the manufacturing sector, they observed that there has been limited attention given to the contextual conditions that may moderate the impact of HRM, such as industry characteristics. In this regard, they proposed that within industries characterised by low capital intensity, high

market growth, high differentiation and high dynamism, such conditions will facilitate a greater impact of HRM on company performance. To test this, they collected data from US manufacturing companies providing a final dataset of 118 firms. Their measure of HRM built upon the approach of Huselid (1995) and Guthrie (2001) and assessed 18 HR practices. Measures of company productivity were taken from the Compustat database and industry measures were taken from the US Census of Manufacturers to assess capital intensity, growth, differentiation and dynamism. A range of control variables were included in their analysis such as firm size, growth and capital intensity at the firm (rather than industry) level, unionisation and business strategy.

Their results indicate a statistically significant relationship between adoption of HRM and productivity ($r=.11$, $p<0.05$). The influence of industry factors was tested using moderated regression in line with the approach espoused by Aiken and West (1991). Statistically significant interaction terms ($p<0.05$) were found in relation to the moderating role of capital intensity, growth and differentiation, demonstrating that all of these factors moderated the impact of HRM on productivity at the organisational level. No significant effect was found in relation to industry dynamism. Overall, this research helps move theory relating to contingency effects forward significantly from the focus on business strategies in the earlier literature, by illustrating how the external characteristics of the industry and market environment affect the impact of HRM. The use of independent measures of HRM, productivity and industry characteristics provide confidence in the findings without concerns relating to common-method bias as has often been the case in HRM research. As the authors suggest, there is significant opportunity for further research to explore external contingency effects and identify other conditions that may influence the generally positive impact of HRM on organisational performance.

Whilst Datta, et al. (2005) explored contingency effects in the manufacturing sector, the nature of the service sector may mean different or additional industry and market conditions may be important moderators of HRM/performance relationships in this context. Boxall (2003) argued that within the service sector, organisations in more knowledge-intensive environments may have greater scope to gain competitive advantage through their human resources, if they can successfully develop them and build barriers to imitation by competitors. Significantly, in their meta-analysis of HRM/performance studies, Combs, et al. (2006) found the effect of HRM was significantly greater in manufacturing as compared to service contexts. They suggested a number of reasons why this might be the case, for instance that manufacturing often involves complex, dangerous machinery requiring more rules and higher levels of training. This could also make an organisation's ability to adapt to change more costly, and as such increased workforce flexibility may be a major benefit of HRM in this context. Manufacturing may also rely more heavily on HRM to deliver both necessary capability and motivation. Within service industries, employees may have more direct feedback on their performance through their customer interactions which may lead to greater self-regulation of performance, and for more highly skilled roles the membership of professional organisations may support high levels of competence independent of the organisation's HRM system.

Perhaps most importantly, service organisations are open systems with many points of interaction between customers and employees, whilst in manufacturing quality control processes typically ensure that products meet required standards prior to them reaching customers. Additionally, interactions with customers in manufacturing may be limited to a much smaller number of sales and customer service employees. Combs, et al. (2006) argue

that co-production of services by employees and customers makes productivity and performance more uncertain and complex. This may also limit the range of possible outcomes given the customer's involvement, reducing the opportunity for HRM to impact performance. For instance, whilst workforce planning can help match resources to work demands, high levels of uncertainty relating to when peaks and troughs in customer demand will occur may limit flexibility and the opportunity to maximise productivity. Also, many HR practices such as team-based working and employee participation may be better aligned with manufacturing or have greater impact in this context, whilst service work may be characterised by lower task interdependence between employees. Further research examining HRM systems specifically intended to support the implementation of strategy within service environments may be beneficial to develop understanding of HRM in this context.

Whilst the study by Datta, et al. (2005) was undertaken in the manufacturing sector and focused on capital intensity, growth and product differentiation, it is also likely that other moderating factors may be significant within a service context. Given the provision of customer service is typically labour intensive it is likely that capital intensity may be a less significant factor than has been demonstrated within a manufacturing context. Additionally, service organisations often differentiate themselves on the quality of service itself whereas the level of product differentiation may be low between competing organisations. It has also been argued by Heskett, Sasser and Schlesinger (1997) that the quality of service delivered to customers is likely to have the greatest impact on financial performance in contexts where the competition for each customer's business is greatest and barriers to switching between suppliers are low. For instance, where there are very few providers of a service, even dissatisfied customers will still be likely to buy products or services from a firm due to limited alternative choices. Conversely, where there are high levels of competition, the

pressure on service organisations to meet customer needs and through this retain and grow sales will be significantly greater.

The above has significant implications for the impact of both HRM systems and intermediary outcomes (e.g. climate for service or job satisfaction) intended to support the delivery of customer service, as their impact is likely to be greatest in contexts where competition levels are high and service is a significant driver of financial performance. For instance, within a geographically dispersed retail organisation, it is likely that levels of competition may play a moderating role on the impact of service on financial performance at the establishment level. Building on Datta, et al.'s (2005) work in manufacturing, there is a need for research to explore the role of relevant industry factors in a service context and in particular, how they may moderate the strength of relationship between HRM systems and outcomes with organisational performance.

Evaluation of evidence

The evidence reviewed above relating to which factors may influence relationships between HRM and business performance reveals a shift in the literature from a first phase of HRM research, which sought to establish the existence and extent of such a relationship, towards empirical work seeking to understand the processes through which such relationships occur. Much of the early work in strategic HRM research examined the role of strategic fit across across a range of industries (e.g. Arthur, 1994; MacDuffie, 1995; Huselid, 1995; Delery & Doty, 1996; Huselid, 1997; Patterson, et al. 1997) in terms of contingency effects in relation to Porter's (1985) business strategies and internal fit in terms of 'bundles' of reinforcing practices. The importance of the effective diffusion of HRM through organisations has received positive support from research (Huselid, 1995; 1997; Patterson, et al. 1997; West, et

al. 2002). Additionally, the relative sophistication of HRM has been shown to be a factor in determining relationships to organisational performance (Patterson, et al., 1997). However, much of this research has evaluated HRM from the viewpoint of senior HR personnel or policy-makers within organisations. Bowen and Ostroff (2004) highlighted the importance of HRM policies actually being put into practice and signified the role of HR system strength as a key mediator of this relationship. Recent research by Khilji and Wang (2006) has further developed this perspective by studying the extent of HR implementation as a key determinant of the impact of HRM on performance. Their research indicates promising initial results supporting the hypothesis that the extent and manner of implementation matters, with significant relationships found between the extent of HR implementation and its impacts on business performance. However, the small number of organisations included within Khilji and Wang's research limits confidence in the strength of this relationship. Building on their approach, there is a need for future research to also take account of key stakeholders in the HR implementation process such as line managers and front-line employees in understanding what factors may be important in the successful implementation of HR practices and to test whether this is significant in moderating their impact on business performance outcomes. In the context of service organisations where a large number of boundary-role employees have high levels of contact with customers, this may be expected to be of particular importance (Schneider & Bowen, 1985). In order to further develop HRM theory, it is essential for implementation to be explored more fully in order to better understand the processes through which HR practices impact on business performance. In this regard, line managers in particular may be a source of useful information as to the utility of HR practices in supporting the achievement of organisational goals, given they typically use such practices with a broad span of employees and are key agents of change in relation to HRM implementation (Guest, 2003).

The role of mediation effects through ‘HRM outcomes’ (Katou & Budhwar, 2006) has also received an increasing focus in research designs. The evidence in this regard (Paul & Anantharam, 2003; Katou & Budhwar, 2006) has supported the view that employee skills, attitudes and behaviours all play a role in mediating relationships between HRM and performance. However, whilst this work has been an important step forward in developing HRM theory, studies have employed single-source research designs that may be prone to common method bias. To accurately assess the effect sizes involved and build confidence in the mediating role of the variables included in these studies, it is essential for multi-source research designs to be employed in future research. These should seek to measure HRM, intervening variables and business performance from fully independent sources to ensure such concerns are mitigated. Indeed, in one such study where independent data sources were used (Neal, et al., 2004), no evidence of mediation effects were found in relation to the role of organisational climate. Similarly, the mediation studies outlined did not involve controls for prior economic performance, again reducing the confidence with which causality can be inferred when interpreting results.

Further to this, research would benefit from focusing on three key groups of variables. The first area for attention relates to developing understanding of the role of employee behaviours which underpin the execution of business strategy, for instance meeting the expectations of customers in a service context. Becker and Huselid (2006) suggest that the performance of strategic behaviours will provide clearer forward-looking measures of strategy implementation which should predict future performance, rather than the focus of much research to date which has tended to look at backward-looking accounting-based measures of economic performance. In this regard, research within specific organisations or industries

will be helpful to ensure other factors are controlled and such effects can be more easily isolated and identified.

Secondly, the role of organisational climate and employee affect as mediators of links between HRM and performance warrants greater attention given the wider body of research indicating their relationship with organisational performance. A number of studies (Schneider & Bowen, 1985; Ostroff, 1992; Schmit & Allscheid, 1995; Johnson, 1996; Ryan, Schmit & Johnson, 1996; Patterson, et al., 1997) provide good evidence that employee attitudes are closely related to organisational performance outcomes, in particular customer perceptions. Constructs studied have included measures of organisational climate, particularly with reference to the business context such as 'climate-for-service' (Schneider and Bowen (1985), and measures of employee affect such as job satisfaction and organisational commitment. In their research in the manufacturing sector, Patterson, West and Warr (2004) found evidence that the effects of climate on performance are mediated by employee affect. Testing for such effects within a service context would be helpful to understand further the generalisability of these findings.

Thirdly, research may gain from focusing not only on employee attitudes but also task and contextual performance (Neal & Griffin, 1999). Within the context of HRM research, employee attitudes are primarily of interest to researchers because of the employee behaviours which are believed to be generated as a result. In particular, positive employee attitudes relate to greater levels of motivation and effort, leading to improved task performance. Additionally, HRM would be expected to play a significant role in improving task performance of employees through practices designed to increase the knowledge and skills of employees or opportunities to improve ways of working (Ichniowski, et al. 1996).

However, the relationship between employee attitudes and contextual performance is perhaps of the greatest interest. Stronger effect sizes have repeatedly been found between attitudes and performance at the organisational level as compared to individual level (Ostroff, 1992). This suggests that it is not simply the aggregate of individual levels of performance that is important, rather that contextual performance by employees is likely to play a significant role (Neal and Griffin, 1999). There is strong evidence for employee attitudes being related to organisational citizenship behaviours at the individual level (Schappe, 1998). There is much opportunity for research to integrate knowledge from the strategic HRM and organisational behaviour literature to explore more fully the mediating role of employee attitudes, task and contextual performance.

Whilst there has been considerable theoretical focus in the literature on mediators of the HRM/performance relationship, processes of internal fit have received limited attention. Ferris, et al.'s (1998) social context theory discussed both mediation and how variables such as organisational culture may moderate the adoption of HRM and its effects. Neal, et al.'s (2004) study in manufacturing provided evidence revealing that a positive organisational climate moderated the impact of HRM on economic performance, in this case supporting a resource allocation hypothesis that HRM has the greatest impact where there was the largest opportunity to optimise the use of slack resources. The evidence available to date indicates that the effects of HRM on performance are partially, but not fully, mediated by variables such as organisational climate. Given this, it is clear that mediation hypotheses do not explain all the variance in the HRM/performance relationship and there is opportunity for further exploration of social context effects as suggested by Ferris, et al. (1998). For instance, if certain groups of HR practices such as appraisals, training and workforce planning afford higher levels of skill and more efficient organisation of resources, then

positive effects on performance may be achieved without mediation via attitudinal variables. However, it is possible that both organisational climate and affective states such as job satisfaction or organisational commitment may moderate the impact of such HR practices or systems on performance. This would fit with Neal and Griffin's (1999) model that suggests individual performance influences task and contextual performance through the combination of skills, motivation and technology or work design, and that there may be processes of internal fit between variables in each of these areas. As indicated in the study in manufacturing conducted by Neal, et al. (2004), there is a need for theory and empirical research designs to consider processes of internal fit as described above.

In relation to the evidence relating to the role of external fit in moderating HRM/performance linkages, Boxall (1996) argued that the conceptualisation of strategy in the literature has been heavily oriented towards Porter's (1985) categories of competitive strategy at the expense of a broader view encompassing other elements of strategy-making such as technology, capital and operations. Datta, et al. (2005) similarly pointed out that there has been relatively little attention paid to contextual factors in HRM/organisational performance research. Within the manufacturing context, their research demonstrated that factors such as capital intensity, growth and differentiation moderate the impact of HRM, providing an important step forward in developing understanding of contingency effects. Combs, et al. (2006) found the effects of HRM on performance were significantly lower in studies within service environments, suggesting that research is needed to understand why this is the case and what industry or market characteristics may influence the relationship between HRM and performance in this context. This evidence clearly indicates that whilst the search for linkages between espoused business strategy and HRM effects on performance has had mixed results, focusing outside

the organisations on the characteristics of their environments may be more fruitful in revealing under what conditions HRM has the greatest impact on performance.

Theoretical issues

Emerging empirical work investigating why HRM is linked to organisational performance has revealed some promising new avenues for research, including the role of implementation of HRM as a determinant of its impact on performance, mediation effects, processes of internal fit and the role of external moderators relating to industry and market characteristics. The review of this research reveals a number of theoretical issues which require consideration in future research designs.

Conceptualisation of HRM: Much of the early strategic HRM research focused on the adoption of a particular set of 'best practice' policies (Pfeffer, 1998). There has, however, been a wide variety of specific practices included in different studies and the inclusion of practices has been largely normative in nature (Youndt, et al., 1996). As Becker and Huselid (2006) have indicated, it is important for HRM theory to consider the role of alternative HR architectures in relation to their strategic purpose. Combs, et al. (2006) suggest certain HR practices and systems may be better suited to manufacturing contexts, where there are high levels of task interdependence, than service contexts where customer interactions may limit the range of possible performance outcomes. In conceptualising what is meant by a system of HRM, it is important to frame this within the industry and strategic context facing the organisation. Finally, as Khilji and Wang (2006) outlined, whilst HRM theory has tended to focus on policies as seen by senior HR or line managers, the effectiveness with which such policies are implemented in practice is crucial, supporting the need to examine factors relating to HR system strength as proposed by Bowen and Ostroff (2004). Measurement of HRM

may hence benefit from focusing specifically on those practices intended to deliver the business strategy in a given context, and the process through which those practices are implemented.

Conceptualisation of performance: The majority of HRM research to date has conceived organisational performance in terms of economic performance using accounting-based measures. However as Becker and Huselid (2006) have indicated, whilst measuring performance in this way has been important in demonstrating the managerial significance of HRM, such measures are largely backward-looking and summarise what has been achieved rather than providing a measure of the successful implementation of business strategy in terms of forward-looking 'strategic behaviours'. Whilst a focus on links between economic measures and HRM has been an important element within research to date and will continue to be useful as a way of assessing the business benefits of HRM, it may be helpful to also examine the relationship between HRM and the execution of business strategy and the behaviours that underpin it, which in turn would be expected to lead to future financial performance. Finally, conceptualisation of performance may benefit from clearly capturing the perspectives of multiple stakeholders. For instance, it may be helpful to consider the impact of HRM on the attitudes of employees, on task and contextual performance as perceived by line managers, on the experience of customers and finally, on the financial performance of the organisation. It is also important that measures of performance should be obtained using a multi-source approach, with data sources for measuring performance which are independent of measures of HRM or intervening variables to ensure the risk of common-method bias and inaccurate or inflated effects are mitigated.

Conceptualisation of employee attitudes: Patterson, et al. (2004) demonstrated the importance of distinguishing between evaluative perceptions of climate and measures of employee affect such as job satisfaction. In particular, their finding that employee affect mediated the impact of several dimensions of climate with company performance suggests that these two sets of variables should be considered separately within research designs. Schneider and Bowen (1985) also demonstrated the importance of measuring climate in relation to the business context, for instance a climate for service. Again, research exploring the role of employee attitudes within the context of HRM and performance relationships should conceptualise climate in these terms to ensure measures are relevant to the industry and organisational context.

Development of models incorporating intermediary variables and boundary conditions:

Authors have explored models investigating the 'black box' connecting HRM with performance in terms of mediation (Paul & Anantharam, 2003; Katou & Budhwar, 2006) and moderation (Neal, et al., 2004). However, the evidence suggests that focusing on one of these perspectives alone may not capture the complexity of how such processes operate in practice. The conceptualisation of intervening processes between HRM and performance would benefit from consideration of both mediating processes and the impact of boundary conditions (Ferris, et al., 1998) in relation to both internal fit (Neal, et al. 2004) and external fit (Datta, et al., 2005).

Development of HRM theory in service contexts: Whilst Datta, et al. (2005) demonstrated the impact of industry factors in moderating the impact of HRM on performance in manufacturing, similar research is lacking in relation to service contexts and there is evidence to indicate the effects of HRM within service environments may be reduced. In this regard,

to further develop the knowledge base in this area, models may benefit from taking account of this industry context. For instance, the HRM practices studied should be relevant to supporting the provision of customer service. Relevant intervening variables such as climate for service may also be important, and the behaviours most relevant to implementing the business strategy are likely to relate to meeting customer needs and expectations. Finally, the industry factors which may moderate the impact of HRM and which may be explored through research should be relevant to the nature of the business environment in service contexts.

Understanding processes of aggregation between levels of analysis: Consideration of processes of aggregation is fundamental to understanding how HRM influences organisational performance outcomes. Many HR practices, such as selection or training, involve efforts to ensure effective performance by individuals. An assumption within the extant research is that the additive effects of these practices lead to greater organisational performance. The concept of ‘bundles’ as proposed by MacDuffie (1995) also suggests that there may be synergies between practices which are mutually reinforcing, leading to multiplicative effects of practices on performance outcomes. Given the above, it is therefore necessary to identify whether the aggregation of individual-level data can be justified. A number of approaches to aggregation, such as intra-class correlations and James’ (1982) aggregation index, allow statistical testing in this regard. Such methods are based on the premise that if a significant level of variance in the variable being assessed can be explained at the group-level (e.g. team or establishment) then there is reasonable justification for aggregating results. This has been a key feature of much of the research investigating employee attitudes and performance (e.g. Ostroff, 1992; Schmidt and Allscheid, 1995; Johnson, 1996; Ryan, et al. 1996) and should also be borne in mind in research designs that

explore the potential mediating or moderating variables which may influence HRM/performance relationships.

Understandings relationships over time: In addition to developing knowledge of which variables may be involved in mediating or moderating HRM/performance relationships, it is also important to consider the role of effects over time and in particular the potential time lag between implementing HR practices and achieving the desired performance outcomes. In particular, it is helpful for prior performance to be controlled (Patterson, et al. 1997), and utilising longitudinal research designs will benefit the development of theory relating to how such effects occur over time. There are, however, significant practical challenges involved, in particular maintaining participant involvement and minimising attrition through subsequent stages of the research process.

Methodological issues

To further develop the research base to understand the mediating processes and boundary conditions that affect the impact of HRM on performance, it is important for a number of significant methodological limitations of previous research to be avoided. The key steps needed to achieve this are outlined below.

Use of independent, multiple data sources: One of the most pressing methodological issues for HRM research is to make use of multi-source research designs where data relating to HRM, performance and intervening variables is gathered from independent sources. Combs, et al.'s (2006) meta-analysis of HRM studies indicated that after correction for unreliability, the effect sizes found in studies using non-independent, survey-based performance measures were significantly higher than where archival measures were used. This suggests there may

be issues in relation to common-method bias and inflated estimates of the effects of HRM.

Research designs which take a multi-source approach will avoid this concern and afford significantly greater confidence in the reliability and validity of the results obtained.

Need for prior performance to be controlled: Whilst much HRM research has tended to be cross-sectional in nature, studies which control for prior performance such as Huselid (1997), Patterson, et al. (1997) provide significantly greater confidence in the directionality of relationships between HRM and organisational performance. In this regard, it is helpful for research to control for prior performance to ensure that the effects of HRM in enabling improvements in performance can be identified. This also helps to discount the hypothesis that successful organisations with higher levels of economic performance have more opportunity to invest in HRM, rather than HRM necessarily influencing performance outcomes.

Multi-level designs and use of aggregation methodologies: The development of theory in the field of HRM research demands a move forward from a largely organisational-level approach testing whether HRM and performance are statistically related, towards understanding the processes which explain how and why such effects occur. This shift in emphasis raises a number of methodological issues and creates a need for appropriate research designs and analytical techniques to be employed. Specifically, it is important to understand the multi-level processes through which variables are aggregated from the individual to establishment or organisational levels of analysis, and to justify that aggregation. It is necessary, therefore, for such research to employ appropriate tests to indicate that there is sufficient between-group variance and within-group agreement to indicate aggregation is empirically meaningful. For instance, Patterson, Payne and West (1996) demonstrated the inadequacies of clustering

techniques as a means of identifying meaningful social-psychological ‘collectives’ in an analysis of organisational climate perceptions. Schneider and Bowen (1985) and Ostroff (1992) both made use of intra-class correlations (ICC) as a measure of aggregation. ICC(1) (James, 1982) uses one-way ANOVA to compare the between-group sum of squares against the total sum of squares for a given sample. ICC(2) (James, 1982; Lord and Novick, 1968) effectively assesses the reliability of the mean scores, comparing the between-group mean square *minus* the within-group mean sum of square to the between-group mean square, again using one-way ANOVA. ICC(2) indicates the extent to which the different groups or organisational units can be reliably differentiated. However, James, Demaree and Wolf (1984; 1993) suggested that the ICC statistics may be inaccurate estimates if there is little variance between group mean scores and limited within-group variance. As a result, they recommend a new measure of within-group agreement, r_{wg} , as a more useful measure for use in studies aggregating individual level data such as that relating to employee attitudes. Further research by Kozlowski and Hattrup (1992) supported r_{wg} as a useful statistic. James, et al. (1984) pointed out that attitudinal data is often skewed due to the response scales used and this should also be taken into account when interpreting the level of aggregation. Research should make use of a variety of statistical approaches to aggregation to ensure that claims of differentiation between units of analysis can be justified on the basis of substantial between-group differences. Use of these methodologies is vital if multi-level theories of HRM and performance, such as put forward by Ostroff and Bowen (2000), are to be empirically tested and validated.

Summary

Including a broader range of intermediary variables and boundary conditions in HRM research designs is essential to developing a more sophisticated and integrated understanding

of how HRM influences performance in organisations. In order to better understand the mechanisms through which HRM and organisational performance are related, it is essential that research designs include an appropriate range of variables which are believed to mediate or moderate HRM/performance relationships. Organisations are highly complex systems (Katz & Kahn, 1966) and increasingly research into the relationships between HRM and performance will need to take account of this complexity if greater theoretical understanding is to be developed. In this regard, researchers may benefit from developing research designs which draw on both the strategic management and organisational behaviour literature. This is likely to require a more sophisticated conceptualisation of strategy (Boxall, 1996), consideration of internal and external fit (Neal, et al. 2004; Datta, et al., 2005), measurement of HR implementation (Khilji and Wang, 2006), psychological variables such as employee attitudes (Wood, 1999) and appropriate measures of employee performance (Neal and Griffin, 1999). Research exploring the processes through which HRM influences performance should consider HRM and intervening variables such as climate in relation to the industry context under study (e.g. service or manufacturing). Measures of organisational performance should also take account of different stakeholders and emphasise the role of HRM as an enabler of strategy execution (Becker & Huselid, 2006). Finally, measures of independent, intervening and dependent variables should be gathered from multiple, independent data sources with prior performance controlled to ensure maximum confidence in the validity of the results obtained.

4. THEORETICAL FRAMEWORK AND HYPOTHESES

The review of literature preceding this chapter has explored the nature of HRM, evidence regarding the relationship between HRM and organisational performance, and areas where further research is needed to develop understanding of how and why such relationships occur. A number of theoretical issues require consideration in the development of theoretical frameworks in this regard. These include the conceptualisation of HRM and its practical implementation; ensuring models of HRM are relevant to the business context; conceptualisation of performance; conceptualisation of employee attitudes and developing models which incorporate both intermediary variables and boundary conditions. In this regard, multi-level research designs which consider the psychological processes involved will also be required if research is to reveal the mechanisms through which these effects occur. Such research designs also need to ensure independence of data sources and where feasible control for prior performance to maximise the confidence with which conclusions can be drawn from the findings obtained. Within this chapter, a theoretical framework building on the extant literature is outlined, covering the key concepts in relation to HR implementation, measures of performance, climate for service, employee affect and characteristics of the business environment. Proposed linkages between these variables are outlined, followed by an overall theoretical framework for this research and specific hypotheses which will be tested within this framework.

The conceptualisation of HRM is a key consideration in developing a theoretical framework that will enable effective exploration of intermediary processes and boundary conditions influencing the HRM/performance relationship. Becker and Huselid (2006) suggested that whilst broader cross-industry studies have been significant in clarifying the effect size and

generalisability of links between HRM and performance, it will be helpful for research to focus more closely on specific systems of HRM and how they are linked to strategic behaviours in order to develop understanding of the underlying processes. This study will focus on a system of practices which specifically support a customer-oriented strategy. This involves measurement of five key practices in place within Post Office Ltd branches: appraisal and development planning, training, service performance feedback, performance-related pay and workforce planning. Khilji and Wang (2006) emphasised the need for research to measure HRM not simply in terms of the existence or not of particular HR policies at the organisational level ('intended HRM') but also how they have been implemented in practice ('implemented HRM'). The HR policies are identical across the sample of post office branches included within this research, allowing analysis of the role of implementation whilst holding constant the nature of the actual practices themselves.

It is possible to operationalise the measurement of the way in which HR practices are implemented in a number of ways. In relation to appraisal and development plans, this may be measured in terms of the number of employees who receive appraisals and whether development plans are subsequently followed through. In relation to training provision, as has been the case with other studies of HRM (e.g. Huselid, 1995), this can be measured in terms of the number of people involved in formal training and the extent of training provided in terms of the financial investment or time commitment per employee. Feedback to employees on the quality of customer service they deliver may be assessed by techniques such as feedback from customers or direct observation of service by independent researchers. In this regard, the frequency with which such feedback is provided may give a clear indication of the extent of implementation. At the branch level, the deployment of performance-related pay or workforce planning may be less easily assessed in terms of

deployment, as to a certain extent systems for each of these practices may be either in place or not at branch level. However, across all practices the quality of outcomes at branch level may be measured in terms of line manager's assessments of the extent to which a practice has been a useful management tool. For instance, this may relate to the extent to which a branch manager finds appraisals useful to recognise performance and focus development activities where they are needed, or workforce planning as a helpful tool to manage staff efficiently and meets peaks and troughs in customer demand. In summary, as indicated by Ostroff and Bowen (2000) the implementation of HR practices may be assessed through quantifiable measures of deployment such as the frequency and thoroughness of deployment, capturing the intensity, inclusiveness across employees and consistency of administration. Additionally, perception-based measures of the usefulness of HR practices may provide an assessment of the quality of implementation of practices in terms of their perceived validity and utility.

As well as addressing how the implementation of HRM may be measured, it is also important to consider the mechanisms through which each practice may be expected to influence performance in a customer service context. Appraisal and development planning would be expected to influence performance through increased levels of both motivation and capability, as appraisal systems are frequently designed to recognise good performance and also identify opportunities for further focused skill development. The development opportunities identified by appraisals and built into development plans for different individuals may encompass behaviours related to a range of activities such as customer service, sales or improving efficiency. It is therefore reasonable to assume that if used effectively, appraisals may influence both behavioural performance outcomes and subsequent economic performance within a branch.

In the case of a service environment, training may focus on areas such as customer service skills and knowledge of existing and new services. Training may be expected to primarily relate to providing employees with greater levels of skill to undertake their roles, and as such would be expected to directly lead to improved task performance and if linked clearly to the business strategy, to the execution of strategic behaviours important to organisational success (Becker and Huselid, 2006). The provision of training may also be expected to help increase job satisfaction and organisational commitment by demonstrating to employees that they are valued by the organisation and are being invested in as individuals.

Whilst feedback on service performance may not be covered within many models of HRM within the literature, many of which have been generated through studies within manufacturing (Combs, et al. 2006), it is an important part of the people management system in the context of this study which occurs in a service environment. On the one hand, this can be seen as a form of performance feedback core to the work system (MacDuffie, 1995). In a service context, feedback is essential to promote organisational learning and improvements and to focus employee efforts on those behaviours specified as important to delivering the business strategy (Becker & Huselid, 2006). Secondly, regular feedback on performance is important to help line managers motivate their employees, give recognition for good performance and provide intrinsic reward to employees in terms of satisfaction that they are performing well. This in turn would be expected to lead to greater levels of job satisfaction and affective commitment to the organisation. A feedback system of this nature would hence be expected to support the 'customer-employee satisfaction mirror' (Heskett, et al., 1997).

Having a system of performance-related pay in place would be expected to have a direct motivational effect on employees by helping articulate business targets and providing extrinsic rewards to employees for achieving them, and through this help enhance business performance by reinforcing desired behaviours by employees. Conversely, an effective system of work organisation and scheduling which improves the matching of staffing to work demands can help increase productivity through greater flexibility (Ichniowski, et al. 1996) independent of motivational or capability-related effects. A system of work allocation which is considered to be fair, equitable and is used by line managers to allow some level of flexible working in the interests of employees, may also have a positive impact on climate perceptions and employee affect.

As indicated by Neal and Griffin's (1999) model, it is likely that different HR practices may influence the ability of employees to perform well, their motivation to do so and the opportunities available for them to meet business goals. As illustrated above, it is likely that individual HR practices may influence one or more of these possible intermediate linkages. In line with the findings of Combs, et al. (2006), systems of HR practices are likely to have greater effects on business performance than individual practices. Additionally, whilst practices may have differential impact on skill levels, motivation and providing greater flexibility or opportunity to deploy skills (Huselid, 1995), an HRM system as a whole may be expected to influence employees' climate perceptions and affective reactions, and through this their subsequent task and contextual performance. In this regard, models seeking to link HRM to measures business performance should include potential direct linkages where efficiencies may be directly delivered to business performance (Ichniowski, et al., 1996). HRM may also support the execution of strategic behaviours (Becker and Huselid, 2006), for instance through the provision of adequate training in the necessary skills to perform those

behaviours or performance feedback systems to focus effort on those behaviours underpinning strategy execution. Greater HRM system strength (Ostroff & Bowen, 2004) may lead to more positive climate perceptions and employee affect and through this, greater levels of business performance. Finally, the impact of HRM on performance may be moderated by processes of internal fit (Neal, et al., 2004) with factors such as organisational climate and external fit (Datta, et al., 2005) with industry characteristics. It is important that models seeking to explain the processes through which this occurs give due account of the different mechanisms through which HRM may influence business performance and seek to test these relationships.

As was discussed in chapter 3, there is growing evidence to suggest that employee attitudes play a key role in influencing business performance and may interact with HRM to deliver business performance outcomes. There is considerable evidence at the individual level (Iaffaldano & Mcuhinsky, 1985; Organ & Ryan, 1995; Mathieu & Zajac, 1990; Meyer & Allen, 1991) that employee attitudes such as climate perceptions, organisational commitment and job satisfaction are related to task performance, extra-role or contextual performance and attachment behaviours (Kopelman, Brief & Guzzo, 1990). There is a considerable body of research supporting linkages between employee attitudes and organisational performance, for instance Ostroff (1992) and Patterson, et al. (1997) have demonstrated links between job satisfaction and organisational performance, whilst climate perceptions have been linked to organisational performance across a range of studies (Schneider & Bowen, 1985; Schmit & Allscheid, 1995; Ryan, Schmit & Johnson, 1996; Patterson, et al., 1997). Writers such as Wood (1999) emphasised the need for HRM research to consider the role that such attitudes may play in influencing the HRM/performance relationship. Indeed, one of the key mechanisms through which HRM is believed to influence performance is through effects on

employee attitudes and motivation (Huselid, 1995; Ichniowski, et al., 1996). Given the work of Patterson, et al. (2004), which found that employee affect mediated the relationship between several dimensions of climate and company performance, there is a need for theoretical models of HRM and performance which clearly distinguish between evaluative perceptions of climate and broader measures of employee affect, such as job satisfaction or affective commitment to the organisation (Meyer and Allen, 1991).

The conceptualisation of climate should also be clearly related to the business context, for example a climate for service in the context of this research, as well as integrate dimensions from earlier research. For instance, Schneider and Bowen (1985) found evidence that a climate which supports effective performance in a service environment included distinguishable sub-factors such as perceptions of the quality of branch management, practical support in terms of systems and logistics to enable staff to perform their roles, and a focus on delivering high levels of customer service and retaining customers. Johnson (1996) also emphasised the importance of a strategy for service as a key dimension of climate in service settings, similarly Schmit and Allscheid (1995) included management support beyond that of the immediate branch management. Within a service context it would be expected that employees will benefit from having a clear sense of the business direction and strategy in relation to customers, as well as clear objectives in this regard. This may be important to help ensure employees understand how customer service should be delivered and encourage contextual performance where needed to meet the broader strategic objectives of the organisation. A number of studies (Ostroff, 1992; Johnson, 1995; Ryan, Schmit and Johnson, 1996) emphasised employee perceptions of training and development support as another key climate dimension. In a service setting this is likely to be important in terms of ensuring employees are equipped with the necessary product knowledge and customer service skills to

perform effectively. A model of climate specifically related to successful performance in a service setting would benefit from drawing upon the key dimensions outlined above from the existing research base, namely: effectiveness of branch management, quality of systems and logistical support, focus on customers, clarity of strategy and objectives, and training and development.

It is likely that the impact of HRM on business performance may be mediated by organisational climate (Katou & Budhwar, 2006). For example, provision of effective training may not only increase skill levels amongst employees but also improve their climate perceptions in relation to development and more broadly signal that the organisation values employees and is investing in them, potentially leading to greater discretionary effort and contextual performance. Alternately, however, those aspects of climate not directly influenced by the deployment of HRM may interact with and moderate the impact of HRM on performance. For instance, the provision of a clear strategic direction, logistical support or good leadership from branch managers may not be direct outcomes of an HRM system. However, where these aspects of climate are seen positively by employees, this may facilitate the impact of HRM by providing a supportive social context for its implementation (Ferris, et al., 1998).

The role of employee affect as distinct from more evaluative, descriptive measures of climate has been emphasised by Kopelman, et al. (1990) and evidence was found by Patterson, et al. (2004) that aspects of employee affect such as job satisfaction mediate the influence of specific climate dimensions on business performance. On this basis, it is important for research to consider measures of employee affect separately from the role of a climate for service. Paul and Anantharam (2003) also demonstrated that organisational commitment

plays a role in linking HRM to business performance outcomes, and Katou and Budhwar (2006) similarly included both satisfaction and commitment within their model of HRM outcomes. Given the evidence indicating that employee affect is associated with higher levels of performance and may mediate the impact of HRM (Katou & Budhwar, 2006) and climate (Patterson, et al., 2004) it is essential that relevant measures such as job satisfaction and organisational commitment are included in research designs. There are a wide range of factors such as climate perceptions, HRM and individual differences that may influence employee affect. As is the case in relation to climate perceptions, it is also feasible that there may be a process of internal fit whereby the impact of HRM on business performance outcomes are moderated by employee affect. For instance, provision of training may provide the necessary skills to perform to the required level but if employees are not sufficiently satisfied with their jobs and committed to the organisation, they may not be motivated to expend both the expected and discretionary effort to use these skills effectively. This research will include measures of job satisfaction and affective organisational commitment (Meyer & Allen, 1991) to allow these aspects of employee affect to be measured and the relationships between affect and climate to be tested.

Datta, Guthrie and Wright (2005) argued that the attention of HRM researchers should move beyond exploring fit with an organisation's strategy espoused strategy and how this may interact with the impact of HRM on business performance, but rather examine how the external conditions it is faced with may moderate HRM/performance relationships. In this regard, they found that the impact of HR systems on organisational productivity was moderated by capital intensity, growth levels and differentiation within the market. Through this research they extended the contingency or external fit perspective from one focused on a company's articulated business strategy, typically viewed in terms of Porter's (1985) theory

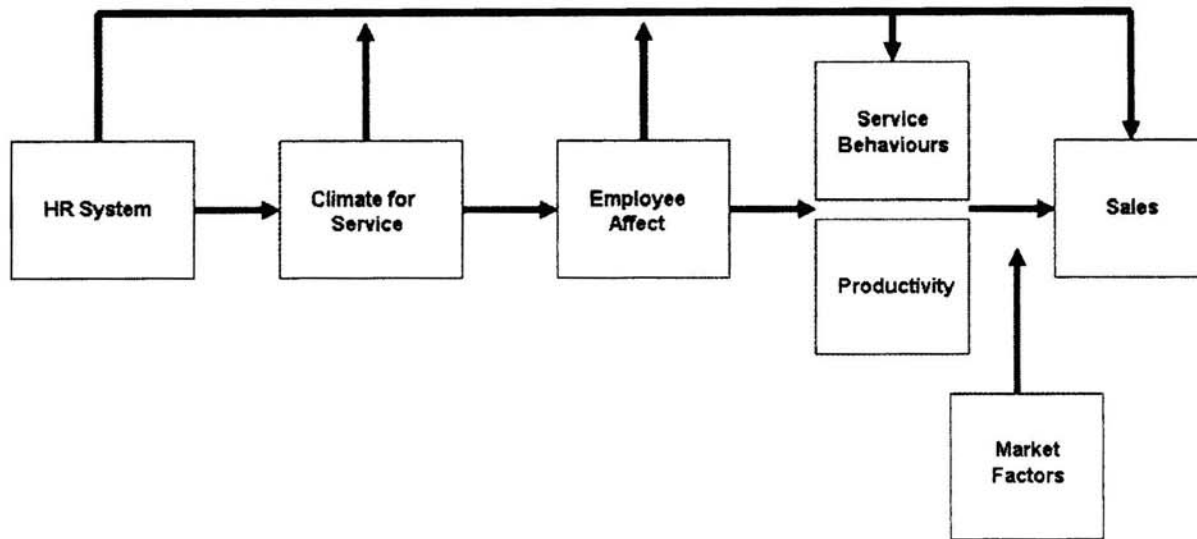
of competitive strategy, towards a more sophisticated conceptualisation of strategy taking account of these external market factors. Within service industries, effective HRM and developing a climate for service (Schneider and Bowen, 1985) have been shown to be linked to achieving higher levels of customer satisfaction. Heskett, Sasser and Schlesinger (1997) argued that in service settings where product offerings and pricing may vary relatively little between providers, the greater the level of competition between companies, the greater the importance of customer service as a differentiating factor and driver of business performance because dissatisfied customers can easily switch to other suppliers. However, in less competitive environments, it may be harder for customers to access alternatives and hence the importance of customer service in relation to business performance may be reduced. Given the role that level of competition (or relative monopoly) may play as a potential moderator of links between HRM, employee attitudes and performance in service environments, theoretical models linking these factors in a service context should consider the role that competition may play in creating the conditions where service matters to economic performance. In this sense, competition may be unlikely to directly influence the performance of strategic behaviours (Becker and Huselid, 2006) by employees, but rather may enhance the impact employees have on measures of economic performance.

In relation to the measurement of key performance outcomes at the branch level, accounting-based measures have been the dominant measure of business performance within much HRM research. Consistent with this, measures of sales volumes and productivity will be included in this research design. Such measures provide an assessment of the business outcomes achieved to date at a particular point in time, rather than establishing whether the 'strategic behaviours' which will underpin future success are being put into practice (Becker and Huselid, 2006). In the context of a service environment, such behaviours related to delivering

good quality customer service may be considered strategic behaviours in that they underpin future commercial success going forward. Key elements of customer service highlighted by Parasuraman, et al. (1998) including politeness of staff, waiting times and the accuracy of product knowledge shown by staff would represent strategic behaviours for an organisation seeking to differentiate itself from competitors on the basis of service. Within the theoretical framework proposed, two key aspects of performance will therefore be assessed: execution of strategic behaviours relevant in the service environment and accounting-based measures related to sales and productivity. Whilst some relationships between these variables may be expected, the forward-looking nature of strategic behaviours and backward-looking nature of accounting-based measures may lead to considerable lag between behavioural and economic outcomes which may not be easily discernable in research set over a relatively short period of time (e.g. one year).

In summary, HR implementation may be measured in terms of frequency or intensity of use of practices and line manager perceptions of their usefulness in delivering performance. Additionally, it is likely that measures of HR practices should fit the industry context. Much of the HRM research to date has employed models based in manufacturing and measures more relevant to service settings may be helpful in this context (Combs, et al., 2006). HR practices and systems studied in service organisations should reflect the nature of this context, for instance the high level of involvement of customer-facing employees in the service process and the role of practices such as appraisal, training and feedback systems to support employees in this regard. There is evidence to suggest that climate perceptions and affective measures of employee attitudes should be treated separately within research designs (Patterson, et al., 2004) and are likely to play a key role in linkages between HRM and business performance. Similarly, external fit with industry conditions has been shown to be a

significant factor influencing such links within a manufacturing context (Datta, et al., 2005) and Heskett, Sasser & Schlesinger (1997) have argued that relative levels of competition may be particularly important within service environments. Exploration of the ‘black box’ connecting HRM with performance has produced evidence that skills, attitudes and behaviours act as mediators (Paul & Anantharam, 2003; Katou & Budhwar, 2006) and that climate perceptions in particular may also moderate the impact of HRM (Neal, et al., 2004). This suggests that models will need to appreciate the complexity of how such processes may operate in practice. Combs, et al. (2006) found a weaker average strength of relationship between HRM and business performance in service settings as compared to manufacturing, indicating that it is likely there may be significant moderating processes at work in this context. In this regard, the conceptualisation of intervening processes between HRM and performance would benefit from consideration of both mediating processes and the impact of boundary conditions (Ferris, et al., 1998) in relation to both internal fit (Neal, et al. 2004) and external fit (Datta, et al., 2005). Overall, theoretical understanding of the relationship between HRM and performance would benefit from building on the content-driven models which have been tested in much of the previous research towards development and testing of models relating to the processes through which HRM may influence business performance. On the basis of the rationale outlined above, the following diagram outlines the theoretical framework underpinning this research.

Figure 8: Theoretical framework

Statement of hypotheses

The framework outlined above draws on existing theory and proposes a model to explain why HRM influences business performance outcomes in service organisations. Based on the framework, a number of specific hypotheses can be articulated to test key linkages within the model and form the basis for empirical research. Each of the hypotheses to be explored within this study is articulated and explained below.

Recent research (Ostroff & Bowen, 2004; Khili & Wang, 2006) has emphasised the need for research designs in the HRM field to move beyond measuring the existence of HR policies at the organisational level, and rather seek to understand the process through which HR practices are implemented. Khilji and Wang (2006) demonstrated evidence of the importance of the extent of HR implementation in their research in the Pakistani banking sector in this regard. Put simply, their position was that having policies at the organisational level would make little difference unless these are put into practice in a consistent and effective manner across the organisation. This research study will seek to test the impact of the extent of

deployment and effectiveness of HR implementation, as perceived by line managers using the practices, on subsequent business performance outcomes. As described in the theoretical framework, performance outcomes may be economic in nature (such as sales or productivity) or behavioural, including the execution of specific behaviours underpinning the business strategy (Becker & Huselid, 2006), for instance delivering high quality customer service within service industries. The first hypothesis for this research is hence as follows:

H1: The extent and quality of implementation of HR practices predicts business performance

Huselid (1995) suggested employee attitudes may be a key mechanism through which HRM influences organisational performance, as have many other researchers in the HRM field (Guest, 1996; Wood, 1999; Ostroff & Bowen, 2000). As has been discussed above, climate may be best conceptualised as a 'climate for service' within a service environment (Schneider & Bowen, 1985). Similarly, recent evidence (Patterson, et al., 2004) has indicated the need for measures of employee affect such as job satisfaction and organisational commitment to be seen as distinct from more evaluative climate perceptions, and it is likely that HR practices may lead to more positive climate perceptions and affective reactions to the organisation, both directly and indirectly. For instance, practices such as reward systems or appraisals may directly lead to more positive employee attitudes by recognising good performance and motivating employees. Similarly, other practices such as training may be focused primarily on skill development but have secondary impacts on employees by demonstrating the organisation is investing in their skills and values their capabilities, again potentially leading to positive impacts on climate perceptions and employee affect. Whilst there is evidence that organisations which have adopted HRM systems tend to have more satisfied employees (Guest, 1996), it is also likely that if a system of HR practices is implemented more

consistently and effectively within an organisation then there will be greater positive impact on employee attitudes. Within this research, it is predicted that the extent and perceived effectiveness of HRM implementation will positively predict employee attitudes, in terms of both perceptions of a climate for service and broader, affective measures of job satisfaction and organisational commitment. The second hypothesis is hence:

H2: The extent and quality of implementation of HR practices predicts employee attitudes

One of the key elements of the theoretical model outlined earlier is that a relationship will be found between positive employee attitudes amongst employees within branches and the performance of a branch. Numerous studies have demonstrated the existence of such a relationship in other industry contexts, for instance in relation to a climate for service (Schneider & Bowen, 1985) in the banking industry, or job satisfaction and organisational commitment (Patterson, et al., 1997) in a manufacturing context. Both more positive climate perceptions and affective dimensions of employee attitudes would be expected to encourage greater performance of both core tasks and extra-role behaviours (Kopelman, et al., 1990), such as proactive cooperation with colleagues and responding to specific contextual situations such as the varying needs of different customers. In particular, where aspects of a 'climate for service' are seen positively by employees (Schneider and Bowen, 1985), employees would be expected to feel enabled and empowered to serve customers well and hence deliver a higher quality of service to meet their needs. Conversely, where perceptions of a climate for service are more negative, service-related behaviours would be expected to be of lower quality and frequency. Similarly, stronger attachment to the organisation resulting from greater job satisfaction and organisational commitment would be expected to lead to reduced

turnover and absenteeism, creating cost efficiencies and supporting improved productivity.

Given these arguments, the third hypothesis is as follows:

H3: Employee attitudes predict branch performance

The three hypotheses outlined above provide the foundation for the remainder of this research. If evidence is found to support each of these hypotheses, this would meet the basic assumptions for climate for service and employee affect to play a mediating role between HR implementation and branch performance. Research in the Indian software industry (Paul & Anantharam, 2003) and Greek manufacturing firms (Katou & Budhwar, 2006) has supported a model whereby HRM outcomes including employee attitudes, alongside skill-related measures such as employee competence, mediated HRM/business performance relationships. However, in these studies the three sources of measurement (the HRM system itself, HRM outcomes and business performance) were not from fully independent sources. Given that HR practices such as performance feedback or performance-related pay are intended to direct and motivate greater performance, such practices may be expected to lead to higher levels of motivation and through this higher performance levels. More broadly, the deployment of HR practices such as training and development which enable employees to do their jobs more effectively may also be expected to have a positive impact on a climate for service and affective reactions such as job satisfaction which in turn may lead to higher levels of service and productivity. It is likely that employee attitudes may mediate the impact of the implementation of HR practices on performance, in terms of both service and economic measures. However, it is also feasible that HR practices such as training may help increase skill levels, influencing performance independent of the attitudinal reactions of employees. Similarly, practices such as more effective workforce planning may have direct effects on

cost efficiency independent of either skills or attitudes (Ichniowski, et al., 1996). This would suggest employee attitudes may act as a mediator as follows:

H4: Employee attitudes mediate the relationship between HR implementation and branch performance

HRM researchers such as Huselid (1995) and Ferris, et al. (1998) have emphasised the role employee attitudes may play as a mediating mechanism through which HR practices influence performance, supported by emerging empirical research (Paul & Anantharam, 2003; Katou & Budhwar, 2006). However, an alternative hypothesis relating to internal fit between HRM and employee attitudes has also been the subject of research. Neal, et al. (2004) demonstrated in a sample of UK manufacturing firms that organisational climate moderated the relationship between HRM and organisational performance. In this case, a resource allocation hypothesis was supported whereby HRM had greatest impact where climate perceptions were more negative as there was greater opportunity for productivity improvement. The social context model proposed by Ferris, et al. (1998) suggests there may also be conditions where HR practices have greater effect when combined with more positive employee attitudes. Where HR practices may influence performance through other routes such as by directing and enhancing the skills of employees, the subsequent use of these skills may be contingent on employees' motivation to deploy them to meet organisational goals. In this context, where employees in a service setting feel there is a more positive climate for service, they are satisfied with their jobs and committed to the organisation, it would be expected that they will be more motivated to make use of what has been learnt in training and apply this learning in practice. The same would be expected to apply in relation to acting on feedback through both appraisals and service performance measures, which may be further

reinforced by performance-related pay. Finally, achieving the benefits of more effective work designs and organisation, such as efficient scheduling of work against customer demand, may also be contingent on employee cooperation to ensure the practice achieves the desired efficiency benefits for the organisation. Such flexibility and cooperation on the part of employees would again be expected to be more likely to occur where employees report there is a positive climate for service, and have higher levels of job satisfaction and organisational commitment. These arguments suggest that internal fit between the implementation of HR practices and employee attitudes may be an important factor in determining the effectiveness of HRM, leading to the following hypothesis:

H5: Employee attitudes moderate the HRM/performance relationship

The hypotheses discussed above have considered the role of employee attitudes in influencing the relationship between HR implementation and branch performance, without specifically distinguishing between evaluative and affective dimensions of employee attitudes. However, as Patterson, et al. (2004) demonstrated in their study of UK manufacturing firms, job satisfaction mediated the relationships between a number of aspects of organisational climate and organisational performance, supporting Kopelman, et al.'s (1990) theory that cognitive states relating to climate perceptions may lead to more positive affective states which subsequently result in enhanced task performance, citizenship behaviour and attachment behaviours. In the context of this study, if perceptions of a climate for service are more positive, then it would be expected that employees would feel better equipped to perform their roles and better supported by the organisation. A more positive climate for service may help lead directly to greater levels of performance, for instance if employees feel they have the right tools and information, this may directly enable their

performance. However, it is also likely as Kopelman, et al. (1990) suggested that such evaluative perceptions of climate may lead to more positive employee affect, including greater levels of overall job satisfaction and organisational commitment. As a result, employees may be more motivated to expend effort on core tasks as well as discretionary effort to meet contextual requirements. It is hence feasible that a more positive climate for service will lead to greater levels of employee affect and through this improved performance outcomes including execution of strategic behaviours important to the organisation and economic performance. The resultant hypothesis is hence as follows:

H6: Employee affect mediates the relationship between a climate for service and branch performance

The previous hypotheses outlined above describe how processes of internal fit may influence the impact of both HR practices and employee attitudes on service and financial performance. Recent research investigating the role of external fit within manufacturing contexts revealed that characteristics of the markets within which firms operate, such as the level of differentiation, capital intensity and levels of growth, all influence the impact of HRM on economic performance (Datta, et al., 2005). Authors such as Heskett, et al. (1997) have suggested that the relative competitiveness of markets may also be an important aspect of external fit moderating the impact of the attitudes and behaviour of employees on business performance. This is based on the premise that in service settings where the market environment is more competitive in nature, customers' experience of service is likely to be a key differentiating factor in winning and retaining business if the actual costs of purchasing and accessing products and services are similar. They argue for this on based on the theory of the 'customer-employee satisfaction mirror', which proposes that more satisfied employees

will expend greater discretionary effort seeking to satisfy customers. The subsequent positive affective reactions of customers may then positively reinforce such behaviours in employees.

The effects described above would be expected to be greatest in those branches where there is a larger proportion of transactions involving products and services in markets open to commercial competition, such as banking, insurance and travel services. In these environments, customers have greater freedom of choice over whether to use Post Office Ltd or alternative suppliers and in these branches it is likely that sales volumes will be greater where employees are satisfied with their jobs and as a result are prepared to expend discretionary effort to ensure the needs of individual customers are understood and met. Conversely, where the majority of transactions within a branch relate to largely monopolistic products and services such as pensions and welfare benefit payments, customers have little choice of supplier and whilst more satisfied employees may demonstrate higher quality of service to customers, it is likely that the benefits of greater discretionary effort will be constrained, limiting any impact on sales volumes. Within the context of this study, those branches which face greater levels of competition may find a stronger relationship between job satisfaction and sales volumes, whilst branches facing less competition should find such effects may be constrained. This leads to the final hypothesis relating to external fit with the competitiveness of the market environment at the branch level:

H7: Competitiveness of the market environment moderates the relationship between employee affect and economic performance

In summary, the hypotheses outlined above seek to test key elements of the theoretical model put forward within this research. These relate to firstly determining whether statistically

significant relationships exist between HR implementation, employee attitudes and performance at the branch level. Secondly, processes of mediation and internal fit are hypothesised between HR implementation and employee attitudes. Thirdly, the mediating processes between a climate for service and employee affect are explored. Finally, the role of competitiveness of the market environment is proposed as a determinant of external fit between employee affect and economic performance. Testing these hypotheses within a service environment, where HRM at the policy level is held constant, will support theory development in relation to the processes through which HR systems may influence organisational performance outcomes in this context. The research will support a growing shift in emphasis within HRM research from content-driven research designs which have sought to demonstrate that organisations which possess particular sets of HR policies demonstrate greater performance, towards research which seeks to understand why HRM influences performance. In the following chapter, the methodology employed to operationalise the theoretical framework and test the hypotheses above is described.

5. METHODOLOGY

This chapter describes the methodology used to test the hypotheses within this research. The organisational context for this study is outlined, followed by the research design used to operationalise the theoretical framework described in the previous chapter. Details of the participants, development of measures and analytical techniques employed are provided along with the rationale for their use within the research design.

This research was conducted within Post Office Ltd in the United Kingdom, which encompasses over 14,000 post offices and has approximately 60,000 staff in total, including both larger directly-managed offices and a large number of franchisee sub-postmasters and their staff. Post Office Ltd's network of post office branches essentially forms the main retail arm of the larger Royal Mail Group which is also responsible for delivery of letters and parcels. Post offices across the network provide over 170 over-the-counter products in the areas of mail services, financial services (banking, insurance products, bureau de change and bill payments), commercial products (e.g. phone cards and lottery) and government services (pensions, child and means-tested benefits, driving license applications). As such, the organisation is both the largest retail network in the UK and also a wholly state-owned enterprise. Given it operates within the service sector, the organisation is appropriate for testing the hypotheses outlined in the previous chapter.

At the time of research, recent changes in government policy signalled a move away from the traditional welfare and benefits role of post offices where central government paid a substantial yearly fee for the provision of these services, representing approximately one-third of annual revenues. In its place, pensions and benefits customers were given the option

of direct payment into a bank account as an alternative to using the post office network, an approach which provided significant cost savings for the central government departments administering these services. This in turn had placed Post Office Ltd under commercial pressure to manage its costs and the scale of its network in line with declining revenues, whilst seeking to replace lost revenue with a new range of financial and commercial products. This research hence takes place during a pivotal time in the 300-year history of the Post Office, where it faces unprecedented challenges as it is forced to compete commercially and commence a transition from a monopolistic state enterprise towards a leaner, more competitive operation. A key part of the Post Office Ltd response to these challenges involved implementing a customer service-oriented strategy within branches to significantly improve the service levels experienced by customers in order to retain existing business in the face of much greater competition. As such, behaviours linked to the provision of effective customer service represent 'strategic behaviours' as described by Becker and Huselid (2006) given their importance to delivering the business strategy.

The directly-managed Post Office branches were selected for this research, comprising a national network of 591 larger post offices in mainly urban high street locations. These branches were considered most appropriate for the research design as they all had a range of identical HR policies across branches which had been developed centrally within the organisation. This meant that HRM at the policy level was common across the sample, allowing research to focus on the extent of HR implementation without variance in terms of 'intended' HRM (Khilji & Wang, 2006). In relation to the theoretical framework put forward in this study, the directly-managed network of post office branches provided an adequate research sample within a nationwide retail organisation. This enabled analysis of HR implementation with policy held constant at the organisational level, provided adequately

sized units for assessing collective employee attitudes, and allowed the hypotheses to be tested within a service industry context where rather fewer HRM studies have been conducted as compared to manufacturing and typically lower effect sizes have been found (Combs, et al., 2006). The wide variation in levels of competition faced by individual branches at the time of research also allowed the role of competition in processes of external fit to be tested empirically.

Research Design

In developing a research design for this study, the key challenge was to test the key hypotheses outlined in the previous chapter through a robust methodology which takes account of the methodological issues affecting previous studies of HRM. In order to adequately test the hypotheses within the context of Post Office Ltd, a number of considerations needed to be taken into account, such as how to measure the implementation of HR practices, employee attitudes and business performance using independent data sources in order to reduce the risk of common-method bias influencing results. Within this section the rationale for the research design employed is described, firstly in relation to how variables within the theoretical framework were measured in practice and culminating with an operationalised model for testing the hypotheses in this study. Following this, the sample, measures and procedure for analysis are described.

In accordance with the approach taken by Patterson, et al. (1997) in their study of HRM in UK manufacturing firms, it is important that units of analysis within HRM studies are consistent across the sample used and that data is collected consistently at this level across different variables. Measurement of all variables at the establishment-level, in this case post office branches, ensures this was the case. Secondly, because each unit is geographically

separate from the others and managed independently, the business performance of each unit is also largely independent in the sense that directly-managed offices will not be competing for the same customers, although it would be expected that organisational-level influences such as national marketing campaigns for particular product lines may influence business performance outside of the control of the branches themselves. Given that directly-managed Post Office Ltd branches were organised to all operate to the same set of management policies, both in relation to HR practices and more general operating procedures, this provides a suitable establishment-level unit of analysis for this research.

In relation to HRM, the process of implementation was the focus of this research rather than whether policies are in place at the organisational level, which had been predominant in earlier HRM research (e.g. Huselid, 1997). Rather the use of HR practices was measured at the point of implementation – the branch – to assess whether intended practices had been successfully implemented. Five specific practices were the focus of this research design as they were both consistent at the policy level across directly-managed branches and were intended to underpin a strategy of improving customer service levels to help retain customers in the face of greater commercial competition. These were appraisal and development; training; feedback on customer service performance; flexible organisation of work and performance-related pay. These practices were chosen for the research because they were intended by the organisation to operate as an HR system across branches in order to facilitate the execution of a customer-focused business strategy. This was in the context of service quality being seen as increasingly vital, as the organisation faced ever greater commercial competition. The first three practices can be measured in terms of their relative thoroughness of deployment (the number of employees included in the deployment of the practice), extent to which the practice is used (e.g. hours of training provided) and frequency of deployment

(how often they are used). In this regard, the practical extent of deployment could be relatively easily captured. In relation to the application of policies to facilitate flexible work organisation or the provision of performance-related pay, these practices were consistent at the branch level. However, the relative quality with which they were put into practice was open to variation. In this regard, managers in each branch were the users of each of the five practices and responsible for their actual implementation. As such, these managers were uniquely positioned to provide feedback on the relative usefulness of these practices in helping them deliver their performance objectives in the branch. Within this study, HR implementation was hence operationalised at the branch level in terms of firstly the extent of practical deployment of practices where this could be measured, and secondly branch managers' evaluation of the effectiveness of each practice in terms of its utility in helping the achievement of branch performance goals, using a survey-based approach consistent with previous HRM research. This approach sought to draw upon the dimensions within Ostroff and Bowen's (2000) model of HR system strength, along with Khilji and Wang's (2006) approach to measuring HR implementation.

Whilst the implementation of HR practices was measured through evaluation by branch managers, the assessment of employee attitudes could be gathered most effectively from the frontline employees themselves within each branch. A wide range of studies have employed survey-based methodologies to measure employee attitudes, for instance in relation to climate for service (Schneider & Bowen, 1985), organisational climate and job satisfaction within manufacturing (Patterson, et al. 2003) and HRM outcomes (Katou & Budhwar, 2006). In line with previous research, this approach was employed within this research design as it allowed a range of measures to be gathered efficiently from a broad sample of employees within each establishment. As part of this process, data was gathered at the individual level and further

aggregated to the level of the unit of analysis required, i.e. that of the branch. In this regard, it is important that the validity of aggregating data to branch level is assessed, as has been the case in other studies of collective employee attitudes (Schneider & Bowen, 1985; Ostroff, 1992). The use of a survey methodology for gathering data from employees ensures that data relating to employee attitudes can be kept fully independent from both branch managers' evaluations of the effectiveness of HR practices, and from measurement of service and financial performance of branches.

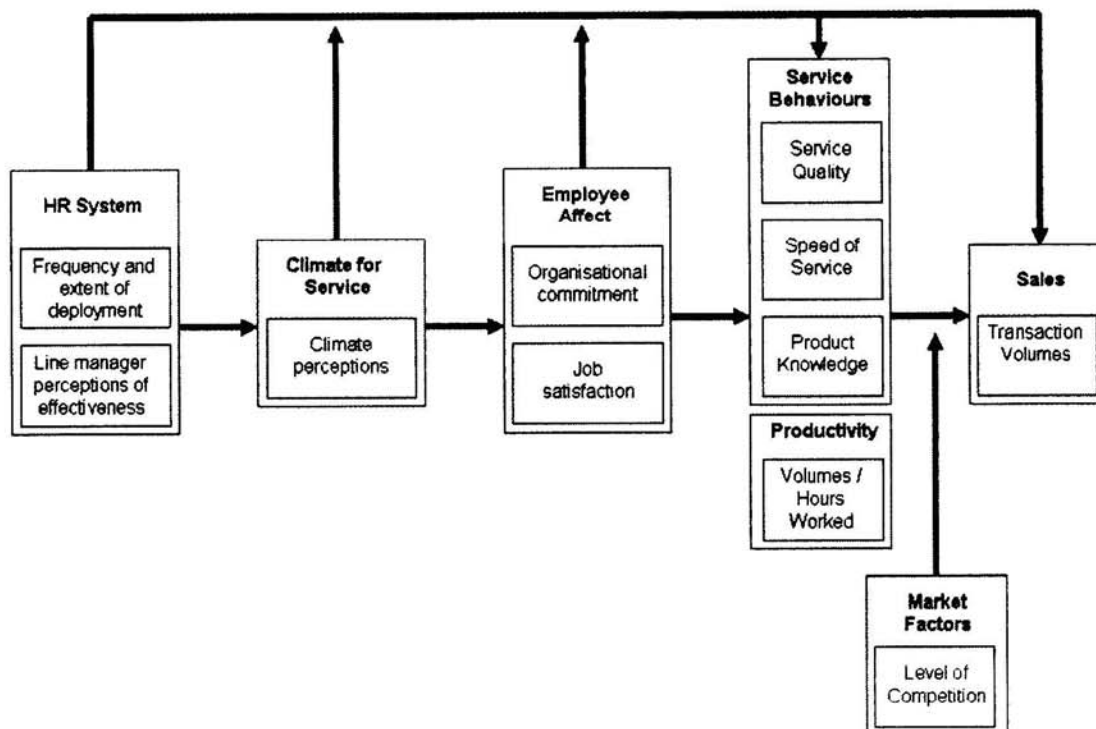
The measurement of employee attitudes within this study also requires reliable and distinct measurement of both a climate for service and employee affect. In order to achieve this, it is important both to develop reliable measures relating to each concept and to ensure measures are adequately distinct from each other. Whilst Cronbach's alpha (1951) provides a standard measure of scale reliability when multiple items are used through assessing internal consistency, confirmatory factor analysis was employed to test the fit of the proposed model to the data gathered to ensure that the measures developed show construct validity. As outlined in the previous chapter, the model of a climate for service within this study involved six sub-scales relating to a climate for service, effectiveness of branch management, quality of systems and logistical support, focus on customers, clarity of strategy and objectives, and training and development. In relation to employee affect, two measures were developed, firstly a measure of overall job satisfaction designed to be clearly distinct from the climate for service scales, and a measure of affective commitment to the organisation derived from Meyer and Allen's (1991) measure of organisational commitment. Across all measures of employee attitudes, aggregation indices were employed to test whether the individual data can be justifiably aggregated to establishment level (James, et al., 1984).

Within the theoretical framework for this research, the need to take a broad perspective of organisational performance in line with a multiple stakeholder approach (Kaplan and Norton, 1996) has been stressed, involving the inclusion of close or intermediate performance measures as well as economic performance (Ichniowski, 1996). Economic performance within this research design is measured in terms of sales volumes and productivity for each branch. The inclusion of sales volumes for the previous year for each branch also allows for prior performance to be controlled and a measure of sales growth to be used as well as yearly sales at the time of research. Productivity has been typically assessed in HRM research (e.g. Huselid, 1995) as sales divided by number of employees. Given the frequent use of full-time and part-time employees within Post Office Ltd, within this study the measure used was sales volumes divided by hours worked to control for differences in contracts between individuals. In addition to economic performance, however, the research design captures the execution of 'strategic behaviours' underpinning the Post Office Ltd business strategy at the branch level, through data collected by 'mystery shopper' visits regularly undertaken at post office branches by researchers from an independent market research organisation (Taylor Nelson Sofres) commissioned by Post Office Ltd. The measurement of economic performance and customer service behaviours are entirely independent of measures of HR implementation and employee attitudes, ensuring there is no opportunity for common-method bias. In relation to economic performance measures, consistent with other research studies it is important to use appropriate control variables (Becker & Huselid, 2006). Whilst sector is by default controlled by the nature of the study, the relative size of each post office branch was taken into account as a control variable with the study.

The research design outlined enabled the variables within the theoretical framework in the previous chapter to be operationalised and the hypotheses tested. The design ensured that all

variables could be analysed at the establishment level, in this case of the post office branch, using stepwise regression, followed by mediated and moderated regression (Baron & Kenny, 1986) for the relevant hypotheses. Measurement of HR implementation was derived from branch managers, employee attitudes measures were derived from employees (aggregated to branch level), performance measures were derived from archival accounting data in the case of sales volumes and productivity, and service performance through ‘mystery shopper’ survey conducted by independent market researchers. As such, the research design provides a clear strength in that all key groups of measures were from fully independent sources, eliminating the likelihood of common-method bias which may unduly influence the strength of relationships found between measures. In the case of sales volumes, prior performance from the previous year was also available allowing this to be controlled within the analysis. This lead to an operationalised model for this research as illustrated below. Following this, details of the sample and development of measures and analytical procedure are described.

Figure 9: Operationalised model for research



Sample

A sample of 175 directly-managed post office branches was made available by Post Office Ltd to provide the base sample for this research, comprising relatively large branches in high street locations across towns and cities throughout the United Kingdom. In terms of physical size of branches, the average branch in the sample had 8 counter positions. Archival data on sales volumes across product lines was made available by Post Office Ltd for this research study across the 175 directly-managed branches for the two years preceding administration of measures of HR implementation and employee attitudes. The post offices in the research sample conducted a mean of 370,764 transactions per year, with a standard deviation across this sample of 224,607 transactions. In financial terms, this represents a mean contribution (gross profit after directly controllable costs) per post office of £88,983, giving an indication of the financial size of each establishment. Post Office Ltd were also able to provide productivity data for each branch, calculated using an index derived from dividing sales volumes by employee hours worked over a one year period. Corresponding data relating to the results of 'mystery shopper' surveys for each post office was also made available by Post Office Ltd for the purposes of this research study, covering the year prior to the administration of measures of HR implementation and employee attitudes. Each mystery shopper survey comprised a visit to a branch to assess the quality of customer service provided to a market researcher who acted as if they were a normal customer visiting the branch. Each directly managed branch received between 12 and 24 mystery shopper visits per year.

Having gained access to archival data for post office branches in the initial sample relating to financial and service performance, a postal survey was sent out to branch managers to collect data on the implementation of HR practices within the branch. A total of 136 managers

responded to the surveys mailed out asking for information on the implementation of HR practices within their branch and their views on the effectiveness of these practices, representing a response rate of 78%. In tandem with surveys of branch managers to gather data on HR implementation, Post Office Ltd agreed to provide access to 120 post offices within the sample for the purpose of surveying employees to assess their perceptions of a climate for service, job satisfaction and organisational commitment. A postal survey was sent out to employees in these branches to collect data on their views of HRM effectiveness and attitudinal data relating to organisational commitment, climate perceptions and overall job satisfaction. In total 1449 received surveys and N=294 responses were received giving a response rate of 20.4%. Of this sample, 66 post offices provided 2 or more respondents which could be aggregated to provide a final sample size of N=244 at the individual level with a mean of 3.65 responses per post office and a response rate of 17.4% across these branches.

In summary, financial and service performance measures were available across all branches with branch manager surveys of HR implementation returned for 136 post office branches, and aggregated measures of employee attitudes available across 66 post office branches. Matched data was available relating to HR implementation, employee attitudes, and both financial and service performance across a total of 39 branches. Due to the practicalities of collecting data from multiple sources, there was significant attrition from the original overall sample of 175 branches, an issue commonly faced with research designs of this nature (Datta, et al, 2005).

Measures

The following section outlines in turn the measures used within this study, firstly relating to HR implementation, then employee attitudes, performance measures and control variables.

In each case the rationale for the measures used is outlined with a description of their content, accompanied where relevant with evidence relating to their reliability and validation.

Measures of HR implementation

As outlined in the description of the research design earlier in this chapter, the measurement of HR implementation within each branch was approached in two ways. Firstly, where feasible the practical extent to which specific practices were implemented was assessed. Secondly, branch managers were asked to rate the effectiveness of HR practices. This approach sought to provide an assessment of both the intensity of deployment and the quality of implementation (Ostroff and Bowen, 2000). Given this research was conducted within one specific organisation - Post Office Ltd - it was appropriate for measurement of HRM to focus on those specific practices which were in place in post office branches. Data on the use of HR practices was gathered from branch managers who were responsible for their implementation and were referred to in terms of the organisation's own terminology, to avoid ambiguity and ensure all respondents would be able to clearly identify each practice. A full listing of the specific activities relating to each practice is provided in Appendix 1.

Of the five practices included in this study, only three, training, appraisal and feedback on service performance, could be measured relatively easily in terms of frequency of use or extent of deployment within the branch. However, systems for performance-related pay and workforce planning were in place as policies across all branches so the extent of deployment was not open to similar assessment within each branch; rather the effectiveness of these

practices was rated by branch managers. The methods used to assess the intensity of use of the other practices are outlined below.

Firstly, the intensity of implementation of training was assessed using three open response items as follows: “On average, how many hours a month does each member of staff spend on: new product training; ongoing operational training; other training”. Responses in relation to each of these items were then used to calculate an overall index of training implementation in terms of the total number of hours of training provided per employee. Assessment of the implementation of the appraisal and development process was similarly measured by six open-response items such as “What percentage of your staff have had an appraisal in the last year?” and “What percentage of your staff have completed all the actions on their last Personal Development Plan?” Item analysis showed that these four items combined as one scale assessing appraisal and development planning deployment revealed a Cronbach’s alpha of 0.66, suggesting some evidence of internal consistency across these items despite the coefficient falling below the 0.7 threshold typically considered to represent adequate reliability. This finding was consistent with other measures of HRM (e.g. Huselid, 1995) which have also shown limited internal consistency reliability. Finally, the frequency of implementation of service performance feedback was assessed through a simple one-item measure of the number of times within the last year that mystery shopper feedback had been provided to a branch. Given the different scaling used for each of the three practices, in order to provide a cumulative index of HR deployment within branches, standardised scores were calculated for each scale and the sum of the z-scores was taken to provide an overall measure of deployment intensity.

As well as measuring the practical extent of deployment of HR practices within each branch, the second measurement of HR implementation for all five HR practices included in this study involved branch manager ratings of how effective they perceived different practices were in relation to the following question: “How useful do you feel the following have been in helping you to deliver the overall objectives for your outlet?” Responses were gathered on a seven-point Likert scale where 1 = “Not at all”, 4 = “To a moderate extent” and 7 = “To a very great extent”. As shown in the branch manager’s survey in Appendix 1, this question was asked in relation to all of the HR practices deployed across branches. The items were written in language specific to the organisation under study and as described to managers in business policies. Factor analysis of these items revealed five factors as follows: training; appraisal and development planning; performance feedback; performance-related pay and workforce planning (see Appendix 2). The measure of training effectiveness included five items with a sample item relating to “New product training” and item analysis revealed good internal consistency with a Cronbach’s alpha of 0.84. The measure of appraisal and development planning comprised three items, with ratings of “Appraisals” and “Personal development plans” and an alpha of 0.89. The performance feedback measure included five items, for instance capturing managers’ ratings of the effectiveness of “Mystery shopper reports” and “Outlet sales reports” and similarly showed good reliability with an alpha of 0.84. The measure of performance-related pay involved ratings against three specific items such as “Sales recognition scheme” and “Bonus scheme”, revealing an alpha of 0.78, whilst finally the scale relating to workforce planning involved four items such as “Duty reviews” and “Flexible working practices: job share, term-time working, part-time” again demonstrating good reliability with an alpha of 0.75. Whilst clearly the factor analysis indicated that the use of separate scales for each of these HR practices was appropriate, in order to capture an overall assessment of the effectiveness of HR practices from the

perspective of branch managers, a composite index was constructed based on the standardised scores for each scale, providing a reliable overall measure with an alpha coefficient of 0.93. The item analyses for the HR effectiveness measures are provided in Appendix 3.

In summary, the measurement of HR implementation involved two overall measures, firstly practical deployment based on three of the practices where there was significant observable variance within branches, and secondly relating to the aggregated ratings of effectiveness of practices as assessed by branch managers. Additionally, specific measures for the deployment of training, appraisal and development planning, and service performance feedback were included, alongside measures of effectiveness for each of the five practices included within this study.

Measures of employee attitudes

In order to develop effective measures of climate perceptions and affective reactions to the organisation, a number of factors were taken into consideration. In terms of climate perceptions, Schneider and Bowen (1985) demonstrated the need for climate measures to be related to the demands of the business context, for instance a climate for service. The approach taken in this research builds on this and other key studies investigating the link between employee attitudes and organisational performance (Ostroff, 1992; Johnson, 1995; Schmit & Allscheid, 1995; Ryan, Schmit & Johnson, 1996), identifying six key dimensions of a climate for service for inclusion within the model for this research. Kopelman, et al. (1990) argued that climate perceptions which are evaluative in nature are conceptually distinct from broader, affective reactions to a role and organisation, for instance job satisfaction or organisational commitment. Evidence in support of this was demonstrated by Patterson, et al. (2004), who showed that employee affect acted as a mediator of relationships

between climate perceptions and organisational performance. On this basis, measurement of employee attitudes within this research includes scales assessing overall job satisfaction and also organisational commitment, with a focus on the affective dimension of commitment (Meyer & Allen, 1991). Item analysis was used to develop each of the six climate dimensions and two scales relating to employee affect, and confirmatory factor analysis employed to test the overall fit of this model to the data. The measurement of employee attitudes was conducted via a postal survey of employees (see Appendix 4), in which each respondent was asked to answer a range of attitudinal questions relating to a climate for service, overall job satisfaction and affective organisational commitment. The nature and construction of these measures is outlined below.

The item content for the climate for service measure used in this study was developed to reflect the context within Post Office Ltd, in order to ensure items would be easily understood by employees completing postal questionnaires. Out of 32 items used in the survey of employees, in total 26 items were retained across the six dimensions within the climate for service measure. The items used were based on a 5-point Likert scale (see Appendix 4). 6 items were dropped from scales following item analysis in order to maximise internal consistency reliability, measured using the Cronbach's alpha statistic. Firstly, 7 items assessed a branch leadership dimension which assessed the extent to which employees perceived their branch manager to be providing effective leadership. The alpha for this scale was .93, indicating a high level of reliability, with sample items including "My manager seeks input of team members" and "My manager contributes to making improvements happen". A 5-item scale assessed employees' views of the strategic direction provided by the organisation, providing an alpha of .88 and sample items including "Post Office Ltd's top management provides a clear sense of direction" and "Recent changes in Post Office Ltd have been well

planned". The clarity of objectives provided to employees was assessed by 3 items with an alpha of .86, for example "I understand how the objectives of my team/department fit into Post Office Ltd's overall objectives". Employee perceptions of the quality of training were assessed through a 4-item scale with items such as "There are sufficient opportunities for me to receive training to improve my skills in my current job", producing a reliable scale with an alpha of .88. The quality of organisational and logistical support provided to employees was rated via 4 items revealing an alpha of .72, with sample items including "How would you rate the support given by Post Office Ltd to staff in each of the following areas: timely delivery of supplies" and "I get sufficient support and back-up for the computer systems I use at work". Finally, the extent to which employees perceived there to be a strong focus on meeting the needs of customers was measured using 3 items producing an alpha of .72, with items such as "My team/department constantly looks for better ways to serve its customers".

Patterson, et al. (2004) identified variables including job satisfaction, organisational commitment, work motivation and procedural justice as elements of employee affect, highlighting that these variables tend to be highly correlated and their role in climate-performance associations may be similar. Within this study, job satisfaction and organisational commitment were selected as relevant measures of employee affect given the frequent use of these measures in previous studies linking employee attitudes to business performance (e.g. Ostroff, 1992; Patterson, et al., 2004). Overall job satisfaction was measured via a 4-item scale focused specifically on employees' overall satisfaction with the role and avoiding items that could equally load onto climate dimensions, such as satisfaction with training and development opportunities. Sample items included "Taking everything into account, how satisfied are you with Post Office Ltd as a place to work?" and "How satisfied are you with each of the following aspects of your current job: The type of work you do?"

The scale revealed good internal consistency with a Cronbach's alpha of 0.88, providing a reliable measure of overall job satisfaction.

Given the need to measure the affective dimension of organisational commitment, as opposed to normative or continuance aspects of the construct, the 23-item version of Meyer and Allen's (1991) measure of organisational commitment was chosen as an initial measure. Item analysis reduced the affective commitment measure to a 6-item scale with a Cronbach's alpha of .88, with items including "I really feel as if this organisation's problems are my own" and "I do not feel 'emotionally attached' to this organization". Given previous studies have often found a high level of correlation between measures related to employee affect (Meyer, Stanley, Herskovits & Topolnytsky, 2002), an overall measure of employee affect was also constructed combining the job satisfaction and organisational commitment scales, for testing in confirmatory factor analysis. This comprised 10 items and revealed a Cronbach's alpha of .90, again providing a reliable overall measure of employee affect.

Having developed a series of scales to measure dimensions of a climate for service, job satisfaction and affective commitment to the organisation, it was then important to test whether the model of employee attitudes as a whole was robust, providing a good fit to the data and distinct measures. To this end, confirmatory factor analysis was conducted on the sample of individual level data gathered through this research (N=294). A range of fit indices are available to assess the quality of fit of a model to a dataset when using confirmatory factor analysis. The RMSEA (Root Mean Square Error of Approximation) provides a widely used test of fit, where an RMSEA of 0.08 or higher indicates a poor fit, between 0.05 and 0.08 indicates a reasonable fit and 0.05 or lower a good fit. The CFI (Comparative Fit Index) also provides a measure of fit where results of 0.90 or higher are considered an adequate fit

between a model and the data. In order to adequately test a model, it is also important to compare its fit with the actual data against that for alternative models. In this regard, three alternative models were also tested, the first of which was the simplest possible model where all attitudinal items loaded onto one overall factor. Secondly, a model comprising two factors was tested, one for an overall climate for service (combining all items loading onto the six climate dimensions) and the other for an overall employee affect factor (combining items loading onto job satisfaction and affective commitment). Thirdly, a model was tested comprising six dimensions within a climate for service but just one overall factor for employee affect. By testing fit of the proposed model in relation to these models, it was possible to identify whether there was clear discriminant validity between the sub-dimensions of a climate for service and employee affect.

The confirmatory factor analysis showed that the primary model comprising six climate for service dimension along with two measures of employee affect, job satisfaction and affective commitment, showed an acceptable fit with the data (RMSEA = 0.063, CFI = .900, N=244). The simple model with all items loaded onto one over-arching factor provided a poor fit to the data (RMSEA = 0.122, CFI = .606, N=244). Again, a poor fit to the data (RMSEA = 0.113, CFI = .659, N=244) was found for the model of only one factor for climate for service and one factor for employee affect. Finally, the third alternative model was tested comprising six dimensions of a climate for service but only one overall factor for employee affect (combining all items loading onto job satisfaction and affective organisational commitment). This showed some evidence of fit to the data (RMSEA = 0.068, CFI = .885, N=244) but fell below the 0.9 threshold for CFI that indicates an acceptable fit to the data. On this basis, the original solution comprising six climate for service factors and separate measures for overall job satisfaction and affective organisational commitment was accepted as the best fit to the

data, supporting its use within this research. The outputs of confirmatory factor analyses are displayed in Appendix 5.

Having tested the construct validity of the model of employee attitudes, it was then necessary to aggregate individual responses to results at the branch level in order to allow the hypotheses to be tested. When aggregating data across levels, it is important to test the validity of doing so, in particular that there is adequate evidence of within-group agreement and variance between group-level units of analysis. In this regard, James (1982) recommended the use of the r_{wg} statistic as a measure of within-group agreement and suggested this is a better measure to test the case for aggregation than the ICC(1) and ICC(2) intra-class correlations, which have also been widely used in organisational research (Ostroff, 1993). ICC(1) compares the between-group sum of squares to the total sum of squares derived from a one-way analysis of variance of a scale, using organisational unit as the independent variable, indicating the extent to which individual raters provide similar ratings (Bliese, 2000; Kozlowski & Hattrup, 1992). ICC(2) alternately provides an estimate of the reliability of mean scores. The results of r_{wg} , ICC(1) and ICC(2) for the climate for service and employee affect variables within this study are shown in Appendix 6. Overall, the results indicate a good level of within-group agreement with a mean of $r_{wg}=0.84$ across the eight scales, ranging from $r_{wg}=0.97$ for the branch leadership dimension of climate for service through to $r_{wg}=0.72$ for the clarity of objectives dimension of a climate for service. The average ICC(1) across scales was 0.17, largely consistent with past research which has shown an average ICC(1) of 0.12 (James, 1982). Whilst Ostroff (1993) indicates that ICC(2) results of 0.6 or higher provide firm evidence of reliable group means, the average result for the scales in this research was 0.32 indicating that group means were less reliable than desired. However, as James, Demaree and Wolf (1984; 1993) pointed out, ICC statistics may be

inaccurate estimates where there is limited variance between group means or within groups. On this basis, the evidence of within-group agreement as shown by the r_{wg} results supported the aggregation of individual level data to the branch level.

Measures of performance

Within the theoretical framework for this research, measures of performance at the establishment level were divided into two groups, firstly measures of economic performance and secondly, measures of service performance. Three measures of economic performance were used in this study, the first relating to growth in sales volumes based on archival accounting data provided by Post Office Ltd over the two years prior to the administration of surveys to branch managers and employees for this research. The second related to current sales in the year of research. In this regard, the services post offices provide over the counter to customers comprised two groups. Firstly, a range of transactions represent commercial products which are open to full competition from alternative sources of supply including: personal banking services; travel insurance; bureau de change; bill payments; lottery; other commercial products (e.g. mobile phone top-up cards). Secondly, monopolistic products related to government and postal services such as: pensions provision; child benefits; mean-tested and other benefits; mailing services; saving stamps; driving licence and vehicle registration applications.

On this basis, two additional subsidiary measures of sales volumes were calculated in terms of 'commercial' and 'monopolistic' volumes reflecting the number of transactions of each of these product groups. The proportion of sales that are classified as 'commercial' provides an indication of the extent to which the services a branch provides to its customers are open to commercial competition. This figure was further used as an indicator of the relative level of

competition faced by each branch, enabling testing of the hypothesis that the strength of relationship between employee attitudes and sales volumes is greater in conditions where competition is stronger.

The second key measure of economic performance of post office branches related to productivity. This is typically defined in HRM studies (e.g. MacDuffie, 1995) in terms of sales revenue per employee. As previously noted, there is considerable variability across the employees surveyed in the hours worked per week with 57% of employees surveyed working part-time, which would potentially affect the reliability of measuring productivity in this way. However, Post Office Ltd tracked productivity of their branches using an index based on the annual transaction volumes divided by total staff hours worked, standardised onto a 0 to 1 scale across the whole post office network. Given this measure accounts more precisely for variation in employment contracts across employees and branches, this was taken as a suitable measure of productivity for the branches within the sample.

As referred to earlier in this chapter, service performance was measured using data collected through regular 'mystery shopper' surveys conducted in each post office in the sample during the year preceding administration of surveys to branch managers and employees for the purposes of this research. The average ratings across mystery shopper surveys were calculated for each branch across the one year period. Within each mystery shopper visit, an independent market researcher acted as if they were a typical customer and conducted set transactions whilst observing key variables such as the quality of service provided by staff, accuracy of product knowledge in answers to specific queries and the speed of service in terms of time spent queuing. The assessment of service quality involved ratings against a yes/no response scale for 3 items, capturing whether the employee had delivered basic

standards of politeness: “Did the counter clerk give a polite greeting?”; “Did the counter clerk maintain eye contact during the transaction” and “Did the counter clerk give a polite goodbye”. These three behavioural observations had an internal consistency of $\alpha=0.64$, providing a directly observed measure of basic customer service behaviour on the part of employees although suffering from a lower reliability than would be preferred. This dimension was seen to provide a simple measure of courtesy within Parasuraman, et al.’s (1988) model of customer service dimensions. The speed of service provided to customers was also assessed, by taking the average queuing time in seconds as measured by mystery shopper visits, providing a measure of Parasuraman, et al.’s (1988) ‘responsiveness’ dimension of customer service. Finally, within every mystery shopper visit, a transaction was requested requiring the correct product knowledge to be provided by the counter clerk. These varied by visit but were all marked with a yes/no response scale and provided a simple average for each branch of what proportion of product knowledge questions were correctly answered. The product knowledge items clearly relate to the extent to which the tangible elements of service were delivered correctly and assurance elements were correctly delivered to the customer, mirroring Parasuraman, et al.’s (1988) related dimensions of service. Whilst the resulting measures of customer service provide measurement of consistent aspects of customer service rather than capturing how employees may tailor their approach to specific customers, nevertheless the three measures of service quality, speed of service and product knowledge as captured through the mystery shopper method provide a consistent methodology for assessing service performance between branches. Unlike using surveys of customer satisfaction conducted directly with customers as has been the case in previous research (e.g. Schneider & Bowen, 1985), the approach also mitigates against the possibility of influences such as advertising campaigns or press coverage affecting customer perceptions

outside of the control of individual branches and potentially biasing a customer's assessment of customer service.

Control variables

Within studies of HRM, many control variables have been used and suggested by researchers. Given the research design involves collection of data within one large organisation, factors such as industry sector, business strategy and the choice of HRM policies are directly controlled and consistent across the unit of analysis within the research which is at the establishment level. However, it is also conventional practice within HRM research to control for variables such as company or establishment size (Guest, 2001) and this approach has been taken within this study. It was important for differences in the size of branches within this study to be controlled given the variability in economic performance outcomes such as sales volumes and productivity that would be affected by this. There are numerous ways in which size of establishment might be measured, however, within this study the measure of 'number of operational counter positions' within each branch was used as it provides a measure of the physical capacity for each branch to serve customers if all positions were staffed at times of peak demand. As such, this provides a clear proxy measure of the size of each branch in practical terms which would be expected directly to influence the level of sales volumes and productivity that could be achieved in each establishment, whilst not being so highly correlated with these outcomes as to introduce problems of multicollinearity. In order to test the impact of branch size of the measures of economic performance for post office branches, regression analyses were conducted with the number of operational counters as the independent variable and each economic performance outcome as the dependent variable. No statistically significant relationship was found between the number of counters and year on year growth in sales commercial sales volumes. However, the number of

counters was significantly related to current sales volumes ($R^2=0.16$, $p<0.001$) and branch productivity ($R^2=0.06$, $p<0.005$) (see Appendix 7). On the basis of these results, it was clear that branch size would need to be controlled for in accordance with the approach taken by West, et al. (2002). The residual variance from each of the regression analyses for sales volumes and productivity were saved as new variables to provide adjusted performance measures for sales volume and productivity taking account of branch size. The existing measure of sales growth was retained for use in subsequent analysis, however, there was no evidence that branch size significantly influenced year on year changes in sales performance.

Procedure

In order to address the research questions within this study, it was necessary first of all to ensure that conditions for testing the hypotheses using multivariate parametric statistics had been met. A number of key analyses were conducted to ensure key assumptions had been met before analysis to test the hypotheses was undertaken. These assumptions were tested statistically according to the guidelines outlined by Tabachnick and Fidell (1996), using the SPSS statistical software package. Firstly, for multivariate parametric statistics to be applied, it was important to verify that the data is normally distributed or approximates a normal distribution and any significant outliers are identified, and that data in the distribution of variables is not excessively skewed, platykurtic and leptokurtic. Whilst some variables, in particular responses from attitudinal scales, demonstrated some skewness in their distribution, the variables included in this study met these conditions for further parametric analysis (see Appendix 8). Secondly, as outlined earlier in this chapter in the description of measures, it was important to ensure that the scales demonstrated acceptable internal consistency reliability. Again, this condition was met in relation to the HRM and employee attitudes scales within the study (see Appendix 3). In relation to the performance measures used with

the study, those such as productivity or sales volumes were accounting measures where such analysis was not applicable, however, in relation to the service quality measure gathered via behavioural items in the 'mystery shopper' surveys in post office branches, the Cronbach's alpha of 0.64 indicated that the reliability of this measure was somewhat lower than would be preferred, reducing the likelihood of identifying significant correlations with other variables. Confirmatory factor analysis was conducted using the AMOS structural equation modelling software package, demonstrating as previously described that the employee attitudes model developed in this study showed a good fit to the data and eliminating other alternative models on the basis of poor fit. Finally, when aggregating attitudinal data from the individual to establishment level, it was important to check there was an acceptable level of agreement to justify aggregation at this level as demonstrated by the ICC1 and ICC2 statistics, and James, et al.'s (1984) aggregation index (see Appendix 6). Once attitudinal variables had been aggregated at the branch level, means and standard deviations for these measures and correlations between all the study variables were calculated to provide an overview of the relationships between them and identify any sources of multicollinearity.

The most appropriate statistical technique to test this study's initial three hypotheses was stepwise regression. This was on the basis that regression not only explores the relationship between each independent variable and the dependent variable, but also that it takes account of the inter-relationships between independent variables. In doing so, the stepwise method enables the most significant independent variable to be isolated, followed by the next most significant, until no further incremental variance can be explained by additional variables entered into the analysis within the limits of a 95% limit of statistical significance. Stepwise regression hence enables the identification of those variables which incrementally best predict the outcome in question.

Two hypotheses within this study proposed that mediation would be found, firstly in terms of employee attitudes mediating HRM/performance relationships and secondly, in terms of job satisfaction and affective commitment mediating climate for service/performance relationships. Baron and Kenny (1986) describe a mediator as a variable which provides the mechanism for the independent variable to influence a dependent variable. That is to say, the independent variable has an effect on the mediator, which then has an effect on the dependent variable. They suggest mediated regression as an appropriate statistical technique to test for such relationships, however, prior to such analysis it is important for a number of conditions to be met, namely that statistically significant relationships exist between the independent and dependent variable; the independent variable and mediator and the mediator and dependent variable when the effect of the independent variable is controlled. Finally, for full mediation to occur the independent variable should have very little influence on the dependent variable beyond that explained by the mediator. In terms of analysis, Baron and Kenny (1986) recommend the use of regression analysis to test each of these three relationships. In the third regression the mediator was entered in step one of the regression, followed by the independent variable in step two. Where this test produces statistically significant results but substantially less variance is explained than in the first analysis, then this indicates partial mediation, suggesting that there is some direct effect between the independent and dependent variables beyond that explained by the mediator. Sobel's (1982) test of mediation was then used to test the statistical significance of any mediation effects detected through the regression analyses.

The remaining hypotheses in this study proposed processes of moderation, firstly in terms of the employee attitudes moderating the strength of relationship between HR implementation

and branch performance outcomes through a process of internal fit. The final hypothesis then proposed that the competitiveness of the local market environment would moderate the strength of relationship between employee attitudes and sales volumes in branches. Unlike mediation, which is a three stage process, moderation operates across two stages. Whilst the independent variable has a direct effect on the dependent variable, the moderator has a separate input whereby a change in the moderator leads to a change in the strength of relationship between the independent and dependent variables. The moderator may not necessarily reveal any direct statistical relationship with the independent or dependent variable by itself. In order to statistically test for moderation, Baron and Kenny's (1986) recommended approach was taken, involving the use of a regression analysis to test whether the multiplicative interact between the independent variable and the moderator has a statistically significant effect on the dependent variable, having controlled for the independent variable and moderator. Within each regression, the initial variables were standardised to enable easier interpretation of results. The interaction variable was calculated by multiplying the standardised independent and moderator variables.

The regression techniques outlined above were considered appropriate for this research given that the variables collected used interval scaling and that initial screening of data revealed the assumptions for using parametric statistics had been met. In summary, stepwise regression was considered the most appropriate technique to test the influence of a number of independent variables on one dependent variable, such as the extent of implementation of different HR practices on each branch performance measure. In order to test the hypotheses in this study which proposed either mediation or moderation effects, the relevant techniques outlined by Baron and Kenny (1986) were considered the most appropriate statistical tests to use, consistent with previous studies (Katou & Budhwar, 2006; Patterson, et al., 2004; Datta,

et al., 2005). The results of these analyses are described in the following chapter. Whilst it was not employed in this study, path analysis also represents a further technique to test the fit of an overall model to the data gathered, however, it was considered inappropriate in this study given the limitations of the sample size at the branch level.

6. RESULTS

Within the previous chapter relating to the methodology for this study, key issues were addressed such as the reliability of measures, aggregation of employee attitudes data and confirmatory factor analyses testing the construct validity of the model of climate for service, job satisfaction and affective commitment to the organisation. The next stage of research was to test the hypotheses of the study in turn, the results of which are displayed in this chapter.

Prior to testing specific hypotheses, the first step of the analytical procedure was to review the means, standard deviations and correlations between variables. These results are displayed in Table 1 and a number of initial observations can be made on the basis of this data. Firstly, the results indicate limited correlation between the economic and service performance measures included in this study. Whilst speed of service and branch productivity are significantly correlated ($r=0.25$, $p<0.01$), there are no significant relationships between service measures and the current sales volumes or sales growth measures. This may reflect issues relating to time lag between the effects of improved service and higher levels of sales, or alternately may suggest there are other factors which may have a more significant impact on sales performance. There was also evidence of multicollinearity between the sales volumes and percentage of sales classified as commercial rather than monopolistic ($r=0.89$, $p<0.01$), indicating care should be taken in interpreting the analyses of the final hypothesis relating to external fit which involves these two variables.

Table 1: Means, standard deviations and correlations between measures of HRM, employee attitudes and performance

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Sales volume	370764	224607																							
2 Sales volume growth	-2.98	8.20	0.19**																						
3 Percentage commercial	39.42	17.45	0.89**	0.19*																					
4 Productivity	0.369	0.055	0.37**	0.09	0.38**																				
5 Speed of service	2.82	0.99	0.04	0.02	0.05	0.25**																			
6 Product knowledge	0.842	0.057	-0.04	0.00	-0.11	-0.02	0.12																		
7 Service quality	0.947	0.040	-0.05	0.07	-0.13*	-0.05	0.27*	0.25*																	
8 Intensity - appraisal	0.771	0.217	-0.07	-0.17*	-0.08	-0.04	0.14*	0.13	0.20*																
9 Intensity - training	140.04	96.39	0.13	-0.10	0.07	0.17*	0.14*	-0.02	-0.06	0.08															
10 Intensity - service feedback	16.53	6.02	0.05	-0.12	0.09	-0.01	0.05	0.04	-0.12	-0.11	-0.02														
11 Intensity - HR total	0.00	1.00	0.07	-0.24**	0.05	0.10	0.23**	0.04	-0.01	0.54**	0.61**	0.53**													
12 Utility - training	4.93	1.21	-0.00	0.01	-0.07	0.02	0.04	-0.08	0.15*	0.10	0.19*	-0.01	0.17*												
13 Utility - performance Feedback	4.46	1.32	-0.03	-0.11	-0.08	-0.03	0.08	-0.02	0.20*	0.03	0.11	-0.01	0.08	0.57**											
14 Utility - appraisal	4.01	1.49	-0.01	-0.01	-0.05	0.05	0.12	0.00	0.21*	0.11	0.20*	-0.13	0.11	0.60**	0.60**										
15 Utility - performance-related pay	4.19	1.67	-0.03	-0.18*	-0.11	0.07	0.11	0.09	0.25**	0.04	0.08	0.02	0.08	0.43**	0.55**	0.56**									
16 Utility - work planning	4.93	1.23	0.13	-0.08	0.08	0.03	-0.03	-0.04	0.09	0.15	0.12	0.01	0.17*	0.53**	0.52**	0.44**	0.40**								
17 Utility - HR total	22.70	5.48	0.01	-0.12	-0.07	0.03	0.10	0.01	0.33**	0.15	0.30**	-0.15	0.19*	0.78**	0.82**	0.85**	0.75**	0.73**							
18 Climate - direction	7.47	2.70	0.19	0.15	0.14	0.32**	0.10	0.21*	-0.08	0.07	0.02	0.15	0.15	0.18	-0.06	0.17	0.20	0.26	0.35						
19 Climate - branch management	19.35	3.76	-0.06	-0.04	0.02	0.23*	-0.01	0.13	-0.06	0.22	-0.10	0.26	0.23	0.01	-0.08	0.13	0.00	0.34*	0.05	0.46**					
20 Climate - objectives	6.87	1.85	0.08	0.06	0.13	0.25*	0.11	0.23*	-0.02	0.15	0.01	0.16	0.19	0.18	-0.28	0.14	0.01	-0.02	0.09	0.68**	0.52**				
21 Climate - development	5.81	2.26	0.21*	0.16	0.13	0.29*	0.10	0.23*	0.01	0.02	0.09	0.29*	0.24	0.36*	0.01	0.10	0.12	0.11	0.11	0.54**	0.47**	0.55**			
22 Climate - organisational support	7.73	2.08	0.07	0.12	0.02	0.30**	-0.04	0.08	-0.16	-0.09	0.01	0.29*	0.14	0.11	0.07	0.12	0.27	0.18	0.26	0.69**	0.41**	0.63**	0.63**		
23 Climate - customer focus	7.86	1.78	0.11	0.14	0.06	0.23*	0.13	0.21*	0.03	0.01	0.00	0.18	0.12	0.32*	-0.03	0.10	0.23	0.30*	0.22	0.68**	0.64**	0.67**	0.55**	0.47**	
24 Job satisfaction	9.52	2.32	0.19	0.29*	0.20*	0.25*	0.35**	0.40**	-0.03	-0.12	0.00	0.20	0.05	0.14	0.01	0.06	0.07	-0.02	-0.02	0.59**	0.31**	0.43**	0.56**	0.43**	0.49**
25 Affective commitment	11.23	3.11	0.18	0.14	0.15	0.12	0.12	0.39**	-0.13	0.10	-0.07	0.38**	0.25	0.28*	-0.05	0.10	-0.04	0.07	-0.01	0.62**	0.43**	0.63**	0.53**	0.52**	0.77*

* statistically significant at $p < 0.05$ (one-tailed)** statistically significant at $p < 0.01$ (one-tailed)

The correlations between measures of HR implementation showed fairly high levels of inter-correlation between branch managers' ratings of the effectiveness of HR practices, and similarly the climate for service scales, job satisfaction and affective commitment show significant inter-correlation though not to the extent of excessive multicollinearity. In this regard, the greatest level of correlation was found between the job satisfaction and affective commitment measures ($r=0.77$, $p<0.01$) which is consistent with previous research indicating measures of employee affect tend to be highly correlated (Neal, et al., 2004). In relation to the distribution of variables, statistics relating to skewness and kurtosis are displayed in Appendix 8. Overall, whilst a number of variables, such as the measures of employee attitudes, demonstrate some skewness in their distribution, the results indicate that the measures used approximate a normal distribution, as required for the use of multivariate parametric statistics.

Moving on to the first hypothesis of the study, this proposed that significant relationships would be found between the measures of implementation of HR practices and the economic and service performance of post office branches. The results of this analysis are displayed in Table 2. A combination of the extent of deployment of implementation and the perceived effectiveness of appraisal and development as perceived by the branch manager significantly predicted service quality ($R^2=0.110$, $p<0.05$). In relation to the speed of service, the overall measure of the intensity of implementation was the main predictor of speed of service ($R^2=0.051$, $p<0.05$) and a smaller proportion of variance in productivity was nevertheless significantly predicted by the intensity of training provided to employees ($R^2=0.027$, $p<0.05$). However, no evidence was found indicating significant statistical relationships between the measures of HR implementation in branches and sales volumes, sales growth or the levels of product knowledge demonstrated by

employees. The findings hence provide partial support for hypothesis 1, indicating that the perceived utility of HR practices on the part of line managers, and the intensity with which they are deployed within branches, predicts a significant proportion of variance amongst at least some of the economic and service performance variables included in this research.

Table 2: Stepwise regression results of HR implementation with performance

	Economic performance			Service performance		
	Sales volumes	Sales growth	Productivity	Speed of Service	Product Knowledge	Service Quality
Intensity - Appraisal						0.206*
Intensity - Training			0.166*			
Intensity - Service feedback						
Intensity - Total				0.227**		
Utility - Training						
Utility - Performance feedback						
Utility - Appraisal						0.312**
Utility - Performance-related pay						
Utility - Work planning						
Utility - HR total						
<i>R</i> -squared			0.027	0.051		0.110
Adjusted <i>R</i> -squared			0.020	0.044		0.100
<i>F</i>	<i>ns</i>	<i>ns</i>	3.78*	7.22**	<i>ns</i>	6.14**
<i>N</i>	136	136	136	136	136	136

ns = non-significant findings

* statistically significant at $p < 0.05$

** statistically significant at $p < 0.01$

The second hypothesis predicted that a significant relationship would be found between the implementation of HR practices and employee attitudes, in terms of climate for service dimensions, job satisfaction and affective commitment to the organisation. This was tested through stepwise regression of the measures of HR intensity and utility as perceived by line managers onto each of the employee attitudes variables in turn. The results of these regression

analyses are displayed in Table 3. In this regard, the frequency with which service feedback was provided to each branch and the perceived effectiveness of training from the perspective of branch managers predicted a significant proportion of variance in climate perceptions of development ($R^2=0.190$, $p<0.05$) and organisational support ($R^2=0.087$, $p<0.05$). Similarly, this measure of HR implementation also predicted significant variance in affective commitment ($R^2=0.143$, $p<0.05$). The customer focus dimension of climate for service was significantly predicted by perceived utility of training ($R^2=0.09$, $p<0.05$) and climate perceptions of branch management were predicted by the utility of work planning as rated by branch managers ($R^2=0.09$, $p<0.05$). Finally, the overall measure of the effectiveness of HR practices was the strongest predictor of climate perceptions relating to business direction ($R^2=0.072$, $p<0.05$). However, there was no relationship found between any of the measures of HR implementation and either employee's climate perceptions relating of the clarity of their objectives, or their ratings of overall job satisfaction. These findings are interesting in that it was apparent that variance in the implementation of two practices in particular were the main determinants of more positive employee attitudes, and in relation to climate perceptions of development may indicate an additive effect between practices combining the frequent feedback on service performance with effective training provision to enable improvements to be achieved. The results hence provide support for hypothesis 2 across five of the six measures of climate for service, and in relation to affective commitment but not job satisfaction. It is important to note, however, that for a number of the relationships tested between HR implementation and employee attitudes, effects were not observed for the other practices included in this study.

Table 3: Stepwise regression results of HR implementation with employee attitudes

	Climate for service						Affective measures	
	Direction	Branch management	Objectives	Development	Organisational support	Customer focus	Job satisfaction	Affective commitment
Intensity - Appraisal								
Intensity - Training								
Intensity - Service feedback				0.258*	0.295*			0.379*
Intensity - Total								
Utility - Training				0.326*		0.301*		
Utility - Performance feedback								
Utility - Appraisal								
Utility - Performance-related pay								
Utility - Work planning		0.300*						
Utility - HR total	0.268*							
<i>R</i> -squared	0.072	0.090		0.190	0.087	0.090		0.143
Adjusted <i>R</i> -squared	0.470	0.065		0.145	0.062	0.066		0.120
<i>F</i>	2.86*	3.65*	<i>ns</i>	4.22*	3.51*	3.68*	<i>ns</i>	6.19*
<i>N</i>	39	39	39	39	39	39		39

ns = non-significant findings* statistically significant at $p < 0.05$ ** statistically significant at $p < 0.01$

This suggests it is likely that all HR practices are not equal in their effects and may operate through different mechanisms to influence performance outcomes.

The third hypothesis within this research proposed that more positive employee attitudes would predict higher levels of economic and service performance within post office branches. Again, stepwise regression was used to identify which of the climate for service or employee affect measures were most strongly related to each of the performance measures. The results of this analysis are shown in Table 4.

Table 4: Stepwise regression results of employee attitudes with performance

	Economic performance			Service performance		
	Sales volumes	Sales growth	Productivity	Speed of service	Product knowledge	Service quality
Climate for service - direction	0.218*		0.349**			
Climate for service - branch management						
Climate for service - objectives						
Climate for service - development						
Climate for service - organisational support						
Climate for service - customer focus						
Job satisfaction		0.291*		0.346**	0.394**	
Affective commitment						
<i>R</i> -squared	0.047	0.085	0.122	0.119	0.155	<i>ns</i>
Adjusted <i>R</i> -squared	0.032	0.070	0.107	0.106	0.142	<i>ns</i>
<i>F</i>	3.13*	5.82*	8.58**	8.55**	11.56**	<i>ns</i>
<i>N</i>	66	66	66	66	66	66

ns = non-significant findings

* statistically significant at $p < 0.05$

** statistically significant at $p < 0.01$

All of the economic performance measures within branches were predicted by employee attitudes. Job satisfaction levels predicted significant variance in sales growth ($R^2 = 0.085$,

$p < 0.05$), which represents the most rigorous test given prior performance is controlled within this analysis. The climate for service dimension relating to the quality of strategic direction provided to employees by the organisation significantly predicted higher current sales volumes ($R^2 = 0.047$, $p < 0.05$) and productivity ($R^2 = 0.122$, $p < 0.01$). The analysis also revealed that the measure of overall job satisfaction was the strongest predictor of two of the service performance variables, namely speed of service ($R^2 = 0.119$, $p < 0.01$) and product knowledge ($R^2 = 0.155$, $p < 0.01$). However, there were no statistically significant relationships found between employee attitudes and the measure of service quality. These results demonstrated a significant relationship between employee attitudes with all three economic performance measures and two of the service performance measures, hence providing substantial support for the third hypothesis in this study. In particular, the finding that job satisfaction predicts sales growth provides good evidence of directionality in this relationship, more so than in relation to other cross-sectional measures where the possibility of higher performance levels influencing employee attitudes is less easily discounted.

The fourth hypothesis stated that employee attitudes would partially mediate the relationship between implementation of HR practices and the economic and service performance of branches. In order for mediation to be possible, it is essential for a number of initial conditions to be met (Baron & Kenny, 1986) as were outlined in the methodology chapter. These include demonstrating statistically significant relationships between the independent and dependent variable; the independent variable and mediator and the mediator and dependent variable when the independent variable is controlled. Whilst both a number of HR intensity measures (appraisal, training and overall) and job satisfaction were correlated with speed of service, these

measures were not correlated significantly with each other hence not meeting one of the conditions for mediation. Similarly, the intensity of training, a number of climate dimensions and job satisfaction were all correlated with productivity, however, there was no evidence of a significant relationship between the HR and employee attitudes measures in each case. Also, the intensity of service feedback and perceived utility of training were consistent predictors of climate for service dimensions and affective commitment, however, these practices were related only to service quality, which showed no significant correlation with employee attitudes. On this basis, whilst linkages were identified between measures of HR implementation with performance, HR implementation with employee attitudes, and also employee attitudes with performance, there were no three-way relationships which could have met the conditions for mediation to occur. As a result the fourth hypothesis, that employee attitudes mediate relationships between HR implementation and performance outcomes, was not supported. These findings are of some interest, however, as they suggest that those aspects of HR implementation which were directly related to performance outcomes may have an effect via other mechanisms, for instance through increased knowledge and skills, rather than by generating more positive employee attitudes and consequently greater motivation. Similarly, whilst a greater intensity of feedback on service performance and higher perceived utility of training provision were related to four climate for service dimensions and affective commitment, any effect on performance outcomes would appear to be indirect or perhaps subject to delayed effects, resulting in no direct relationship between these practices and relevant performance measures being evident. These results were inconsistent with previous research identifying a mediating role for employee attitudes (Guest, et al., 2003; Paul & Anantharam, 2003; Katou & Budhwar, 2006). However, the finding that HR implementation and employee attitudes variables within this study may

influence performance outcomes through different mechanisms leaves open the possibility that there may be moderating processes of internal fit between the two sets of variables.

The fifth hypothesis within this research then examined whether employee attitudes moderated the relationship between the intensity and perceived utility of HR practices within branches and both economic and service performance outcomes, in line with Ferris' et al.'s (1998) 'social context' model and Neal, et al.'s (2003) subsequent study of moderating relationships in UK manufacturing companies. In order to test this hypothesis, moderated regression analysis was employed in line with the approach suggested by Baron and Kenny (1986) which was outlined in the previous chapter. Given there were a large number of potential relationships which could be tested for moderation given the number of HR implementation and climate variables within this study, the analysis was focused on the key measures of overall HR intensity and the overall index of line manager ratings relating to the utility of HR practices. Similarly, given more positive employee affect was put forward as a key outcome of positive climate perceptions, both job satisfaction and affective commitment were included in moderation analysis. Finally, the regression analysis of relationships between employee attitudes and performance outcomes indicated that the quality of strategic direction provided by the organisation was also a stronger predictor of sales volumes and productivity than affective measures, on which basis this variable was also included in subsequent moderation analyses. The results of moderation analyses which revealed significant findings are outlined below, firstly in relation to HR intensity (Table 5) and secondly in relation to the perceived utility of HR practices (Table 6).

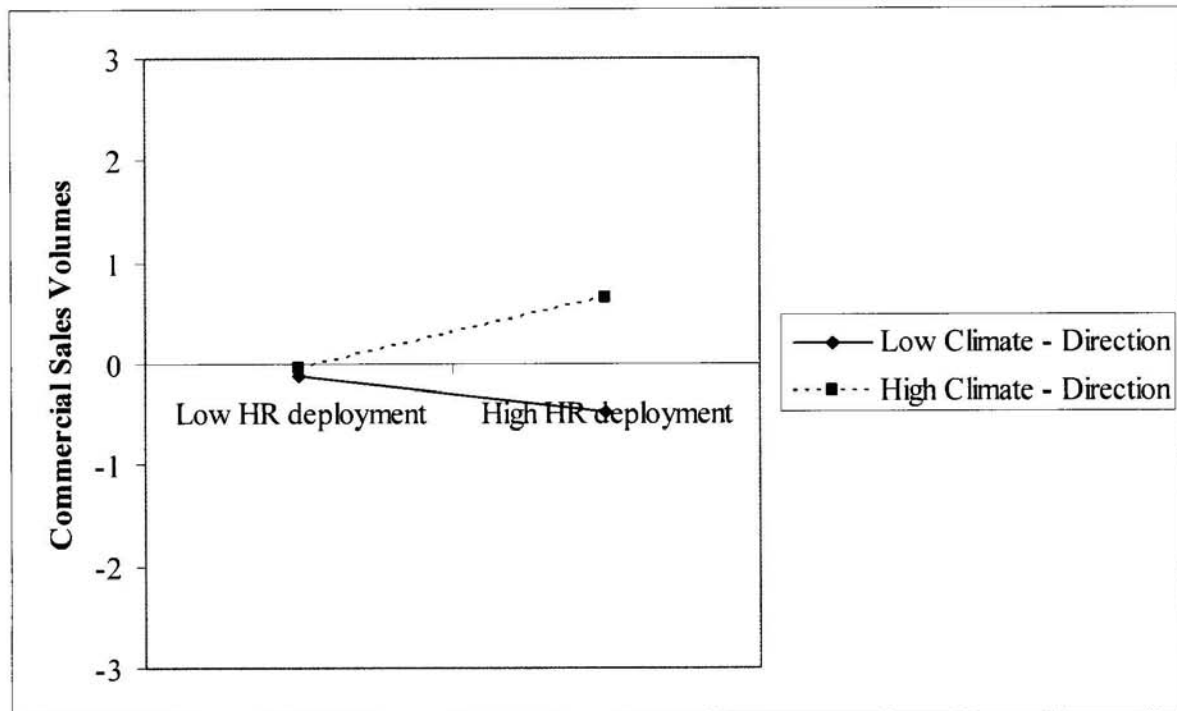
Table 5: Moderated regression for internal fit between HR intensity and employees attitudes

	Model 1	Model 2
	Sales volumes	Service quality
Intensity - HR total	0.123	-0.206
Climate - direction	0.323*	
Job satisfaction		-0.097
Intensity x Climate - direction	0.351*	
Intensity x Job satisfaction		0.273*
<i>R</i> -squared	0.183	0.130
Adjusted <i>R</i> -squared	0.113	0.056
F	2.62	1.75
N	39	39

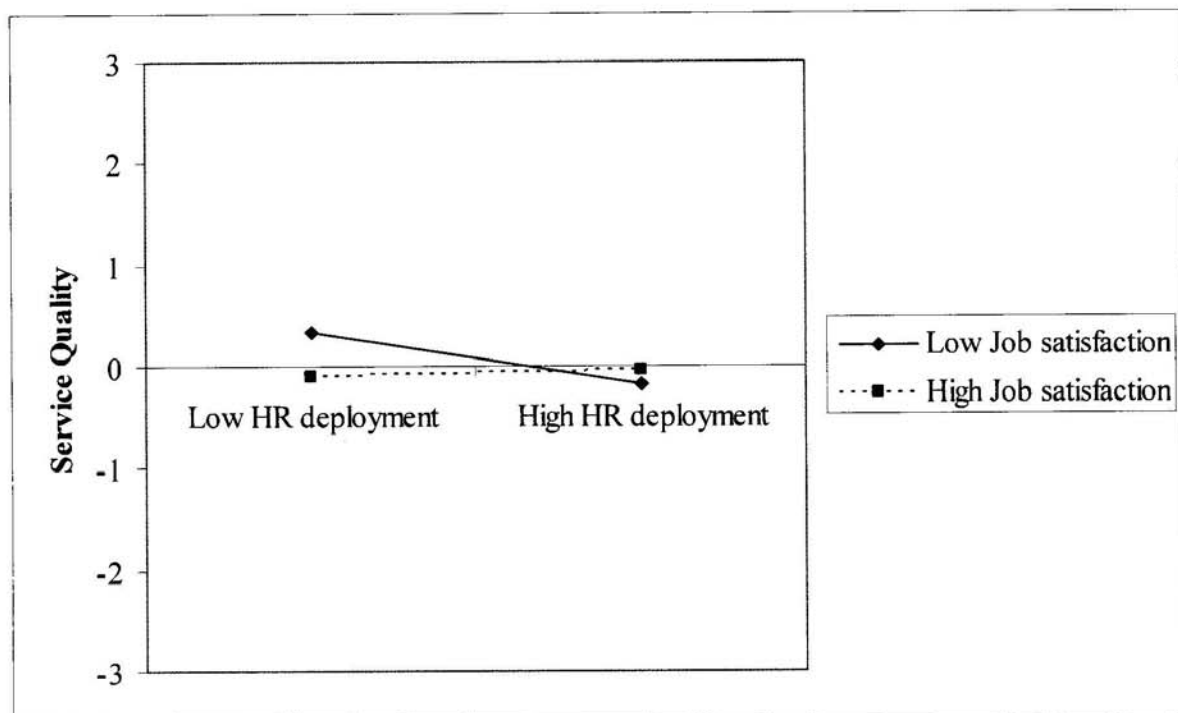
* statistically significant at $p < 0.05$

** statistically significant at $p < 0.01$

Firstly, the analyses in relation to HR intensity revealed that the climate for service dimension relating to strategic direction moderated the relationship between the overall intensity of HR implementation and sales volumes. In order to interpret interaction effects it is helpful to plot these to reveal more clearly the relationship between variables. As shown in Figure 10, the combination of higher intensity of HR implementation and positive climate perceptions in relation to strategic direction are related to higher sales volumes. Conversely, in contexts where climate perceptions in relation to strategic direction are lower, a high intensity of HR implementation was actually related to poorer sales volumes. This finding is clearly significant in supporting the proposition that the social context within which HR practices are enacted may be a significant enabler or constraint to achieving performance goals.

Figure 10: Moderation of HR intensity and sales volumes by climate for service (direction)

A similar relationship was identified in the case of job satisfaction, which was found to moderate the relationship between HR intensity and service quality. Plotting the results of this moderation revealed that in those branches where job satisfaction was lower, the intensity of HR implementation was related to poorer service quality (see Figure 11). In relation to those branches where job satisfaction was more positive, there was limited impact of HR implementation on performance outcomes. Whilst this does not suggest that HR implementation had direct benefits for improved service quality, this may suggest that the activity of putting HR into practice in contexts where job satisfaction is poor may potentially lead to attention being diverted from maintaining levels of service quality and hence have a detrimental impact on this performance measure.

Figure 11: Moderation of HR intensity and service quality by job satisfaction

These findings provide good evidence that both the strategic direction component of a climate for service and overall job satisfaction moderated the relationship between the intensity of HR implementation and both sales volumes and service quality. However, no evidence of moderation was identified in relation to the other branch performance measures. Branch managers' overall ratings of the utility of the HR system within their branches also provided a measure of the perceived effectiveness of HR practices. This analysis revealed that affective commitment played a moderating role in relation to three performance outcomes, namely sales volumes, product knowledge and service quality as shown in Table 6. Moderating effects were not found for the remaining three performance measures, however, or in relation to job satisfaction or the strategic direction component of a climate for service.

Table 6: Moderated regression for internal fit between HR effectiveness and employees attitudes

	Model 3	Model 4	Model 5
	Sales volumes	Product knowledge	Service quality
Utility - HR total	0.259	-0.175	-0.127
Affective commitment	-0.25	0.943**	0.531
Utility x Affective commitment	-0.631*	0.671*	0.813*
R-squared	0.227	0.404	0.288
Adjusted R-squared	0.072	0.285	0.146
F	1.47	3.39	2.02
N	39	39	39

* statistically significant at $p < 0.05$ ** statistically significant at $p < 0.01$

Affective commitment moderated the relationship between the effectiveness of the HR system and sales volumes. However, this interaction was one of substitution as displayed in Figure 12. The results in this case suggest that a resource allocation hypothesis may apply as was found by Neal, et al. (2004), whereby HR practices have greater effect on sales where there is capacity to make improvement because employees are not performing as well as they could be, whilst in situation where levels of affective commitment are higher there may be less opportunity to achieve higher levels of performance. However, the findings in relation to two of the service performance measures, product knowledge and service quality, strongly support the proposition that affective commitment enhances the effectiveness of the HR system in relation to these outcomes, as illustrated by the plots in Figure 13 and Figure 14 respectively. These results again give support for the hypothesis that employee attitudes moderate the relationship between HR implementation and performance. In relation to the service performance outcomes, which

represent behaviours key to the organisation's business strategy as it moved into an increasingly competitive environment, the results support Ferris, et al.'s (1998) social context model and demonstrate the importance of internal fit between the implementation of HR practices and employee attitudes. However, with regard to economic performance measures, the findings in relation to sales volumes indicate that where affective commitment is low, HR practices may have a significant impact on performance, whilst where affective commitment is high, efforts spent implementing HR practices may have little effect or divert attention from core business activities for little incremental benefit, supporting the resource allocation perspective on internal fit (Neal, et al., 2004).

Figure 12: Moderation of HR effectiveness and sales volumes by affective commitment

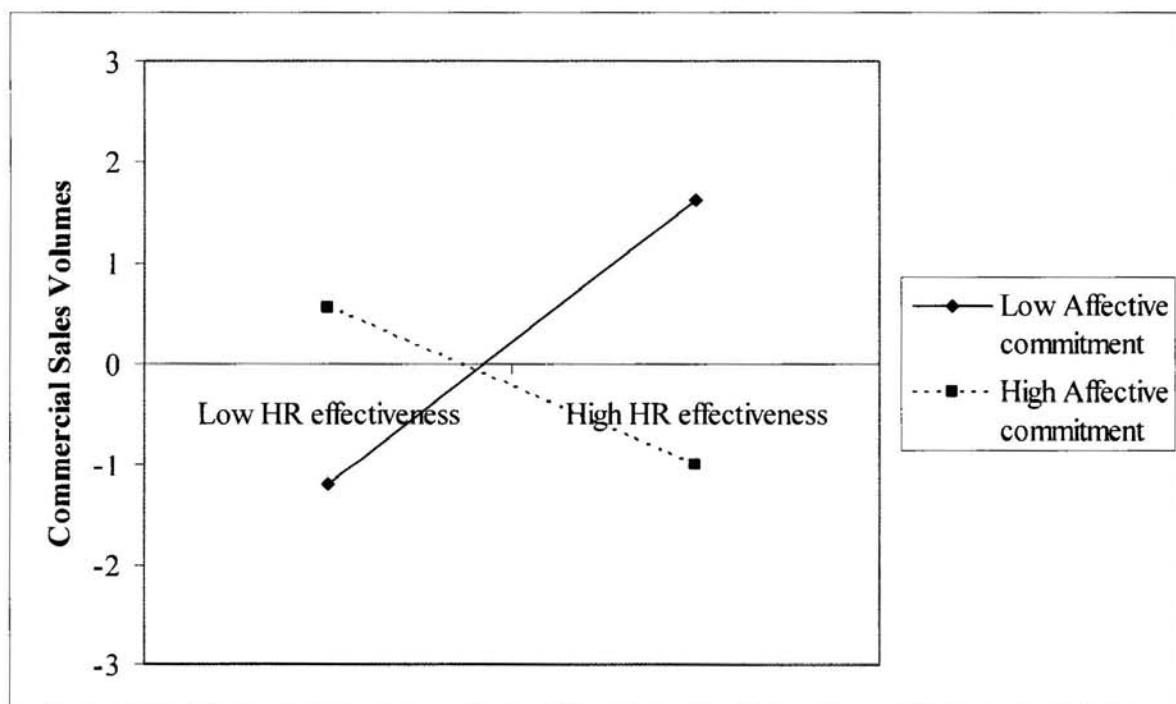


Figure 13: Moderation of HR effectiveness and product knowledge by affective commitment

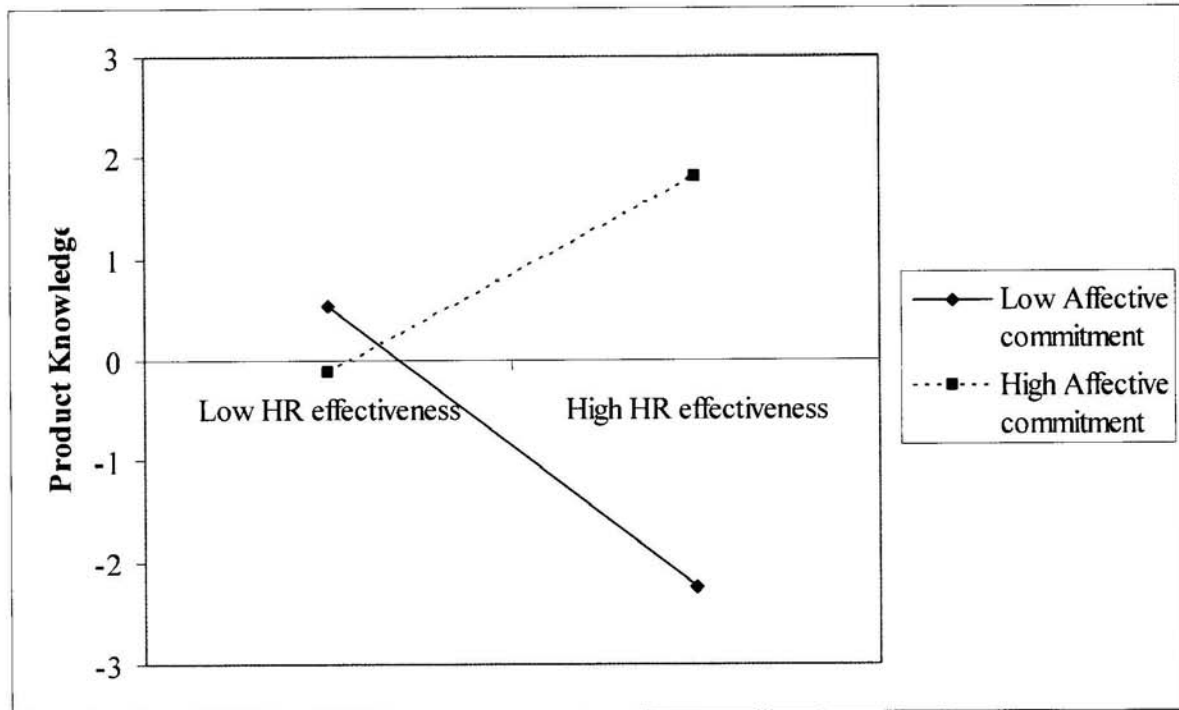
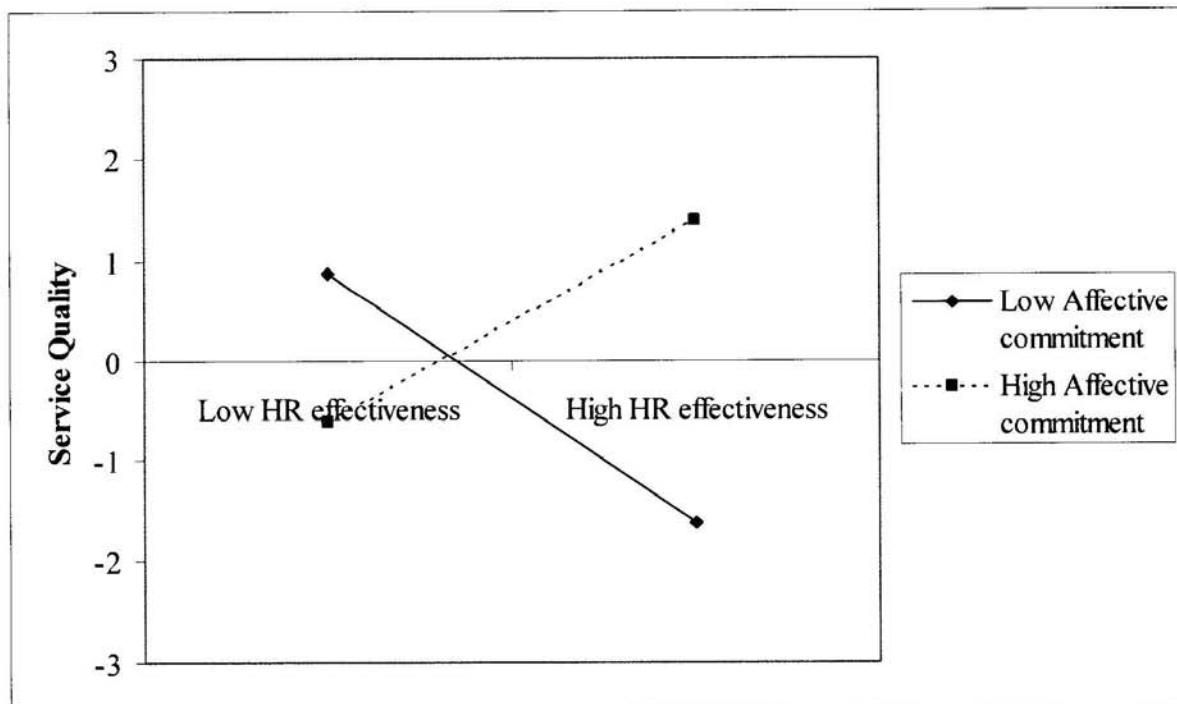


Figure 14: Moderation of HR effectiveness and service quality by affective commitment



Whilst the evidence above provides support for a process of internal fit between HR implementation and employee attitudes in terms of their influence on both economic and service performance outcomes, the sixth hypothesis in this study was concerned specifically with the processes through which evaluative perceptions of the work climate, in this case a climate for service given the organisational context, may be mediated by employee affect (Kopelman, et al., 1990). As outlined earlier in this chapter, for mediation effects to occur it is first essential for the necessary conditions for mediation analyses to be met. This was the case in relation to two of the performance measures, namely productivity and product knowledge. Job satisfaction and all six dimensions of a climate for service were significantly correlated with productivity, as well as with each other. However, mediated regression analyses in relation to productivity revealed non-significant results when Sobel's (1982) test was applied, indicating that partial mediation was not supported. This suggests that in this case climate for service may have a direct effect on this variable independent of job satisfaction, which is contrary to the findings of Patterson, et al. (2004). However, the hypothesised mediation of climate by employee affect was strongly supported in relation to the product knowledge dimension of service performance in relation to both job satisfaction (see Table 7) and affective commitment (see Table 8). Both of these measures of affect mediated the relationship between product knowledge and four dimensions of a climate for service, relating to strategic direction, clarity of objectives, training and development, and customer focus. Sobel's (1982) test was significant across all these relationships ($p < 0.05$), with almost all the variance in the relationships between climate for service variables and product knowledge being mediated by job satisfaction and affective commitment.

Table 7: Mediation of climate for service with product knowledge by job satisfaction

Step 1: Regression of climate variables with Product knowledge

	Model 5	Model 6	Model 7	Model 8
Climate for service - direction	0.208*			
Climate for service - objectives		.230*		
Climate for service - training and development			.231*	
Climate for service - customer focus				.205*
<i>R</i> -squared	0.16	0.053	0.054	0.042
Adjusted <i>R</i> -squared	0.146	0.038	0.039	0.027
F	2.90	3.59	3.62	2.82
N	66	66	66	66

Step 2: Regression of climate variables and job satisfaction with Product knowledge

	Model 5b	Model 6b	Model 7b	Model 8b
Climate for service - direction	-0.042			
Climate for service - branch management				
Climate for service - objectives		0.071		
Climate for service - training and development			0.011	
Climate for service - organisational support				
Climate for service - customer focus				0.015
<i>Mediator</i>				
Job satisfaction	0.424**	0.369**	0.393**	.392**
<i>R</i> -squared	0.161	0.164	0.160	0.160
Adjusted <i>R</i> -squared	0.134	0.167	0.153	0.133
F	6.03	6.17	5.97	5.99
N	66	66	66	66

Table 8: Mediation of climate for service with product knowledge by affective commitment

Step 1: Regression of climate variables with Product knowledge

	Model 1	Model 2	Model 3	Model 4
Climate for service - direction	0.208*			
Climate for service - objectives		.230*		
Climate for service - training and development			.231*	
Climate for service - customer focus				.205*
<i>R</i> -squared	0.16	0.053	0.054	0.042
Adjusted <i>R</i> -squared	0.146	0.038	0.039	0.027
<i>F</i>	2.90	3.59	3.62	2.82
<i>N</i>	66	66	66	66

Step 2: Regression of climate variables and affective commitment with Product knowledge

	Model 1b	Model 2b	Model 3b	Model 4b
Climate for service - direction	-0.057			
Climate for service - branch management				
Climate for service - objectives		-0.032		
Climate for service - training and development			-0.061	
Climate for service - organisational support				
Climate for service - customer focus				0.019
<i>Mediator</i>				
Affective commitment	.430**	0.415**	0.436**	0.393**
<i>R</i> -squared	0.157	0.156	0.158	0.155
Adjusted <i>R</i> -squared	0.131	0.129	0.131	0.129
<i>F</i>	5.89	5.83	5.89	5.80
<i>N</i>	66	66	66	66

It is important to note that whilst they are conceptually and empirically distinct measures, when aggregated to branch level there was considerable correlation between job satisfaction and affective commitment ($r=0.77$, $p<0.01$). These findings support Kopelman, et al.'s (1990) model of climate and affect, particularly given the contextual nature of achieving strong results on product knowledge which is likely to be highly dependent on discretionary effort on the part of

employees. Overall, mixed evidence was found in relation to the hypothesis that affective measures would mediate relationships between a climate for service and performance outcomes. This was strongly supported in relation to the product knowledge measure, not supported in relation to productivity, and the conditions for mediation were not met in relation to the other branch performance measures within this study.

The final hypothesis proposed that relationships between employee attitudes and sales volumes would be moderated by the extent of competition faced by each branch, on the basis that the performance of employees would be likely to have a greater effect on sales where customers are faced with few switching barriers and can exercise choice over where to access services. Two of the employee attitudes scales were found through regression analyses to be positively related to sales volumes or sales growth, namely the climate for service dimension relating to strategic direction and job satisfaction. The relationship between both of these variables and sales growth (which controls for sales in the previous year) did not reveal a moderating effect in relation to the level of competition, expressed in terms of the percentage of commercial (rather than monopolistic) products sold through each branch. However, the relationship between both the strategic direction dimension of a climate for service and job satisfaction with current sales volumes was moderated by the level of competition faced by each post office branch (see Table 9). These results therefore provide support for hypothesis seven in relation to current sales volumes, but not when prior performance was controlled. It is important to note that there was a high level of multicollinearity between the current sales volumes and percentage of volumes classified as open to competition, nevertheless the findings indicate a consistent moderating effect.

Table 9: Moderation regression of employee attitudes and competition on sales volumes

	Model 1	Model 2
Pct Commercial	0.889**	0.849**
Job satisfaction	-0.057	
Climate for service - direction		-0.032
Pct Commercial x Job satisfaction	0.154*	
Pct Commercial x Direction		0.172*
<i>R</i> -squared	0.747	0.752
Adjusted <i>R</i> -squared	0.734	0.74
F	60.91	62.71
N	66	66

These results were plotted to enable easier interpretation of the moderation effects, shown in Figures 15 and 16. The graphic representation of results reveals that both climate perceptions of strategic direction and job satisfaction were related to greater sales volumes in contexts where the level of competition was higher. Conversely, the results indicate that where competition levels were low and the business conducted within a post office was largely related to transactions of monopolistic products, more positive results in relation to climate perceptions of strategic direction and job satisfaction were related to poorer performance in terms of sales volumes. This suggests that in these branches the opportunity to grow sales in commercial products may be constrained, for instance this may occur where those products are not attractive to the local customer base or those customers who may be in receipt of various state benefits do not have significant additional disposable income to spend on other services.

Figure 15: Moderation of climate for service (strategic direction) and sales volumes by competition level

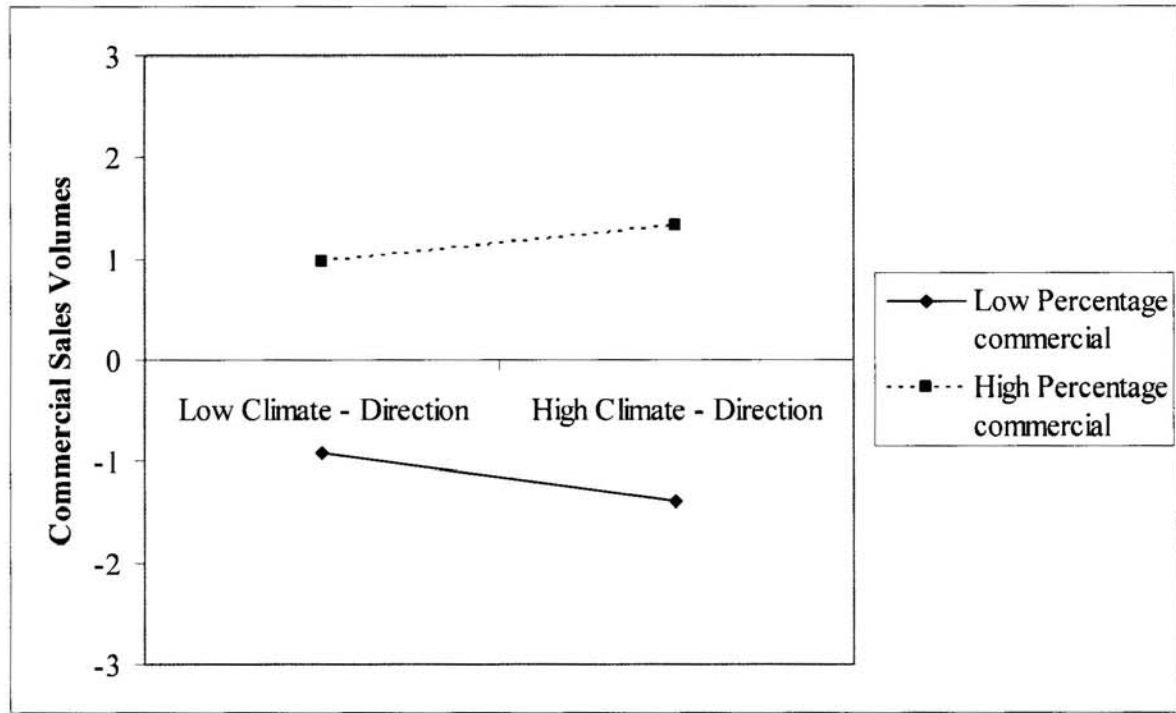
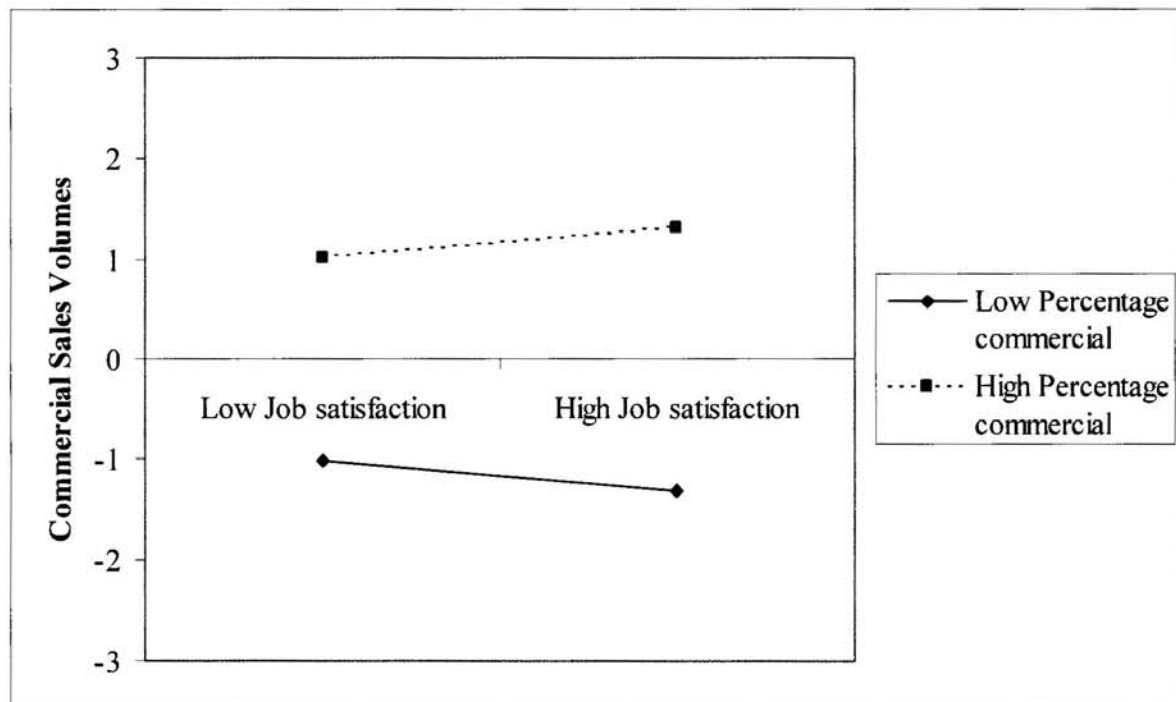


Figure 16: Moderation of job satisfaction and sales volumes by competition level



Management efforts to ensure a clear understanding of the strategy (which in this case was centred on customer service) and more positive job satisfaction may reflect considerable time invested in implementing a customer service strategy which may have little business impact in these branches. Conversely, it may be the case that business performance is best achieved by a focus on achieving higher levels of cost efficiency in these branches.

In summary, the results revealed broad support for many of the hypotheses tested within this research. Hypothesis 1 received partial support in that the implementation of HR practices was related to greater performance on three of the six measures used in this study, though this was primarily related to appraisals and training rather than the other three HR practices. Hypothesis 2 showed good evidence of a significant relationship between HR implementation and both climate perceptions and affective commitment, again this was largely related to specific practices in particular the intensity of feedback on service performance and the perceived effectiveness of training as rated by line managers. Hypothesis 3 was consistently supported, with employee attitudes predicting all three economic performance measures and two of the three service performance measures. Hypothesis 4, relating to mediation of HR implementation effects on performance by employee attitudes, was rejected as the conditions for mediation were not met. The evidence provided some support for hypothesis 5, with affective commitment, job satisfaction and climate perceptions of strategic direction all being found to moderate the relationship between overall measures of HR implementation and specific performance measures. Hypothesis 6 was strongly supported in relation to the product knowledge performance measure, though rejected in relation to productivity and other measures of performance. Finally, whilst hypothesis 7 was rejected in relation to the sales growth measure, it

was supported through evidence that relationships between employee attitudes and current sales volumes were moderated by competition.

7. DISCUSSION

This research tested key relationships within the theoretical framework outlined in chapter 4, which articulated the potential role of the implementation of HR practices as a key determinant of their impact on performance (Khilji & Wang, 2006), the involvement of employee attitudes in moderating the HR/performance relationship through processes of internal fit (Neal, et al., 2006), and the role of competition as a moderator of relationships between employee attitudes and economic performance in service environments (Pauwwe, 1996; Heskett, et al. 1997). Within this chapter the research findings are discussed in relation to existing HRM and organisational behaviour theory. The practical implications of the results for key stakeholders both within and external to organisations are then explored. Following this, the limitations of this study are discussed and potential directions for future research outlined. The results of this research revealed a range of linkages between HR implementation, employee attitudes and branch performance outcomes. Beginning with the relationship between HR implementation and performance, each of these findings will be discussed in turn.

Relationships between the extent and quality of HR implementation and branch performance

The results provided partial support for the first hypothesis, as the extent of deployment of training predicted productivity ($R^2=0.027$, $p<0.05$), the overall extent of deployment of practices predicted speed of service ($R^2=0.051$, $p<0.05$) and both the extent of deployment and perceived quality of appraisal predicted service quality ($R^2=0.110$, $p<0.01$). These findings provide support for the role of 'implemented HRM' as a determinant of the impact of an HR system on

performance, consistent with the findings of Khilji and Wang (2006). Unlike most previous studies of HRM, which typically measure the construct at the policy level through surveys of one or more senior HR professionals within an organisation, the data on HR implementation was gathered from operational line managers within post office branches. Guest, et al. (2003) raised concerns over the validity of data gathered centrally from senior HR managers in terms of how reliable and valid a measure of HRM such responses really provide. Whilst such individuals may possess a broad, high-level view across the organisation, the actual enactment of HR practices is typically conducted by line managers within an organisation's core operation. These findings suggest that a significant proportion of variance in the impact of HR practices can be related to the extent of deployment and perceived effectiveness of HR practices by line managers, rather than simply the presence or not of particular policies. It is notable that in a number of areas it was not the overall measure of HR deployment or effectiveness which predicted performance outcomes but specific practices. This suggests that different practices may have more impact on performance than others, an issue which has typically been overlooked in many HRM studies (Guest, et al., 2003). For example, the deployment of training was found to predict productivity levels and speed of service across branches, which suggests that the skills gained through training may be used by employees to work more efficiently. The deployment and effectiveness of appraisal and development planning together incrementally predicted service quality across branches, which given the nature of this HR practice may again be expected to involve developing employee skills, in this case in relation to delivering service to customers. Given that specific links were found between particular practices and performance outcomes rather than a general overall effect, this suggests that neither HRM nor performance should be considered as homogenous constructs. The practices of both training and appraisal

may be expected to primarily relate to a 'resourcing and development' grouping of HR practices (Katou & Budhwar, 2006). The primary effect on performance would be expected to be through improved knowledge and skills rather than motivational effects or efficiencies generated by the design of work structures (Ichniowski, et al., 1996). The relationships between HR implementation at the branch level and performance in terms of productivity and service quality may also be interpreted as representing improved performance of core tasks (Neal & Griffin, 1999) in terms of working efficiently and delivering the expected standards of service.

The role of the line manager as the agent of HR implementation also fits with the conceptualisation of the HR department as a 'business partner' (Ulrich, 2005) where HR specialists work with line managers to deliver improved economic performance and strategy execution. The findings in relation to appraisal are of particular interest, due to the combined effect of the intensity of deployment and effectiveness of the practice which were the main determinants of service quality. This would appear logical given that without actually ensuring development activities subsequently happen, the benefits of appraisal may be somewhat limited. Additionally, however, branch managers' evaluations of the usefulness of appraisal and development planning to help them achieve their performance goals explained additional variance in service quality at branch level. This suggests that in this case, it was not only the extent of implementation in terms of intensity of use that makes a difference, but the acceptance and perceived validity of the practice as a helpful management technique from the perspective of line managers. This supports the perspective of Ostroff and Bowen (2004) that 'HR system strength' may have multiple components relating to intensity, quality of design of HR processes,

quality of implementation and acceptance by the users of the HR system which may combine to generate enhanced performance outcomes.

Given that within the research design HR policies were consistent across all branches, one question not addressed directly by this study was the relative relationship between the effects of HRM as policy and the supplementary importance of the implementation process in achieving the intended benefits. However, it is appropriate to compare the results with the findings of the Combs, et al.'s (2006) meta-analysis of HRM studies which found a mean correlation between HRM and organisational performance of $r=0.2$, with a one standard deviation increase in adoption of HRM being related to a 4.6% average increase in return on assets (ROA) and a 4.4% decrease in labour turnover across the sample. Huselid's (1995) study showed a slightly larger effect size whereby labour turnover decreased by 7.05% with a one standard deviation increase in the adoption of HRM practices, whilst other studies such as MacDuffie (1995) have shown significantly greater effect sizes. In relation to the effect sizes found at the HRM policy level, the results in this study indicate that for some performance measures at least, a fair proportion of variance can be ascribed to the process of HR implementation. Whilst the intensity and effectiveness of appraisal accounted for approximately 11% of the variance in service quality, the extent of training provision predicted 2.7% of variance in productivity and overall deployment of training, appraisal and performance feedback predicted 5.1% of variance in speed of service. However, no relationship was found between HR implementation and more distal measures such as sales volumes or year-on-year sales growth, nor with the level of product knowledge demonstrated by customer-facing employees.

Overall then, the evidence in this study indicates that the implementation of HR practices may account for a significant proportion of variance in the HRM/performance relationship, albeit in relation to specific HR practices and specific performance outcomes rather than a consistent effect across all measures. Given it is likely that the actual implementation of HR systems across organisations and establishments within them is highly variable (as was evident within this study), then it may be the case that in those organisations where HRM is implemented more thoroughly and effectively, the effects on organisational performance may be significantly higher than the typical 4-5% of variance explained within Combs, et al's (2006) meta-analysis. Such meta-analytic results are likely to represent the typical impact of HRM on performance, rather than its potential impact where there is a strong HR system (Ostroff & Bowen, 2004) and 'implemented HRM' mirrors that intended by HRM at the level of policy (Khilji & Wang, 2006). It is important to note, however, the limited range of HR practices studied within this research. The two practices where the greatest evidence of direct effects on performance were observed – appraisal and training – would be expected to influence greater performance through improved knowledge and skills and hence may have relatively targeted effects on those branch performance measures where this is most relevant.

Relationships between the extent and quality of HR implementation and employee attitudes

Following on from the relationships identified between HR implementation and branch performance outcomes, the results did illustrate strong and consistent evidence of a relationship between implemented HR practices and employee attitudes, specifically a number of climate for service dimensions and also affective commitment. In total, five of the six dimensions of climate for service within the theoretical framework were predicted by the extent and quality of

implementation specific practices. Effect sizes ranged from 8.7% of variance in climate perceptions of organisational support predicted by the frequency of service feedback to 11% of variance in climate perceptions of development predicted by the frequency of service feedback and perceived effectiveness of training. Similarly, affective commitment was also linked to the frequency of service performance feedback. Performance feedback in particular would be expected to primarily play a motivational role, enabling recognition of high performance and identifying opportunities for employees to improve the service they provide. The evidence showed that the frequency of this feedback cycle was clearly related to more positive perceptions of a climate for service, which would be consistent with goal-setting theory which emphasises the need for regular feedback (Locke & Latham, 1990). The effectiveness of training may also have positive benefits for a climate for service, in terms of ensuring employees have the confidence that they are equipped with the knowledge and skills required to provide a good service to their customers, for instance by being fully informed about new products and ways of working. In relation to the customer focus dimension of climate for service within this study, the effectiveness of training was the main predictor within the regression analysis. Across these findings there is clearly an additive effect of different practices, whereby performance feedback may be motivational for employees and help identify where they can improve, and the provision of training and development may help them make those ongoing improvements in their performance. The branch management dimension of a climate for service was significantly related to the perceived effectiveness of work planning within branches. In this case, employee attitudes towards their branch manager may be particularly influenced by how managers organise and plan workloads, which may affect employee perceptions of fairness. This may also provide an opportunity for managers to demonstrate that they are taking account of individual needs.

Finally, the prediction of climate perceptions relating to business direction were predicted by the overall measure of HR effectiveness, suggesting a general effect of effective HR implementation on this dimension of a climate for service.

In terms of impacts on affective measures of employee attitudes, it is notable that whilst the affective commitment measure was significantly predicted by frequency of service performance feedback and effectiveness of training, no such effects were found in relation to overall job satisfaction. It may be the case that affective commitment is directly influenced by positive feedback on performance and perceptions that training is helping employees do their jobs more effectively. This may directly lead to more positive views of the organisation, whilst having less direct impact on job satisfaction which focuses more on the core job itself and would be expected to be significantly influenced by other factors such as the job design (Hackman & Oldham, 1976). It may also be the case that overall job satisfaction is subsequently influenced by broader, evaluative climate perceptions such as organisational support and business direction more so than HR practices specifically. The strong relationships found between climate dimensions and job satisfaction within this study support this.

Overall, the effects found demonstrate a consistent relationship between a climate for service, affective commitment and a number of HR practices. These findings were consistent with Schneider and Bowen's (1985) findings linking HRM with a climate for service. Similarly, Guest (1999) found that employee attitudes were generally more positive in organisations which had adopted HRM. Service performance feedback may be expected to primarily have a relationship with employee attitudes that is motivational in nature. The association with training

may relate to employees feeling both more enabled to deliver in their roles, as suggested by the training and development dimension of climate for service, and potentially also motivated by the fact that time is being invested in developing their knowledge and skills. Work planning may be expected to influence performance independent of either skills or motivation, but the effectiveness with which this is implemented may affect employee perceptions of line managers. Whether these relationships are causal in nature, in that the implementation of practices leads to more positive climate perceptions, remains unclear given the cross-sectional nature of the two data sources. Alternately, where there is a positive climate for service, branch managers may have reported HR practices as more useful and also may have been able to implement them more thoroughly. The relationships identified between specific HR practices and climate for service dimensions may suggest the influence of those practices on performance could be mediated via climate perceptions and affective reactions of employees (Kopelman, 1990). Conversely, where HR practices such as appraisal are focused on skill and competency development, a positive climate for service and higher levels of commitment may act as moderators of performance outcomes (Ferris, et al., 1998; Neal, et al., 2003), in that employees will be more motivated to make use of their capabilities to meet and exceed the performance goals they are set. In relation to the theoretical framework proposed in chapter 4, the research clearly supported the linkage between HR implementation and employee attitudes, supporting the findings of research in other contexts such as manufacturing (Patterson, et al., 2003; Katou & Budhwar, 2006) which revealed that employee attitudes play a significant role in the HRM/business performance relationship.

Relationships between employee attitudes and branch performance

The third hypothesis within the study, proposing a relationship between employee attitudes and the performance of post office branches was clearly supported by the results, with the measure of overall job satisfaction revealing the most consistent relationship with branch performance measures. As many HRM researchers have noted, it is helpful where practicable to have measures of economic performance which take account of prior performance in order that an association with a positive change in performance can be isolated. Within this research, the year-on-year measure of sales volume growth provided such an indicator, with job satisfaction showing a significant relationship explaining 8.5% of the variance in performance. This provides strong evidence using independent measures of performance that the affective states of employees, as measured through job satisfaction, are clearly associated with enhanced economic performance. This is consistent with the findings of Patterson, et al. (1997) in their study of UK manufacturing, in this case demonstrating a similar relationship in the service context of post office branches.

In addition to predicting growth in sales volumes, job satisfaction also predicted two of the service-related measures representing 'strategic behaviours' (Becker & Huselid, 2006). This is likely to be important for the success of Post Office Ltd going forward as its market environment becomes fully open to commercial competition. Firstly, job satisfaction was related to the performance of branches in terms of the product knowledge demonstrated by employees ($R^2=0.155$, $p<0.01$). Whilst product knowledge may, by definition, be related to the knowledge and skills of employees, enacting these behaviours when serving customers is likely to be dependent on contextual performance on the part of the employee. To demonstrate effective

product knowledge an employee needs to have taken an interest in the customer's specific need, asked appropriate questions and provided information to help the customer choose the best course of action, such as which mailing service to use depending on the value and priority of the item to be posted. The association between job satisfaction and product knowledge may hence be logical in that, for employees to make full use of the knowledge and skills they possess, they also need to be motivated to expend discretionary effort. Job satisfaction would be expected to facilitate this (Kopelman, et al., 1990). Secondly, the finding that job satisfaction also predicted speed of service ($R^2=0.119$, $p<0.01$), essentially the efficiency with which queues are cleared within branches, in combination with affective commitment again supported the theoretical framework for this research. Successful performance on this measure may be expected when the employees as a group exert additional effort to ensure queuing times do not become too long at busy periods. Coordination of the work group by the branch manager may be important to ensure that the number of customer-facing employees matches the demand at any particular time, whilst also ensuring back office activities can be completed to deadlines. In this regard, it is likely that employees will play an important role in meeting peaks in demand, both in terms of additional effort and working collaboratively together. Where this is the case, job satisfaction may create conditions where employees are prepared to expend greater discretionary effort (Kopelman, 1990) and affective commitment may incrementally add to this effect as employees would be more committed to delivering the organisation's objectives.

The findings also revealed that the climate for service dimension relating to employees' understanding and confidence in the strategic goals of the organisation was a significant predictor of productivity ($R^2=0.122$, $p<0.01$) and current sales volumes ($R^2=0.047$, $p<0.05$).

This scale was the strongest predictor of job satisfaction of the six climate scales, and second strongest predictor of affective commitment after perceptions of training and developmental support. This would suggest that employee perceptions of the organisation's strategy for delivering effective service are a major influence on subsequent affective reactions and play a key role in the generation of satisfaction and commitment. Positive evaluations of the strategy on the part of employees may set the context in which they are subsequently willing to commit extra effort and through having clear goals and purpose, feel satisfied with their jobs. In short, if employees feel the organisation has a clear direction which they support and a realistic chance of being successful, they may be more likely to engage in investing effort to achieve the organisation's goals.

In relation to the quality of service provided to customers as measured in terms of the politeness shown by employees, it is interesting that no relationships were found with a climate for service or measures of employee affect. Whilst writers in the service management school have made much of the 'customer-employee satisfaction mirror' through which satisfied employees provide good service to customers, which is then further reinforced by positive customer reactions, this was not evident through this performance variable. However, this may be due to the rather basic nature of the behaviours measured in this instance such as giving a polite greeting, maintaining eye contact and giving a polite farewell. These behaviours could be construed as basic elements of core task performance, rather than relating to more contextual, added value aspects of service which this measure does not capture. Conversely, it is clear from the findings that across a range of performance outcomes, the affective states of employees showed the greatest consistent associations, rather than more evaluative climate for service dimensions. This fits with the

perspective taken by Patterson, et al. (2004) that measures of employee affect play a role closely linked to, but separate from, climate perceptions in influencing organisational performance. The findings also support the view of Guest (1999) that greater consideration needs to be given to the importance of employees as key stakeholders within the context of HRM research.

The empirical evidence hence revealed varied support for the first three hypotheses in this study. The subsequent two hypotheses sought to test two alternative propositions. The first of these related to whether employee attitudes acted as a mediator between HR/performance relationships, as suggested by Huselid (1995). The second related to whether employee attitudes play a moderating role, by creating the 'social context' for HR practices to achieve their desired outcomes (Ferris, et al., 1998; Neal, et al., 2004). The results of analyses in relation to each of these hypotheses are discussed in turn below.

Mediation of HRM/performance relationships by employee attitudes

At first glance, the findings in relation to the first three hypotheses might have been expected to lead to the necessary conditions being met for testing the hypothesis that employee attitudes mediate the relationship between HR implementation and performance. This was not the case given that the direct associations found between HR practices and performance related to the implementation of both training and appraisals, and in each case neither of these variables showed a statistically significant association with either a climate for service, job satisfaction or affective commitment. The lack of support found for the hypothesis that the effects of HR practices on branch performance outcomes would be mediated by employee attitudes contradicts the findings of other studies exploring mediation (Paul & Anantharam, 2003; Katou & Budhwar,

2006) which have identified HRM outcomes including employee attitudes as mediating the HRM/performance relationship at the company level. However, the studies above did not use fully independent measures of organisational performance so may have more susceptible to common-method variance, whilst within this research only independent measures were used. The sample size of N=39 in this study did however limit the probability of finding statistically significant associations between HR variables and employee attitudes, and mediation effects may potentially have been identifiable with the greater statistical power afforded by a larger sample.

The relationships identified between the implementation of both training and appraisals and outcomes such speed of service, service quality and productivity may be expected to be largely due to the benefits these practices may provide in terms of improved knowledge and skills; clearly if the practices are not mediated by employee attitudes then they must be influencing performance via another means. Conversely, practices such as the frequency of performance feedback might be expected to have a direct, motivation-based link to employee attitudes. In this case, however, the practice was consistently related to a number of dimensions of a climate for service and with affective commitment but did not show a direct statistical relationship to any measures of economic or service performance. This may indicate that where more proximal associations exist between HR implementation and employee attitudes, or employee attitudes and performance measures, these were more easily detected statistically, whilst the effects of HR implementation on more distal measures of performance may be more difficult to detect. It is also feasible that many practices may have the greatest effect at the policy level, for instance having performance feedback, performance-related pay or work planning systems in place, may be largely beneficial to organisational performance, with the depth of implementation within a

branch accounting for limited additional variance. At the point of implementation, there may be limited variability introduced by the role of the line manager in relation to the impact of these practices, whilst in terms of conducting appraisals and providing effective training for employees, within the context of this study the manager was a key agent in implementing these practices.

Moderation of HRM/performance relationships by employee attitudes

Whilst there was no evidence to suggest employee attitudes mediated relationships between HRM and performance in this study, the alternative hypothesis that links between HR implementation and performance would be moderated by employee attitudes was supported. This provides evidence for the role of moderation within the theoretical framework outlined in chapter 4 and fits with the 'social context' theory proposed by Ferris, et al. (1998) and the internal fit hypothesis (Neal, et al., 2004). The most consistent finding related to the role played by affective commitment in moderating the relationship between line manager's perceptions of the system of HR practices in a branch with service quality, product knowledge and, to a lesser extent, sales volumes. In relation to service quality and product knowledge, higher levels of affective commitment moderated the relationship between HRM effectiveness, as assessed by the branch manager, and these performance outcomes. The results confirm that a process of internal fit was observed, whereby committed employees may be considerably more receptive to the implementation of HR practices. Through the benefits the practices themselves have on performance, along with greater discretionary effort on the part of employees, a multiplicative interaction effect occurs. The plots of the moderation effects in relation to the service quality and product knowledge also reveal that poor levels of affective commitment have a negative

influence on the impact of the HR system within the branch, even though the branch manager rates the HR system as being effective. This would indicate that whilst managers may implement an HR system, and believe it to be useful to achieve performance, when commitment amongst employees is low they may respond negatively to the implementation of practices. In such a situation there may be a resultant reduction in performance. This may also reflect a gap between the evaluation of HR practices by some branch managers and their ability to successfully implement HR practices in a way which is accepted by employees.

The findings in relation to the business direction dimension of climate for service demonstrated a similar pattern, as this variable moderated the relationship between the extent of actual implementation of practices and sales volumes. Again, where employees had more positive perceptions of the business direction, the relationship between deployment of HR practices and sales volumes was enhanced. Conversely, where they held negative views, the more thoroughly HR practices were implemented, the greater the negative association with sales volumes. This effect may be due to time being invested in deploying practices at the expense of serving customers, without a positive context and rationale having been provided for their implementation. In such an environment, where employees are unclear as to the direction of the organisation, they may be less likely to engage with HR practices positively with the result that they may be less motivated to perform well or utilise skills they have acquired, and at worst withdraw or actively resist their implementation.

These findings have significant implications for HRM theory for a number of reasons. Firstly, they provide evidence for a process of internal fit between employee attitudes, supporting the

social context model (Ferris, et al., 1998), and suggest that contingency perspectives on HRM will be required that take greater account of the role of employees as key stakeholders in the HRM/performance relationship. Secondly, these moderation effects did not only show that high levels of affective commitment and more positive evaluations of business direction were associated with a greater impact of HR practices on performance outcomes. In addition to this, where employee attitudes were less positive, the implementation of HR practices was associated with a negative influence on performance. This moderating effect may mean that relationships between HRM and performance outcomes may be concealed in many studies. It is also possible that the results observed in previous studies of the HRM/performance link may have been affected by employee attitudes as a third set of variables which were not controlled, potentially leading to spurious results or interpretation of findings. Thirdly, as was demonstrated by Guest's (1999) study relating to the relationship between HRM and the psychological contract, it is clear that employees' perceptions of their relationship with their organisation are influenced by many factors in addition to HRM. Similarly in this study, whilst a number of climate dimensions were significantly influenced by HRM, a significant proportion of variance in these dimensions may be influenced by other factors such as the strategic direction provided by the organisation, daily interactions and relationships with line managers, and practical support provided by the organisation to help employees undertake their roles. HRM theory may benefit from taking account of these other antecedents of employee outcomes, as suggested by Neal and Griffin's (1999) model linking individual and organisational performance. Finally, the evidence supporting a process of internal fit rather than one of mediation is significant in demonstrating that the role of employee attitudes may be complex in nature. The results of this study indicate there may be effects of HR practices on both service and economic performance measures which

are not mediated by employee attitudes, but may influence performance more directly such as through the application of knowledge and skills gained through training and prioritised for development through appraisals. Similarly, rather than simply providing one possible route by which HRM may influence performance outcomes, the evidence suggests that employee attitudes are a significant contextual factor or condition for HRM to be effective. Whilst not demonstrated empirically in this study, it may be the case that HR practices which are primarily motivational in their effects may operate through a process of mediation by employee attitudes which subsequently lead to performance benefits. Concurrently, HR practices related to the knowledge and skills of employees, such as training, appraisal or selective recruitment, may influence performance through enhancing the capabilities of employees. As shown by this research, the effectiveness of these practices may instead be moderated by the climate perceptions and affective reactions of employees which provide the social context for their implementation, with higher levels of contextual performance where employees may be motivated to make best use of the higher levels of knowledge and skills they have developed.

Mediation of climate for service/performance relationships by employee affect

A further key element of the theoretical framework proposed in this study was the hypothesised relationship between a climate for service, employee affect and branch performance outcomes, in relation to which the conditions for mediation were met for both productivity and product knowledge (Baron & Kenny, 1986). In this regard, whilst job satisfaction and all six of the climate dimensions were significantly correlated with productivity, non-significant results of Sobel's (1982) test indicated that the relationship between climate for service and productivity was not mediated through job satisfaction. It is notable that the correlations between the

dimensions of climate for service relating to business direction, training and development and organisational support were all more highly correlated with productivity than job satisfaction. As previously indicated, these variables may reflect employees' evaluations of direct impacts of HR practices on employee knowledge and skills independent of job satisfaction, as well as the effects of other activities such as effective leadership and direction. The latter may help employees understand where to focus their efforts, and practical, logistical support provided to employees by the organisation that may help them work more effectively and efficiently. It may be the case that these climate perceptions reflect situations where these factors enable greater productivity, through greater knowledge, skills and efficient ways of working (Ichniowski, et al., 1996), rather than through job satisfaction.

However, the results indicated that both job satisfaction and affective commitment, themselves highly correlated at the branch level ($r=0.77$, $N=66$, $p<0.001$), demonstrated full or almost full mediation of the relationship between four dimensions of a climate for service and the product knowledge element of service performance, specifically: business direction; clarity of objectives; training and development and customer focus. As discussed earlier, the product knowledge element captured within the mystery shopper assessments of service performance is likely to be highly dependent on contextual performance, as the questions asked and information offered by employees needs to be tailored to specific customer needs, rather than the basic measures of service quality and speed of service which apply to all customers and may be more easily construed as core tasks of customer-facing employees. If this is the case, then the findings provide evidence for the model proposed by Kopelman, et al. (1990), whereby evaluative perceptions of a climate for service were mediated by employees' affective states as measured by

both job satisfaction and affective commitment. This may have subsequently led to greater levels of extra-role behaviours or contextual performance on the part of employees such as higher product knowledge performance in this context. This finding again supported the sixth hypothesis in this study in relation to the product knowledge measure and was consistent with the findings of Patterson, et al. (2004) in the UK manufacturing sector, which demonstrated the mediating role of employee affect in climate/performance associations. However, the lack of similar findings in relation to the other performance measures may indicate that, in the case of the other service measures, they are less dependent on contextual performance for effective execution. In relation to economic performance there may also be a wider range of influencing factors, due to the more distal nature of these measures, which may make detecting mediation effects less likely with the limited sample size of N=66.

Moderation of the relationship between employee attitudes and sales performance by level of competition

The final hypothesis in this study predicted that the strength of relationship between employee attitudes and sales would be greater where the level of commercial competition faced by branches was higher. Whilst the external fit hypothesis was not supported in relation to the sales growth measure which compared sales year on year, it was supported by the finding that the percentage of sales in commercial (versus monopolistic) products moderated the relationship between both job satisfaction, and the strategic direction dimension of climate for service, with sales volumes. Previous research in manufacturing has demonstrated the importance of factors such as capital intensity, differentiation and market growth as moderators of relationships between HRM and performance (Datta, et al., 2005). However, whilst writers in the service

management school such as Heskett, et al. (1997) have suggested that competition is likely to increase the importance of employee attitudes and service performance as a precursor to economic performance, the role of market factors had not been tested in service environments. The interaction effect observed indicates that, as well as high levels of competition revealing a stronger association between job satisfaction and sales volumes, conversely higher levels of job satisfaction were correlated with poorer sales performance in branches with a greater proportion of monopolistic customer transactions. Given that many branches in this study showed declining volumes year on year, this may relate to reduced work pressure on employees making their roles somewhat easier to conduct and hence leading to higher job satisfaction, or alternately, that managers are investing effort in ensuring employees are satisfied in branches with a high level of monopolistic transactions to the detriment of improving sales in commercial products. This result is a significant finding for HRM and employee attitudes research in the service sector, as it suggests that employee attitudes have a significantly greater impact on revenue performance in more commercially competitive market contexts. Within less competitive or monopolistic contexts, relationships may still be found between employee attitudes and productivity, so this does not mean that the climate perceptions and affective states of employees matter less to performance. Rather, the results suggest that in a less competitive environment, the main benefits of more positive employee affect may relate to performance in terms of greater cost efficiency. In competitive environments the importance of employee affect to top-line revenue generation may relate to its role as an antecedent of contextual performance, which is likely to be key to providing a tailored service to meet different customers' needs. Whilst this finding supports the theoretical framework put forward and indicates that competition may be a significant moderator of the relationship between affect and sales performance in a service

context, some caution should be exercised in interpreting the results given the level of multicollinearity between the dependent and moderating variables.

Summary of theoretical implications

Overall, this research has produced support for a number of the key elements in the proposed theoretical model linking the implementation of HRM, employee attitudes, service and business performance, and the competitiveness of local market conditions. In addition to the specific issues discussed above in relation to each of the hypotheses, these findings have implications for HRM research in a number of ways. Much of the earlier HRM research placed considerable emphasis on the content of an HR system and how this was linked to performance, such as that tested at the meta-analytic level by Combs, et al. (2006). In common with a number of more recent studies (Katou & Budhwar, 2006; Guest, et al., 2003; Neal, et al, 2004), this research was primarily concerned with the processes involved in the relationship between HRM and business performance outcomes. Developing an understanding of the processes linking HRM with performance outcomes is where this study adds greatest value through helping explain why HRM has an effect. The importance of the manner in which HR practices are implemented, rather than their intended effect at a policy level, is a key dimension of Bowen and Ostroff's (2004) construct of HR system strength and Khilji and Wang's (2006) measure of 'implemented HRM'. In the case of one practice in particular, the use of appraisals, it was found that both the practical extent of deployment and the perceived effectiveness of the practice contributed to greater performance, supporting the role of line managers and employees as key stakeholders in the process of HR implementation. Khilji and Wang (2006) suggested that implementation should be viewed as a third aspect of 'fit', beyond the contingency and configurational

perspectives of HRM. This research would support that perspective given that significant variance in the impact of HR policies held constant at the organisational level could be accounted for by variations in how they were implemented.

The evidence in this study has also indicated that at least some of the HR practices measured had influenced service and economic performance outcomes directly, without evidence of mediation via employee attitudes. This was contrary to previous studies which have demonstrated partial mediation (Guest, et al., 2003; Katou & Budhwar, 2006). Whilst the limited sample size may have reduced the opportunities to detect mediation effects, the competing hypothesis that employee attitudes moderated the relationship between HR implementation and performance outcomes was substantiated by the research findings. This result indicates support for Ferris, et al.'s (1998) 'social context' perspective and indicates that a process of internal fit with employee attitudes significantly influenced the effects of HR implementation. What is perhaps important to note in considering the above is that in any work group or organisation, the psychological constructs relating to climate and employee affect can be observed and measured, regardless of whether HRM is in place or not, as can economic and service measures of performance. The findings in this research illustrate how the implementation of HR practices intended to improve performance interacts with the prevailing social context, as measured in terms of climate perceptions, job satisfaction and affective commitment to the organisation.

Whilst Patterson, et al. (2004) established evidence of climate perceptions being mediated by job satisfaction in their sample of UK manufacturing firms, complementary evidence to this was revealed in this study in terms of the mediating role of both job satisfaction and affective

commitment in the relationship between a climate for service and product knowledge performance, which was argued earlier in this chapter to be dependent on contextual performance by employees. Finally, the results provide some evidence to support the hypothesis that levels of competition moderated the strength of relationship between job satisfaction and sales volumes within post office branches. Again, the results support the case for the involvement of competition levels in a process of external fit, in a similar way to the role of market differentiation or growth identified in Datta, et al's. (2005) research in manufacturing. Overall there was encouraging evidence in support of the theoretical framework outlined in chapter 4, revealing that the HRM/performance relationship in this study was significantly influenced by the process of HR implementation and internal fit with employee attitudes. Additionally, the processes through which employee attitudes influence performance in this context were found to include some evidence of mediation of a climate for service by employee affect, and external fit with competition levels. Whilst these findings are restricted to evidence from a single organization, it may be the case that similar processes are at work elsewhere which similarly help explain the considerable variability in the effect size of relationships between HRM and performance across the many published studies in the literature (Combs, et al. 2006).

Whilst this study has focused primarily on the processes through which HR practices and employee attitudes influence performance, it also has implications for the conceptualisation of each of these sets of variables. Beginning with HRM, whilst practices such as performance feedback and appraisals have been widely included in HRM studies, feedback on service performance, perhaps unsurprisingly, has not featured in the majority of studies which have been conducted within manufacturing contexts. However, this practice was found to be significantly

related to service and economic performance outcomes within the post office branches studied. This illustrates that what constitutes an effective HRM system may not always be the same at the level of specific practices across contexts. Whilst categorisation of HRM into sets of practices is clearly helpful to enable consistency in research designs and enable results to be compared across studies, this is clearly constrained by the need for measures to be relevant to the organisational contexts in which research is conducted. Therefore definitions of HRM may continue to evolve as new practices are developed by practitioners and come under the focus of study by researchers. As Combs, et al. (2006) suggest, there may be some practices which are more or less relevant to achieving performance outcomes in manufacturing and service contexts and research may benefit from reflecting this consideration when constructing measures of HRM. The evidence in relation to the impact of HR implementation on performance also challenges the prevailing methodology of assessing HRM at the level of organizational policies, based on the perspectives of senior HR managers, which may not reflect the reality of how these policies are put into practice (Guest, 2001). The results also supported Kopelman, et al's (1990) model which separates the role of evaluative climate perceptions from the affective reactions of employees. The evidence in this research indicated that measures of employee affect, in particular job satisfaction, predicted performance outcomes most consistently, and the finding that climate for service was mediated via job satisfaction and affective commitment, further lends weight to this proposition. It would clearly be useful for research designs to take account of these relationships and consider the staged process linking climate perceptions with performance outcomes, mediated by employee affect. Given the typically high levels of correlation found between climate and affect, by necessity collected from the same source and

aggregated to unit level, researchers will need to ensure models provide adequate differentiation between the two constructs.

In relation to the performance measures used within this study, there are two key points to be made in relation to broader HRM theory. Firstly, as Becker and Huselid (2006) suggested, the inclusion of measures relating to 'strategic behaviours' underpinning strategy execution enabled this research to test the role of HR implementation and employee attitudes in relation to key behaviours related to improving customer service. This was a fundamental part of Post Office Ltd's business strategy as it transitioned from being largely a state monopoly to an organisation facing commercial competition for all its products and services. The use of these measures is helpful in that the research was able to identify how the implementation of HR practices, more positive climate for service and higher levels of employee affect, were related to more effective execution of these behaviours in post office branches. It is worthy of note that there was limited evidence of relationships between the performance of these behaviours and backward-looking measures of economic performance, which may reflect a time lag between their execution and future financial benefits which was not assessed by this research. Secondly, the objective nature of the performance measures used throughout this study is a key strength of the research design employed. In relation to economic performance, these were derived from archival data based on audited accounting records. Similarly, the use of independent data gathering for the 'mystery shopper' measures of service performance again ensured that criterion contamination was avoided, unlike the design of many previous HRM studies. In this regard, the findings avoid common-method variance which could otherwise be an extraneous factor and potentially inflate the effect sizes of the relationships observed. Previous findings by Combs, et al. (2006) showed

that if corrected for unreliability, survey measures of performance typically yielded significantly higher estimates of the strength of HRM/performance relationship than where archival measures were used. This supports the case that common-method variance in survey methods may lead to inflated results. If research is to be both robust and convincing, to academic and practitioner audiences alike, it would be helpful if objective performance measures are used wherever feasible in order to provide clear evidence relating to the nature of the processes through which HRM may influence performance outcomes. Doing so, however, can lead to practical implications in terms of research design as the risk of sample attrition is magnified as multiple data sources are used in building datasets.

Given the cross-sectional nature of most of the variables gathered within this study, whilst it is possible to infer directionality in relationships between job satisfaction and sales growth, as prior sales the year before were controlled, this is not the case with the other measures of economic performance relating to productivity and current sales volumes. In this regard, the alternative hypothesis, that higher levels of productivity or sales lead to more positive employee attitudes, cannot be completely ruled out. In terms of the relationships between HR implementation and service performance outcomes, whilst data gathered is cross-sectional in nature, it is difficult to theoretically sustain a contrary hypothesis that good service performance leads to greater HR implementation, given that at the policy level HRM was consistent across all the branches in the study. It could be suggested that the overall quality of the branch manager represents a third variable influencing both outcomes, however, the regression analyses including the branch leadership dimension of a climate for service did not indicate this was a strong predictor of either economic or service performance. Nor was it significantly related to the deployment or

perceived effectiveness of HR practices within branches. Kopelman, et al. (1990) identified climate perceptions as antecedents of positive affective reactions by employees, in turn leading to greater display of citizenship behaviours. Similarly, Organ and Ryan (1995) confirmed the relationship between employee attitudes and these organisational citizenship behaviours at the individual level in their meta-analysis. Whilst it can be argued that employees may develop more positive attitudes on the basis of positive feedback on performance, the process is likely to be bi-directional, in that more positive attitudes also lead to greater levels of citizenship behaviour (Kopelman, et al., 1990). Theoretically, evaluations of climate which are cognitive in nature would be expected to subsequently influence more global, affective reactions such as job satisfaction and organisational commitment.

A further important feature of this study was that it took place in a service context. The meta-analysis of HRM studies by Combs, et al. (2006) revealed that the HRM/performance relationship was significantly greater across studies in manufacturing than studies in service environments, suggesting that there are moderating influences specific to a service context. One of the suggestions put forward to explain this was that service contexts are largely open systems, with a large number of interfaces between employees and customers. Given that customers are also involved in the service process, the range of outcomes is likely to be constrained, potentially reducing the impact that HRM may have. Results of this study indicated that the relationships between the effectiveness of HR practices and service quality, product knowledge and sales volumes were moderated by affective commitment. This provides important evidence that there was a process of internal fit, whereby positive employee affect was related to an enhanced impact of HR practices on specific service and economic performance outcomes. This

moderating effect of employee affect on the HRM/performance relationship operated in a different direction to that observed within Neal, et al.'s (2003) study in UK manufacturing contexts. This may suggest that a limited capacity hypothesis is valid due to constrained opportunities for greater sales, whilst an internal fit hypothesis was evident in relation to behavioural service outcomes. Further research in other service environments would be helpful to test the generalisability of this finding across service contexts, and to understand more fully whether contextual factors influence when these alternative explanations may apply. This research did not replicate the findings of Patterson, et al. (2004), who demonstrated that the influence of climate perceptions on economic performance was mediated via job satisfaction. However, the consistent results indicating a climate for service influenced product knowledge via job satisfaction and affective commitment provide support for a similar mediating process in service environments, albeit with regard to different performance outcomes. The finding that the relationship between job satisfaction and sales volumes was moderated by the level of competition faced by each branch, again indicated that there may be significant external conditions in service contexts which constrain the opportunity for employees to influence economic performance.

The generalisability of findings from the particular organisational context of this research is a key concern when considering the implications of this study for HRM theory more broadly. Clearly this study was conducted within one organisation, so this may limit the inferences that can be reasonably drawn in relation to other organisations and industry sectors. However, the linkages identified between HR implementation, employee attitudes and performance outcomes were consistent with research across other industry contexts (e.g. Guest, et al., 2003; Combs, et

al., 2006). Perhaps the most idiosyncratic feature of the research sample is that the process of external fit observed may be somewhat exaggerated in the context of Post Office Ltd, given the relative extremes between the relative monopoly and competitive market conditions across the product range, more so than may be likely in other service environments. Therefore, while an effect was observed in this research, it may be helpful to test the role of competition in other service organisations and across industries. This would help develop understanding of the extent to which actual levels of competition enhance the impact of HRM or employee attitudes on business performance. As noted previously, whilst low levels of competition may limit the impact of employee behaviour on sales volumes, this does not preclude the opportunity for a significant influence on other measures of economic performance more strongly linked to cost control rather than revenue generation.

It was proposed in the review of literature that theory development would benefit from the integration of organisational behaviour and psychological perspectives with existing HRM theory, which has largely been driven by a strategic management perspective (Arthur, 1994; Delery & Doty, 1996). Whilst numerous studies have demonstrated a consistent relationship between HRM and business performance (Combs, et al., 2006), as Katz and Kahn (1966) observed, organisations are highly complex systems and research exploring why relationships exist between HRM and performance is essential if theory is to be advanced. The findings of this study, albeit within one organisation, make a contribution in this regard through demonstrating the influence of the process of HR implementation (Khilji and Wang, 2006) on performance outcomes, internal fit between HR implementation and employee attitudes (Neal, et al. 2004) and further developing the findings of Datta, et al. (2005) by revealing a process of

external fit within a service environment. The research evidence provides support for Becker and Huselid's (2006) view that HRM researchers should focus not only on economic performance but also the execution of strategic behaviours, demanding both a more sophisticated conceptualisation of strategy (Boxall, 1996) than earlier HRM research and much greater consideration of the role of psychological variables such as employee attitudes (Wood, 1999) when developing HRM theory.

Practical implications

This research has revealed insights into the processes through which HR implementation, employee attitudes, situational factors and organisational performance are linked. As well as relating these findings to the existing research literature, there are also lessons for key stakeholders such as HR practitioners, line managers, employees and business leaders within organisations. These practical implications for the practice of human resource management are outlined below.

Firstly, for HR practitioners this research illustrates that significant variance in the impact of HRM on performance can be accounted for by the process of implementation by line managers within the branches in this study. This clearly indicates that for HR practitioners to achieve a strategic impact, they will need to work in close partnership with their counterparts responsible for managing the core operations of organisations. Given line managers play a key role in the effective use of HR practices, this supports the need for a 'business partnering' model as advocated by writers such as Ulrich and Brockbank (2005). Similarly, the moderating role of employee attitudes on the relationship between HR implementation and performance outcomes is

equally significant from a practical perspective as it suggests that HR practitioners will need to support line managers in implementing HRM, both as a system, and with reference to contextual factors. As this research indicated, more positive job satisfaction and affective commitment amongst employees was closely associated with a more positive climate for service. In this regard, it is likely that dual efforts to both implement HR practices effectively and ensure a positive climate, will yield significantly greater benefits than tackling either issue in isolation. In relation to fostering a more positive climate for service, HR practitioners may support managers through the provision of effective training or coaching in leadership skills, ensuring organisational communications are effective in articulating strategy and business direction in a meaningful way and clear objectives are provided to employees. Similarly, HR practitioners can work with line managers to facilitate positive outcomes from the HR system. This may include the provision of an effective infrastructure for providing training and development opportunities for employees, working with support functions within an organisation to ensure managers have the practical support in place to enable employees to do their jobs, and tools to enable a consistent focus on customers. In relation to developing a focus on customers within service settings, the findings of this study suggest that feedback on customer service performance may be a particularly helpful practice to assist managers in both supporting employee satisfaction and motivation, as well as directing employees to continuous improvement of the customer service they provide. In summary, to maximise their effectiveness it is likely that HR practitioners will need not only to partner with line managers in ensuring effective implementation of HRM, but also to work with managers in other support functions to ensure that the context of a supportive work climate is fostered and sustained. The findings of this research also have lessons for the HR function in terms of the management of managers themselves. Where managing people

forms a considerable element of a line manager's responsibilities, then managers may benefit from being trained in the necessary competencies to deliver a positive climate for service as well as how to implement HR practices effectively. The HR function also has a role to play in influencing the selection criteria for management roles and the basis on which promotion decisions are made. It is likely that good performance by managers in this respect will require managers to have strong interpersonal skills in order to successfully motivate their employees and engage them in working together effectively, improving the performance of their unit and expending discretionary effort beyond the core task requirements of their roles, consistent with Walton's (1985) 'commitment' model of management. It is also likely that organisations will achieve greater benefits from HRM where managers combine these capabilities with a clear focus on the thorough and consistent deployment of HR practices in ways which are accepted by employees.

It is also essential that employees are considered as vital stakeholders in order to ensure that HRM achieves its strategic objectives. This is particularly important, given that failure to generate positive affective reactions from employees, or provide them with a clear business direction, were shown to reduce the effectiveness of HR practices within this study. It is likely that HR practitioners will need to champion and develop techniques to ensure employees are not only suitably trained and given clear performance expectations, but also that the psychological contract between the employees and the organisation is managed effectively (Guest, 2002). For instance, the use of employee surveys and involvement techniques may be helpful in this regard, to ensure that employees have a clear voice and their needs are considered and acted on by managers.

The importance of both the HR implementation process and employee attitudes in the HRM/performance relationships within this study mean that as key stakeholders in the use of HRM by organisations, line managers and employees should be involved in both the design of HR systems and the development of plans for their implementation. In keeping with Bowen and Ostroff's (2004) concept of HR system strength, it is likely that where both stakeholder groups are positive about the HR system and support its implementation, then subsequent performance outcomes should be enhanced. Additionally, rather than HRM systems being imposed on line managers without their involvement, given the importance of the extent and quality with which implementation is conducted, HR practitioners may find that significant benefits accrue from also providing the necessary training and support to line managers to ensure they are equipped to use practices effectively. The HR function is also likely to have a key role to play in not only owning the design of HR policies, but also supporting the measurement of the extent and effectiveness of the implementation of HR practices across the organisation.

HR practitioners can take a lead in ensuring that HR systems within their organisations are fit for purpose, supported by managers and frontline employees, and aim to implement them in conjunction with activities to address key moderators such as a climate for service. However, line managers also bear a considerable responsibility in ensuring the business benefits of HRM can be realised. They too may gain the greatest benefit from HRM if they actively partner with HR practitioners who may provide the necessary expertise in design and deployment of HR systems. In particular, line managers can have an important input to the design of HRM to ensure processes are tailored to help them meet their own business objectives and enable

effective execution of the business strategy. Similarly, the variance accounted for by the process of HR implementation in relation to performance outcomes indicates that line managers are key agents in putting HRM into practice, particularly for those techniques which they are expected to administer. In this regard, organisations are likely to find greater benefits from HRM where managers appreciate that effective use of HR practices is a key part of their role, rather than abdicating responsibility to colleagues in the HR function. In this regard, managers who have a focus on providing effective leadership to their people to help create a positive climate and who involve them as stakeholders in the use of HR practices may achieve considerably better results than managers who fail to consider the impact of HR implementation on employees, do not consider the subtleties of workforce relations or simply go through the motions when implementing practices at the expense of ensuring they are deployed to a high level of quality. In particular, given the recurring finding in this study that affective commitment moderated the relationship between the effectiveness of the HR system and performance outcomes, line managers are likely to benefit if they invest appropriate effort in motivating their employees and building their commitment to the organisation by tangibly demonstrating the benefits of working within it. Finally, it is likely to be incumbent on line managers to be prepared to ask for help from HR practitioners where they feel this is needed, for instance in providing them with the necessary training or expertise to make best use of HR practices to achieve their goals.

In addition to the need for employees to be included by both managers and HR practitioners as stakeholders in the process of implementing and managing through HRM systems, the results of this research also have implications for the psychological contract between employees and organizations. Within service environments in particular it is likely that organisations will

depend upon contextual performance on the part of employees in order to compete successfully. Organisations may increasingly seek their workforce to be flexible so that market changes can be met quickly and effectively and will also need to promote contextual performance which is, by its nature, variable across circumstances and hence difficult to measure consistently. In this environment, organisations are likely to be highly dependent on securing the commitment of employees (Walton, 1985) which should lead managers to seek closer alignment between organisational and employee goals. The evidence in this study indicates that employee commitment may be crucial in ensuring the benefits of HRM are accrued given its moderating role, potentially strengthening the position of employees as stakeholders within organisations. This has significant implications for traditional management-union relations in particular, as in unionised organisations it is likely to demand a partnership rather than conflict-based approach from both managers and trades unions. In this context, both stakeholders are likely to need to take an investment-based perspective on employees, rather than a transactional or contractual model (Chadwick & Cappelli, 1998). There are also lessons for employees as individuals due to these findings. To be successful in career terms it is likely that individuals who are seen as proactive and show high levels of discretionary effort will be more highly valued and hence more likely to achieve promotion or greater extrinsic rewards through mechanisms such as performance-related pay. Conversely, employees who are technically competent in performing the core tasks of a role but less effective in terms of their contextual performance may find their contribution is less highly rewarded than that of their peers. The results suggest that to achieve their own goals, individual employees may benefit from demanding a high quality of management and leadership, for instance in the context of this study expecting their managers to take action to generate a positive climate for service and demonstrating the ability to use HR

practices which affect their roles and careers in a professional and effective manner. Similarly, the evidence indicating the deployment of HR practices had a stronger relationship with sales volumes where a clear business direction was provided by the organisation suggest that employees need to have an understanding of the business strategy and how they can influence its success in order to be engaged and work effectively with their managers. In open labour markets, it is likely that the best performing employees will increasingly demand these qualities from their employers and may seek alternative career options elsewhere if these requirements are not met.

In the context of the above, there are significant implications for business leaders whose focus is likely to be on achieving the strategic goals and sustainable economic performance of their organisations. Firstly, the results confirm within the postal industry the findings of other HRM research which shows that HR systems and the attitudes of employees have a significant relationship with achieving higher levels of business performance and successful strategy execution. The interaction between employee attitudes and the HR system within this study indicate that a control-driven approach to management, whereby HR practices are implemented irrespective of employees' affective states, may in fact lead to poorer performance if management activity is wasted on activities which are met with resistance or not supported by employees. Conversely, where business leaders ensure a co-ordinated approach is taken and their HR professionals are empowered to work with line managers to create the social context for effective HRM (Ferris, et al., 1998), it is likely that greater results will be accrued. Achieving this combination of effects is likely to require strong and considered leadership from senior executives in order to ensure that HR practitioners, line managers and other business support

functions are aligned and provided with the necessary resources to both deliver a climate for service and implement an HR system effectively. In line with Becker and Huselid's (2006) focus on strategic behaviours, the link between both HR implementation and employee attitudes and the execution of customer service behaviours in this study suggests that HRM can be an enabler of strategy execution if the context for its implementation is also managed effectively. The lack of relationships found in this study between service and economic performance indicators in branches also suggests that there is likely to be some time lag between the execution of strategy and the corresponding impact on financial results. In this regard, it will be necessary for business leaders to consider allocating resources for HRM as a long term investment rather than simply a cost. Valuing the benefits of isolated HR interventions may also present challenges given that the research evidence indicates that HR practices may have greater effects when combined as a system and interact with other organisational-level variables such as employee attitudes or market constraints. It is perhaps more helpful to consider that the successful implementation of HR systems and generating a positive work climate are key enablers of strategy execution, which can be appraised in terms of the contribution these activities make to the successful delivery of the strategy and conversely, the significant business risks involved if investment in these aspects of management are not made.

Whilst the issues discussed above relate to key stakeholders within organisations, there are also implications for different groups external to organisations. Firstly, in service environments it is likely that customers may have considerable power in determining the success or otherwise of firms. Given they are involved in the process of services being delivered, for customers to achieve the results they desire it may be incumbent upon them to proactively provide

constructive feedback to organisations with which they do business in order to help them improve the service they deliver. Similarly, given the results of this research suggest that employee attitudes and behaviours have greatest impact in environments where there are higher levels of competition between suppliers, customers may also need to be realistic about the willingness of organisations operating in relatively monopolistic environments, or industries where the balance of power is in favour of suppliers, to adapt their services to meet customer needs. There are also implications for policy-makers in government or professional bodies, based on the results of this research. In terms of government policy-making, it is clear that mechanisms for encouraging good practice, such as accrediting companies which possess a 'high performance' system of HRM, may have limited impact unless such approaches look beyond organisational-level policies to understand more comprehensively: how HRM is actually implemented in practice; within what context such systems are deployed; what effects this has on the attitudes and behaviour of employees and whether the strategic objectives were achieved. Within the UK for instance, this may apply to government-led initiatives such as Accounting for People, which recommend frameworks for organisations to report on their management of human capital. Professional bodies and educational institutions may have a similar role to play in leading thinking amongst business leaders and HR professionals. In this regard, bodies responsible for determining policies which may influence the adoption of HRM practices by organisations, may benefit from ensuring a focus not only on the quality of HR strategies and policies but measuring how well organisations implement HRM in practice and accrue the desired business benefits.

Finally, in order to maximize their returns and reduce risk, investors may benefit from developing greater understanding of the processes through which the management of people contributes to the economic performance of companies. On the one hand, investors may gain from being more demanding of organisations in terms of their reporting on human capital management. In particular, they could give attention not only to the senior leadership and business strategies of organizations within which they invest, but also consider practical indicators of the sustainability of organisational performance relating to the effectiveness with which strategies are actually implemented. For instance, this may relate to the use of HR systems, and less tangible factors such as the depth of commitment of the workforce, which may nevertheless have a considerable impact on future success. In service environments, strategic outcomes such as the quality of service delivered to customers may also provide helpful early indicators of success or failure, before results are apparent in economic performance indicators. In this regard, increased use of measures such as Tobin's q may provide complementary financial indicators of the value added by management to organisational performance. These arguments are most likely to apply to longer term investments rather than short-term trading in financial markets. The attitudes of long-term investors and the level of scrutiny they apply to their investments may be a key enabler in increasing both the adoption of progressive systems of HRM and also ensuring these systems are implemented effectively within organisations. Such an approach is likely to greatly influence the behaviour and attitudes of managers, benefit employees as stakeholders in the process and also increase the likelihood of improved business performance across industries.

Limitations

There are a number of significant limitations of this research which should be borne in mind when interpreting and extrapolating from the findings. Firstly, in common with much of the extant research, the design of this study was largely cross-sectional. Whilst the measure of growth in sales volumes controlled for performance in the previous year for each branch, all other measures were taken across the same time period. Clearly this has implications for the confidence with which the direction of relationships can be inferred across the other performance measures, namely current sales volumes, productivity, service quality, speed of service and product knowledge. This weakness in the design is similar to that found in many other studies of HRM, but is nevertheless important when considering the implications of the research findings. In addition to controlling for prior performance, a fully longitudinal research design might also track changes in all the independent, intervening and dependent variables within a study over a sustained period of time. Such an approach would enable time series analysis to be conducted which could assess the time lag between effects, for instance between implementation of HR practices and the subsequent influence on performance outcomes such as the execution of customer service behaviours by employees. Cross-sectional designs such as that employed in this research may be more practical to conduct but they fail to provide opportunities to develop understanding of how variables are related over time.

Whilst one of the strengths of the research design related to the use of independent sources of data for each of the key sets of variables relating to HR implementation, employee attitudes and branch performance measures, this also leads to considerable practical difficulties in data gathering. In common with research using multiple data sources such as Datta, et al.'s (2005)

study of industry factors influencing HRM/performance relationships in manufacturing, the sample size within this study suffered from significant attrition as data was gathered and matched from different sources. Whilst archival data relating to both economic and service performance was gathered for N=175 post office branches, the number for which branch managers provided data on the implementation of HR practices was N=136. However, 66 branches provided usable employee attitudes data and of these only 39 also had matching responses on the deployment of HRM within the branch. As such, this meant that the sensitivity of analysis when investigating possible mediating and moderating effects was greatly limited by the sample size. At a sample size of N=39, any relationships where the observed correlation was less than $r=0.25$ would not meet the 95% level of statistical significance for a one-tailed test of Pearson's product moment correlation. Given that meta-analysis of HRM studies (Combs, et al., 2006) has shown average effect sizes whereby a one standard deviation increase in HRM related to an average 4-5% increase in economic performance outcomes such as return on assets or labour turnover, it is possible that weaker effects between variables in this study may be overlooked due to the limits of the available statistical power to detect such relationships.

There are also a number of limitations within this research relating to the design and reliability of measures. Firstly, in relation to the measures of HR implementation, the study only addressed a very limited range of HR practices. Given that the research design employed a field study approach within one organisation, it was only feasible to measure variance in the practices which were actually in place at the policy level within the network of post office branches; there would be little point measuring the frequency of, for example, diversity programmes within this sample given the lack of such an HR practice being in place would result in zero variance on this

variable. Combs, et al. (2006) found that the HRM studies in their sample typically covered an average of five practices, indicating considerable variability in the practices covered in other research. Nevertheless, this clearly limits the generalisability of findings in relation to a wider range of HR practices and systems. The research also raises a difficulty in assessing the extent of deployment of some HR practices at an establishment or work group level such as the use of performance-related pay. Within this study, the policy was managed centrally and hence little variance in its use was feasible at a branch level, although the extent of rewards received might represent an alternative method of assessing this. Conversely, for some HR practices such as appraisals where line managers are the agents of their implementation, assessment of the intensity of use is considerably more practicable. Within this study branch managers' evaluations of the effectiveness of HR practices were used, providing a valuable perspective given managers were important stakeholders in the implementation of HRM, the research design did not include employee perspectives on the HR system. Whilst within this study this ensured that measures of HR implementation were gathered independently of employee attitudes, this does preclude testing of hypotheses relating to the involvement of employees as key stakeholders within the execution of HR practices within organisations (Edgar & Geare, 2005).

This study used measures of a climate for service, job satisfaction and affective commitment to the organisation which were designed to be relevant to the organisational context within Post Office Ltd and hence easily understood and meaningful to employees completing attitudinal surveys. The model of employee attitudes adopted within this study showed a reasonable fit to the data following confirmatory factor analysis. However, achieving this required specific scales to be developed relating to the dimensions of a climate for service and the affective measures of

employee attitudes that did not significantly overlap. As described by Patterson, et al. (2004), previous research has often revealed high correlations between climate perceptions and affective reactions of employees, particularly when data is aggregated to the establishment or organisational level. Whilst the model of a climate for service, job satisfaction and affective commitment developed for this research had the advantage of providing measures which demonstrated content validity and a good degree of construct validity, particularly between climate for service and affective measures, it is also important to bear in mind the specific item content used to assess job satisfaction and climate for service when considering the generalisability of findings to other contexts. In terms of aggregation of data from the individual level to the branch level, the number of responses per branch also represents a weakness within this research. Whilst r_{wg} statistics indicate a reasonable degree of within-group agreement in branches and ICC(1) statistics are consistent with typical results in studies of this kind (Ostroff, 1993), the ICC(2) results suggest that a greater number of respondents per branch would have been beneficial to increase the reliability of group means on each of the employee attitude scales.

Whilst the issues relating to a cross-sectional research design have been discussed above, the measures of performance within this study also suffer from limitations relating to their content and design. The measures of sales volumes and productivity were derived from accounting measures so should be an accurate reflection of performance in this regard, particularly given these figures are subject to audit, however they are by nature backward-looking so may require time for effects of HR implementation of employee attitudes to filter through. The availability of economic performance data after the initial period of data collection would have provided additional data to help understand any impacts over a period of time. This may also have been

an issue in relation to the measures of service performance within this study. These measures, relating to service quality, speed of service and product knowledge, represented key elements of Post Office Ltd's strategy for improving customer service as a key part of the business strategy to retain customers whilst its remaining monopolistic markets were opened up to more intense commercial competition. However, with the exception of a statistically significant relationship between productivity and speed of service, there was little evidence of a relationship between the delivery of these strategic behaviours and economic performance at the same point in time. Again, inclusion of all these performance measures over an extended period of time would have been helpful in ascertaining whether service and economic performance were linked, taking account of a reasonable time lag for one to affect the other. Alternately, as has been discussed earlier in this chapter, the measures of service performance primarily reflected minimum standards which the organisation was seeking to achieve across all its branches and the behaviours were relatively simplistic in nature. The indicators of service quality in particular, were primarily related to behaviours such as demonstrating politeness when dealing with customers, whilst the speed of service measure related to dealing with times of peak demand to ensure queuing times were not excessive. The former measure relating to service quality demonstrated limited internal consistency reliability with Cronbach's alpha of 0.66, which may also have limited the likelihood of observing significant relationships with other variables. These behaviours may best be described as measures of task performance and perhaps do not reflect the value-adding behaviours which employees may demonstrate which make up contextual performance depending on a specific customer's needs and which may help differentiate the service compared to that of competitors. The results suggest this may be less of an issue in relation to the product knowledge measure, which although it is knowledge-based, was

contingent on employees asking specific questions and providing appropriate information tailored to different customer requirements or queries and hence could be more justifiably defined as contextual in nature. Whilst the design of this research focused on strategic behaviours as well as traditional economic performance measures, as used in many previous studies (e.g. Huselid, 1995; MacDuffie, 1995), it would have been beneficial to have more clearly defined measures of both core task performance and contextual performance incorporated within the service performance measures. This would have enabled testing of hypotheses to explore whether certain practices or employee attitudes were more strongly associated with either task or contextual performance outcomes, as suggested by Neal and Griffin (1999). Additionally, there may be a range of aspects of contextual performance or citizenship behaviours related to both lower labour turnover and collaboration between employees (Kopelman, et al., 1990) which may not be directly observable from the perspective of a customer within service settings, suggesting a broader range of measures may be helpful to measure performance in this regard. This presents a recurring difficulty, however, as line managers may be well placed to evaluate employee performance but this risks criterion contamination if they are also enlisted to report on the implementation of HR systems. A further issue relating to the performance measures in this study involves the multicollinearity observed between the measure of competition levels faced by each branch and sales volumes, limiting confidence in the research findings relating to moderation of the relationship between both job satisfaction and climate for service with sales.

The final key limitation of this study relates to the fact that it was conducted within one organisation, and within one industry sector. As a result, the generalisability of findings beyond

the context of Post Office Ltd, outside the postal industry and beyond the service sector more widely is unclear. On the one hand, the context of Post Office Ltd is similar to that found in many large service organisations where the majority of employees work in customer-facing roles akin to Lashley's 'service factory' definition of customer service provision. In this regard, it may be reasonable to infer that relationships found relating to the role of HR implementation and moderation of the links to performance by employee attitudes may not be significantly different in this context compared to other organisations or industries. Conversely, the assessment of competition levels within this study used an internal measure based on the proportion of commercial versus monopolistic sales traffic through each branch which may be a measure specific to this organisation. Measures of the competitiveness of the market environment taken independently may provide a suitable alternative. For instance, at the industry level, in a similar manner to the research design employed by Datta, et al. (2005) in the manufacturing sector, or relating to the extent of local alternative suppliers at the establishment level within the catchment area of a branch.

In summary, there were a number of limitations to this study relating to sample size and statistical power, the use of cross-sectional data sources rather than a consistent longitudinal design, the design of measures used and the generalisability of findings given that research was conducted within one organisation. Given these factors, it is essential that these findings are interpreted with the appropriate level of caution, in particular when extrapolating to other contexts. Further research which seeks to combine the strategic HRM and organisational behaviour perspectives will be beneficial to develop understanding of the processes through

which HRM is linked to business performance, directions for which are outlined in the following section.

Directions for further research

Whilst this study has made some contribution to the growing focus within HRM research on the processes through which HR systems influence organisational performance, there is much work to be done to further understanding of these issues. One of the most significant issues for future research is to ensure rigorous testing of research questions is conducted which reveals not only the association between key variables of interest but also helps determine causality (Guest, et al., 2003). In this regard it is important that researchers adopt longitudinal designs in order to more fully understand the causal processes involved, and seek to ensure that independent sources of data are used to provide greater rigour than has been the case in much of the HRM research literature to date. There are perhaps four significant directions for future research efforts, which will collectively help increase understanding of why HRM influences performance. Firstly, large scale longitudinal research designs across industries and organisations have an important role in establishing the effects of key mediators and moderators of the HRM/performance relationship and will need to encompass a broader range of variables in this regard. Secondly, sector or organisation specific quantitative research, again of longitudinal design but perhaps focused in greater depth on the implementation of HRM and the impact on attitudes, competencies and behaviour, can help develop understanding of the processes involved. Thirdly, whilst emphasising the need for rigour within quantitative research models, it is important to also consider the role of qualitative research such as case studies over time which can be particularly helpful in theory development and identifying new variables to consider or avenues of inquiry.

Finally, there is a place for meta-analytic designs to draw together the learning across many studies and provide clarity as to the general size of effects and processes across different contexts. The need and opportunities for research within each of these categories is outlined below.

Beginning with large scale, quantitative research designs across organisations, it is clear that such work has contributed greatly to the body of strategic HRM research which established consistent evidence of a link between the adoption of HRM policies by organisations and their economic performance (e.g. Huselid, 1995). Whilst a number of more recent studies have sought to understand the role of mediating variables such as HRM outcomes (Katou & Budhwar, 2006), employee attitudes (Guest, et al., 2003) and boundary conditions (Datta, et al., 2005), research may benefit from further broad research designs across large number of organisations and market sectors which seek to include and test a wider range of variables. For instance, whilst Datta, et al. (2005) revealed the influence of industry growth, differentiation and capital intensity on the strength of relationship between HRM adoption and economic performance with manufacturing, there is a clear need for similar research in the service sector. The inclusion of industry characteristics as potential moderators represents a step forward from a focus on categorising the espoused business strategy which was employed in many earlier studies (e.g. Huselid, 1995; MacDuffie, 1996) but which revealed limited evidence of contingency effects (Wood, 1999), towards a more sophisticated perspective on strategy and the context within which it is enacted (Boxall, 1996). As tested within this study, the role of market competitiveness may be a key constraint influencing the relationship between HRM and business performance, similarly other factors such as the maturity of an organisation, typical profitability within the sector or the level

of switching barriers faced by customers may limit the effects of human capital on business performance. Crucially, conducting such research over extended periods of time, for instance through regular surveys such as the Workplace Employee Relations Survey in the UK and linking the results to archival financial performance data over time, may provide researchers with much improved opportunities to understand why HRM is linked to business performance. Similarly, such research designs may benefit from a focus on measuring the extent to which organisations are successful in executing their business strategies through their people as well as utilising backward-looking economic performance (Becker & Huselid, 2006) and testing the interactions between these variables. In this regard, whilst much is made in management research of the ever-increasing pace of change, to date research has not tested the relationship between effective HRM and an organisations' ability to respond flexibly and rapidly to new challenges, for instance implementing strategies consistently and at pace. Again, longitudinal datasets will be vital to enable this, however, considerable resources and long term commitment of participants is essential to minimise the issues of sample attrition over time which are associated with this approach.

Whilst large scale, broad research designs such as those outlined above may help develop understanding of the importance of contextual factors affecting organisations and how these interact with HRM, strategy implementation and performance, there is also a place for more focused quantitative research designs to explore the processes through which HRM is implemented within organisations and how it influences performance. This is likely to demand a more targeted approach within specific industry sectors or large organisations (Becker & Huselid, 2006), for instance as adopted in this study, to control for broader contextual influences.

In this regard, there is a need for more research within service industries in particular given the previous bias in HRM research towards manufacturing contexts and the growing importance of the service sector both globally and in developed economies in particular. The measurement of HR implementation would benefit from rigorous measurement with respect to the wide range of characteristics described by Ostroff and Bowen (2000) relating to their concept of HR system strength. In particular, this would benefit from measuring and contrasting the perspectives of key stakeholders such as HR managers, line managers and employees (Khilji & Wang, 2006). Similarly, much of HRM research to date has examined practices which may be most relevant in manufacturing contexts (Combs, et al., 2006) and testing of innovative HR practices may benefit research considerably, particularly where practices have been adapted to suit the needs of different industry sectors. For instance, this study tested the role of performance feedback specifically related to customer service, similarly whilst the role of widely adopted practices such as training or appraisal have been extensively explored in the literature, practices such as employee participation and involvement have received significantly less research attention.

This research and other studies such as Neal, et al. (2004) have revealed evidence supporting a moderating role of employee attitudes in relation to links between HR implementation and performance outcomes, whilst other studies have demonstrated partial mediation of HR effects by employee attitudes (Guest, et al., 2003; Katou & Budhwar, 2006). As indicated earlier in this discussion of the findings, there is a need to research in much greater depth the processes through which HRM policies are implemented, through what mechanisms these practices are mediated, and the conditions influencing the strength of effects. Theoretical models such as that proposed by Neal and Griffin (1999) linking the effects of knowledge and skills, motivation and

work design to performance outcomes via task and contextual performance provide a helpful direction, and research designs may benefit from seeking to measure all of these variables to enable full testing of the linkage processes. For instance, while some HR practices may primarily influence knowledge and skills and lead directly to greater task performance, other groups of practices may have greater impact on motivation, through variables such as climate perceptions and affective reactions, leading to greater levels of contextual performance. Were this to be the case, it would become clearer how variables such as employee affect may mediate the effects of motivation-related HR practices, whilst moderating the impact of skills-based HR practices on performance outcomes. Similarly, different behavioural performance outcomes underpinning strategy execution may be more or less related to task or contextual performance, again affecting the likely influence that knowledge and skills, motivation or work design would have on the achievement of these outcomes. For example, labour turnover may be greatly influenced by motivational effects and related variables such as organisational commitment, whilst performance of core tasks in labour intensive industries such as professional services may be more heavily dependent on workers receiving high levels of training in the necessary knowledge and skills to perform to a high standard. Whilst the additive model of HR ‘bundles’ (MacDuffie, 1995) has received support from previous studies, research comprising more proximal and focused indicators of performance may also help reveal significantly more about the processes through which HR practices interact to deliver performance gains. The development and testing of theory relating to the process through which HRM is enacted in organisations, how this is mediated to subsequently influence performance outcomes, and what factors moderate these processes, is crucial not only to advance theory but also in helping managers develop a practical, systemic understanding of how to optimise the business benefit

from HRM interventions. In this sense, further research that helps reveals the processes at play in the 'black box' linking HRM and performance will be important to progress in the field.

In relation to both broad and focused quantitative research designs as outlined above, much may be gained through the use of more sophisticated analytical techniques. Firstly, the relationship between mediating and moderating effects will need to be better understood in order to advance theoretical understanding. Muller, Judd and Yzerbyt (2005) proposed analytical strategies for testing such relationships, on the basis that mediation may be moderated and moderation mediated. For example, it may be the case that HR practices which are focused on resourcing and development increase the collective skill levels and human capital within an organisation, leading to higher levels of performance (Ostroff & Bowen, 2000). However, this process of mediation may be moderated by the level of organisational commitment of the workforce which influences their willingness to expend extra effort utilising their knowledge and skills. Analysis of this nature would enable testing of the interaction between mediating processes linking HRM and performance and the moderating effect of the social context (Ferris, et al., 1998).

Conversely, hypotheses relating to mediated moderation would also benefit from empirical analysis. For example, in relation to the role of moderation effects, industry factors such as level of competition may enhance the strength of relationship between employee affect and sales performance. However, it may be the case that this process of moderation is mediated in that employees displaying greater positive affect may deliver greater levels of customer satisfaction, with associated higher levels of purchasing per customer driving sales performance. Use of mediated moderation and moderated mediation analyses may hence be a significant aid to testing theory in relation to why HRM influences performance.

Further to the use of more sophisticated regression techniques, there is also a role for the use of path analysis, to provide more complete tests of multivariate models capturing a large number of variables and relationships. By comparing the fit between alternative theoretical models in relation to data gathered, the use of structural equation modeling techniques such as this are a powerful tool for testing theory. Whilst path analysis has been used in some studies such as relating employee attitudes to business performance (Schmit & Alscheid, 1995) and the mediation of relationships between HRM and performance (Paul & Anantharam, 2003; Guest, et al., 2003), there is significant opportunity for greater use of these techniques to provide more robust and complex statistical analysis. Similarly, hierarchical linear modeling also offers a methodology to robustly test effects across levels of analysis, which is again a gap within HRM research. As with much of HRM research, however, these methods require adequate sample sizes in order to be applied effectively. This will demand the gathering of large datasets and the application of the necessary resources by researchers.

Clearly the development of HRM theory could be progressed greatly with the application of more rigorous and complex analytical techniques to comprehensive datasets. However, there is also a key role for qualitative research designs such as case studies, which may be particularly helpful in the development of theory as to why HRM influences performance outcomes. These approaches may be particularly useful to develop thinking in relation to how different variables interact, drawing on the richness of data provided by qualitative methods to identify how processes may work in practice. In particular, it is important to bear in mind that many organisations functioned with a reasonable degree of success prior to the introduction of formal HRM, perhaps largely based upon leaders efforts to create effective work climates, manage the

needs of their employees and direct them towards delivering organisational goals. In this sense, HRM can be seen as a set of techniques which may be introduced into the context of a set of existing social and psychological processes relating to climate and affect, knowledge and skills, and organisational culture. Further qualitative case studies to better understand how key stakeholders such as employees respond to the use of HR practices may be helpful in developing models of the internal fit processes involved. In this regard, constructs such as commitment may benefit from a greater understanding of the role of multiple foci beyond simply attachment to the organisation (Meyer & Allen, 1991). Evidence of the role played by the climate dimension relating to understanding business strategy within this research suggests a broader focus on engagement beyond traditional measures of job satisfaction and organisational commitment may also be fruitful. There is also an opportunity to develop understanding of how the value orientations of employees and managers related to the organisational culture may affect both the adoption and practice of HRM (Ferris, et al. 1998). The use of qualitative research methods may play a significant role in developing avenues of inquiry which may later be the focus of quantitative research designs, and conversely provide an important test as to whether the variables being considered within quantitative research designs are truly those seen as relevant by the key stakeholders groups affected by HRM.

Finally, as quantitative research of the processes through which HRM influences performance grows, it may become feasible for meta-analysis of this work to be conducted. Just as the research by Combs, et al. (2006) was significant in consolidating the many HRM/performance studies to date, so there may be a similar need for meta-analytic approaches in order to help answer key questions such as: the relative importance of different mediators in the

HRM/performance relationships; which practices or bundles of practices operate through which processes; the average effect sizes of moderators relating to internal fit (such as affective commitment within this study) and the average size of external fit effects in relation to market and industry characteristics across different sectors. Reaching such a point in understanding why HRM affects performance may also yield significant benefits to the practice of HRM within organisations, both economically and in relation to the needs of different stakeholders in organisational success.

Overall, there is much opportunity for future research to develop the theory of why HRM influences performance. This will demand intensive research of the processes linking the adoption of HRM policies with successful strategy execution and economic performance outcomes, and testing of the role of internal and external fit processes across a range of industry sectors. Doing so will demand a combination of both broad and focused quantitative research designs which provide robust testing of theory through the use of independent data sources and longitudinal designs. Qualitative research has a significant role to play in revealing the likely nature of such mechanisms and in particular, advancing understanding of the responses of different stakeholder groups to HRM and how this influences its effectiveness. In time, meta-analysis may also help quantify the typical effect sizes relating to both mediating processes and boundary conditions. Progressing understanding of the psychological processes relating to why people within organisations influence organisation-level outcomes and integrating this knowledge with the existing literature will be fundamental to developing HRM theory.

8. CONCLUSION

Over the last century, management research has significantly advanced our understanding of the contribution people make to the success of organisations. Most recently, increasingly sophisticated research has revealed significant relationships between the adoption of HR systems and the performance of organisations. From the perspective of business leaders, HRM research has revealed ways in which managers can harness the capabilities and commitment of their workforce and better organise to deliver results. Systems of HRM have also been largely well received by employees (Guest, 1999). There remains a danger, however, that HRM may be viewed in an instrumental way, as a means to an end, without understanding the 'black box' through which these management techniques work nor appreciating the importance of context.

This research demonstrates that things are not always as simple as they first appear. Firstly, simply adopting a set of policies may not have the desired effect unless line managers in the organisation believe them to be useful and implement them effectively. In contexts where employees are satisfied, committed to the organisation, and have clear direction, the effects of HRM were enhanced. Where this was not the case, however, the implementation of HR practices had negative effects on performance. The research also demonstrated that the relationship between employee attitudes and financial performance was stronger in contexts where commercial competition was greater.

For organisations to be successful and the people working in them to enjoy fulfilling working lives, this research underlines how important it is for the human experience of work to be a

central part of the theory and practice of management. An overly simplistic interpretation and application of HRM may fail to deliver the benefits that should be realisable. Rather, the use of HR systems needs to be combined with careful consideration of the context and an emphasis on ensuring people feel valued, enjoy their work and are committed to a shared direction. By taking such an approach, the opportunity to make organisations significantly more successful and rewarding places to work is there for taking.

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APPENDIX 1: Branch manager's survey of HR implementation

Your views on support provided to your Branch Office

This questionnaire aims to gather your views on the deployment and usefulness of the different approaches currently in place to guide and support you in your work.

All the information you provide will be treated in strictest confidence and no individual responses will be reported back to Post Office Ltd, but will be collated and used with other office performance data to identify trends and inform how best to provide support and improve performance.

Please write your answers in the boxes provided or tick one of the responses available as appropriate.

Background Information

Name

Office Name

Office FADCODE

N.B. It essential that you enter your office FAD code in order that across those sampled we can understand responses in relation to other office data. All information will be treated in strictest confidence.

In addition to yourself, how many staff work in your outlet in total?

How are they divided between full-time and part-time?

Full-time

Part-time

How many of your staff...

Have had an appraisal in the last year?

Have completed a Personal Development Plan?

Have completed all the actions on their last Personal Development Plan?

Attend half-hour weekly training sessions?

On average, how many hours a month does each member of staff spend on:

New product training	
Ongoing operational training	
Other training	

Effectiveness of approaches

How useful do you feel the following have been in helping you to deliver results in your outlet?

	<u>Not at all</u>		<u>To a moderate extent</u>			<u>To a very great extent</u>		<u>Don't Know</u>
	1	2	3	4	5	6	7	8
Ongoing operational training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New product training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Half-hour weekly training sessions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Product promotions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communications updates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Errors reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of service reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mystery shopper feedback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outlet action plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having outlet reviews with your RLM (area manager)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal Development Plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setting individual objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appraisals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance-related pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sales recognition scheme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bonus scheme	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Duty reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deployment of customer advisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Branch Office work planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexible working policies (e.g. part- time, job sharing, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 2: Factor analysis of HR practices

	Factor				
	Performance feedback	Training	Appraisal	Performance -related pay	Work planning
Errors reports	0.74				
Quality of service reports	0.72				
Mystery shopper feedback	0.67				
Outlet action plan	0.67				
Having outlet reviews with your RLM (area manager)	0.60				
Ongoing operational training		0.82			
New product training		0.82			
Half-hour weekly training sessions		0.77			
Product promotions		0.53			
Communications updates		0.50			
Personal Development Plans			0.86		
Setting individual objectives			0.82		
Appraisals			0.80		
Performance-related pay				0.74	
Sales recognition scheme				0.69	
Bonus scheme				0.68	
Duty reviews					0.75
Deployment of customer advisors					0.71
Flexible working policies					0.48
Branch Office work planning					0.44
Eigenvalue	3.12	3.08	2.62	2.18	1.77
Explained variance	15.59	15.41	13.11	10.91	8.82

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 9 iterations.

N=136

APPENDIX 3: Reliability of measures

	Cronbach's Alpha
Service quality	0.64
Intensity - appraisal	0.66
Utility - training	0.84
Utility - performance feedback	0.84
Utility - appraisal	0.89
Utility - performance-related pay	0.78
Utility - work planning	0.75
Utility - HR total	0.93
Climate - direction	0.88
Climate - branch management	0.93
Climate - objectives	0.86
Climate - development	0.88
Climate - organisational support	0.72
Climate - customer focus	0.72
Job satisfaction	0.88
Affective commitment	0.88

APPENDIX 4: Survey of employee attitudes

Your views on the organization, your job and workplace

This questionnaire aims to gather your views on the organisation, your job and your place of work. All the information you provide will be treated in strictest confidence and no individual responses will be reported back to Post Office Ltd, but will be collated and used with other office performance data to identify trends and inform how best to provide support and improve performance.

Please write your answers in the boxes provided or tick one of the responses available as appropriate.

Background Information

Name

Office Name

Office

FADCODE

N.B. It essential that you enter your office FAD code in order that across those sampled we can understand responses in relation to other office data. All information will be treated in strictest confidence.

Your views on the organisation

Please indicate your answers to the questions below by ticking the appropriate box.

	<u>Strongly agree</u>	<u>Agree</u>	<u>Neither agree nor disagree</u>	<u>Disagree</u>	<u>Strongly disagree</u>
I would be happy to spend the rest of my career with this organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoy discussing my organisation with people outside it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I really feel as if this organisation's problems are my own	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that I could easily become as attached to another organisation as I am to this one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not feel like 'part of the family' at my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not feel 'emotionally attached' to this organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	<u>Strongly agree</u>	<u>Agree</u>	<u>Neither agree nor disagree</u>	<u>Disagree</u>	<u>Strongly disagree</u>
This organisation has a great deal of personal meaning for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not feel a strong sense of belonging to my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am not afraid of quitting my job without having another lined up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It would be very hard for me to leave this organisation right now, even if I wanted to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It wouldn't be too costly for me to leave my organisation now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right now, staying with my organisation is a matter of necessity as much as desire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I have too few options to consider leaving this organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
One of the few serious consequences of leaving this organisation would be the scarcity of available alternatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I continue to work for this organisation because another firm might not match the overall benefits I have here	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think that people these days move from company to company too often	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not believe that a person must always be loyal to their organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Jumping from organisation to organisation does not seem at all unethical to me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I continue to work for this organisation because I think that loyalty is important and I feel a sense of moral obligation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I get another offer of a better job elsewhere I would not feel it was right to leave my organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was taught to believe in the value of remaining loyal to one organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Things were better in the days when people stayed with one organisation for most of their careers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not think that wanting to be a 'company man' or 'company woman' is sensible anymore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Views on your own job and workplace

Please indicate your answers to the questions below by ticking the appropriate box.

	<u>Agree</u>	<u>Tend to agree</u>	<u>Neither agree nor disagree</u>	<u>Tend to disagree</u>	<u>Disagree</u>
1. I have a very clear idea of my job responsibilities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The people I work with are willing to help each other, even if it means doing something outside their usual activities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I am satisfied with my involvement in decisions that affect my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. My team/department constantly looks for better ways to serve its customers....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. My team/department gets feedback on how satisfied our customers are with the work we perform.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. My work area is a safe place to work....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I feel that management supports equal opportunities for all staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I receive sufficient training to help me understand Post Office Ltd's new products/services.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. In Post Office Ltd, teamwork is encouraged.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Post Office Ltd is doing a good job of utilising technology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Post Office Ltd's top management provides a clear sense of direction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I am sufficiently informed about Post Office Ltd's performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I have a clear understanding of the objectives of Post Office Ltd as a whole.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	<u>Agree</u>	<u>Tend to agree</u>	<u>Neither agree nor disagree</u>	<u>Tend to disagree</u>	<u>Disagree</u>
14. I understand how the objectives of my team/department fit into Post Office Ltd's overall objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Post Office Ltd supports an environment free from harassment and bullying.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. There are sufficient opportunities for me to receive training to:					
a. Improve my skills in my current job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Increase my chances of another job..	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. The communications I receive are relevant to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Recent changes in Post Office Ltd:					
a. Have been well planned.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have been well implemented.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I think that significant actions have been taken as a result of the previous staff opinion survey.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 I get sufficient support and back-up for the computer systems I use at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	<u>Always</u>	<u>Usually</u>	<u>Some-times</u>	<u>Never</u>	<u>Don't know</u>
21. Listed below are a number of statements that could be used to describe your line manager. Please indicate how often these apply to him/her, if at all:					
a. Ensures he/she fully understands the needs of both internal and external customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Treats all people equally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Seeks input of team members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Matches recognition to achievement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Embraces change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Is able to put problems in perspective	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Bases actions/decisions on fact	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Contributes to making improvements happen.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
.....					

	<u>Very good</u>	<u>Good</u>	<u>Ade-quate</u>	<u>Poor</u>	<u>Very poor</u>	<u>Don't know</u>
22. How would you rate the support given by Post Office Ltd to staff in each of the following areas:						
a. Timely delivery of supplies.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Helplines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	<u>Very satisfied</u>	<u>Satisfied</u>	<u>Neither satisfied nor dis- satisfied</u>	<u>Dis- satisfied</u>	<u>Very dis- satisfied</u>
23. How satisfied are you with <i>each</i> of the following aspects of your current job?					
a. The type of work you do.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Your pay.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Your workload.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Development opportunities.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Career opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Being treated with respect and fairness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Recognition for job performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Taking everything into account, how satisfied are you with Post Office Ltd as a place to work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MANY THANKS FOR COMPLETING THIS QUESTIONNAIRE

Please return it in the envelope provided

APPENDIX 5: Confirmatory factor analysis of employee attitudes model*Variables counts*

Number of variables in your model:	80
Number of observed variables:	36
Number of unobserved variables:	44
Number of exogenous variables:	44
Number of endogenous variables:	36

Regression weights

	Estimate
T79 <--- Branch management	.827
T78 <--- Branch management	.870
T77 <--- Branch management	.846
T75 <--- Branch management	.814
T74 <--- Branch management	.791
T73 <--- Branch management	.725
T72 <--- Branch management	.825
T63 <--- Clarity of objectives	.828
T62 <--- Clarity of objectives	.877
T61 <--- Clarity of objectives	.765
T67 <--- Organisational support	.658
T71 <--- Organisational support	.708
T80 <--- Organisational support	.576
T81 <--- Organisational support	.597
T59 <--- Strategic direction	.588
T60 <--- Strategic direction	.691
T68 <--- Strategic direction	.924
T69 <--- Strategic direction	.937
T70 <--- Strategic direction	.714
T86 <--- Development	.913
T85 <--- Development	.957
T65 <--- Development	.659
T66 <--- Development	.699
T82 <--- Job satisfaction	.691
T83 <--- Job satisfaction	.573
T84 <--- Job satisfaction	.688
T89 <--- Job satisfaction	.906
T27 <--- Affective commitment	.760
T28 <--- Affective commitment	.645
T31 <--- Affective commitment	.809
T32 <--- Affective commitment	.767
T33 <--- Affective commitment	.753
T34 <--- Affective commitment	.663
T58 <--- Customer focus	.686
T54 <--- Customer focus	.627
T53 <--- Customer focus	.732

Correlations

		Estimate
Organisational support <-->	Strategic direction	.739
Branch management <-->	Organisational support	.529
Clarity of objectives <-->	Organisational support	.704
Organisational support <-->	Development	.536
Customer focus <-->	Organisational support	.644
Branch management <-->	Strategic direction	.426
Branch management <-->	Clarity of objectives	.492
Clarity of objectives <-->	Development	.471
Customer focus <-->	Development	.623
Clarity of objectives <-->	Strategic direction	.607
Branch management <-->	Development	.452
Customer focus <-->	Clarity of objectives	.736
Strategic direction <-->	Development	.506
Customer focus <-->	Branch management	.704
Customer focus <-->	Strategic direction	.643
Organisational support <-->	Affective commitment	.576
Strategic direction <-->	Affective commitment	.557
Branch management <-->	Affective commitment	.518
Clarity of objectives <-->	Affective commitment	.591
Development <-->	Affective commitment	.571
Customer focus <-->	Affective commitment	.619
Job satisfaction <-->	Affective commitment	.772
Organisational support <-->	Job satisfaction	.598
Strategic direction <-->	Job satisfaction	.580
Branch management <-->	Job satisfaction	.502
Clarity of objectives <-->	Job satisfaction	.571
Development <-->	Job satisfaction	.690
Customer focus <-->	Job satisfaction	.664

*Model Fit Summary**CMIN*

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	135	1110.175	567	.000	1.958
Saturated model	702	.000	0		
Independence model	36	6087.968	666	.000	9.141

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.818	.786	.902	.882	.900
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.851	.696	.766
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	543.175	452.449	641.682
Saturated model	.000	.000	.000
Independence model	5421.968	5175.679	5674.781

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	4.569	2.235	1.862	2.641
Saturated model	.000	.000	.000	.000
Independence model	25.053	22.313	21.299	23.353

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.063	.057	.068	.000
Independence model	.183	.179	.187	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	1380.175	1428.670		
Saturated model	1404.000	1656.175		
Independence model	6159.968	6172.901		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	5.680	5.306	6.085	5.879
Saturated model	5.778	5.778	5.778	6.816
Independence model	25.350	24.336	26.390	25.403

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	137	142
Independence model	30	31

APPENDIX 6: Agreement indices for attitudinal measures

	r_{wg}	Agreement indices	
		ICC (1)	ICC (2)
Climate for service - direction	0.813	0.098	0.248
Climate for service - branch management	0.969	0.046	0.143
Climate for service - objectives	0.721	0.347	0.621
Climate for service - development	0.808	0.085	0.245
Climate for service - organisational support	0.873	0.066	0.198
Climate for service - customer focus	0.789	0.179	0.432
Job satisfaction	0.870	0.069	0.198
Affective commitment	0.853	0.167	0.411
N	66	66	66

APPENDIX 7: Regression of performance and control variables

	Economic performance		
	Sales volumes	Sales growth	Productivity
No. of operational counters	0.610**		-0.237**
<i>R</i> -squared	0.372		0.056
Adjusted <i>R</i> -squared	0.369		0.051
F	102.55**	<i>ns</i>	10.27**
N	175	175	175

ns = non-significant findings

* statistically significant at $p < 0.05$

** statistically significant at $p < 0.01$

APPENDIX 8: Descriptive statistics of branch-level measures

	Mean	S.D.	Skewness	Kurtosis	N
1 Sales volume	370764	224607	-0.02	-1.03	175
2 Sales volume growth	-2.98	8.20	-1.22	9.29	175
3 Percentage commercial	39.42	17.45	-0.71	-1.05	175
4 Productivity	0.369	0.055	0.70	0.49	175
5 Speed of service	2.82	0.99	0.72	1.00	175
6 Product knowledge	0.842	0.057	-0.25	-0.25	175
7 Service quality	0.947	0.040	-0.73	-0.08	175
8 Intensity – appraisal	0.771	0.217	-1.90	4.14	136
9 Intensity – training	140.04	96.39	1.14	3.34	136
10 Intensity - service feedback	16.53	6.02	0.33	-1.46	136
11 Intensity - HR total	0.00	1.00	-0.31	2.66	136
12 Utility – training	4.93	1.21	-0.52	-0.18	136
13 Utility - performance Feedback	4.46	1.32	-0.43	-0.43	136
14 Utility – appraisal	4.01	1.49	-0.19	-0.74	136
15 Utility - performance-related pay	4.19	1.67	-0.18	-0.85	136
16 Utility - work planning	4.93	1.23	-0.38	-0.66	136
17 Utility – HR total	22.70	5.48	-0.08	-0.61	136
18 Climate – direction	7.47	2.70	0.11	-0.37	66
19 Climate - branch management	19.35	3.76	-0.30	-0.25	66
20 Climate – objectives	6.87	1.85	-0.13	-0.06	66
21 Climate – development	5.81	2.26	0.12	-0.30	66
22 Climate - organisational support	7.73	2.08	0.18	0.75	66
23 Climate - customer focus	7.86	1.78	-0.14	-0.44	66
24 Job satisfaction	9.52	2.32	-1.00	1.12	66
25 Affective commitment	11.23	3.11	-0.51	1.60	66