

The Impact of High Performance Work Systems in Irish Companies: An Examination of Company and Employee Outcomes

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A Thesis Submitted to Dublin City University as Partial
Fulfilment for the Degree of Doctor of Philosophy
Dublin City University Business School

November 2009

DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of a degree of Doctor of Philosophy is entirely my own work, that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

Signed: _____ Thadeus F. Mkamwa ID No. _____

Date: _____

DEDICATION

Dedicated to:

My parents, brothers and sisters, Nekiango, Rashda, Mshuza and Wamanda whose prayers and best wishes kept me going throughout the course of my studies

To the memory of beloved Donatus and Matthew

ACKNOWLEDGMENTS

I wish to acknowledge everyone who helped me on my research and in the preparation of this thesis. I would particularly like to thank my supervisors, Professor Patrick C. Flood and Dr. Edel Conway, for their immeasurable advice, and constant support, in the course of this work. I would also thank my Bishop, Dr. Anthony M. Banzi who gave me permission and supported me in my wish to pursue PhD studies. Special thanks to the Vice Chancellor of St. Augustine University of Tanzania, Fr. Dr. Charles Kitima; Deputy Vice Chancellor for Academic Affairs Fr. Dr. Bernadine Mfumbusa; Fr. Peter Mwanjonde; Dr. Eginio M. Chale, and the Saint Augustine University of Tanzania staff, for financial and moral support in the course of my studies.

I would like to acknowledge the financial support provided to this study by St. Augustine University of Tanzania, University of Limerick, and Dublin City University Business School. Grateful thanks to my colleagues at Dublin City University Business School, St. Augustine University of Tanzania, and the University of Limerick for their advice and encouragement throughout the course of this research. It is difficult to mention the names of all the people to whom I am indebted to in these institutions, but the following people were particularly invaluable, Prof. Kathy Monks, Dr. Siobhain McGovern, Dr. Sarah MacCurtain, Ms. Margaret Heffernan, Dr. Claire Armstrong, Dr. Aoife McDermott, Dr. Janine Bosak, Dr. Angelos Alexopoulos, Jason Flynn, Fu Na, Jing Liu, Dr. Wenchuan Liu, Dr. Claire Armstrong, Mr. Gerry Conyngham, Ms. Michelle Cunningham, Dr. Michael

Morley, Mark Mantey, Tara Farrell, Cliona McParland, Aamir Gughtai, Josaphat Mande, Emmanuel Makolo, and, last but not least, Ms. Rachel Keegan.

This thesis has benefitted from comments and suggestions from a number of scholars including Fr. Pat Seaver, Professor Jim Guthrie, Jeremy Dawson, Professor Nick Bacon and Professor Nags Ramamoorthy, who provided advice on the statistical analysis. I am indebted to all the respondents who completed the questionnaires and interviews used in this study. Grateful thanks also to my brother priests, Pat Seaver, John Mockler, Joe O’Keeffe, Robert Coffey (Limerick Diocese), Fr. John Jones, Joe Jones, John Casey, Fr. Dr. Bill Toner, Peter Guckion, Enhart Mpete and Walter Harris (Archdiocese of Dublin) for their constant support while I worked with them in these dioceses. Last but not least, I would like to give special thanks to the members of my family. They have been wonderful and supportive in my studies abroad even when they did not understand what I was doing. My Mom would always ask, ‘Baba utakuja lini? Meaning, ‘My son, when are you coming back?’ I hope that I will be home soon. To all and everyone, I say, ‘Asanteni sana’ (Thank you galore).

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ABSTRACT

This study examines the impact of High Performance Work Systems (HPWS) on company and employee-level performance outcomes. At the company level, the study examines the outcomes of HPWS usage on innovation, productivity and turnover. The study uses data collected from 132 companies in Ireland who participated in a general manager (GM) and human resource (HR) manager survey conducted in 2006. This study shows that an extensive application of HPWS is associated with an increase in innovation, productivity and a reduction in voluntary turnover.

At the employee level, the study examines employees' perceptions of human resource management (HRM) practices and their impact on employee innovative work behaviour (IWB), organisational citizenship behaviour (OCB), and tenure intentions. Specifically, the study also measures whether employees' perceptions of job demands mediate the relationship between employee perceptions of HRM practices and IWB, OCB and tenure intentions. Employee attitude surveys were conducted in five companies which took part in the General Manager/Human Resource Manager Survey in 2006. In total 220 employees were surveyed. In addition to employee surveys, interviews were carried out with HR managers or a relevant manager in the area of employee management in the five companies that participated at the employee level. Overall, employee-level findings suggest that positive employee perceptions of human resource management practices are associated with employee IWB, OCB and tenure intentions. Similarly, employee perceptions of human resource management practices have an indirect effect on employee outcomes, in particular IWB and organisational citizenship behaviour directed towards individuals (OCBI) via employee perceptions of job demands.

This study uses cross-level inference (also known as the cross-level operator) to examine the impact of HPWS utilisation at company level on employee-level behavioural and attitudinal outcomes. Overall, cross-level findings suggest that greater use of HPWS is associated with positive employee perceptions of HRM practices and an increase in employee IWB, OCB and tenure intentions.

CHAPTER ONE

HIGH PERFORMANCE WORK SYSTEMS AND PERFORMANCE

1. 1 Introduction

There is no universally agreed meaning for the term high performance work system (HPWS) due to its wide and varied usage (Boxall and Purcell 2003; Boxall and Macky 2009). Despite this, a HPWS can be described as a specific combination of human resource management (HRM) practices, work structures and processes which maximise employee knowledge, skills, commitment and flexibility (Nadler, Tushman and Nadler 1997; Bohlander and Snell 2007). The notion of a HPWS, therefore, incorporates practices which increase the empowerment of employees and enhance the skills and incentives that enable and motivate them to take advantage of this greater empowerment (Truss 2001). It is a system that affords employees with an opportunity for participation in substantive decisions and encourages workers' development and provides them with incentives to participate in making decisions (Appelbaum et al. 2000).

Different labels have been used to describe HPWS. These include high commitment employment practices, high-involvement work practices and innovative work practices. Table 1.1 summarises the widely used terminologies surrounding HPWS.

Table 1.1 Terms Used to Label High Performance Work Systems

HPWS Label	Underlying Concept	Practices	Authors
High-Commitment Employment Practices	Practices that affect organisational commitment, which is, in turn, assumed to influence organisational performance	Sophisticated selection and training, behaviour-based appraisal and advancement criteria, contingent pay systems, group bonuses and profit sharing	Walton (1985), Wood (1999), Ramsay, Scholarios & Harley (2000), Godard (2001a), Whitener (2001), Godard (2004), Boxall & Macky (2009)
High-Involvement Work Practices	Practices that emphasise an orientation towards enlarging employees' skills and knowledge	Teamworking/self managed teams, information sharing, flexible job designs	Lawler (1986), Pil & MacDuffie (1996), Vandenberg et al. (1999), Zatzick & Iverson (2006), Boxall & Macky (2007), Macky & Boxall (2008)
Alternative Work Practices	Participatory practices that constitute alternative job designs, practices that allow employees some freedom to design their work	Work teams, job enrichment, job rotation, quality circles or problem-solving groups, cross training, and training in problem solving	Berg, Appelbaum, Bailey & Kallerberg (1996), Godard (2001b), Godard (2004), Boxall & Macky (2007)
Innovative Work Practices Workplace Innovations New Work Practices	Practices that enhance discretionary behaviour among employees and thus lead to innovative work behaviour in the workplace	Cross-training, flexible job designs, training in problem solving, decentralised decision making, self managed teams	Ichniowski et al. (1996), Guthrie (2001), Guest, Conway, Michie, & Sheehan (2003)

One of the foci of many high performance work systems (HPWSs) studies is to identify the core practices that can be included in a HPWS model. These core practices are expected to have an impact on company-level outcomes such as higher productivity, enhanced innovation and lower turnover (Arthur 1994; Huselid 1995; Pfeffer 1994; Guthrie 2001). In some studies, for example, practices such as job security are included as HPWS practices while in others they are not (Hutchinson,

Kinnie and Purcell 2003). This leads to a lack of consensus not only in identifying the core practices that constitute a HPWS model, but also in formulating the definition and the consistent measure of HPWS.

Another focus is related to the extent to which these HRM practices are linked to performance. In particular, the reasons of *how* and of *why* these practices influence performance has become a question referred to as ‘the HRM Holy Grail’ or the ‘black-box problem’ (Purcell and Kinnie 2008). Other areas of interest in HPWS studies include identifying an appropriate level of study, the power of generalising the findings and whether HPWS work as independent best practices or work best when they fit the organisational strategy (Purcell 1999; Ostroff and Bowen 2000; Way 2002; Wall and Wood 2005; Hesketh and Fleetwood 2006; Fleetwood and Hesketh 2006; 2008). Hutchinson, Kinnie and Purcell (2003), for example, highlight the main issues that surround and limit studies and findings on HPWS and its link to company performance. These include variance in the level of analysis, a lack of consensus of what core HRM practices should be, different ways of measuring the practices and the fact that some studies fail to take account of employee perceptions of these practices. The present study aims to empirically examine the impact of HPWS on company and employee performance outcomes. In particular, it examines the fit between how employees perceive HRM practices and whether their perceptions are related to company outcomes.

1. 2 Objectives of the Research

There are two objectives in this research:

- (a) To assess the effect and applicability of the utilisation of HPWS on company performance, in particular innovation, labour productivity and voluntary turnover.
- (b) To assess the impact of HPWS on employee attitudes and behaviours, particularly, innovative work behaviour, organisational citizenship behaviour and tenure intentions.

1. 3 Justification of the Research

This study is justifiable based on the following main reasons:

Firstly, many studies indicate that the application of HPWS is desirable in a changing and competitive marketplace since it can be used in creating competitive advantage (Barney 1991; Pfeffer 1994; Huselid 1995; Delaney and Huselid 1996; Boxall 1998; Allen and Wright 2008). This contention is based on the work of researchers who consider human resources as a source of competitive advantage in itself (Boxall 1998; Yang 2005). On the other hand, though traditional HRM practices and policies have been efficient in many companies, for effective company outcomes, an attempt to use new HRM practices that are geared to innovation and progressive outcomes should be made. This study contributes to previous examinations on the impact these new models of high performance work systems have on business performance.

Secondly, there are still few conclusive findings regarding the effects of HPWS in company and employee outcomes (Gordard 2001a; Delaney and Godard 2001; Cappelli and Neumark 2001; Godard 2004; Guest 2008; Watson 2008). Most of the research is inconclusive in terms of the effect of particular HPWS practices on specific company outcomes, although it has been argued that this is because of methodological limitations and flawed approaches (Wall and Wood 2005; Hesketh and Fleetwood 2006; Purcell and Kinnie 2008). Using the social exchange theory (Blau 1964), the norm of reciprocity theory (Gouldner 1960) as well as the ability, motivation and opportunity to participate (AMO) theory (Bailey 1993), this study aims to explore the effects of HPWS and assess its company and employee outcomes. Based on these theories this study argues that employees are likely to reciprocate in beneficial ways when they perceive that the company supports them (Morrison 1996; Lambert 2000; Rhoades and Eisenberger 2002; Cropanzano and Mitchell 2005; Edwards 2009). In this regard, well-developed systems of HRM practices – the so-called high performance work systems, are expected to empower employees in various ways - which in turn will lead to positive company and employee outcomes. Methodologically, this study links company-level and employee-level variables. This approach is desirable and appropriate for studies that link HRM practices and performance outcomes (Guest 1999; Boselie, Dietz and Boon 2005; Marchington and Zagelmeyer 2005; Becker and Huselid 2006; Guest 2008) are relatively scarce. Therefore, there are reasonable theoretical and methodological bases to justify this research. In particular, the multilevel and multi-theory approaches used in exploring the impact of HPWS on company and employee outcomes, represent a further contribution to the literature in this area.

Ireland is a good example of a country where the attempts to utilise new HRM practices in measuring company's outcomes in a diverse and competitive marketplace is applicable (McCartney and Teague 2004; Flood, Guthrie, Liu and MacCurtain, 2005; Flood, Guthrie, Liu, Armstrong, MacCurtain, Mkamwa & O'Regan 2008; Guthrie, Flood, Liu and MacCurtain 2009). In this regard, Irish companies form an appropriate research area based on its current economic position. Statistically,

Between 1999 and 2004 GDP growth rates in Ireland grew faster than any of the OECD countries. The IMD World Competitiveness Yearbook 2009 ranks Ireland 6th for GDP per capita at Purchasing Power Parity (PPP), ahead of France (13th) and the UK (17th). Ireland's unemployment rate of 6.0% is the fifth lowest within the EU 25 and compares to a eurozone average of 7.5% (IDA Ireland 2009: 5).

Similarly, there are many foreign and domestic owned companies in Ireland. There were, for example, about 956 overseas IDA client companies in Ireland in 2008 (IDA Ireland 2009: 18). Ireland has also attracted a new workforce from other parts of the world, and it is a country that is globalised due to current trends in national cultures and institutions which shape organisational form and behaviour (Nikandrou, Cunha and Papalexandris 2006). Thus, besides the theoretical and methodological justification for this study, the population of the study is appropriate and has potential for research findings that perhaps may be generalised to small open economies due to its global and economic position.

1. 4 Research Questions

There are two main research questions in this research:

(a) What are the effects of HPWS usage on a company's innovation, productivity and employee turnover?

(b) Is there a link between a company's utilisation of HPWS and employee outcomes such as innovative work behaviour, organisational citizenship behaviour and tenure intentions?

1. 5 General Rationale for the Study

A study's theoretical framework attempts to provide either information on its epistemological and ontological assumptions or give a general rationale for the study and/or deploy theories to explain its findings (Boselie et al. 2005). Theoretically, this study proposes that, based on the ability, motivation and opportunity (AMO) theory which states that company performance is a function of employee ability, motivation and opportunity to contribute to effectiveness (Bailey 1993; Boxall and Purcell 2003; Boselie et al. 2005; Gerhart 2007, 2008) and the knowledge, skills and abilities (KSAs) theory (Huselid 1995; Gollan, Davis and Hamberger 2005), employees can be motivated and empowered by the way HRM practices are utilised in a company. Underneath these theories is the presumption that HRM practices have their own effects on ability, motivation and opportunity and thus employees may be motivated, manoeuvred and developed to elicit discretionary effort and exert extra role behaviours such as innovativeness and citizenship behaviour (Bailey

1993; Appelbaum et al. 2000; Paauwe and Boselie 2005; Liu, Combs, Ketchen and Ireland 2007). Similarly, the study employs the norm of reciprocity which makes two minimal demands that '(1) people should help those who have helped them, and (2) people should not injure those who have helped them (Gouldner 1960:171), to suggest that, employees are likely to reciprocate in positive ways when they perceive that the company cares for them (Rhoades and Eisenberger 2002; Cropanzano and Mitchell 2005; Edwards 2009). In the same way, the study uses the social exchange theory (Blau 1964) which suggests that people will reciprocate in a beneficial way when they are treated well by their employers and when they perceive fairness in the way they are treated in the workplace (Lambert 2000; Shore and Coyle-Shapiro 2003; Cropanzano and Mitchell 2005). Thus, based on these theories, it is reasonable to suggest an association between a company's utilisation of HRM practices and its employees' perceptions of these HRM practices.

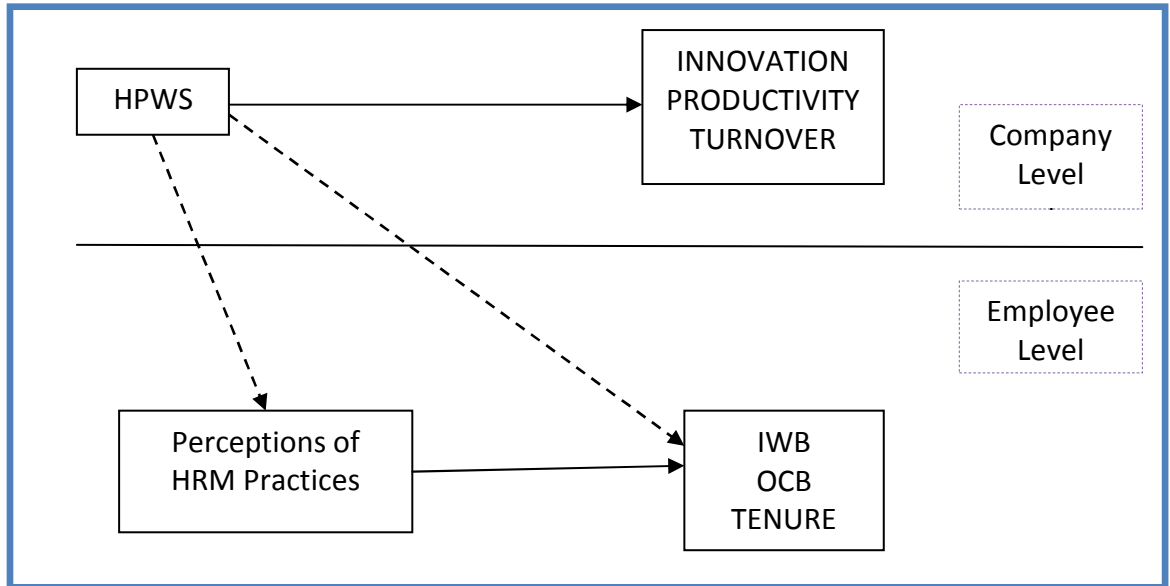
1. 6 Research Model

Figure 1.1 provides a model on the link between the usage of HPWS and company and employee outcomes. The first part of the model hypothesises that at the company level greater use of HPWS is associated with an increase in innovation, productivity and a reduction in employee turnover. The second part of the model suggests that positive employee perceptions of HRM practices are associated with employee innovative work behaviour, organisational citizenship behaviour and

tenure intentions. A cross-level inference¹ (also called a cross-level operator) is used to link company-level measures of HPWS and employee-level measures of perceptions of HRM practices, IWB, OCB and tenure intentions. This multilevel method consists of showing how variations in a situational attribute are thought to be associated with variations in an individual attribute (Bliese 2000; Klein et al. 2000). Using the cross-level inference and ANOVA, the researcher conducts an analysis of variance to examine whether employee-responses from each company differ significantly among the participating companies. Then the extent of employee perceptions of these practices and their behavioural outcomes are used to compare not only the *mean* responses between the companies (the between group variance) but also across the company level (that is, the extent to which each company utilises HPWS). In this way, a contextual analysis of variance between company usage of HPWS and employee-level measures, that is, perceptions of HRM practices, IWB, OCB and tenure intentions are computed (Bliese 2000; Klein et al. 2000; Hofmann 2002).

¹ Cross-level inference is a technique which consists of aggregation and disaggregation principles. In this method, a researcher assigns the group mean of the independent variable down to the individuals within the group and analyses the data at the individual level (Bliese 2000; Hofmann 2002: 264). This is a traditional method conducted by researchers such as Mathieu and Kohler (1990), Blau (1995), and James and Williams (2000).

Figure 1.1 Multilevel Model of HPWS, Employee Perceptions of HRM Practices and Employee IWB, OCB, and Tenure Intentions



-> A cross-level inference of the relationship of company level utilisation of HPWS and employee level variables (perceptions of HRM practices and behaviour outcomes, i.e., IWB, OCB, and tenure intentions).
- > A correlation and regression relationship between independent variables and dependent variables.

1.7 Research Hypotheses

Table 1.2 provides a summary of the research hypotheses that are tested in this study. These hypotheses are justified in the literature review sections found in chapters three and four.

Table 1.2 A Summary of Research Hypotheses

		Hypotheses
Company Level	H1	More extensive use of HPWS will be positively associated with innovation
	H2	More extensive use of HPWS will be positively associated with labour productivity
	H3	More extensive use of HPWS will be negatively associated with voluntary turnover
Employee and Cross-Level	H4	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices
	H5a	More extensive use of HPWS will be positively associated with employee innovative work behaviour
	H5b	Positive employee perceptions of HRM practices will be associated with innovative work behaviour
	H6a	More extensive use of HPWS will be positively associated with organisational citizenship behaviour
	H6b	Positive employee perceptions of HRM practices will be associated with organizational citizenship behaviour
	H7a	More extensive use of HPWS will be positively associated with employee intentions to remain with their current employer
	H7b	Positive employee perceptions of HRM practices will be associated with their intentions to remain with their current employer
Mediation	H8a	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and IWB
	H8b	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and OCB
	H8c	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and tenure intentions

1. 8 Thesis Structure and Outline

Chapter One introduces the scope of HPWS in the literature on the link between HRM practices and business performance. It presents the objectives of the study, justification of the study, research questions, the general rationale of the study, research model, research hypotheses and outlines the thesis structure. Chapter Two

discusses the main theoretical perspectives that are examined in this study. In particular, the chapter presents four approaches in the strategic HRM literature that have dominated studies on the link between HRM and business performance. It also identifies some theories that have been influential in the examination of HRM practices and companies' search for a sustainable competitive advantage. Lastly, the chapter explores the relationship between HPWS and human resource advantage, and discusses some critical issues on the link between HPWS and company performance.

Chapter Three presents a number of empirical studies that have linked HRM practices with company performance. In particular, the chapter discusses the literature on empirical studies that have associated HRM practices with innovation, productivity, and voluntary turnover. Chapter Four examines the literature on employee perceptions of HRM practices. Specifically, this chapter identifies the literature that relates the usage of HRM practices to various employee attitudinal and behaviour outcomes. Thus, it explores the theoretical and empirical studies that have related HRM practices with employee innovative work behaviour, organisational citizenship behaviour and tenure intentions.

Chapter Five presents the research methodology which was used in the study. It explores the philosophical and epistemological reasons behind the use of a positivistic survey method. The chapter also presents the research design for the company-level survey and the employee-level survey. Finally, it describes the

instruments and measures that were used in these surveys. This includes a presentation of the analytical strategy, factor analysis and reliability tests of the study variables. Chapters Six and Seven present the results of the company and employee-level data analysis and research findings. These chapters include a presentation of descriptive statistics, correlations and regression analysis of the study.

Chapter Eight presents the results of mediated regression analysis. It examines whether or not employee perceptions of job demands mediate the relationship between employee perceptions of HRM practices and employee outcomes. This chapter also includes a presentation of findings on the cross-level inference between company-level utilisation of HPWS and employee-level outcomes. Chapter Nine presents a discussion of research findings. Chapter Ten consists of a discussion on the contribution of this thesis to research and the implications of its findings. It also shows the limitations of the study and suggests directions for future research. The chapter ends with a general conclusion.

CHAPTER TWO

HPWS AND PERFORMANCE: THEORETICAL PERSPECTIVES

2. 1 Introduction

The main objective of this chapter is to identify theories that explain the reasons behind a company's decision to utilise HRM practices extensively. The chapter, therefore, presents the theoretical perspectives that have dominated the literature on the HRM-performance linkages. It continues with an exploration of different theoretical approaches that are common in the literature on competitive advantage and the relationship between HRM practices and desired employee behaviour outcomes. In particular, the human capital theory is highlighted as a rationale for the investment in HRM practices and for the empowerment of employees. The chapter continues with a brief note on the nature of the relationship between HPWS, competitive advantage and human resource advantage. It concludes with an overview of the theoretical link between HPWS, employee behaviour outcomes and company outcomes.

2. 2 Theoretical Approach

This study uses four different but complementary theoretical perspectives to examine how HRM is linked to business performance. These theories are vital in the search for the link between the utilisation of HRM practices and company performance. Early attempts to find a link between HRM and performance were based on the common sense belief that when a company improves the way people

are managed this would inevitably lead to enhanced company performance (Ulrich 1997). There is a need, nevertheless, to examine and establish the linkage in a theoretical way (Truss 2001). The linkage can, however, be established by exploring an area of HRM called Strategic Human Resource Management (SHRM) which investigates how human resource deployments and activities are applied in order to enable a company to achieve its goals (Wright and McMahon 1992). The four theoretical strands in HRM and SHRM are discussed briefly as follows:

2. 2. 1 The Resource-Based View (RBV) Approach

This approach suggests that an organisation can create a competitive advantage through acquiring and developing resources and capabilities that other competitors cannot easily access (Barney 1991; Barney 2001). This approach is sometimes referred to as a 'stakeholder's approach'. Underneath the approach is the presumption that employees or human resources are manoeuvrable and developmental (Paauwe & Boselie 2005). The RBV of the firm further suggests that organisations should look inward to their resources, both physical and intellectual, for sources of competitive advantage (Allen and Wright 2008).

The RBV has been widely used and has become a presumed paradigm in strategic HRM research (Paauwe 2004; Allen and Wright 2008). The perspective has also been used as a basis or rationale in many empirical examination of how HRM practices can impact company success (Allen and Wright 2008; Guthrie, Flood, Liu & MacCurtain 2009). Studies by Arthur (1994) or Huselid (1995), for example, used

this theoretical ground to empirically test a specific set of HRM practices and its relationship with firm performance. In particular Huselid (1995) demonstrated that a set of HRM practices which he argued constituted a 'high performance work system' was significantly and positively related to organisations' lower turnover, and higher profits such as sales and market value in the companies that were studied. MacDuffie (1995) also demonstrated that when HRM practices are integrated they lead to a higher performance than when they are utilised individually.

This theoretical approach to competitive advantage is also used as a way of explaining how a company can attain a sustained competitive advantage. Ideally, the approach suggests that SHRM should be a way to examine the resources and capabilities of companies that enable them to generate above normal rates of return and enhance a sustainable competitive advantage (Rayner and Adam-Smith 2005). In short, it identifies and examines the resource characteristics and strategic factor markets from which a company's sustainable advantage is derived. Under the resource-based approach, individuals are motivated to optimise available economic options, and make their rational choices on the basis of the economic contexts of the company rather than on social contexts or pressures outside the company (Oliver 1997). Barney (1991) proposes four basic requirements through which human resources can provide a source of sustained competitive advantage. According to Barney, the resources must have four qualities: they must add value; they must be rare or unique; they must be difficult for competing companies to replicate; and lastly they should be non-substitutable (1991). This study, therefore, uses the RBV

approach in the examination of the impact of HPWS on company and employee outcomes.

2. 2. 2 The Institutional Approach

The institutional approach consists of being aware of the legal and institutional conditions which exist outside a company but dramatically affect its performance and ability to achieve legitimacy, which is necessary for its survival (DiMaggio & Powell 1983; Paauwe & Boselie 2005; Yang 2005). Essentially, this approach examines the role of social influence and pressures for social conformity in shaping companies' actions (Meyer and Rowan 1977). This approach assumes that companies operate within a social framework of norms, values and different assumptions that are taken for granted. These conditions, however, constitute appropriate or acceptable economic behaviour and, in this context, 'organisational success depends on factors other than efficient coordination and control of productive activities' (Meyer and Rowan 1977: 352). A company will succeed and survive depending on how it conforms to social expectations since from them comes legitimacy, stability and resources for its activities (Meyer and Rowan 1977; Oliver 1997). Ferris et al. (1998) examine the importance of social context in company effectiveness. While admitting the influence of social and work environments in a company's performance, their critique strongly calls for flexibility in implementing HRM practices.

2. 2. 3 The Contingency Theory Approach

This theory attempts to relate different dimensions of the external environment to the company or organisational attributes. In other words, for a company's HRM practices and policies to be effective, they must be consistent with other aspects of the company (Delery and Doty 1996). Accordingly, this theory suggests that the impact of HRM on performance is mediated by the company's business strategy or strategic objectives (Youndt, Snell, Dean & Lepak 1996; Truss 2001). The theory thus examines resources and capabilities from an environment point of view. It advocates that resources and capabilities are related to an increase in the company's efficiency and effectiveness (Barney 1991). Resources here refer to assets or inputs to production that a company owns or accesses. Capabilities refer to the ability to use resources to achieve company goals. The theory assumes that a company's resources do not exist in isolation; they have to be taken in context (Yang 2005). Similarly, the environment through which company resources are deployed determines the value of the resources. For example, an asset can be found in an environment that does not make it a valuable resource (Katila and Shane 2005). Guthrie (2001), for example, found that there is a link between the company's strategy and company outcomes, in particular productivity.

2. 2. 4 The Universalistic Approach

The universalistic approach suggests the existence of best and appropriate human resource practices which a company can use in order to achieve positive outcomes and all companies or organisations should adopt these best practices because they

are better than others (Delery & Doty 1996; Shih, Chiang & Hsu 2005; Yang 2005). This approach in general identifies HRM practices and (universalistic theorists have analysed) the relationship between individual HRM activities and performance (Gooderham, Parry & Ringdal 2008). Osterman (1994) for example, singled out a number of innovative work practices such as forming employees into teams, job rotation, quality circles and total quality management. He argued that these result in productivity gains for all American organisations.

This perspective however, suggests that these HRM practices should be bundled in order to be more effective (Delery and Doty 1996). Generally, these best practices form the core high performance work systems. Researches such as Alcazar, Fernandez and Gardey (2005) suggest that there are universalistic approaches in which more than one HRM practice is combined to build bundles of high performance work systems. In this regard, it has become common to group or combine practices in order to create a more coherent explanation of the HRM-performance link (Gooderham, Parry & Ringdal 2008). Researchers who used this approach include Guthrie (2001) and Guest et al. (2003) who identified bundles of HRM practices (so-called high involvement work systems) and have attempted to establish a link between them and an organisation's performance. Companies are advised to adopt these best HRM practices in order to realise better performance in business (Delery & Doty 1996; Shih, Chiang & Hsu 2005; Yang 2005). The universalistic approach thus contends that it is possible to identify the best HRM practices and that their adoption generally leads to valued company-level outcomes.

This approach is consistent with the ‘internal fit perspective’ (Huselid 1995) and accentuates the importance of the interrelationship between HRM practices in improving a company’s effectiveness. In other words, the practices are not supposed to stand on their own (Truss 2001). However, it should be noted that the adoption of the best practices approach or the universalistic approach is not without critics. Guest (1997), for example, contends that it is difficult and uncertain to claim and establish which practices can be considered ‘high performance’. Similarly, it is important to mention here that, aside from the aforementioned approaches or theoretical perspectives in linking HRM practices and company performance, there are other theories that have been explored in relation to human resource management practices, competitive advantage and business performance. These include: Role Behaviour Theory (Katz & Kahn 1978), Resource Dependence Theory (Pfeffer and Cohen 1984), Human Capital Theory (Becker 1964), the Transaction Cost Economics Theory (Williamson 1979, 1981) and the Expectancy Theory which tries to link HRM and individual performance or outcomes (Vroom 1964; Lawler and Suttle 1973).

Table 2.1 A Summary of the Four Main Theoretical Approaches Examined in this Study

Theoretical Approach	Theoretical Suggestions	Link to Performance Outcomes
Resource-Based View (RBV) Approach	Employees/human resources are manoeuvrable and developmental (Paauwe & Boselie 2005), and a source of sustained competitive advantage (Allen and Wright 2008).	When HRM practices are integrated they lead to higher performance than when they are utilised individually (MacDuffie 1995; Rayner & Adam-Smith 2005).
Institutional Approach	Legal and institutional conditions outside a company affect performance (DiMaggio & Powell 1983; Paauwe & Boselie 2008).	Success and survival depend on conformity with social expectations (Meyer & Rowan 1977; Oliver 1997).
Contingency Theory Approach	A firm's resources do not exist in isolation; they have to be taken in context (Yang 2005). Environmental considerations determine the value of the resources (Katila and Shane 2005).	Organisation's business strategy, size, sector, ownership, location, impact on firm performance (Youndt et al. 1996; Truss 2001; Lepak & Shaw 2008; Paauwe & Boselie 2008).
Universalistic Approach	The adoption of best practices generally leads to valued company-level outcomes (Delery & Doty 1996; Shih, Chiang, & Hsu 2005).	Bundles of HRM practices are linked to company performance, e.g. productivity and turnover (Guthrie 2001; Guest et al. 2003).

The researcher in this study suggests that the four theoretical approaches can be used together in examining the effectiveness of HPWS on company and employee outcomes. The basis for this suggestion is that each of the approaches can be right in its own way (Boxall & Purcell 2003; Paauwe & Boselie 2005). Some principles are basic and would lead to universalistic success. Consider practices such as employee development, employee involvement, and high rewards in a company's strategy for performance. On the other hand, a company's actual design for the practices may vary, and thus yield different outcomes depending on the nature of the company's

specific internal or external contexts (Paauwe & Boselie 2005). Thus, in one way, a company can create a competitive advantage through its own initiatives and innovation; that is, based on the resource-based view approach. The company can similarly adopt a HPWS depending on some institutional reasons and contextual factors; that is, using a best-fit approach. Some researchers also suggest that in various circumstances, some HPWSs are better than others and thus recommended for use in a wide variety of companies; that is, based on the best practices approach (Delery and Doty 1996; Shih, Chiang & Hsu 2005).

2. 3 HRM Practices and Behavioural Outcomes

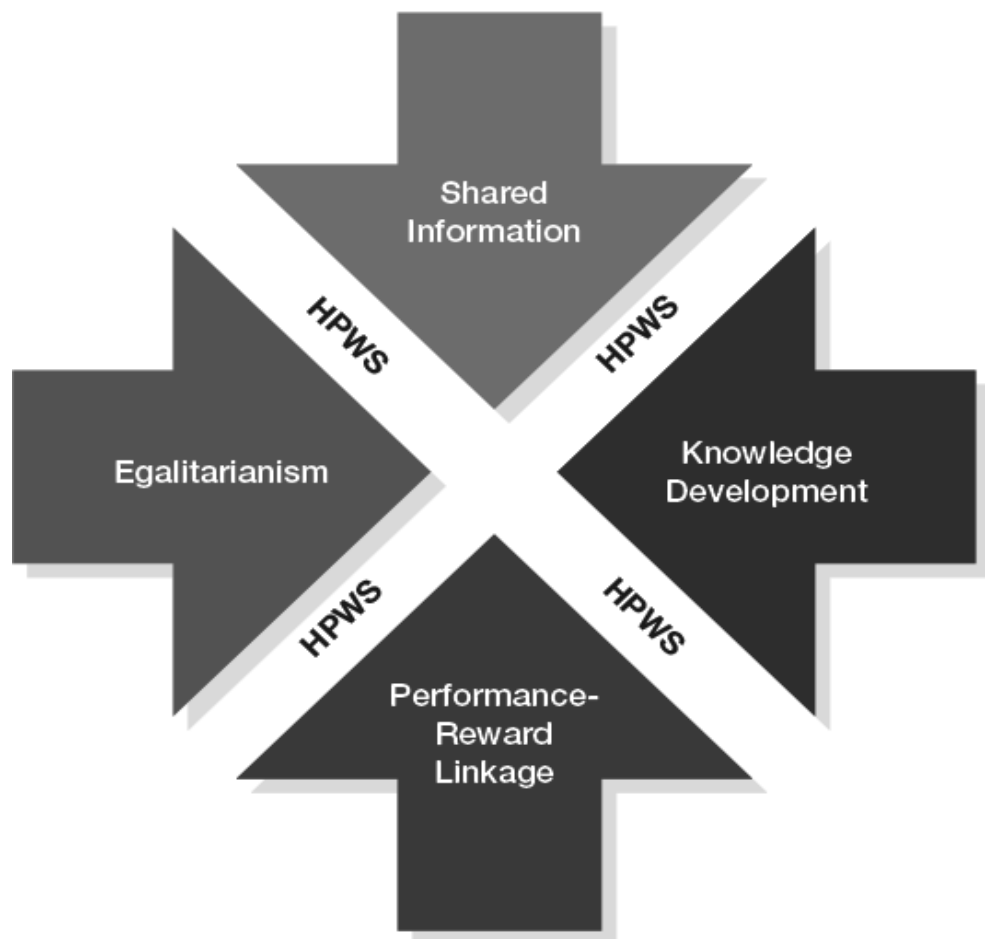
HPWSs have always been considered as ways of making an organisation effective and flexible, particularly when a company invests in its employees (Ferris et al. 1998). The practices point to a company's ability to recruit and select employees, and to elements that describe a company's incentives, extensive training and business performance (Huselid 1995; Delaney & Godard 2001; Richard & Johnson 2004). In essence, HPWSs encourage a company to invest heavily in human capital. Human capital theory suggests that people possess knowledge, skills and abilities which are of economic value to the organisation, and thus the company invests to increase these knowledge, skills and abilities if they can produce future returns such as increased productivity (Truss 2001; Kuvaas 2008). The final goal behind human capital investment is, therefore, to enhance employee skills, knowledge, motivation and flexibility, and so improve individual productivity and overall company performance (Youndt et al. 1996). The employer is expected to provide employees

with the ability and opportunity to provide input into workplace decisions. Thus, training and development, coordination of incentives and reward systems, and managerial and employee inputs are to be considered when implementing HPWSs (Huselid 1995; Ferris et al.1998; Richard & Johnson 2004; Paauwe & Boselie 2005).

The secondary goal in HPWS investment is to empower employees so that they can cope with changing product and labour conditions. In this perspective, HRM practices are conceptualised as ways of improving employee skills, motivation and empowerment (Wright and Boswell 2002). Boxall and Purcell (2003) generally refer to this approach to empowering employee skills and motivation as the AMO theory: ability, motivation and opportunity (Bailey 1993; Appelbaum et al. 2000). Other motivational-based policies that are encouraged in empowering employees include extending this approach to their knowledge, skills and abilities (KSAs), (Delery and Shaw 2001). Employees are expected to improve operational efficiency and company performance (Cappelli & Neumark 2001; Richard and Johnson 2004). Huselid (1995) lists significant high performance work practices and includes comprehensive employee recruitment and selection procedures, incentive compensation and performance management systems, employee involvement and training. Specifically, the various human resource management practices can be grouped into five behavioural results domains. These include; the acquisition, development, motivation, probity and employee involvement domains (Harel & Tzafrir 2001: 320).

Figure 2.1 summarises the underlying principles of a HPWS. It is vital to note that the notion of a HPWS was originally developed by David Nadler (Nadler, Tushman & Nadler 1997). Later Edward Lawler and his colleagues worked with Fortune 1000 companies to identify the primary principles that support HPWS (Lawler, Mohrman & Benson 2001; Bohlander and Snell 2007). They identified four basic principles, which are presented in Figure 2.1: shared information, egalitarianism, knowledge development, and performance reward linkage.

Figure 2.1 Underlying Principles of High-Performance Work Systems



Source: Bohlander and Snell (2007: 692).

The principle of shared information, for example, states that employees are vital in the success of the company, and accordingly they can perform well by having accurate information about the business. This includes giving them timely information about the companies' business performance, plans and strategies. In this way, employees can cooperate and give valuable suggestions for improvement of the business and affect company changes. They are more likely going to be committed if they have room to input in decision-making (Bohlander and Snell 2007).

2. 4 HPWS and Competitive Advantage

Some theorists link HPWS with competitive advantage by arguing that HRM practices influence employee attitudes and behaviour through employee interpretations of the characteristics of the workplace climate (Ostroff & Bowen 2000; Ostroff, Kinicki & Tamkins 2003). Once HPWSs have influenced (directly or indirectly) employee attitudes and interpretations of the workplace climate, the company is in a better position to form its competitive strategy, leading to eventual success (Ferris et al. 1998; Ostroff & Bowen 2000; Ostroff, Kinicki & Tamkins 2003). The role of a HPWS in creating competitive advantage has been supported by empirical work. A number of studies have shown some positive outcomes with regard to the impact of HRM practices in company effectiveness. HPWS enhance employee's skills. This involves increasing the quality of the individuals that are hired or increasing the quality of skills and abilities among current employees, or both (Delaney & Huselid 1996). Selectivity in staffing has been positively related to company performance (Delaney & Huselid 1996; Koch & McGrath 1996). There is

evidence that investment in staff training has led to beneficial organisational outcomes (Arthur 1994; Kalleberg & Moody 1994; Appelbaum et al. 2000). Studies suggest that higher rewards contribute to a decrease in turnover (Arthur 1994). Incentive compensation has a positive influence on perceived organisational performance (Delaney and Huselid 1996) and productivity (Kalmi and Kauhanen 2008). Similarly, information sharing practices have been positively related to financial performance (Gibson, Porath, Benson and Lawler III 2007). Team working (team enabling practices) have been associated with increased learning, task performance, innovation and product quality (Zellmer-Bruhn and Gibson 2006; Gibson et al. 2007). Generally, these studies suggest that HPWSs are associated with practices which empower employees to participate in decision making which in turn enhances company performance (Appelbaum et al. 2000).

2. 5 HPWS and Human Resource Advantage

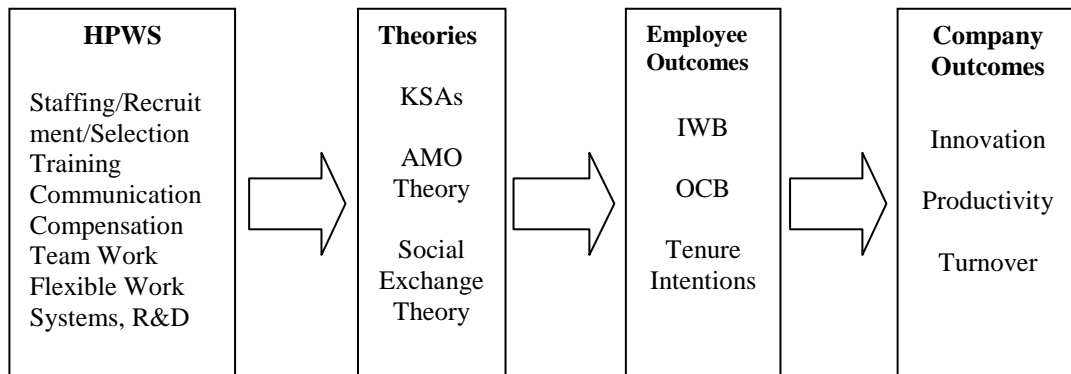
The theory of human resource advantage (Boxall 1998), suggests that a company can build and defend competitive superiority through human resource strategy. This includes using human resources which are capable of yielding sustained competitive advantage (Yang 2005). According to Barney (1991), the company can realise business outcomes by utilising its internal capabilities. These internal human resources should, however, meet the tests of rare value, relative immobility and superior appropriability (Boxall 1998: 265). The rationale behind this argument is that, the human capital or stock of knowledge, when used well, is capable of yielding sustained advantage through value creation and can be an asset to the

company (Boxall 1998; Lepak and Snell 1999, 2002). In this line of thought, HPWS utilisation should develop employees' skills, knowledge and abilities, (that is, human capital advantage), and will more likely increase process advantage; which consists of superior problem solving, social integration and communication process (Yang 2005; Kang, Morris and Snell 2007). Companies seeking human resource advantage may outperform competitors in terms of availability of knowledge, skills and perspectives since these processes can help a company to execute operations more quickly, efficiently and effectively (Yang 2005).

2. 6 HPWS, Employee Behaviour and Company Outcomes

Figure 2. 2 depicts a theoretical link between the utilisation of HPWS and employee and company outcomes. This figure is based on an assumption that HPWS fundamentally enhance the knowledge, skills and abilities (KSAs) of the human capital pool in the company. These HRM practices also change the nature of employee relationships (Evans and Davis 2005). In this regard, theories that address patterns of relationships which are conducive to employee and company performance are expected to explain why these practices may facilitate exchange relationships and change human behaviours (Delery and Shaw 2001; Shore and Coyle-Shapiro 2003; Evans and Davis 2005). Thus, the social exchange theory (Blau 1964), the AMO theory (Bailey 1993) and the KSAs theory (Appelbaum et al. 2000), are fundamental in explaining the influence of these HRM practices on employee behavioural outcomes and their link to company performance.

Figure 2.2. Expanded Framework of HPWS, Employee Behavioural and Company Outcomes



Source: Adapted from Evans and Davis (2005: 761).

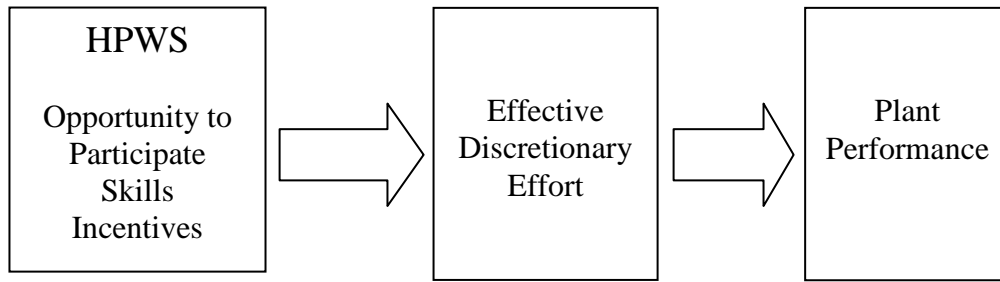
Based on the expanded framework (Figure 2.2), this study examines the HRM-performance link by examining the extent to which companies utilise HPWS and associates these HPWSs with theories which account for changes in employee behaviours (KSAs, AMO theory and social exchange theory). The employee behavioural outcomes in turn are expected to influence company performance in the form of increased innovation, labour productivity and reduced voluntary turnover. Theoretically, this study argues that, besides enhancing employees' skills, knowledge and abilities, HPWSs change or influence the nature of employee relations (Evans and Davis 2005; Tsui and Wu 2005).

Similarly, the norm of reciprocity and the social exchange theory (Gouldner 1960; Blau 1964) explain and integrate employee behaviours with the company's provision of policies, practices and opportunities which are important in facilitating generalised norms of reciprocity (Morrison 1996; Eisenberger, Armeli, Rexwinkel,

Lynch and Rhodes 2001; Rhodes and Eisenberger 2002). These norms of reciprocity can be described in terms of ‘the extent to which the parties are concerned with equivalence of exchange, immediacy of reciprocation and focus of interest (self vs. mutual).’ (Evans and Davis 2005:765; Shore and Coyle-Shapiro 2003; Cropanzano and Mitchell 2005; Coyle-Shapiro and Shore 2007). According to the social exchange theory, when companies invest in employees, employees tend to reciprocate in positive ways (Settoon, Bennett and Liden 1996; Cropanzano and Mitchell 2005; Kuvaas and Dysvik 2009). Thus company inducements (through the positive management of HRM practices) motivate employees to be prosocial and desire to expend effort to benefit the company; they also create obligations on the part of employees to reciprocate in positive ways (Morrison 1996; Tsui and Wu 2005; Oikarinen, Hyppia and Pihkala 2007; Kuvaas and Dysvik 2009).

The basis for these theoretical assumptions follows the framework developed by Bailey (1993) and expanded by Appelbaum et al. (2000). In these two studies, the authors suggest that HPWSs are in the interest of both the companies and employees. Thus, in order to achieve company performance, there must be an effective strategy designed to provide employees with practices which will motivate them to exert discretionary effort. Similarly, employees need to have necessary skills and the opportunity to participate in problem solving and decision making (Appelbaum et al. 2000). Figure 2.3 illustrates the components of HPWS according to Bailey (1993), and Appelbaum et al. (2000).

Figure 2.3 Components of HPWS and Plant Performance



Source: Appelbaum et al. (2000: 27).

2. 7 Conclusion

The main objectives of this chapter included identifying theoretical approaches that have dominated the literature on the HRM-performance linkage. These theoretical perspectives guide this research. Each of the perspectives has some benefits in the search for processes and mechanisms through which HRM practices are hypothesised to influence business performance. Another objective was to highlight the nature of the relationship between human capital investment, HRM practices and competitive advantage. In this regard, this chapter briefly presented a theoretical framework that explains the link between the utilisation of HPWS and employee and company outcomes. This study presumes that, based on social exchange relationships, companies that manage HRM practices well will be able to influence employee behaviours such as innovative work behaviour, organisational citizenship behaviour and tenure intentions. These behaviours are in turn expected to influence company performance in terms of increased innovation, productivity and reduced turnover.

CHAPTER THREE

LINKING HRM PRACTICES WITH COMPANY PERFORMANCE

3. 1. Empirical Studies Linking HRM and Innovation

3. 1. 1 Introduction

Innovative organisations support creativity and pioneer productive change through affording individual employees or members of the organisation the freedom to work independently in the pursuit of new ideas and autonomous actions (Scott and Bruce 1994; Dobni 2006). They are organisations which consistently adopt innovative products, processes and systems (Subramanian and Nilakanta 1996; Oldham and Cummings 1996), and can foster, develop and utilise employee talents which are potential for innovation (Oldham and Cummings 1996; Searle and Ball 2003). In developing innovative organisations, sustained curiosity and willingness to learn and change are important elements for managers and employees (Argyres and Silverman 2004; Dobni 2006; Kang, Morris & Snell 2007). In this regard, companies who allow, in particular, changes in internal organisational structure, are more likely to experience the positive impact of innovation on their performance (Argyres and Silverman 2004; Kang, Morris & Snell 2007). The climate for innovation within an organisation facilitates innovation both at a company and employee level. It includes the organisation's expectations for behaviour and potential behaviour outcomes with regard to innovativeness (Scott and Bruce 1994; Humphreys, McAdam & Leckey 2005). Such companies also encourage performance through the creation of a

climate for innovation which in turn improves the competitiveness of a company and effectiveness of an organisation (Tidd, Bessant and Pavitt 2005).

3. 1. 2 Conceptual Approaches to Innovation

Literature on the term 'innovation' focuses on identifying the main domains of innovation and how it is measured. So far, there is no single definitive or general definition of the term 'innovation,' since the term covers a wide variety of things and is a very broad concept (Avermaete et al. 2003). Besides its varied usage and connotations, 'innovation' is commonly related to the introduction of technology-related products and services that require radical change in the production process. West and Farr (1990:9) define innovation as 'the intentional introduction and application within a role, group or organization of ideas, processes or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society'. Its definition, therefore, would include the concept of newness and novelty of products or processes, new techniques, new forms of organisations and new markets (West and Anderson 1996; Prajogo 2006). In the HRM literature, 'innovation' is also looked on as a process that involves invention and the development of the invention. It comes to completion with the introduction of a new product, process or service in the marketplace (Prajogo 2006). Innovation concerns not only the development of changes in the entire organisation, but also the transformation of individual work roles and the implementation of new ideas in work groups or teams (West and Anderson 1996; Dobni 2006). For high

technology firms, 'innovation' is one of the most important sources of sustained competitive advantage (Tidd, Bessant and Pavitt 2005; Katila & Shane 2005).

The literature distinguishes four main domains of innovation, namely product, process, organisational and market innovation (Avermeate et al. 2003). Product innovation includes any product, service or idea that is perceived by someone as new. Product innovation may also emerge as a result of changes in the organisational structure or strategy. Process innovation includes adaptation of the existing production systems and may include introducing new infrastructure and the implementation of new technologies. Damanpour (1991) categorises product and process innovation as technical innovation since they concern basic work activities. Organisational innovation, also referred to as administrative innovation includes changes to a wide range of activities in an organisation such as marketing, purchases, sales, administration, management and staff policy (Damanpour 1991). Lastly, the market innovation domain includes exploitation of new territorial markets and the acquisition and addition of new markets into the existing markets (Avermeate et al. 2003).

Studies on innovation have not been limited to examining the concept of innovation and its domains, but have extended to examining innovation performance in relationship to other forms of organisational performance. In this respect, innovation has been examined not only in terms of the newness and novelty, types or kinds of products that are produced and introduced in the market, but also in terms of the

degree of change and the speed that is required in developing and introducing the new products into the market relative to other competitors (Prajogo 2006). Another aspect of speed in innovation is the extent to which a firm adopts new technology that is emerging in the industry and significantly departs from the existing practices (Damanpour 1991). According to Rogers (1995) innovators can be categorised into five groups: innovators, early adopters, early majority, late adopters and laggards. Rogers contends that early adopters have significant benefits from innovation, although they face higher degrees of risk. Consistency and continuity in innovation is another dimension in innovation and performance studies. Companies that are good innovators will always look for ways of developing new products while at the same time making sure that they do so consistently (Damanpour 1991; Subramanian and Nilakanta 1996; Dobni 2006). Subramanian and Nilakanta (1996) elaborated on this phenomenon by examining the difference between the number of innovations and time of innovation adoption on performance measures in the banking industry. Their study found that both the number and time of innovation had a significant impact on organisational effectiveness. Table 3.1 provides a summary of the various aspects or conceptual approaches to innovation.

Table 3.1 A Summary of the Conceptual Approaches to Innovation

Aspect	Definition	Reference
Technology-Related	A company's ability and willingness to change and adopt new technologies Capacity of the company to introduce new machines or systems	Kitchell (1995), Subramanian & Nilakanta (1996), Shipton, Fay, West, Patterson & Birdi (2005)
Behaviour-Related	Behaviour change among individuals or work units in adapting new ideas Ability to generate new ideas in combination with existing elements for the creation of new sources of value	Stalk, Evans & Shulman (1992), Hurley & Hult (1998), Subramanian & Nilakanta (1996), Shipton et al. (2005), Dobni (2006)
Product-Related	Capacity of the company's inclination to buy new products and services Capacity of the company to make new and adapted products	Foxall (1984), Salavou & Lioukas (2003), Shipton et al. (2005), Beugelsdijk (2008)
Time-Related	Number of innovations adopted in a given period of time Large organisations may adopt more innovations than small ones in a given time period	Damanpour (1991), Subramanian & Nilakanta (1996)
Stage-Related	A company may have many initiation innovations but few implementations	Damanpour (1991), Axtell et al. (2000), West (2002), Humphreys, McAdam & Leckey (2005)

3. 1. 3 HRM Practices and Innovation

Innovation is treated in many studies as an independent variable predicting organisational performance in terms of profitability, market share gain, growth rate, return on investment, return on asset and perceived overall success (Deshpande, Farley and Webster 1993; Dwyer and Mellor 1993; Baldwin and Johnson 1996; Subramanian and Nilakanta 1996; Salavou 2002, 2004). This study, however, examines innovation as a dependent variable. It attempts to establish claims that HRM practices, in particular the so-called HPWS, are good predictors of innovation.

Shipton, Fay, West, Patterson & Birdi (2005) argue that HRM practices have the potential to predict organisational innovation. Their data was drawn from a data set collected from 111 manufacturing companies in the UK which were studied between 1992 and 1999 by West and Patterson (1999). The target respondents were senior managers and they were interviewed on the site. The main industries that were studied from the manufacturing sector were the food and drink, electronics and communications, and mechanical engineering industries. The measurements that were used in this study included HRM practices, innovation and the learning climate. Other measures were innovation in products, production technology and production processes. Further measures included 'sophistication of HRM' which was an overall assessment of HRM activities such as recruitment and selection, training, performance management and strategy. The main findings of this study are summarised as follows:

'Sophistication of HRM' appears to positively predict innovation in products and production technology after controlling for size and profitability of the organizations. Given that this is a longitudinal analysis, there is a strong case for suggesting that the HRM practices associated with this variable do indeed facilitate organizational innovation over the two-year period of the study (Shipton et al. 2005: 123).

In particular, Shipton et al. (2005) found that sophistication of HRM accounted for 20 per cent of the variance for product innovation and 25 per cent of the variance for innovation in production technology ($b = 0.47$, $p < 0.05$; $b = 0.52$, $p < 0.01$ respectively). The study, nevertheless, did not find any significant relationship between sophistication of HRM and innovation in production processes. The study

in general explained the usefulness of ‘sophistication of HRM’ (through the development of individual skills and collective attributes that are required for a successful innovation) in fostering organisational innovation in product and production technology.

Another study that predicted a positive relationship between HRM practices and innovation, and that HRM practices enhance organisational innovation, was a study by Jimenez-Jimenez and Sanz-Valle (2008) of 173 Spanish firms. The data for this study was obtained from SABI database, which included firms employing more than 50 employees, located in the southern part of Spain. The target population was 564 companies across various sectors, except the agricultural sector. 173 companies responded, yielding a 31 per cent response rate. Data was collected through personal interviews and the respondent in each company was the top executive. The measure of innovation focused on three spheres: product, process and administrative systems. The study examined the extent to which the organisation emphasises the use of its resources for innovation, research and development. The system of HRM practices was hypothesised to positively relate to organisational innovation. Results and analysis in this study found that ‘the adoption of a set of HRM practices encourages innovation’ (Jimenez-Jimenez & Sanz-Valle 2008: 1216). In this way, the study concluded that there is a positive association between the adoption of a set of HRM practices and enhanced innovation in terms of new products, processes and administrative systems (that is, new procedures, policies and organisational forms).

Using a sample of 726 Danish manufacturing and private services companies, Laursen (2002) studied the linkage between HRM practices and innovation performance. His focus was the difference between using the HRM practices as individual practices or as a bundle of practices. Laursen argued that a 'firm's ability to produce new products and other aspects of performance are inextricably linked to how it organizes its human resources' (2002: 140). Theoretically, Laursen proposed three reasons to support the likelihood that HRM practices may lead to innovation.

These reasons are:

- (1) The application of HRM practices may increase the level of decentralization, and such an environment may better allow for the discovery and utilization of local knowledge in the organization;
- (2) team practices involving job rotation are likely to provide coordination advantages in the sense that engineers (or 'workers') perform several tasks and therefore understand the technological problems of colleagues better;
- and (3) teams often bring together knowledge and skills which - prior to the introduction of teams - existed separately, potentially resulting in incremental process and product improvements (Laursen 2002: 141).

Laursen also proposed that when an investigator examines the extent of the relationship between innovation and HRM practices, the sector of the company has to be taken into account in order to arrive at appropriate conclusions about the company. In this regard, he hypothesised that knowledge-intensive production processes can be expected to show more innovation performance outcomes than other companies. Laursen summarised his results by stating that, 'Overall it may be concluded that the application of new HRM practices is somewhat related to innovation performance' (2002: 149). Other conclusions were: 'When all of the HRM practices were combined into one single variable, the effect was found to be stronger' and 'that firms in sectors with seemingly higher levels of knowledge-

intensity in their production processes (firms located in medium and high knowledge-intensive industries), perform better in terms of innovation output' (Laursen 2002: 150).

Laursen and Foss (2003) expanded this study by examining the reason why the adoption of individual HRM practices was different in innovation performance from applying HRM as a bundle. They empirically found that the linkages with suppliers and users of innovation performance matter in the linkage between the HRM practices and growth of innovation. One other factor that mattered was the extent to which the company linked with knowledge institutions such as technical support institutions. But most of all, they found that the utilisation of HRM practices matter as a major factor and determined even the ability of the company to innovate.

Table 3.2 provides a summary of previous studies that have examined the link between HRM practices and innovation.

Table 3.2 A Summary of Empirical Studies on the Link Between HRM Practices and Innovation

Author(s)	Sample and Method	Topic/Focus	Findings
Michie & Sheehan (1999)	<p>UK: British Workplace Industrial Relations Survey (WIRS 1990) dataset</p> <p>Interview based survey of establishments with 25 employees or more in manufacturing and service sectors, and public and private sectors</p> <p>Response rate: 54.5%</p>	HRM practices and work practices (such as R&D expenditure) and firms' innovation activities	<p>Positive associations between the management of HRM practices/work practices and firms' innovation activities</p> <p>Unionisation was positively associated with the probability of a firm innovating</p>
Laursen (2002)	<p>Denmark: 684 manufacturing and 1,216 private services companies</p> <p>Response rate: 52% manufacturing firms & 45% non-manufacturing</p>	Linkage between HRM practices and innovation performance (i.e., product and process innovation)	<p>HRM practices are somewhat related to innovation performance</p> <p>When HRM practices were combined the effect on innovation was found to be stronger than when used individually</p>
Laursen & Foss (2003)	<p>Denmark: 684 Danish manufacturing firms and 1,216 non-manufacturing firms</p> <p>Response rate: 52% and 45% respectively</p>	<p>Link between HRM practices and innovation performance</p> <p>Differences between using HRM practices as individual practices or as a bundle of practices</p>	<p>The application of HRM practices determined the likelihood of a firm to innovate in terms of product and process innovation</p> <p>Seven HRM practices out of nine were conducive to innovation, and when they were used together they explained significantly the company's innovation performance</p>

Author(s)	Sample and Method	Topic/Focus	Findings
Michie and Sheehan (2003)	UK: 361 manufacturing and service sector firms with more than 50 employees. Interviews with HR directors, personnel and employee relations Response rate: 39%	HRM practices and flexible work practices and innovation activities such as product and process innovation	There were positive effects between HRM practices and innovation activities, in particular, process innovation
Searle & Ball (2003)	UK: Survey of top 300 organisations identified from the FTSE 500, with 100 or more employees. Respondents were senior HR professionals Response rate: 30%	Organisations' utilisation of HRM practices such as recruitment, training and performance management policies and firms' innovative performance	84% of the respondents indicated that innovation was considered critical or important regardless of size or sector Organisations used various HRM policies to support innovation but HRM policies were stratified with lower organisational levels getting more attention than higher levels
Lau & Ngo (2004)	China: a mail survey of 332 firms in Hong Kong with 50 or more employees and annual sales greater than \$7 million. Respondents were HR directors Response rate: 19.5%	HRM practices (extensive training, performance based reward and team development), organisational culture, and product innovation (i.e., innovation performance)	HRM practices in particular extensive training were significantly related to firms' innovation performance Organisational culture mediated the relationship between HRM practices and firms' innovation performance
Richard and Johnson (2004)	US: Banking industry Surveys and secondary data sources, i.e., financial reports Response rate: 13.8%	High performance work practices and innovation HRM effectiveness and market performance	High performance work practices are associated with increased innovation HRM effectiveness is associated with increased performance

Table 3. 2 (Continued)

Author(s)	Sample and Method	Topic/Focus	Findings
Wang & Zang (2005)	China: Survey of local Chinese enterprises and international joint ventures. 358 managers from 75 companies participated in field surveys and interviews Response rate: N/A (convenient sampling)	The impact of strategic HRM on organisational performance, in particular, innovation and entrepreneurship	Strategic HRM practices positively affected innovation performance and task accomplishment
Shipton, Fay, West, Patterson & Birdi (2005)	111 manufacturing companies in the UK (1992 – 1999). Interviews and longitudinal surveys: senior managers, chief executive of the company, production director and HR manager Response rate: 19.8%	Measuring the relationship between HRM practices and innovation (innovation in products, production technology and production processes)	HRM practices positively predict innovation in products and production technology No significant relationship between sophistication of HRM and innovation in production processes
De Jong & Vermeulen (2006)	Netherlands: Database on firm-level innovative practices of 1250 small firms across seven industries Response rate: above 70%	Firm's utilisation of innovative practices and the introduction of new products (product innovation)	Knowledge intensive, financial services, and manufacturing firms were significantly better in product innovation than other firms Service firms were less likely to use innovative practices and thus low in new products innovation

Table 3. 2 (Continued)

Author(s)	Sample and Method	Topic/Focus	Findings
Huang & Lin (2006)	Taiwan: 177 high-tech companies Survey of R&D managers Response rate: 15.25%	R&D management practices and innovation performance (in particular new products and new technical reports)	R&D on its own, had no significant relationships with innovation performance indicators R&D associated with adequate planning and equipment support was significantly associated with innovation performance
Shipton, West, Dawson, Birdi & Patterson (2006)	UK: Longitudinal study of 22 manufacturing companies Postal surveys and managerial interviews: senior managers Response rate: 19.8%	HRM practices (training, appraisal, induction, teamworking etc.) and organisational innovation (product innovation and innovation in technical systems)	Training, induction, team working, appraisal and exploratory learning significantly predict innovation Contingent rewards in conjunction with exploratory learning were positively associated with innovation in technical systems
Prajogo, Laosirihongthong, Sohal & Boon-itt (2007)	Thailand and Vietnam: Survey of 95 Thai and 44 Vietnamese middle or senior managers in manufacturing firms with 100 employees or more Response rate: Thai (55.9%), Vietnamese (58.7%)	Manufacturing strategies and resources and innovation performance	Differentiation strategy strongly predicted product and process innovation Leadership, people management and R&D intensity did not significantly predict product or process innovation
Jimenez-Jimenez, & Sanz-Valle (2008)	SABI database: firms with more than 50 employees, Spain. Target population was 564 companies across various sectors Respondents: top executive of the company, structured interviews used Response rate: 30.7%	Measure of innovation was in three spheres: product, process, and administrative systems Performance measures: market share, profitability, productivity and customer satisfaction	HRM practices have an effect on innovation HRM practices can on their own affect innovation, and innovation can link HRM practices with firm performance

Overall, these studies suggest that the utilisation of HRM practices may increase employee knowledge, skills and abilities, which are important for a company's discovery and coordination of innovation processes. Laursen (2002), for example, suggests that HRM practices can increase the level of decentralisation in a company, and such an environment can increase the likelihood of a better utilisation of employee knowledge, skills and expertise. However, the examination of some of the empirical studies suggests that the relationship between utilisation of HRM practices and innovation is not always positive. Studies such as Shipton et al. (2005) showed that HRM practices were positively related to innovation in products and technology, but not related to production processes. These mixed findings suggest that the link between HRM practices and innovation needs further research in order to arrive at unequivocal findings. Nevertheless, there is evidence that companies utilise HRM practices to support innovation (Searle and Ball 2003), and there are variations in the extent to which companies in different sectors adopt various HRM practices (De Jong & Vermeulen 2006).

3. 1. 4 Conclusion and Hypothesis

Based on the literature concerning the theoretical and empirical studies linking the uses of HRM practices and an organisations' innovation, this study has adequate evidence to propose that a greater use of HRM practices matter in determining and / or affecting the level of an organisation's innovation. It is consequently reasonable to propose the first hypothesis in this study that:

Hypothesis 1: More extensive use of HRM practices so-called HPWS, will be positively associated with innovation.

3. 2 Studies Linking HRM and Productivity

3. 2. 1 Introduction

Organisational performance can be considered from a large number of perspectives. These include but are not limited to, productivity, profitability, economic value added, innovation rate, service quality and customer service (Nikandrou, Cunha, and Papalexandris 2006). Organisational productivity has been associated with work systems and theories that link organisational changes at the shop-floor level with organisational strategies that enable employees to produce a greater volume of output, or produce a qualitatively superior or more varied output with a given amount of resources (Appelbaum et al. 2000). Studies on organisational productivity have also related productivity growth to a number of economic outputs, such as the rise of the standard of living and material welfare (Appelbaum et al. 2000), and behavioural outcomes such as job satisfaction (Fincham and Rhodes 2005). A decline or a slowdown in the rate of productivity growth can be a threat to an organisation's competitive advantage or strategy if there is an increase in competition in product markets (Appelbaum et al. 2000). Thus, for an organisation to remain competitive, sustained productivity growth is necessary for its effectiveness in the market economy.

3. 2. 2 HRM Practices and Productivity

One of the early research projects that linked HRM practices with firm performance is a study by Huselid (1995). He studied 816 firms in public-owned companies. He sent questionnaires to 3452 HR professionals with a response rate of 28 per cent. His research objective was to find if a link existed between strategic human resource management practices (specifically those called high performance work practices) and firm performance. The main performance measures were turnover, stock value and profitability. His research findings concluded that HPWS had a significant impact on workforce productivity and turnover.

Guthrie (2001) conducted a research project at a firm-level in New Zealand. His sample consisted of 164 business organisations, representing a 23.4 per cent response rate. The HPWS indicators included high involvement work practices and his performance measures were employee retention and productivity. His study findings concluded that firms which strongly utilise high involvement work practices were associated with an increase in productivity.

Another study on the linkage between HRM practices and firm performance was conducted by Guest, Michie, Conway and Sheehan (2003). This is one of the largest UK company-level studies on the link between HRM practices and firm performance. This study explored 366 UK manufacturing and service-sector companies. The aim of the study was to examine the relationship between HRM and firm performance using objective and subjective performance measures and cross-sectional and longitudinal data. One of the hypotheses in this study was: there will

be an association between greater use of HRM practices and higher labour productivity (Guest et al. 2003). The results in this study showed that with regard to the linkage between HRM practices and labour productivity in general (where data on productivity was collected from the objective and independent financial information), there was no significant association between greater use of HRM practices and productivity. There was, however, a significant association between HRM practices and sector, and the association was higher and significant in the services sector. In terms of the overall effect of HRM practices on financial performance, particularly profit per employee, this study showed that there was a positive association between HRM practices and profit per employee, and it was more significant in the manufacturing sector, i.e., when there was a detailed sector-by-sector analysis (Guest et al. 2003: 304). The analysis using subjective measures of firm performance (data collected from senior directors) and the linkage between HRM practices and firm performance showed that 'there is a significant association between greater use of HRM practices and estimates of both productivity (beta 0.19; $p < 0.001$) and financial performance (beta 0.12; $p < 0.05$)' (Guest et al. 2003: 307). It can be suggested here that the subjective measures of firm performance were fairly weak. Guest and his colleagues acknowledge this weakness and suggest that the subjective measures used were cross-sectional. Ideally, utilisation of objective and subjective measures of performance should not lead to different findings. It is possible to conclude accordingly that cross-sectional and longitudinal procedures might have been the reason behind variations in these performance measures.

Research work by Ramsay, Scholarios and Harley (2000) among the UK small and large organisations consisted of data based on the 1998 Workplace Employees Relations Survey (WERS 1998). This research aimed to examine the relationship between the utilisation of various HRM practices and employee and organisational performance outcomes. Informants in this study were HR management respondents from each company (yielding an 80 per cent response rate), and employees who completed attitude survey-questionnaires in every company. The employee-level data was used to present attitude measures and the management questionnaires were used to represent HPWS practices and organisational performance outcomes. Performance measures used in this study included a company's financial performance, labour productivity, and quality of product service. Informants were also asked to rate whether productivity levels had gone up or down. The study found that measures of HPWS had consistent positive effects on workplace performance. High performance work practices were positively associated with reports on increased labour productivity. Other performance outcomes that were positively associated with high performance work practices included financial performance and quality of product service. Additional positive findings include a positive association between greater use of HRM practices and a number of employees' positive job experiences.

Cappelli and Neumark (2001) studied work practices and their relationship with organisational level outcomes. Measures for work practices included high performance work systems. Their data came from surveys conducted by the U.S Bureau of Census for the National Center on the Educational Quality of the Work

Force. It was a telephone survey covering private establishments with more than 20 employees. Establishments in the manufacturing sector and establishments with more than 100 employees were oversampled. The target respondent in the manufacturing sector was the General Manager, and in the non-manufacturing sector, the local business site manager. The principal dependent variables were sales per worker and total labour costs per worker. With regard to productivity, Cappelli and Neumark's (2001) study found that many of the estimated effects appear positive, but there was weak statistical significance between various HRM practices and sales per worker. Their conclusion in this finding was: 'Overall, then, although many of the estimates are consistent with positive productivity effects, the evidence is weak statistically' (p. 756).

Table 3.3 below provides a summary of empirical works on the relationship between HRM practices and productivity. It briefly presents the name(s) of the author(s), the sample and method, the topic of research and the findings that were obtained.

Table 3.3 A Summary of Empirical Studies on the Link Between HRM Practices and Productivity

Author(s)	Sample and Method	Topic/Focus	Findings
Arthur (1994)	USA: 30 of 54 mini-mills in the steel industry, survey to HR managers Response rate: 56%	HRM practices and manufacturing performance and turnover	High commitment HRM practices were associated with lower scrap rates and higher labour efficiency than control based systems
Huselid (1995)	968 US-owned firms with more than 100 employees, survey to HR managers Response rate: 28%	Link between strategic human resource management practices and firm performance	HPWS had a significant impact on the workforce productivity
MacDuffie (1995)	USA: survey of 62 automotive assembly plants Response rate: 67%	HRM practices and policies and labour productivity and quality	Innovative HRM practices as interrelated elements affect productivity and quality when they are integrated with manufacturing policies of a flexible work system
Huselid, Jackson & Schuler (1997)	USA: 293 publicly held firms, surveys to senior executives in HR department Response rate: (92%) senior executives, and line managers (11%)	SHRM practices , corporate financial performance and employee productivity	Strategic HRM were positively associated with employee productivity, cash flow and market value
Ramsay, Scholarios & Harley (2000)	1998 Workplace Employee Relations Survey (WER98), management and employee-questionnaires on HRM practices Response rate: 80%	HPWS and performance measures: company's financial performance, labour productivity, and quality of product service	HPWS is positively associated with increased labour productivity, financial performance and quality of product service

Table 3. 3 (Continued)

Author(s)	Sample and Method	Topic/Focus	Findings
Guthrie (2001)	New Zealand: 164 business firms with 100 or more employees, surveys to senior managers Response rate was 23.4%	The relationship between high involvement work practices and firm outcomes (in particular labour productivity)	In firms that strongly utilised high involvement work practices, there was an increase in productivity, and lower use was associated with a decrease in productivity
Datta, Guthrie & Wright (2005)	132 publicly traded firms having more than 100 employees and more than \$ 50 million in sales Surveys with senior HR executives Response rate: 15%	HRM practices and labour productivity and whether industry characteristics matter in the relationship between HPWS and productivity	In general there were positive effects of HPWS on productivity, and industry characteristics influenced the degree to which HPWS impact on labour productivity
Flood et al. (2005)	132 companies in Ireland Key informants: General Managers and HR Managers Response rate 13.2%	HPWS and performance measures, in particular, firm productivity, innovation, and turnover	Greater use of HPWS is positively associated with productivity
Stavrou & Brewster (2005)	CRANET questionnaire among 14 EU member states, 3702 for-profit businesses, respondents were highest-ranking corporate officer in charge of HRM Response rate: N/A (CRANET dataset)	Linking SHRM bundles with business performance	Six HRM bundles were positively connected to performance. Training bundle suggested that training and development add value to organisations by maximising productivity

Table 3. 3 (Continued)

Author(s)	Sample and Method	Topic/Focus	Findings
Sun, Aryee & Law (2007)	China: 81 hotels in Eastern China, surveys to HR managers and supervisors of frontline subordinates Response rate: 86%	High performance HRM practices and performance, in particular, labour productivity	High performance HRM practices were positively related to labour productivity
Birdi et al. (2008)	UK: 684 manufacturing companies, three surveys. Telephone and postal surveys and interviews with senior managers: final sample 308 companies Response rate: 45%	The impact of human resource and operational management practices on company productivity	Empowerment and extensive training had positive and significant effects on company productivity Team work had no significant impact on company productivity
Flood et al. (2008) ²	Ireland: 132 companies Key respondents: General Managers and HR executives /managers Response rate: 13.2%	HPWS and company performance, in particular, innovation, productivity and turnover	More extensive use of HPWS is associated with increases in productivity
Guthrie et al. (2009)	Ireland: 165 companies. Key informants: HR and GM executives Response rate was 12.3%	HPWS and productivity and labour expense	Greater use of HPWS was associated with labour productivity and reduction in labour expenses (costs)

² The investigator of this research (Thadeus Mkamwa) is named as a co-author in this study by Flood, Guthrie, Liu, Armstrong, MacCurtain, Mkamwa, & O'Regan 2008): 'New Models of High Performance Work Systems: The Business Case for Strategic HRM, Partnership, and Diversity and Equality Systems' NCPP & The EA, Dublin.

Overall, the studies on the relationship between HRM practices and productivity presented above support the theory that employees can be resourceful to the company, and when they are managed well they can contribute positively to the company's productivity. In this regard, utilisation of HRM practices is presumed to enhance productivity. However, some empirical studies were not able to establish positive associations between HRM practices and productivity outcomes. This might have been due to variations in the methods used in assessing company performance measures. Guest et al. (2003), for example, concluded that their research found mixed results which were predominantly negative. They acknowledged this weakness, by associating the findings to whether the data used was cross-sectional or longitudinal, and whether the key sources of information were HR executives or objective performance data. Nevertheless, this present study has adequate evidence to suggest that when HRM practices are used well, there is a likelihood of positive association between HRM practices and productivity outcomes.

3. 2. 3 Conclusion and Hypothesis

Based on the review of literature relating to the theoretical and empirical studies that link HRM practices with firm productivity as explored above, there is adequate evidence to suggest that HRM practices may have an impact on productivity. In this regard, this study proposes the second hypothesis in this study:

Hypothesis 2: More extensive use of HRM practices, so-called HPWS, will be positively associated with companies' productivity.

3. 3. Empirical Studies Linking HRM and Turnover

3. 3. 1 Introduction

Employee turnover, which generally includes voluntary and involuntary departure from the organisation (Bohlander and Snell 2007), is a phenomenon that exerts significant pressure on employers due to its associated cost. The effects of employees' turnover in terms of costing include the separation costs of the departing employee, replacement costs and training costs for the new employee. Thus the financial impact includes administration of the resignation, recruitment and selection, finding cover during the vacancy period, administration of recruitment and selection process, plus induction training for the new employees – just to mention a few (Bohlander and Snell 2007; CIPD 2008, 2009). Bohlander and Snell (2007) further argue that 'the costs are conservatively estimated at two to three times the monthly salary of the departing employee and do not include indirect costs such as low productivity prior to quitting and lower morale and overtime for other employees because of the vacated job' (ibid. p. 90).

Following March and Simon (1958), Lee, Lee & Lum (2008) identified two factors that determine employees' decision to stay in a company. These include the perceived desirability and the perceived ease of movement out of the organisation. Perceived desirability of movement, or 'push factor', is normally influenced by job satisfaction. The perceived ease of movement, or 'pull factor', is influenced by a person's perceptions of the availability of jobs in the external job market.

Besides the push and pull factors, there are psychological and cognitive reasons behind employee turnover. These factors are linked with negative job attitudes (Lee et al. 2008). In this respect, researchers have linked voluntary turnover with negative job attitudes among employees in an organisation. Literature on employee turnover shows, however, a number of other factors that can determine employees' voluntary turnover. These include, but are not limited to, reasons unrelated to job dissatisfaction such as unsolicited job offers (Gerhart 1990). Other reasons include job-related shock such as downsizing, pursuit of non work-alternatives such as schooling or family, or a strategy to quit after a certain amount of time (Lee et al. 2008; CIPD 2008, 2009).

3. 3. 2 HRM Practices and Turnover

Most of the studies that have examined the link between HRM practices and labour turnover have been conducted with labour turnover being one of the dependent variables (Sun, Aryee and Law 2007; Yalabik, Chen, Lawler and Kim 2008; Guthrie et al. 2009). Similarly, companies that utilised HPWS threatened their competitive advantage when they carried out layoffs (Zatzick and Iverson 2006). Thus, HPWS and an increase in turnover may be incompatible. It is also likely that work pressure can increase among employees due to HPWS. This in turn may lead to turnover. In this regard, competitive companies have to use HRM practices that reduce labour turnover since it is, whether voluntary or involuntary, costly to the company (Bohlander and Snell 2007).

Guest et al. (2003) hypothesised that there will be an association between the greater use of HRM practices and lower labour turnover. The results in their study showed that the linkage between HRM practices and labour turnover (where data on the latter was collected from the subjective HR directors interviews), was significant. Their study reported an association between the greater use of HRM practices and lower levels of labour turnover (beta = - 0.14, $p < 0.01$). Furthermore, when these results were examined according to the type of sector, the findings remained significant in the manufacturing sector and not in the services sector.

Richard and Johnson's (2001) study on the relationship between the effectiveness of SHRM and bottom-line outcomes, in particular labour turnover, showed that an effective HR management system may contribute to turnover reductions. This finding from regression outcomes showed that after controlling for variables such as total assets and holding company ownership, SHRM effectiveness was negatively related to firm turnover. The effect size in this reduction of turnover was beta = -.32, $p < .01$. The findings also suggested that the impact of SHRM effectiveness on firm turnover did not depend upon strategy, because it was measured as an intermediate variable and thus did not depend on an organisation's goals or strategy.

Table 3.4 below provides a summary of the studies on the link between HRM practices and labour turnover. Overall, the studies suggest that greater use of HRM practices is related to lower employee turnover. Companies that extensively utilised HPWS experienced lower turnover than companies that were less extensive in utilising these practices.

Table 3.4 A Summary of Empirical Studies on the Link Between HRM Practices and Turnover

Author(s)	Sample and Method	Topic/Focus	Findings
Arthur (1994)	USA: 30 of 54 mini-mills in the steel industry, survey to HR managers Response rate: 56%	The relationship between HRM practices and manufacturing performance	Organisations that utilised commitment-based HRM practices had lower turnover than companies that adopted control-based HRM practices
Huselid (1995)	USA: 968 US-owned firms with more than 100 employees, survey to HR managers Response rate: 28%	Link between strategic human resource management practices and firm performance	HPWS had a significant impact on the workforce turnover
Shaw, Delery, Jenkins & Gupta (1998)	USA: 227 organisations with more than 30 employees, surveys to highest-ranked HRM manager Response rate: 36%	The relationship between HR investments and indirect investments and voluntary and involuntary turnover	HRM inducements and indirect investments were negatively related to voluntary turnover
Guthrie (2001)	New Zealand: 164 firms employing more than 100 individuals, surveys sent to senior managers Response rate: 23.4%	The relationship between high involvement work practices and employee turnover	High involvement work practices were associated with a decrease in labour turnover
Batt (2002)	USA: telephone surveys to US establishments-call centres, respondents were general managers Response rate: 54%	Examine among other things, the relationship between human resource practices and employee quit rates	Quit rates were lower in establishments that utilised and emphasised HRM practices such as high skills, employee participation in decision making

Table 3. 4 (Continued)

Author(s)	Sample and Method	Topic/Focus	Findings
Wang & Zang (2005)	China: Survey of local Chinese enterprises and international joint ventures, 358 managers from 75 companies participated in field surveys Response rate: N/A (convenient sampling)	Examine the relationship between functional HRM and strategic HRM and organisational performance	Strategic HRM (defined as HRM practices related to long-term effects on company performance) was associated with less personnel turnover
Sun, Aryee & Law (2007)	China: 81 hotels in Eastern China. Surveys to HR managers and supervisors of frontline subordinates Response rate: 86%	The relationship between high performance HRM practices and performance (in particular annual staff turnover)	High performance HRM practices were negatively related to employee turnover, and significantly predicted change in staff turnover
Yalabik, Chen, Lawler & Kim (2008)	East and Southeast Asia: Korea, Taiwan, Singapore & Thailand. 492 surveys (senior HR managers) were collected Response rate: 35%	Examine the impact of HPWS on voluntary and involuntary organisational turnover	HPWS reduced both forms of turnover in locally owned companies more than in Western and Japanese multinational companies
Zheng, O'Neill & Morrison (2009)	China: 74 small and medium-sized enterprises (SMEs) in various cities in China. Interviews with managers from SMEs Response rate: less than 10%	The relationship between HRM practices, the adoption of innovative work practices and organisational performance	SMEs with innovative HRM practices were better in achieving lower staff turnover than companies that did not embrace the practices
Guthrie et al. (2009)	Ireland: 165 companies. Survey HR and GM executives Response rate: 12.3%.	The relationship between HPWS and HRM outcomes: in particular absenteeism and turnover	Greater use of HPWS was associated with a reduction in absenteeism and voluntary turnover

Overall, the review of literature and the studies presented in table 3.4 suggest that utilisation of HRM practices can influence employees' likelihood of voluntarily quitting or not quitting the company. In this regard, various studies suggest that a negative association between HRM practices and labour turnover exists. Other studies make claims that there are company differences in the extent to which HRM practices influence turnover, and so no conclusive findings can be derived. These variations are either due to the type of the company, sector, size or country of origin. With such mixed results, further research should be conducted to examine the extent to which the utilisation of HRM practices influence turnover.

3. 3. 3 Conclusion and Hypothesis

Based on the literature on the association between the uses of HRM practices and reductions in an organisation's labour turnover, adequate evidence exists that HRM practices have an impact on the way employees decide to stay or leave the organisation. In this respect, this study proposes a third hypothesis:

Hypothesis 3: More extensive use of HRM practices, so-called HPWS, will be negatively associated with labour turnover.

3. 4 Conclusion

This chapter examined the literature on studies that linked HRM practices and firm performance. Specifically, the chapter focused on three performance outcomes: innovation, productivity and turnover. Overall, these studies suggest that utilisation of HRM practices, may enhance workforce innovation, productivity and reduce labour turnover.

CHAPTER FOUR

HUMAN RESOURCE MANAGEMENT PRACTICES AND EMPLOYEE OUTCOMES

4. 1 Introduction

This chapter presents theoretical and empirical studies on the relationship between HRM practices (the so-called high performance work practices) and employee outcomes. Specifically, the chapter presents employee perceptions of HRM practices and their impact on employee behavioural and attitudinal outcomes. This is followed by a presentation of major studies that have examined the relationship between HRM practices and innovative work behaviour (IWB), organisational citizenship behaviour (OCB), tenure intentions and perceptions of job demands. Study hypotheses are developed after a review of related literature in each respective section.

4. 2 Perceptions of HPWS and Employee Outcomes

Employees' beliefs about their organisation, working conditions and HRM practices, i.e., organisational climate (Bowen and Ostroff 2004), contribute greatly to their feelings and the level of engagement in discretionary activities in the workplace (Evans and Davis 2005; Konrad 2006). This is because organisational climate captures employees perceptions regarding what type of HRM policies and practices are expected and implemented in an organisation, and what behaviours are expected and rewarded in the organisation (Zohar 2000; Bowen and Ostroff 2004; Zohar and Luria 2005). Research on HPWS suggests that 'organisations offer resources and

opportunities that improve the motivation, skills, attitudes and behaviours of their employees' (Kuvaas 2008:1). Thus, exploring employees' attitudes about the use of HPWS will be a step forward in analysing the impact of HRM practices on performance through variables such as employee innovative work behaviour, retention and workplace citizenship behaviour. Despite a number of studies that have suggested a positive impact of HPWS on employee attitudes and behaviours which in turn improve firm performance (Vandenberg, Richardson and Eastman 1999; Appelbaum et al. 2000; Ostroff & Bowen 2000; Bailey, Berg and Sandy 2001), some studies claim that the positive implications of HPWS for employees are uncertain (Godard 2004). Similarly, studies conducted in steel and iron industries in the UK suggest negative implications of HPWS for employees (Blyton and Bacon 1997; Bacon and Blyton 2000; Bacon and Blyton 2003; Bacon, Blyton, and Dastmalchian 2005). These studies claim that these steel and iron industry workplaces have employees who are already constrained by work-life conflicts, difficult working conditions and psychological strains due to the nature of the job itself. The studies also suggest that these new work practices provide no defence against an environment which is characterised by heightened job insecurity (Bacon & Blyton 2001). Similar studies suggest that these manufacturing workplaces increase negative outcomes to employees such as stress and decreased work satisfaction (Ramsay, Scholaris and Harley 2000). However, Appelbaum and her colleagues' (2000) study in steel mills and apparel manufacturers, showed positive relations between employees' perceptions of HPWS and attitudes such as trust, organisational commitment and intrinsic enjoyment of the work. Konrad's (2006) study on employees' perceptions of HPWS in the U.S. surveyed employees in the

life insurance industry. The study assessed the relationship between employee perceptions of the power they have to make decisions and the rewards they get. The findings in the study showed that the usage of HPWS was positively associated with employee morale, employee retention, and the companies' financial performance.

Regarding reasons behind companies' utilisation of HPWS, research based on the labour process theory suggests that HPWSs are employed by companies in order to elicit employee commitment, engagement, initiatives, loyalty and ideas for the benefit of the employer (Osterman 1995; Konrad 2006). Konrad (2006) suggests that HPWS are employed by the management in order to develop positive beliefs and attitudes that are associated with employee engagement and commitment. The practices and the beliefs engendered generate discretionary behaviours that are necessary in enhancing company performance. Sharp, Erani and Desai (1999) suggest that due to international competition, companies are forced to implement work practices and systems which place increasing demands on employees to work smarter, better and faster. Osterman (1995) on the other hand contends that, besides commitment and loyalty, HPWSs are adopted to a much greater extent than is expected under traditional employment relations. With these new systems, employees are involved in tasks that are not specified in their job description. He argues that problem solving, production techniques, quality issues, health and safety issues, he argues, are traditionally managerial and not employee issues. Thus, according to Osterman (1995) and Guest (1999), when one examines HPWS critically, it is more likely to consider HPWS as more beneficial to the companies

than to the employees. This point is emphasised by Guest (2008:129) who states that, if high performance work systems are not examined from employee perspectives they may be seen as a management control tool designed to make employees committed to the company while employees get little in return.

As an alternative approach, Paauwe and Boselie (2008) advocate the adoption of a balanced approach in HRM-performance management and employee outcomes by calling for a high performance work system where a sufficient degree of trust, legitimacy and fairness is fostered. They claim this approach will in the long run reduce dissatisfaction, burnout and stress in the workforce. Paauwe's (2004) contextually-based human resource theory suggests that long term viability can only be achieved if an organisation balances economic and relational rationalities. Thus, an in-depth examination of HPWS and company performance should include a good look at employees' perceptions. Overall, research shows that HRM practices, in particular, HPWSs are linked to various employee outcomes (Vandenberg, Richardson & Eastman 1999; Guest, David & Conway 1999; Lambert 2000; White et al. 2003; Takeuchi 2009). Table 4.1 below provides a summary of key study findings on employee perceptions of HRM practices, in particular HPWSs, and various employee outcomes. Overall, the table shows a number of studies which have established a positive association between employee perceptions of HRM practices and company and employee outcomes. However, there are studies which show mixed or negative associations between HPWS and company and employee outcomes.

Table 4.1 Findings on Key Studies on Employee Perceptions of HRM Practices

Author(s)	Sample/Method	Focus	Findings
Berg et al. (1996)	<p>USA: corporate officials from 2 plants and approximately 100 employees from each company in U.S apparel industry</p> <p>Interviews by telephones, and company records</p> <p>Response rate: 69%</p>	<p>Compares employees' perceptions of alternative work methods: modules/team vs. bundle production and firm performance</p>	<p>Teamworking produced superior performance i.e. enhanced motivation and job satisfaction</p> <p>Work design promoted effective production through design efficiencies and economies of self-regulation</p>
Guest & Conway (1999)	<p>UK: random sample of 1000 employees from organisations with 25 or more staff</p> <p>Telephone interviews on a random basis, using random digit dialling</p> <p>Response rate: 39%</p>	<p>Compares employee perceptions and reports on how HRM practices and policies affect their experience and attitudes towards their jobs</p>	<p>A strong relationship between high take-up of HPWS and employees' perceptions of positive experiences and attitudes towards their jobs</p> <p>A strong relationship between non-practising of HPWS with employees' negative attitudes towards their jobs</p>
Vandenberg, Richardson & Eastman (1999)	<p>USA & Canada: 3570 employees from 49 life insurance companies in US and Canada</p> <p>Random selection of employees from participating companies, 71% were from non-managerial ranks</p> <p>Response rate: 20% of employees in each organisation that participated</p>	<p>Measures the effects of high involvement work practices on employee morale variables</p>	<p>High involvement work practices positively influence employee morale variables, and thus indirectly affect organisational effectiveness (morale variable included organisational commitment, job satisfaction, and turnover intentions)</p>

Table 4. 1 (Continued)

Author(s)	Sample/Method	Focus	Findings
Appelbaum et al. (2000)	<p>USA: employees from 15 steel mills, 17 apparel manufacturers, and 10 medical electronic instrument and imaging equipment producers in US</p> <p>Interviews with managers and surveys of at least 100 employees from each plant visited, selected at random</p> <p>Overall response rate: 68% (steel industry 64%, apparel 67%, and medical imaging 77%).</p>	<p>Examines how HPWS affect employee attitudes and experiences at work</p> <p>Measures employees' perceived work pressure with the introduction of work teams and off-line problem solving teams</p>	<p>Workers in high involvement plants showed more positive attitudes such as trust in their managers, organisational commitment and intrinsic enjoyment of the job</p> <p>There was no evidence that HPWS leads to 'speed-up' and so negatively affect employees' stress</p>
Bacon & Blyton (2000)	<p>UK: 30 employees (Union Representatives) from Iron and Steel Trades Confederation (ISTC) in UK.</p> <p>Survey sent to all 300 workplace representatives who represented manual workers</p> <p>Response rate: 52%</p>	<p>Examines perceived effects of teamworking and other related team practices among employees</p>	<p>Teamworking was associated with a decline in the number of workers, decline in workers' enjoyment of their job, and decline in worker motivation and interest in the job</p> <p>Employees could, however, benefit when teamworking was introduced with managers negotiating with unions</p>
Ramsay, Scholarios & Harley (2000)	<p>UK: 1998 Workplace Employee Relations Survey (WER98) across small and large organisations</p> <p>Management and employee questionnaires on HR practices (matched)</p> <p>Response rate: 80%</p>	<p>Examines the impact of HPWS when used as individual practices or as a set or bundle of practices</p>	<p>Mixed results: HPWS was associated with positive employee experiences; pay satisfaction, job discretion, and commitment</p> <p>HPWS was also associated with negative employee attitudes: i.e., poor management relations, low pay satisfaction, less job security, low commitment, high job strain</p>

Table 4. 1 (Continued)

Author(s)	Sample/Method	Focus	Findings
Bailey, Berg & Sandy (2001)	<p>USA: managers and employees from 45 establishments in steel, apparel and medical electronics and imaging industries</p> <p>Interviews with managers and survey with workers at 40 manufacturing sites across three industries from 1995 to 1997</p> <p>Response rate: N/A (case study)</p>	<p>Compares employees' wage levels with employees' opportunity to participate in teams, autonomy over work tasks, and opportunity to communicate with employees outside work group</p>	<p>Workers in HPWS environments earn more than in traditional workplaces and have higher influence over their earnings (pay linked to performance, training, more discretionary effort)</p> <p>In apparel, teams with high level of autonomy and communication led to high performance and benefits to both employers and employees</p>
Fulmer et al. (2003)	<p>USA: Fortune list 'The 100 Best Companies to Work for in America'</p> <p>Extensive employee survey, mean of 136 employee respondents per firm</p> <p>Response rate: 58%</p>	<p>Assesses employee relations/attitudes to HRM practices as seen by employees and financial performance</p>	<p>Higher financial and market performance for companies having the most favourable employee relations and attitudes</p>
Lee & Bruvold (2003)	<p>USA & Singapore: 405 nurses from US and Singapore</p> <p>Surveys to two independent samples.</p> <p>Response rate: US sample 40% Singapore sample 87.5%</p>	<p>Examines the relationships among perceived investment in employees' development, job satisfaction, organisational commitment and intent to leave</p>	<p>Developing employees' skills and competency was associated with job satisfaction, and affective commitment, and reduced intent to leave the organisation</p>

Table 4. 1 (Continued)			
Author(s)	Sample/Method	Focus	Findings
Bacon & Blyton (2005)	UK: Employees from five sites of CORUS: Ebbw Vale and Trostre, Teesside and Scunthorpe, and Shotton Workplace interviews and surveys for two years from 1998 Response rate: 31.3%	Examines employees' views of team-working with respect to different work outcomes such as job satisfaction and job security	Employees felt that teamworking was introduced to protect managers, their jobs and careers and not those of employees Employees felt managers were enforcing consent through promoting and favouring compliant individuals: unfair treatment
Edgar & Geare (2005)	New Zealand: 626 employees from 40 organisations and 37 employer survey Matched data sets were used to test relationships Response rate of 58%	Tests the relationship between HRM practices and employee-work related attitudes	Significant results between HRM practices and employee work-related attitudes There was statistical significance when HRM was assessed from employee perspective, and no significant relationship when measured by employer reports
Frobel & Marchington (2005)	UK: employees from PharmCo Germany and PharmCo UK. Structured and semi-structured interviews with managers, team leaders, team members and union representatives Response rate: UK 79%, Germany 68%	Examines employee and team member perceptions of teamworking, job design, team relations, internal motivation, job satisfaction, organisational commitment and perceived job security	Worker perceptions were moderately positive with different teamwork dimensions Team members felt that they had higher levels of autonomy and greater opportunities to participate in decision making (PharmCo Germany). In general employees showed job satisfaction and commitment
Ghebreiorgis & Karsten (2006)	Eritrea: survey of 252 employees from eight private and state-owned organisations & on-site interviews with managers Response rate: 84%	Examines employee perceptions and experiences of HRM practices and organisational performance	Positive employee attitudes to HRM were associated with an increase in productivity and a low employee turnover, absenteeism and grievances

Table 4. 1 (Continued)			
Author(s)	Sample/Method	Focus	Findings
Khilji & Wang (2006)	Pakistan: 195 interviews and 508 questionnaire responses of senior managers, managers and non-managers (bank industry) Response rate: 51%	Assesses employee perceptions of HRM practices and employee outcomes	Employee satisfaction with HRM translated into improved organisational performance (not the mere presence of the HRM practices)
Macky & Boxall (2007)	New Zealand: 424 surveys with urban registered electors of voting age Response rate was 22.6%	Examines the relationship between HPWS and employee attitudinal outcomes such as job satisfaction, trust and commitment	Employee scores on a HPWS index was associated with additive, positive employee outcomes such as trust, intentions to remain with the employer and job satisfaction
Kalmi & Kauhanen (2008)	Finland: The Quality of Work Life Survey (QWLS-2003), 4104 interviews Response rate: 78%	Examines the relationship between workplace innovation systems and employee outcomes	Workplace innovations were mainly associated with beneficial outcomes for employees e.g., an increase in job security and job satisfaction
Kuvaas (2008)	Norway: alliance of savings banks in 2003 Employee survey: 593 employees from 64 banks Response rate: 39%	Examines the quality of employee-organisation relationship and whether or how it influences the relationship between perceptions of developmental HRM practices and employee outcomes	Positive association between perception of developmental practices and work performance Negative association for employees who reported low quality employee-organisation relationship
Nishii, Lepak & Schneider (2008)	USA: survey of 4,208 employees and 1,010 department managers, nested within 362 departments across 95 stores Response rate: employees 94%, managers 92%	Examines the relationship between HRM practices and employee attitudes and behaviours and customer satisfaction	Positive association between employee perceptions and attributions of HRM practices and various behavioural outcomes such as OCB

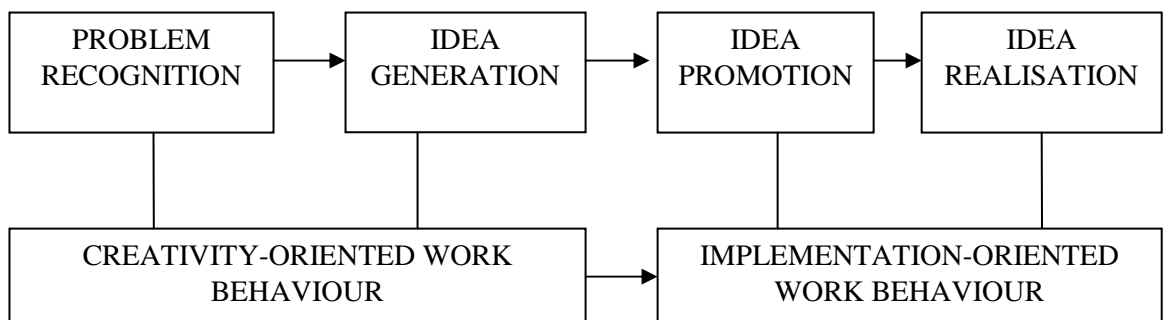
The review of literature and the studies presented in Table 4.1 above suggest that utilisation of HRM practices is associated with various employee attitudinal and behavioural outcomes. While some studies show positive employee outcomes such as enhanced motivation and morale (Berg et al. 1996; Vandenberg, Richardson & Eastman 1999), others show negative outcomes such as increased job strain and less job security (Bacon & Blyton 2000), and still others offer mixed results (Ramsay, Scholarios & Harley 2000, Godard 2004). These differences may be due to methodological differences or variations in theoretical approach, or contextual differences (sample size, industry or sector, country of origin etc.) from one sample to another. Since the primary focus of this study is not to examine national or contextual differences relating to employee perceptions of HPWS among countries, it suffices to suggest that utilisation of HRM practices, so-called HPWS, will have some influence on employee perceptions of various HRM practices in their workplaces. In this regard, the research design of this study suggests that utilisation of HPWS at company level will have an impact on employee level behavioural and attitudinal outcomes. It is therefore, reasonable to suggest the following hypothesis which suggests an association between company utilisation of HPWS and employee attitudinal outcomes.

Hypothesis 4: More extensive use of HPWS will be associated with positive employee perceptions of HRM practices.

4. 3 HRM Practices and Innovative Work Behaviour

Innovative work behaviour (IWB) is defined as ‘the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or organization’ (Janssen 2000: 288). It is also related to ‘the voluntary willingness by the individual employees to constitute on-the-job innovations – for example, through the upgrading of ways of working, communication with direct colleagues, the use of computers, or the development of new services or products’ (Dorenbosch, Van Engen and Verhagen 2005: 129). Janssen (2000) identifies four interrelated sets of behavioural activities that constitute IWB. These are problem recognition, idea generation, idea promotion and idea realisation. Problem recognition and idea generation are generally perceived as creativity-oriented behaviour, and idea promotion and idea realisation are perceived as implementation-oriented behaviour (Dorenbosch, Van Engen & Verhagen 2005). Figure 4.1 below summarises the four stages of IWB.

FIGURE 4.1 Four Stages of Innovative Work Behaviour



Adapted from Dorenbosch, Van Engen and Verhagen (2005: 130).

Many organisations expect and look at innovation as a long-term survival strategy and a source of sustained competitive advantage (Tidd et al. 2001). For company viability, innovation and innovative work behaviours among its workforce need to be explored. In particular, it is often necessary for companies to explore the ways through which employees can be motivated and enabled to work innovatively (Van de Ven 1986; Janssen 2000; Parker 2000; Chow 2005). Similarly, perceptions which employees have with regard to an organisation's expectations for behaviour and potential behaviour outcomes can influence their level of innovativeness (Scott and Bruce 1994; Boselie, Hesselink, Paauwe & Van der Wiele 2001). For Scott and Bruce (1994), employee perceptions of the climate for innovation affect their IWB, in particular, when they are dealing with individual problem solving, when they are dealing with work group relations, and also when they have to deal with the relationship between employees and the leadership in the organisation. In this respect, one can conclude that there is an association between employee IWB and the extent to which companies foster the climate for innovation in the company.

Like organisational citizenship behaviour, IWB consists of engaging in extra role job demands which may not be mandated by the organisation (Morrison and Phelps 1999). They are acts that depend very much on how employees decide to take charge, cooperate and thus initiate constructive change and behave innovatively (Morrison and Phelps 1999; Janssen 2000). Employee perceptions of organisational practices and policies have, therefore, an important role in determining IWB. Employees may decide to cooperate and act innovatively or they may restrict their innovativeness since they have personal control in relation to extra-role activities

(Janssen 2000). Chow (2005) suggests that high involvement or participatory systems contribute to a knowledgeable, highly skilled, motivated and loyal workforce. In this system, employees work together in teams and share common experiences and may have a shared discretionary effort. Similarly, increasing employees' opportunity to participate in organisational affairs enhances employees' discretion and effort which are important elements for firm benefits (Purcell, Kinnie, Hutchinson, Rayton & Swart 2003; Liu et al. 2007).

Literature on HRM practices suggests that motivational practices are important in promoting employees' willingness to engage in innovation and IWB (Parker 2000). This includes motivating employees to have a sense of production ownership (autonomy), through which they can engage in effective problem solving and coping with job demands (Dorenbosch, Van Engen & Verhagen 2005). Thus, employees are more likely to engage in IWB when they feel that they have ownership of the problems concerning them in the workplace (Parker, Wall and Jackson 1997). A study by Boselie, Hesselink, Paauwe & Van der Wiele (2001) suggests that employee perceptions of commitment-oriented HRM practices shape desired employee behaviours and attitudes such as trust. Thus, HRM practices can be one of the means through which organisations can elicit employee involvement and IWB (Dorenbosch, Van Engen and Verhagen 2005). In their study on the relationship between HRM practices and IWB, Dorenbosch, Van Engen and Verhagen (2005), using the social exchange theory (Blau 1964), found that employees' perceptions of a high commitment HRM system was positively related to IWB. They concluded

that management could facilitate IWB through employing HRM practices that are commitment-oriented. Similarly, a study by Axtell et al. (2000) found that employee perceptions of individual, group and organisational factors had an impact on innovation process and IWB. Based on the literature review on the relationship between HRM practices and IWB, this study proposes that, there will be an association between the extent to which HRM practices are utilised at the company-level and the extent to which employees experience them at the employee-level. Similarly, there will be an association between employee perceptions of HRM practices and the extent to which they engage in extra role behaviours. In this regard, this study proposes the following hypotheses:

Hypothesis 5a: More extensive use of HPWS will be positively associated with employee innovative work behaviour.

Hypothesis 5b: Positive employee perceptions of HRM practices will be associated with innovative work behaviour.

4. 4 HRM Practices and Organisational Citizenship Behaviour

Organisational citizenship behaviour (OCB) includes employee sentiments and attitudes towards pro-social and citizenship behaviours (Podsakoff, MacKenzie, Paine & Bachrach 2000). Pro-social behaviours consist of proactivity which refers to the extent to which an individual takes self-directed action to anticipate or initiate change in the work system or work roles (Griffin, Neal and Parker 2007). These

behaviours further include collaborative and cooperative efforts directed towards the organisation's objectives and are productive to the organisation (Ostroff 1992; Oikarinen, Hyppia and Pihkala 2007). According to Likert (1961), dissatisfied employees cannot effectively participate in cooperation and collaborative efforts. Thus, examining the extent to which employees feel satisfied about their work is important when one is assessing the extent to which OCB is related to company performance (Biswas and Varma 2007). Similarly, an examination of employees' perceptions of HRM practices and their working conditions is important if one wants to establish a link between HRM practices, citizenship behaviour, and company performance (Oikarinen, Hyppia, and Pihkala 2007; Nishii, Lepak, and Shneider 2008).

There are almost 30 different forms of organisational citizenship behaviour (Foote and Tang 2008). Organ (1988) defines it as the 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. Other terms that are associated with citizenship behaviour include: extra role behaviour, prosocial organisational behaviour and organisational spontaneity (Podsakoff et al. 2000). The main interest in the OCB literature has been the examination of what determines or influences these types of behaviours among employees (Organ, Podsakoff, and MacKenzie 2006). Another important issue has been on whether there is a clear cut conceptual boundary between OCB, defined as extra role behaviour, and in-role behaviour, which means an employees' job or role description

(Morrison 1994). Based on this need to make a clear demarcation, OCB is also clearly defined as employee behaviour that is above and beyond the call of duty and is, therefore, discretionary and not rewarded in the context of organisation's formal reward structure (Konovsky and Pugh 1994; Podsakoff et al. 2000; Van Dyne and Pierce 2004).

Among the behaviours that describe extra-role behaviours among employees are altruism, which consists of a tendency to help a specific other person, conscientiousness, which is a behaviour that goes beyond the minimum requirement of the work role, and civic virtue, which is behaviour calling for a responsible participation in and involvement with life of the employing organisation. Other behaviours include sportsmanship, which consists of willingness to tolerate less than ideal circumstances without complaining, and courtesy aimed at preventing work-related problems with other co-workers (Morrison 1994; Podsakoff et al. 2000). Table 4.2 below provides a summary of the types of OCB as treated by various authors.

Table 4.2 Types of Organizational Citizenship Behaviour

Type of OCB	Author(s)	Characteristics
Helping Behaviour	Borman & Motowidlo (1997); George & Jones (1997)	Voluntarily helping others with, or preventing the occurrence of work-related problems
Sportsmanship	Organ (1990) ; Podsakoff et al. (2000)	Willingness to tolerate inevitable inconveniences and impositions of work without complaining.
Organisational Loyalty	George & Jones (1997); Podsakoff et al. (2000)	Spreading goodwill and protecting the organisation Endorsing and defending organisational objectives construct, promoting the organisation to outsiders
Organisational Compliance	Williams & Anderson (1991)	Person's internalisation of organisation's rules, regulations and procedures, even when no one monitors compliance, organisational obedience
Individual Initiative	George & Jones (1997); Podsakoff et al. (2000)	Voluntary acts of creativity and innovation, going beyond the minimum work required or expected, going above and beyond the call of duty
Civic Virtue	Organ (1988)	Commitment to organisation as a whole, active participation in governance, attending meetings, looking out for organisation's best interests
Self Development	George & Brief (1992)	Learning new skills to benefit organisation, voluntarily improving one's skills, knowledge and abilities

4. 4.1 Antecedents of OCB

Empirical research has concentrated on four major categories of antecedents of OCB which include individual or employee characteristics, task characteristics, organisational characteristics and leadership behaviours (Podsakoff et al. 2000). While these variables are also called predictors of citizenship in organisations (Bolino and Turnley 2003), Organ generally defines the antecedents of OCB as

attitudes indicative of or derived from a general state of morale in the workplace (1997). However, employee perceptions of an organisation's expectations for behaviour and potential behaviour outcomes influence their level of organisational citizenship behaviour (Morrison 1994; McDonald and Makin 2000; Tsui and Wu 2005). Morrison (1994) argues that, if an employee defines helping co-workers as in-role behaviour he or she will conceptualise the behaviour very differently than extra role behaviour and will perceive a different set of incentives surrounding the helping behaviour. Employees will likely give their effort and engage in organisationally-directed OCB if they feel that the organisation values their contribution and is interested in their wellbeing (Eisenberger, Armeli, Rexwinkel, Lynch & Rhodes 2001; Rhodes & Eisenberger 2002; Coyle-Shapiro, Morrow & Kessler 2006; Oikarinen, Hyppia & Pihkala 2007).

As a discretionary behaviour, OCB has been related to HRM practices and various behavioural outcomes that are dependent on the extent to which employees perceive their in-role and extra role activities in the organisation (Morrison 1996; Biswas and Varma 2007; Uen, Chien and Yen 2009). A study by Nishii, Lepak and Schneider (2008) examined the relationship between the organisation's utilisation of HRM practices, employee perceptions of the practices and their impact on various employee attitudes. Overall, their study found that it was not only the HRM practices that mattered in achieving organisational outcomes, but also the extent to which employees perceived the reasons behind the introduction of HRM practices in their workplaces.

Table 4.3 below, provides a summary of key studies that linked utilisation of HRM practices and OCB. Overall, the studies suggest that the utilisation of HRM practices and positive employee perceptions of HRM practices are significantly related to organisational citizenship behaviour. These studies generally highlight that OCB can be summarised as ‘willingness to cooperate’ and may be a viable means of expressing positive job attitudes (Organ et al. 2006).

Table 4.3 Studies on the Relationship Between HRM Practices and Organisational Citizenship Behaviour

Researcher(s)	Sample	Findings
Biswas & Varma (2007)	India: survey of 357 managerial employees from public and private manufacturing and service organisations Response rate was 90%	Employee perceptions of work environment had a positive influence on OCB
Biswas, Srivastava & Giri (2007)	India: survey of 357 managerial employees from public and private manufacturing and service organisations Response rate was 90%	HRM practices of a firm positively and significantly influenced employees’ OCB
Oikarinen, Hyypia & Pihkala (2007)	Finland: 143 shop-floor level employees from five different workplaces/networks Response rate was 38%	Employee perceptions of HRM practices and their working conditions had significant effects on different types of OCB
Nishii, Lepak & Schneider (2008)	USA: survey of 4,208 employees, 1,010 department managers across 95 stores Response rate was 94% (employees) and 92% (department managers)	Employee attitudes and attributions of ‘why HR practices’ were positively related to OCB
Uen, Chien & Yen (2009)	Taiwan: 127 knowledge workers (42% response rate) and 28 immediate managers in high tech firms (47% response rate)	Commitment-based HRM practices were positively associated with OCB

The literature on the employer-employee relationship (summarised by the social exchange theory, Blau 1964) suggests that employees will engage in voluntary and discretionary behaviours based on the extent to which they feel the company cares about their wellbeing (Eisenberger, Armeli, Rexwinkel, Lynch & Rhodes 2001; Rhodes and Eisenberger 2002; Coyle-Shapiro, Morrow & Kessler 2006; Oikarinen, Hyppia & Pihkala 2007). Tsui and Wu (2005:118), for example, pointed out that ‘when employees experience long-term investment from employers, they reciprocate with loyalty to these organizations and contribute much more than simple job performance.’ Literature also suggests that the management of HRM practices can be used in enhancing employee citizenship behaviour. This can be done by establishing the tone and conditions of the employee-employer relationship (Rousseau and Greller 1994; Morrison 1996). The tone can encourage or discourage citizenship behaviour depending on how the company manages social exchange relationships. Similarly, the tone can be effective depending on the extent to which the company empowers its employees to engage in OCB (Morrison 1996). Thus, the employees’ likelihood of voluntary actions and feelings of obligation to pay back to the company constitutes a strong reason to suggest that employee perceptions of HRM practices will be associated with citizenship behaviours. Based on the social exchange assumptions and the empirical studies on the relationship between employees’ perceptions of HRM and the antecedents of OCB, this study proposes the following hypotheses:

Hypothesis 6a: More extensive use of HPWS will be positively associated with employee organisational citizenship behaviour.

Hypothesis 6b: Positive employee perceptions of HRM practices will be associated with organisational citizenship behaviour.

4. 5 HRM Practices and Tenure Intentions

Tenure intentions can be considered in terms of turnover intentions (i.e. intentions to leave the employer) or intentions to stay with the current employer (Batt and Vancour 2003; Chen, Chu, Wang & Lin 2008). Literature on HPWS generally suggests that human resource policies are likely to improve employee performance and reduce their voluntary turnover or propensity to quit (Appelbaum et al. 2000; Flood et al. 2005; Guthrie, Flood, Liu & MacCurtain 2009). Employees are less likely to quit if HPWSs provide them with opportunities for employee discretion, skills development, human resource incentives such as high relative pay and opportunities for growth and development within the organisation (Shaw, Delery, Jenkins & Gupta 1998; Sun, Aryee and Law 2007; Yalabik, Chen, Lawler & Kim 2008; Guthrie et al. 2009). Literature also demonstrates that HRM practices can predict employee turnover intentions (Batt and Valcour 2003). In their study Batt and Valcour (2003) suggest that human resource incentives significantly reduce employees' turnover intentions. Similarly, studies on employees' intent to stay or leave a position have linked the determinants of tenure intentions with actual employee turnover (Chen et al. 2008). Table 4.4 provides a summary of various studies that have examined the link between HRM practices and tenure intentions.

Table 4.4 Studies on the Relationship Between HRM Practices and Tenure/Turnover Intentions

Researcher(s)	Sample	Findings
Batt & Valcour (2003)	USA: 557 employed individuals Sectors: manufacturing, healthcare, higher education, and utilities Response rate: 75%	Human resource practices and incentives significantly explained a reduction in employee turnover intentions
Valcour & Batt (2003)	USA: Focus groups involving 114 employees in 7 participating organisations (qualitative study) Survey questionnaires to 264 employees (quantitative study) Response rate: 33%	Flexible scheduling policies and supervisor support were associated with lower employee turnover intentions
Lee & Bruvold (2003)	USA & Singapore: 405 nurses from US and Singapore Surveys: 40% response rate (USA) and 87.5% response rate for Singapore	Perceptions of investment in employees' development were associated with reduced intent to leave the organisation
Boswell (2006)	US: Healthcare organisation: 661 employees and top management team surveyed Response rate: 28%	Employee understanding of organisation's strategies was negatively and significantly related to turnover, and intent to quit
Ghebregiorgis & Karsten (2006)	Eritrea: survey of 252 employees from eight private and state owned organisations Response rate: 84%	Positive employee attitudes to HRM were associated with low employee turnover and absenteeism
Kuvaas (2008)	Norway: 593 employees representing 64 small local savings banks in Norway Response: 39%	Strong and direct negative relationship between employee perceptions of developmental HRM practices and turnover intentions
Lee, Lee & Lum (2008)	Singapore: 35 employee from a manufacturing company (response rate was 67.3%) and 175 from housing and construction firm Response rate: 74.5%	Employee attitudes towards services they get from the company (e.g., childcare, eldercare, wellbeing programmes) was negatively associated with turnover intentions

Overall, the review of literature and the studies presented in Table 4.4 above suggest that the management of HRM practices explain a reduction in employees' intention to quit, and can significantly predict employees' willingness to stay with their current employer. Employee perceptions that their organisation cares for their wellbeing can indirectly affect their willingness not only to exert discretionary behaviour for the benefit of the organisation, but also encourage them to stay longer or identify themselves with the organisational goals (Morrison 1996). Based on the literature review and the summary of empirical studies provided in Table 4.4 this study proposes the following hypotheses:

Hypothesis 7a: More extensive use of HPWS will be positively associated with employee intentions to remain with their current employer.

Hypothesis 7b: Positive employee perceptions of HRM practices will be associated with intentions to remain with the current employer.

4. 6 HRM Practices, Job Demands and Employee Outcomes

Based on the *job demands-resources (JD-R) model* (Schaufeli and Bakker 2004; Bakker and Demerouti 2007), studies have classified working conditions into two main categories: job demands and job resources. While job resources foster and enhance personal growth, learning and development, job demands require effort and are related to physiological and psychological costs (Bakker and Schaufeli 2008). Job resources (also referred to as job control) in general include practices that foster employee autonomy; freedom in how to carry out given tasks, performance

feedback, learning and development, and social support (Bakker, Demerouti and Euwema 2005; Bakker and Schaufeli 2008). Job demands (sometimes referred to as role demands, workload demands and work pacing demands) can be defined as psychological stressors, which include having to work fast and hard, having too much work to do within too little time, and or having a heavy workload (Karasek 1979; Fox, Dwyer & Ganster 1993; Baer & Oldham 2006; Ohly & Fritz 2009). The job demands construct is normally used to assess employees' feelings and thinking about demanding aspects of their job or role obligations (Janssen 2001). It is also related to performance-related/proactive behaviours (Fay and Sonnentag 2002; Ohly, Sonnentag & Pluntke 2006; Ohly and Fritz 2009). Osborne (1995) highlights that by understanding how people behave at work, and how they interact with their working environment, their machines and emotional levels, companies can create an environment that does not require more than the worker can give. He further suggests that when people and machines are in harmony, productivity output will increase.

When job stressors occur, an employee has to look for ways to adapt to the demanding aspects of the job because job demands imposed on employees may affect their behavioural and affective responses (Janssen 2001). Some studies suggest that higher job demands provide an elevated state of arousal in a worker, which in turn make an employee either cope with the situation by modifying his or her work context or cope by upgrading one's skills and abilities in order to match the high job demands (Karasek 1979; Janssen 2000, 2001). Karasek (1979) contends that redesigning one's work processes may allow an increase in decision latitude

among many workers and reduce mental strain and so lead to an increased ability to cope with job demands without affecting company output level. This way of thinking has been supported by researchers who advocate a possibility of positive effects of work demands on performance (LePine, Podsakoff & LePine 2005). Similarly, work demands have been positively associated with job-related attitudes (Podsakoff, LePine & LePine 2007). Overall, these studies suggest that certain job demands have a positive role in employees' experiences at work (LePine et al. 2005; Ohly and Fritz 2009). LePine et al. (2005) classified job demands as challenge-related stressors which in turn were positively related to performance.

Nonetheless, other studies suggest that employees' perceptions of work demands may not be beneficial to the employees (Blyton, Bacon and Morris 1996; Bacon and Blyton 2003). Such studies have included an examination of employee attitudes towards heavy workloads, conflicting or ambiguous job roles and job satisfaction (Fox, Dwyer and Ganster 1993). Most of these studies have reported evidence of a negative relationship between stressful jobs and job performance (Motowidlo, Packard and Manning 1986). Furthermore, a recent study on the relationship between job demands (work overload) and various indicators of performance found no relationship between job demands and performance indicators (Gilboa, Shirom, Fried & Cooper 2008). Thus, due to the conflicting results of these studies, it is still unclear whether job demands are experienced as challenging and thus positive in enhancing performance (Ohly and Fritz 2009) or are they a hindrance at work which may limit performance (LePine, LePine & Jackson 2004; LePine et al. 2005; Gilboa et al. 2008).

Based on such challenging findings, there is a need to examine the role of job demands in the relationship between HRM practices, employee attitudes and performance outcomes. There is research evidence that perceived challenge (work-related demands or circumstances that, although potentially stressful, have associated potential gains for individuals) mediates the relationship between work characteristics and favourable work attitudes as well as retention (Boswell, Olson-Buchanan & LePine 2004). Another study which suggests that job demands may explain the relationship between HRM practices and employee attitudinal outcomes is by Gobeski and Beehr (2009). They suggest that, 'Several stressors in the work environment increase the likelihood of the individual employee experiencing high levels of strain, a negative and deterring response to engaging in that work' (Gobeski and Beehr 2009: 406). Thus, perceptions of job demands can specify or explain how and why a relationship exists between perceptions of HRM practices and employee behavioural outcomes. Therefore, examining employee perceptions of job demands as a mediating factor in the relationship between employee perceptions of HRM practices and various behavioural outcomes may be a step forward in understanding the role of job demands in the HRM-performance link. As stated in the Introduction, IWB, OCB and tenure intentions are the dependent variables in this study. They are discretionary and positive organisational behaviours since they constitute positive psychological conditions, which in one way or another, relate to employee well-being or performance improvement (Bakker and Schaufeli 2008). In this regard, based on the review of literature, this study proposes that employee perceptions of job demands can explain the relationship between employee

perceptions of HRM practices and their behavioural and attitudinal outcomes. This study therefore, proposes the following hypotheses;

Hypothesis 8a: Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and innovative work behaviour.

Hypothesis 8b: Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and organisational citizenship behaviour.

Hypothesis 8c: Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and tenure intentions.

4. 7 Conclusion

The main objectives of this chapter included an examination of studies that have established a link between utilisation of HRM practices and various employee outcomes. Overall, the studies showed that, greater use of HRM practices is linked with various employee attitudinal and behavioural outcomes. This study, in particular, proposed a hypothesis suggesting that utilisation of HPWS at company level will have an influence on employee perceptions of HRM practices at the employee-level. The study further proposed an association between utilisation of HPWS at company level and employee attitudinal and behavioural outcomes (that is, IWB, OCB and tenure intentions).

Another objective was to identify studies which have established an association between employee perceptions of HRM practices and employee-level outcomes. The study thus proposed three hypotheses which suggest a relationship between employee perceptions of job demands and employee behavioural and attitudinal outcomes. In this regard, the study hypothesised a mediation role of employee perceptions of job demands on the relationship between employee perceptions of HRM practices and IWB, OCB and tenure intentions.

CHAPTER FIVE

METHODOLOGY AND RESEARCH DESIGN

5. 1 Introduction

This chapter explores the philosophical basis of the research methodology that is used in this study. It describes the appropriateness of a positivist approach and its justification in the area of business and management studies. The chapter also presents the research design of the study, its analytical procedures and the measures that were used. It also provides a synopsis of the factor analysis and reliability tests that were conducted in this study.

5. 2 Ontological and Epistemological Foundation of Positivism

Auguste Comte (1798-1857) coined the term positivism. The central point in the early development of the term positivism was the perspective that real knowledge results from experience. This view was associated with a rejection of metaphysics and metaphysical views of the world. In the twentieth century, however, positivism was associated with the ‘Vienna Circle’ school of philosophy which had two main arguments: knowledge could be accounted for without metaphysics; and there must be an emphasis on the role of logic and mathematics in science. Based on these two arguments, the Vienna Circle espoused a ‘logical positivism’. The central view of logical positivism was that meaningful statements should be verifiable by observation (i.e. verification principle or scientific standards of verification). Those

which are not should be viewed as ‘general principles’ that are verified by the logical relationships and the meanings or definitions attached to terms used in the statements. From these two aspects of a statement developed the synthetic and analytic approaches to science. Other related approaches in this development were hypotheses development and testing, objectivity and subjectivity as two independent entities, and the use of causal relationships in treating subject matter (Smith 1996; Miller 1999; Nonaka and Peltokorpi 2006).

In social science, however, positivism is an umbrella term which advocates, among other things, Comte's notion of causal laws and the use of prediction as a key criterion for discriminating among competing explanatory hypotheses (Glynos and Howarth 2008). It has also been considered as ‘an attempt to put the study of human social life on a scientific footing by extending the methods and forms of explanation which have been successful in the natural sciences’ (Benton and Craib 2001:28). With regard to views on knowledge, humans and social entities, positivists choose between causal theories on the basis of how successful they are at predicting reality. In this way, positivism adopts a ‘realistic ontology’ whereby reality is viewed as objective, and is taken to exist independently of the thoughts and language which researchers use to describe it. It is out there to be discovered (Nonaka and Peltokorpi 2006). This objectivistic position adopts a stance ‘outside’ the social phenomena it seeks to explain (Glynos and Howarth 2008). The positivist ontology, therefore, is based on the view that ‘there are objective facts about the world that do not depend on interpretation or even the presence of any person. From this perspective social science is (or should be) value-free’ (Glynos & Howarth 2008: 75).

Positivists further claim that the world is conceived through causal relations between objects, and the highest form of knowledge is universal knowledge (Nonaka and Peltokorpi 2006). Theories which are based on positivism are, therefore, constructed on *a priori* basis and human behaviour is viewed as a response to external stimulus that can be explained by scientific laws (ibid.). This leads to another argument - that our knowledge of reality is confined to what we can see, namely observable entities, in this regard, observable phenomena and their relations are all that can be known, and causes, origins and purposes should be abandoned (Brandt 2003). This means that researchers use empirical observations, experiment and testability of subjects of the study for valid and objective knowledge findings (Benton and Craib 2001). Researchers can use unobservables in their theories but cannot confer any truth-status on them. This approach, however, generates opponents who hold the view that in social science we can only rarely measure reality independently of theories unlike natural scientists (Smith 1996). Similarly, opponents argue that researchers are interested in individuals' unobservable motives, and have to infer their motives using rationality principles. Otherwise, it will be impossible to speak of unobservables such as structure of an international system or the objective laws of human nature (ibid.). This way of arguing is associated with scholars who adopt a subjective approach or interpretative philosophy. The subjective approach seeks 'from within' to make intelligible the meanings and reasons social agents give to their actions and practices (Glynos and Howarth 2008). This way of reasoning is explained by Michael Polanyi's theory of knowledge which consisted of associating knowledge and a person's whole being

and all his experience as the basis of rational and articulate thinking. For Polanyi, there is always an implicit dimension of our knowledge, thus his famous axiom, ‘we know more than we can tell. ... all knowledge is either tacit (implicit, unconscious) or it is rooted in tacit knowledge’ (Brandt 2003: 338).

Thus, in contrast to positivists, interpretivists argue that knowledge and social entities cannot be understood as objective things. They argue that it is impossible for humans to attain objective social knowledge independent from subjectivity. These philosophers accordingly present a contextual, subjective and relational view of knowledge, humans and entities. This approach includes the phenomenological and hermeneutic approaches to knowledge. Their focus is on interpreting the self interpretations of social actors and these self-interpretations become key components of approaches such as the hermeneutical logic (Glynos and Howarth 2008). Critics of this approach, however, argue that ‘subjective accounts lack precision and can provide little more to practitioners beyond “detailed thick descriptions”’ (Nonaka and Peltokorpi 2006: 80).

5. 3 Linking Philosophy and Methodology in HRM

One of the concerns that researchers exploring the HRM-performance linkage have about positivism is its implications for studies on HRM and the use of quantitative methods. This concern is probably associated with the broad and naive use of the term positivism, which in many contexts has been used pejoratively (Miller 1999). One of the criticisms about positivism is whether or not it is an adequate philosophy

of the social sciences. Wall and Wood (2005) and Fleetwood and Hesketh (2006), for example, suggest that using positivism or the 'scientific' approach as it is termed in HRM-performance studies, is not adequate as a theoretical approach since it does not lead to rich information and robust explanation in the HRM field. For Fleetwood and Hesketh (2006, 2008), this approach is under-theorised and they suggest a 'critical realist' approach as an alternative, claiming that critical realism goes beyond mere presentation of findings deduced from a scientific approach. Wall and Wood (2005) suggest that in order to establish a proper link between HRM practices and performance a large-scale long-term research probably including partnerships among researchers, practitioners and government communities may lead to conclusive results. Marchington and Wilkinson (2005) hold this view suggesting that while it is possible for surveys to demonstrate the links between HRM and performance, they are unable to explain in detail why this relation might happen. These critics of positivism call for a philosophical and methodological approach that should give detailed and hermeneutic information, namely, information relating to the way different agents who are involved in the phenomenon interpret, understand and make sense of various issues (Batt 2002; Wall and Wood 2005; Fleetwood and Hesketh 2006, 2008; Hesketh & Fleetwood 2006; Paauwe 2009).

Hesketh and Fleetwood (2006) advocate a critical realist approach arguing that 'critical realists emphasize the transformational nature of the social world, whereby agents draw upon social structures (etc.) and, in so doing, reproduce and transform these same structures' (2006: 685). For such researchers, the use of quantified metrics and measurements, and the generation of statistical techniques such as

regression and factor analysis in HRM studies are inadequate since they reduce humans to objective entities. Human beings they contend, have to be incorporated in research findings since they have their own feelings and interpretations, and their participation in research is unlike inanimate objects. This approach proposes that 'the social sciences study human beings, and human beings are different from the objects of physics or chemistry - they are being studied, they can understand what is said about them and they can take the scientists' findings into account and act differently' (Benton and Craib 2001:10). In other words, through Interpretivism, 'human beings unlike physical objects, interpret and perceive meaningful actions and are able to reflect and monitor these actions, thus provide the sources of explanation of human action in social science research' (Gill and Johnson 1991: 126). This perspective criticises quantitative methods as reducing complex human experience or behaviour to a set of simplistic indices (Miller 1999). Positivists argue, however, that while it is true that no single measure or a set of measures can cover everything about a person or phenomenon, it does not necessarily mean that there is no point or value in measurement because of this flaw. Thus, researchers are reminded that, 'what is required of measurement is that it reflects adequately the variables of interest within the model that is being employed' (Miller 1999: 5).

The second concern for HRM scholars is whether it is legitimate to extend scientific methods to the domain of human social life. This issue goes back to Comte who aimed to develop a science of society, based on the methods of the natural sciences, namely observation, and thought all sciences would eventually be unified methodologically (Smith 1996). Anti-positivists claim that there are fundamental

differences between human social life and the facts of nature which are the subject-matter of natural sciences; it is not legitimate to extend scientific methods to social science domains. Unpredictability of human behaviour and the possession of free will, character of social life and the role of consciousness constitute some of the fundamental differences between the two approaches. Similarly, while social scientists seek explanations of particular phenomena in order to get 'value-relevant' explanations, natural scientists are concerned with the discovery of general laws by methods which exclude value judgments (Benton and Craib 2001).

While it is important to respect anti-positivists' opinions, researchers are always urged to keep open the possibility that society might be studied scientifically, drawing on the alternatives that natural science can offer (Benton and Craib 2001). When scholars are examining various approaches to methodology and the theory of knowledge, there is always a danger of trying to consider all other approaches as 'flawed' and cling to one's approach as the best approach. Besides being an abused term (that refers to various types of positivism that do not share common features), positivism has had a long dominant position in the social sciences with its objective view of social reality (Nonaka and Peltokorpi 2006). Consequently, ignoring its contribution in social science, or trying to reduce all the HRM approaches to a single scientific method such as critical realism, should be based on sound arguments and should clearly show that positivism is not a philosophical or epistemological approach. It is similarly wrong, for example, 'to assume that in philosophy the analytic method is the only legitimate method of philosophy, and then use the assumption of this method to eliminate other methods as illegitimate' (Ikuenobe

2004: 483). It is possible that positivism may have offered a flawed approach in one discipline, say psychology, but with its variants, which come under the umbrella of positivism, it is possible that scholars do not do justice to the term since they are supposed to define it carefully and thus associate it properly to their area of study. It is argued that those who oppose the term positivism typically fail to define what they mean by this term. Furthermore, much of the confusion in its usage arises from a loose and unthinking use of the term 'positivism' (Miller 1999).

This study uses a positivist approach since it is appropriate in the area of business and management studies and works legitimately in quantification, i.e., in data collection, analysis and interpretation of findings. The researcher is aware that no methodology is without flaws or critics who will challenge its validity and reliability in social science. It is also clear that most of the research designs and studies of HRM-performance relationship have not succeeded in establishing unequivocally a causal relationship between HRM and performance outcomes (Cascio 2007). Similarly, most of these studies suggest correlational relationships (which do not mean causal relations), and agree in many cases that HRM practices *contribute* to positive company and employee outcomes (Batt 2002; Cascio 2007). In introducing a special issue on high performance workplace strategies in organisations, (Asia Pacific Journal of Human Resource) Gollan, Davis and Hamberger (2005:6) highlighted the HRM-performance research in their remarks when they said, 'These academic studies are not conclusive, though they present at least some evidence that certain human resource management strategies are correlated with positive outcomes.' This study accordingly acknowledges the limitations that may accrue

from using a positivist approach in attempting to link HRM practices and performance outcomes. It is equally evident that alternative philosophical and methodological approaches to the HRM-performance link exist. Similarly, objectivity and subjectivity in research methods initiate debates about knowledge and reality and their role in organisations (Nonaka and Peltokorpi 2006); nevertheless most of the publications on the HRM and performance link are based on positivistic approaches. This study is consequently cognisant of potential threats to valid interpretations of results from field research and accordingly it will try to minimise any flaws that may invalidate data collection, analysis and presentation of findings. Care has also been taken in utilising all the advantages and benefits that survey research gives in the area of business studies. Since surveys have dominated most of the research in business studies, this research is aligned with the mainstream research methods in business studies.

5. 4 Advantages and Disadvantages of Survey Research

When choosing a research method, it is important to bear in mind what Gill and Johnson (1991: 2) caution with regard to effectiveness of various approaches, that ‘there is no one best approach but rather that the approach most effective for the resolution of a given problem depends on a large number of variables, not least the nature of the problem itself.’ De Vaus (1998: 8) likewise cautions that, ‘surveys should only be used where they are appropriate and other methods should be used when they are more appropriate.’ As already noted, this study is survey based. There are a number of common criticisms and defences of surveys as a methodological approach. Table 5.1 summarises the disadvantages and advantages of surveys as

presented by De Vaus (1998) and Palmquist (2009). While some of the survey criticisms are considered to be wrong by researchers who advocate surveys as an appropriate research method, other objections are actually based on misunderstanding of the nature of surveys. Baruch and Holtom (2008) acknowledge the advantages of quantitative methods and survey research by arguing that ‘the majority of empirical studies conducted within the managerial and behavioural sciences use quantitative methodology’ (p.1139). They continue, ‘the data collection tool most frequently used for acquiring information is the questionnaire. Questionnaires can provide insight into individual perceptions and attitudes as well as organizational policies and practices’ (Baruch and Holtom 2008:1139-1140).

Table 5.1 Disadvantages and Advantages of Surveys in Research

Criticisms: De Vaus (1998)	Advantages: Palmquist (2009)
Surveys are incapable of getting at the meaningful aspects of social action	Theory and interpretation is fundamental to well-conceived survey research and analysis
Surveys just look at particular aspects of people’s beliefs and actions without looking at the contexts in which they occur	Higher reliability is easy to obtain in surveys by presenting all subjects with a standardised stimulus, and thus observer subjectivity is eliminated
Surveys assume that human action is determined by external forces and neglect the role of human consciousness, goals, intentions and values that can be important sources of action	Surveys can be administered from remote locations using mail, email or telephone. Consequently, very large samples are feasible, making the results statistically significant even when analysing multiple variables
Surveys are too restricted since they rely on highly structured questionnaires that are necessarily limited	Many questions can be asked about a given topic giving considerable flexibility to the analysis
Surveys are too statistical and thus reduce interesting questions to totally incomprehensible number.	Surveys are useful in describing the characteristics of a large population. They are relatively inexpensive in particular self-administered surveys
Some things in surveys are not measurable	Standardised questions make measurement more precise by enforcing uniform definitions upon the participants

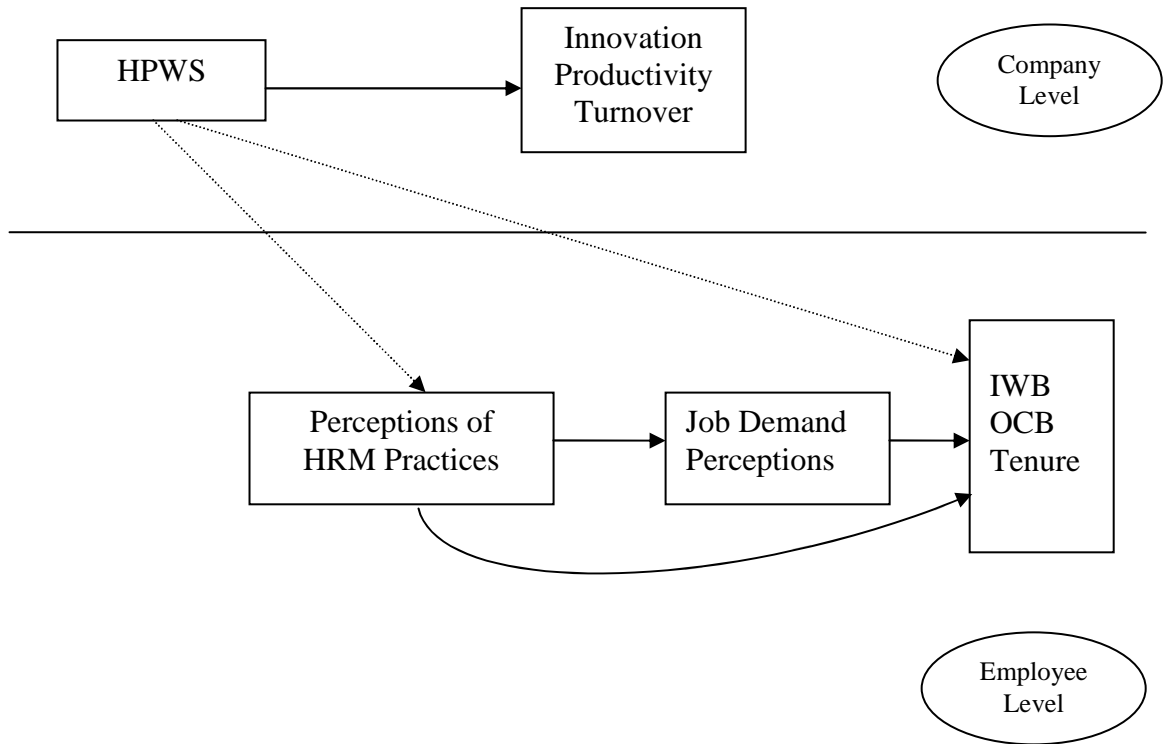
5. 5 Research Design

This study is designed as a multilevel, multi-source research study. It is a multilevel study because it integrates company-level and employee-level findings. It is a multi-source study which utilises various sources in its investigation. These sources include HR and GM surveys, employee surveys, HR managers' interviews and objective company performance data. This study first examines data at the company level through correlation and multiple regression analysis in order to assess the extent to which the greater utilisation of HPWS is associated with outcome variables, namely innovation, labour productivity and turnover. Second, at the employee level, the study uses correlation, multiple regression analysis to examine the relationship between employee perceptions of HRM practices and behaviour outcomes namely IWB, OCB and tenure intentions. ANOVA techniques are used to explain research differences between companies that participated in the employee surveys. Third, linking the company-level and employee-level findings, the study uses cross-level inference³ and carries out a univariate analysis of variance (GLM) to explain the association between company level variable and employee level variables. Figure 5.1 presents the multilevel model used to investigate the relationship between the company-level variable (HPWS) and employee-level variables. At the company level, HPWS is hypothesised to have an impact on

³ Cross-level inference is a technique which consists of aggregation and disaggregation principles. In this method, a researcher assigns the group mean of the independent variable down to the individuals within the group and analyses the data at the individual level (Bliese 2000; Hofmann 2002: 264). This is a traditional method conducted by researchers such as Mathieu and Kohler (1990), Blau (1995) and James and Williams 2000. This approach has been discussed in research in terms of linking situational variables to individual outcomes.

innovation, productivity and turnover. At the employee level, HPWS is hypothesised to have an impact on employee perceptions of HRM practices related to communication and feedback, training and development, remuneration and job conditions. Similarly, HPWS is hypothesised to have an impact on employee behavioural outcomes, namely IWB, OCB and tenure intentions. Job demand perceptions are hypothesised to mediate the relationship between perceptions of HRM practices and employee outcomes (IWB, OCB and tenure intentions). Employee perceptions of HRM practices are also hypothesised to have a direct impact on employee behaviour outcomes besides the mediation effects of job demands.

Figure 5.1 Multilevel Model of HPWS, Employee Perceptions of HRM Practices, Job Demands and Employee IWB, OCB, and Tenure Intentions



-> A cross-level inference of the relationship of company-level utilisation of HPWS and employee-level variables (perceptions of HRM practices and behaviour outcomes, i.e., IWB, OCB and tenure intentions).
- > A correlation and regression relationship between independent variables and dependent variables.

5. 6 Research Procedure

5. 6. 1 Company Survey

The first part of this research was related to company-level investigation. It consisted of a mail survey conducted in June 2006. The study adopted a quantitative approach similar to works by Guthrie (2001), Datta et al. (2005) and Flood et al. (2005). The research procedure included sending questionnaires by mail to 2000 HR managers and GM or CEO/directors in the top 1000 companies in Ireland. These surveys were sent to both a HR and GM in the company in order to assess the reliability of the HRM measures and to gather further important information from the general manager. A letter and an email or telephone call was sent as part of the 'follow-up' procedure after 30 days to companies that delayed in sending back the responses. In total, 241 companies responded either to the HR or GM questionnaires. From the 241 companies, 132 companies returned matched HR and GM questionnaires. These matched pairs were used for the analysis since there was a need to increase reliability between HR and GM responses. This yielded an overall response rate of 13.2 per cent. This response rate is favourable when it is compared to survey-based HPWS studies as reviewed by Becker and Huselid (1998). Similar studies had response rates ranging from 6 per cent to 28 per cent and had an average of 17.4 per cent (Guthrie, Spell and Nyamori 2002). It should be pointed at this point that more recent studies have shown an increase in response rate in HPWS-related studies. Jensen and Vinding (2007), for example, had a response rate

of 28.7 per cent, Jimenez-Jimenez and Sanz-Valle (2008) had a response rate of 30.7 per cent and Harris and Ogbonna (2001) had a response rate of 34.2 per cent.

The surveys asked for information on human resource practices and policies and information on organisational characteristics. The surveys collected information on descriptions of management practices in the areas of communication and participation, training and development, staffing and recruitment, performance management and remuneration. The recipients of the questionnaires were asked to complete the survey or forward it to any organisational member whom they thought was knowledgeable and was in a position to do so (Guthrie, Spell & Nyamori 2002). The survey instrument consisted of 18 item measure of HPWS, one item measure of innovation, one item measure of productivity and one item measure of turnover (Flood et al. 2008). The survey instrument is provided in appendices D and E.

5. 6. 2 Employee Survey

The second part of this research included the following procedures; mails and emails asking for permission to extend the research to employees were sent to companies that were drawn from the upper percentile group (from the 132 companies) that was studied in the first part of the research. The main objective in choosing these companies was to assess the association between company-level utilisation of HPWS and employee attitudes and behavioural outcomes in these companies. Five companies accepted the

invitation to participate in the research.⁴ Once the permission was granted, the researcher administered the employee surveys to employees from these five companies. In two companies, the researcher visited the workplaces and briefed employees about the nature of the research and how they were supposed to participate in the survey. In one of these companies employees were called to a room and the researcher explained to them the purpose of the survey and the procedures that were followed. After the briefing, they filled in the questionnaires. In the other company, the researcher distributed the questionnaires and the employees completed them during lunch time. In the remaining three companies, the researcher sent questionnaires to the HR manager who distributed them to employees. After completion, the employees returned them to the HR department who mailed them back to the researcher. The questionnaires collected information about employees' job satisfaction, innovative work behaviour, organisational citizenship behaviour, and tenure intentions. A complete description of these measures is provided at the end of this chapter. The survey instrument is provided in Appendix G.

In order to maintain efficiency, employees across the companies were selected at random. They came from different work groups of employees that are representative in terms of the nature of the job in the workplace. Thus employees from production, maintenance, service and clerical areas, as well as employees from administrative and

⁴ Two of these five companies were administered with GM/HR Surveys at a later stage because they did not take part in the 2006 GM/HR Surveys. They were not a perfect match with the 132 companies, but were very close in terms of industry profile.

executive areas, were involved. These employees are (by virtue of their jobs) subject to the operation of the strategic HRM practices in the company i.e., areas of communication and participation, training and development, staffing and recruitment, performance management and remuneration. The survey was distributed to approximately 40 to 100 employees across companies that were involved in the wider study. Overall the response rate (weighted) was 53 per cent. This was captured by computing an average for each response rate of every company. Since there was no available data for the non-responding employees, it was difficult to compute any measures of a non-response bias. Table 5.2 provides a breakdown of the surveys distributed and returned.

Table 5.2 Employee Level Response Rate

Company	Surveys Distributed	Surveys Returned	Response Rate %
TRAMCO	100	91	91
PEGCO	40	15	37.5
DRMCO	40	16	40
BUCOMCO	100	58	58
FSI-CO	100	40	40
Weighted Average	380	220	53.3

The third part of this study included conducting interviews among the HR Managers from the five companies that participated in the employee surveys. Three HR managers participated in these interviews. These interviews were carried out in order to evaluate different aspects of HRM practices that might not be covered by surveys.

5. 6. 3 Analytical Procedures Used in Data Analysis

In order to carry out Factor Analysis (FA) in this study, the investigator examined and tested if the data was suitable for Factor Analysis. This was tested through the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. This test indicates the extent of common variance among the variables, that is, indication of underlying or latent common factors. Thus, it also assesses the extent of multicollinearity problems. Kaiser (1974) recommendations include: accepting values greater than 0.5 as barely acceptable, any values below 0.5 are unacceptable. Values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good and values between 0.8 and 0.9 are excellent. Values above 0.9 are superb (cited in Hutchinson and Solfroniou 1999; see also Dziuban and Shirkey 1974: 359). Table 5.3 presents KMO statistic for the scales analysed in this study. Each of the scales was identified as suitable for Factor Analysis.

Table 5.3 KMO Statistic for Multiple Scales used in this Study

	Measure	KMO Statistic	Significance
1	High Performance Work Systems	.735	.000
2	Employee Perceptions of HRM Practices	.863	.000
3	Innovative Work Behaviour	.907	.000
4	Organisational Citizenship Behaviour	.802	.000
5	Perceptions of Job Demands	.784	.000

The main analytical procedures that were employed in this study include correlation and multiple regression analysis (Ordinary Least Squares, OLS). It is true that statistical procedures such as structural equation modeling (SEM)⁵, hierarchical linear modelling (HLM)⁶ and within analysis between analysis (WABA)⁷ would have been used as alternatives in carrying out a purely multi-level data analysis between company-level and employee -level variables (Bliese 2000; James and Williams 2000; Klein et al. 2000; Hofmann 2002). Structural equation modelling, for example, may be used as an

⁵ LISREL and EQS are two popular statistical packages for doing structural equation modeling (SEM). The advantages of SEM include serving the purposes similar to multiple regressions, but in a way which takes into account the modeling of interactions, nonlinearities, correlated independents and measurement error (Garson 2009 online version).

⁶ HLM is a two-step process that first examines relationships among variables within groups in individual-level relationships and then regresses these into group-level or cross-level relationships (Yee Ng & Van Dyne 2005: 526).

⁷ Within and between analysis (WABA) allows levels of analysis to be tested in data (Klein et al. 2000). WABA gives a detailed picture of patterns of associations between variables at different levels in nested hierarchical data (Dansereau et al. 2006).

alternative to multiple regression, path analysis, factor analysis and analysis of covariance. Advantages of SEM compared to multiple regressions include more flexible assumptions, particularly allowing interpretation even in the face of multicollinearity (Garson 2009). However, due to a relatively low number of participating companies⁸ for employee level data, this study employs a univariate analysis of variance (GLM) in linking the two levels. In this regard, analysis of variance (ANOVA) and ‘disaggregation’ of data are used since they are legitimate, valid and respectable procedures in carrying out this type of research (Blau 1995; Hofmann 2002; James and Williams 2000).

5. 6. 4 Sources of Variance and Assessment of Relationships

When a researcher assesses for variance in a study in which more than one level of analysis is concerned, there is a possibility of having a mismatch in the sources of variance. This mismatch may be due to the fact that it is statistically impossible for one source of variance in a variable to account for a different source of variance in another variable, since these are two independent levels (Ostroff 1993; Hofmann 2002). This mismatch may lead to dangers of fallacious reasoning⁹ when the unit of inference is

⁸ SEM for example, requires at least more than 10 variables in sample size for the maximum likelihood estimator and tests. Simulation studies point to about 400 observations for stability of parameter estimates corresponding to expectation (Hoyle 2008).

⁹ Fallacious reasoning includes the fallacy of the wrong level. This consists in ‘attributing something (an effect, a variable, a relationship) to one level of analysis (the individual) when it is actually attributable to another level (the group)’ (Dansereau, Cho & Yamarinno 2006: 537).

different from the unit of analysis (Mossholder and Bedeian 1983; Ostroff 1993; Dansereau, Cho & Yammarino 2006).

The theory that is used in linking the two levels in this study is based on what has been traditionally called ‘aggregation’ and ‘disaggregation’ of study variables (Blau 1995; Mathieu and Kohler 1995; Shipton et al. 2004). This study uses an independent variable that contains only higher-level variance (i.e., the HPWS index) meaning that it can only account for higher-level variance in the dependent variable. Still, analysts suggest several options, one of which is to ‘assign the group mean of the independent variable down to the individuals within the group and analyse the data at the individual level’ (Hofmann 2002: 264; see also Bliese 2000; Klein et al. 2000). The approach is called the cross-level inference and has been discussed in research in terms of linking situational variables to individual outcomes (Wright and de Voorde 2007). It is suggested that the approach results in unbiased parameter estimates (Raudensbush and Bryk 2002; Hofmann 2002). This is the approach taken in this study.

5. 7 Company-Level Measures

This section describes the measures that were used in the company-level survey, which captured various aspects of company outcomes.

5. 7. 1 High Performance Work Systems Measure

The measure of HPWS was composed of 18 HRM practices from the areas of staffing, performance management and remuneration, training and development and communication and employee participation. This measure was based upon the work of Huselid (1995), Guthrie (2001) and Datta et al. (2005). These practices were used to assess estimates of the proportion of members of two occupational groups¹⁰ that were covered by each high performance work system practice. The 18 practices formed a single index representing a measure of HPWS. Using the number of employees in each occupational group, a weighted average¹¹ for each practice was computed. The mean of these 18 weighted averages represented a firm's high performance work systems score (Datta et al. 2005). The Cronbach's alpha for this measure was .85. Sample survey questions are presented in Table 5.4. A complete list of the items is provided in Appendix E.

¹⁰ Since HRM practices vary across employee groups, questions related to HRM practices were asked separately for two categories of employees. Group A comprised production, maintenance, service and clerical employees. Group B comprised executives, managers, supervisors and professional/technical employees (Guthrie 2001; Flood et al. 2005; 2008).

¹¹ To illustrate how the index was computed, assume a particular company has 600 'Group A' employees and 200 'Group B' employees and that 30% of Group A employees 'Receive intensive/extensive training in generic skills', whereas 60% of Group B employees are covered by this HR practice. The 'weighted average' for this HR practice would be $[(600 \times 30/100) + (200 \times 60/100)]/800 = 37.5$. This averaging technique was applied to each of the 18 HR practices.

Table 5.4 Sample Survey Questions in the HPWS Measure

Please provide responses that best describe HR practices in your operations in Ireland during 2005-06.

Group A = Production, maintenance, service, clerical employees.

Group B = Executives, managers, supervisors, professional/technical employees.

	<u>Group A</u>	<u>Group B</u>
<hr/>		
Performance Management & Remuneration: What proportion of your employees.....		
<hr/>		
Receive formal performance appraisals and feedback on a routine basis? ...	_____ %	_____ %
Receive formal performance feedback from more than one source (i.e., feedback from several individuals such as supervisors, peers etc.)?.....	_____ %	_____ %
Receive compensation partially contingent on <i>individual</i> merit or performance?.....	_____ %	_____ %
<hr/>		
Training & Development: What proportion of your employees		
<hr/>		
Have been trained in a variety of jobs or skills (are "cross trained") and/or routinely perform more than one job (are "cross utilized")?	_____ %	_____ %
Have received intensive/extensive training in company-specific skills (e.g., task or firm-specific training).....	_____ %	_____ %

Source: Flood, Guthrie, Liu, Armstrong, MacCurtain, Mkamwa & O'Regan (2008).

5. 7. 2 Innovation Measure

Innovation was quantified by using the data on number of employees in the company, sales revenue and the response to the question: 'What proportion of your organisation's total sales¹² (turnover) comes from products or services introduced

¹² In order to verify information on total sales of the companies provided by the General Manager, additional company performance data was obtained from companies' reports and the 'Irish Times Top 1000 firms' dataset.

within the previous 12 months?’ The response to this question was multiplied by total sales to yield an estimate of sales revenue generated by new sales. This sales figure was then divided by the number of employees to obtain a measure of innovation – an indication of per capita sales derived from recently introduced products or services. This measure summarises a workforce’s ability to work smart; that is, impacting company efficiency and innovation through process and product innovations (Huselid 1995; Guthrie 2001; Flood et al. 2005, 2008).

5. 7. 3 Labour Productivity Measure

Strategic HRM theorists have identified labour productivity as the crucial indicator of workforce performance (Appelbaum et al. 2000; Black and Lynch 2001; Delery and Shaw 2001) and productivity has been frequently used in a large body of work in the Strategic HRM literature (Guest et al. 2003; Boselie, Dietz and Boon 2005; Datta et al. 2005). As in other works, (e.g., Huselid 1995; Guthrie 2001; Guest et al. 2003), labour productivity was conceptualised as sales revenue per employee.¹³ Data on the most recent estimates of total sales and total employment were collected via questionnaire from both HR manager and the general manager. A logarithm of the average of labour productivity from both questionnaires was used as a dependent

¹³ Limitations of this measure include (a) it does not control for potential increases in costs that may accompany increased revenue generation (b) not all elements of this outcome measure are directly controllable by employees (Datta et al. 2005: 139). Yet, this measure is a key indicator of efficiency in companies’ production of revenue and allows comparability across industries (ibid.).

variable in the multiple regression analysis as per the recommendations of Datta et al. (2005).

5. 7. 4 Employee Turnover Measure

Similar to previous research (e.g., Huselid 1995; Guthrie 2001; Flood et al. 2005, 2008), the measure of employee turnover rates was taken from responses to the following survey item: ‘Please estimate your annual voluntary employee turnover rate (percentage that voluntarily departed your organisation)’. This question was asked separately for both categories of employees (Group A and Group B). A weighted average of these separate estimates was computed to represent the overall average rate of employee turnover for each firm.

5. 7. 5 Control Variables

The following control variables were used during the regression analysis:

(a) Firm age: the measure of firm age is taken from the question ‘How long has your local organisation been in operation?’ To calculate this, a log transformation¹⁴ of the mean of both respondents’ responses was used.

(b) Firm size: number of employees is used to indicate firm size. To calculate this, a log transformation of the mean of both respondents’ replies was used. The main

¹⁴ Since the distribution of the measure was skewed, a logarithmic transformation was used (Field 2005; Kuvaas 2008).

question in this measure was ‘please estimate the total number of your employees in your local organisation.’

(c) R&D investment was computed as a percentage of annual turnover. The main question in this measure was an estimation of what percentage of total annual sales/turnover is spent on research and development (R&D). The average of the two respondents (HR and GM) was used.

(d) Unionisation: this measure was taken from the question ‘What proportion of your workforce is unionised?’ A weighted average of responses for Group A and Group B was used to compute unionisation.

(e) Product differentiation strategy: this measure was computed from the question ‘During 2005-06, what proportion of your organisation’s total sales (turnover) was achieved through a product differentiation strategy?’ Due to skewed data, the log of this value was used.

(f) Country of ownership: Irish indigenous companies and foreign-owned companies were differentiated. Irish companies were characterised as 1 and foreign-owned companies as 0.

(g) Industry sector: the companies were divided into seven sectors: (1) agriculture/forestry/fishing/energy/water, (2) chemical products, (3) manufacturing—other than chemical/pharmaceutical, (4) retail and distribution, (5) finance, (6) personal services and (7) transport and communication. The companies were dummy-coded to show their membership in one of those seven sectors. The financial services sector was used as a reference group.

5. 8 Employee-Level Measures

This section describes the measures that were used in the employee survey, which captured various employee behavioural and attitudinal outcomes.

5. 8. 1 Employee Perceptions of HRM Practices Measure

The measure of employee perceptions of HRM practices was captured by assessing various HRM-related aspects of job satisfaction. The measure used a 1 to 5 Likert scale format. The scale ranged from 1 ‘very satisfied’ to 5 ‘very dissatisfied.’ All the items were reverse coded in such a way that higher scores meant higher satisfaction and lower scores meant lower satisfaction. The main question was ‘how satisfied are you with the following aspects of your job?’ This measure was adapted from Bacon and Blyton’s (2000) CORUS survey instrument. It included 22 items which comprised items such as: how satisfied are you with (a) ‘Your rate of pay’ (b) ‘Payment according to your performance’ (c) ‘The amount of training you receive’ (d) ‘Communication between organisation and employees’ (e) ‘The physical work conditions.’ A complete list of the items is provided in Appendix G.

Table 5.5 provides the solution that was generated after conducting a factor analysis¹⁵ on the measure of employee satisfaction with HRM practices. The solution showed that there were four major factor loadings with initial eigenvalues¹⁶ greater than 1. This generated four factors which cumulative percentage of total

¹⁵ The aim of factor analysis (FA) is to reduce the number of variables by finding the common factors among them (Punch 2005). FA was performed on all multiple scale items to determine item retention (Kuvaas 2008).

¹⁶ Kaiser or eigenvalue criterion was used in determining the number of initial factors to be extracted in the factor analysis procedure (a factor with eigenvalue greater than or equal to one was retained).

variance (extracted and rotated¹⁷) explained was 65.3%. Since some of the items were below .45, the recommended cut-off point¹⁸ for factor loadings as suggested by Tabachnick and Fidell (2007), only 14 items which had acceptable factor loadings were used in forming a measure of employee perceptions of HRM practices. A reliability test was carried out and the composite measure had a Cronbach's Alpha of .86. Since composite measures can result in over or underestimates of effects (Shaw et al. 1998) an analysis of individual elements of perceptions of HRM practices measure was also performed. The individual factors-communication and feedback (alpha .81), training and development (alpha .78), remuneration (alpha .77) and job conditions (alpha .68) - were identified and used as independent variables in carrying out regression analysis. These HRM-related elements of job satisfaction measure were labelled as 'employee perceptions of HRM practices' following consultation with the author¹⁹ of the measure. The overall measure was, however, used as an independent variable in predicting the mediation effect of job demands on the relationship between perceptions of HRM practices and employee IWB, OCB and tenure intentions. The combined measure was used because it would be complicated to measure mediation effects by more than one independent variable. Thus, following scholars' advice, tests on simple

¹⁷ Rotation was used to simplify the degree of fit between the data and the factor structure. In this study, the method of rotation used was the orthogonal technique called Varimax.

¹⁸ As a rule of thumb, variables with loadings of .45 and above were interpreted because the greater the loading, the more the variable is a pure measure of the factor. Tabachnick and Fidell (2007) suggest that loadings in excess of .71 are excellent, .63 very good, .55 good, .45 fair and .32 poor.

¹⁹ Personal correspondence with the author Nick Bacon (June 24, 2009) who wrote, 'I think it is legitimate to label them as attitudes towards or perceptions of HRM practices.'

mediation models were carried out rather than complex mediation tests (Wood et al. 2008; Preacher and Hayes 2008).

Table 5.5 Factor Loadings: Satisfaction with HRM Practices

	Factors ^a			
	C&F	T&D	RM	JC
The attention paid to suggestions you make	.789			
The recognition you get for good work	.761			
The number of times you receive performance feedback	.739			
Communication between organisation and employees	.717			
The amount of training you receive		.906		
The intensity of the training you receive		.903		
The ability to perform more than one job		.559		
Payment according to your performance			.838	
Your rate of pay			.767	
The way appraisal is related to payment			.685	
Your job security				.811
The physical work conditions				.691
Pension provisions				.580
The level of health and safety				.474
Eigenvalues	7.53	1.77	1.50	1.26

^aNote: C&F = Communication and Feedback, T&D = Training and development, RM = Remuneration and JC = Job Conditions.

5. 8. 2 Employees' Innovative Work Behaviour Measure

Employees' level of innovative work behaviour (IWB) was rated by adapting Janssen's (2000, 2001) nine item measure for innovative work behaviour in the workplace. In this measure, the main question was, 'how often do you perform these innovative work behaviours at your workplace?' The response was in the format of a five-point scale ranging from never (1) to always (5). Items included (a) creating new ideas for difficult issues (b) generating original solutions for problems and (c)

mobilising support for innovative ideas. A complete list of the items is provided in Appendix G.

Table 5.6 provides the solution that was generated after conducting factor analysis for the measure of employee innovative work behaviour. Three factor loadings were extracted and they correspond to the nature of the original measure, which assesses three areas of innovative work behaviour - idea generation (alpha .90), idea mobilisation (alpha .87) and idea realisation (alpha .90). There was also a high degree of intercorrelations among the three factors and a small number of items overlapped from idea generation to mobilisation and realisation. Due to these intercorrelations, the three factors were combined to form an overall scale of individual IWB. This is consistent with the original measure (Janssen 2001). Thus, a nine-item scale of individual IWB was computed. The scale reliability of this measure was Cronbach's Alpha .95.

Table 5.6 Factor Loadings: Innovative Work Behaviour

	Factors^a		
	IR	IM	IG
Transforming innovative ideas into useful applications	.841		
Evaluating the utility of innovative ideas	.785		
Acquiring approval for innovative ideas	.617		
Searching out new working methods, techniques or instruments		.827	
Introducing innovative ideas into the work environment in a systematic way		.659	
Making important organisational members enthusiastic for innovative ideas		.607	
Generating original solutions for problems			.875
Creating new ideas for difficult issues			.776
Mobilizing support for innovative ideas?			.608
Eigenvalues	6.33	.686	.520

^aNote: IR = Idea Realisation, IM = Idea Mobilisation and IG = Idea Generation.

5. 8. 3 Organisational Citizenship Behaviour Measure

Employee level of citizenship behaviour was assessed by using a 14-item measure of OCB adapted from Williams and Anderson (1991). This measure consisted of seven items that focus primarily on benefiting specific *individuals* as target (OCBI) and seven items that focus on benefiting the *organisation* (OCBO) (Williams and Anderson 1991; Fields 2002). The main question in this scale was ‘to what extent do you agree with the following statements?’ (Some examples of the questions in assessing behaviours directed to specific individuals included) (a) ‘I help others who have been absent’ (b) ‘I help others who have heavy workloads’ and (c) ‘I go out of my way to help new employees’. For those items directed towards the organisation, statements such as (a) ‘I conserve and protect organisational property’ and (b) ‘my attendance at work is above the norm’ were used. A complete list of the items is provided in Appendix G. A 1 to 5 Likert scale measure was used. The scale ranged from 1 ‘strongly disagree’ to 5 ‘strongly agree’. Thus, the higher the score the greater the extent an employee expressed his or her organisational citizenship behaviour. Three items in the OCB directed specifically to the organisation (OCBO) were reverse coded. These items were (a) ‘I take undeserved work breaks’ (b) ‘I spend a great deal of time with personal phone conversations’, and (c) ‘I complain about insignificant things at work’. These subscales of OCB measure have been used in various studies with reliability ranging from alpha .61 to .88 for organisational behaviours directed towards individuals (OCBI), and for organisational citizenship

behaviours directed towards the organisation, the reliability has ranged from Cronbach's alpha .70 to .75 (Fields 2002).

Table 5.7 provides the factor analysis solution generated on the measure of organisational citizenship behaviour. Two initial eigenvalues had a value of greater than 1. These factors explained 46.39 per cent of the total variance. Five items were used to compute a measure of OCB directed towards individuals (OCBI). Cronbach's alpha for this scale was .78. Two items from this subscale were dropped because they did not load significantly. Three items were used to compute a measure of OCB directed towards the organisation (OCBO). Cronbach's alpha for this measure was .85. Four items from the OCBO sub-scale were removed before the scale was computed because they were either below the .45 cut-off point or they did not load on the dimension as expected in the original scale.

Table 5.7 Factor Loadings: Organisational Citizenship Behaviour

	Factors	
	OCBI	OCBO
I pass along information to co-workers	.725	
I help others who have heavy work loads	.668	
I take time to listen to co-workers' problems and worries	.665	
I take personal interest in other employees	.622	
I help others who have been absent	.618	
I complain about insignificant things at work (reverse coded)		.901
I spend a great deal of time with personal phone conversations (reverse coded)		.875
I take undeserved work breaks (reverse coded)		.795
Eigenvalues	4.07	2.37

5. 8. 4 Tenure Intentions Measure

Employee tenure intentions were assessed by asking respondents: 'How long do you intend to stay with your current employer?' The response options were: (1) Less than one year, (2) One to two years, (3) Two to three years, (4) Three to four years, (5) Four to five years and (6) Over five years. This measure was adapted from a tenure intent scale, 'I would prefer to stay with this company as long as possible' developed by Ramamoorthy and Flood (2002). This measure assesses an overall employee intention to remain with the current employer. The higher score in this measure suggests an employee's willingness to continue the relationship with the employer.

5. 8. 5 Job Demands Measure

This measure was used to assess employees' views about demanding aspects of their job. Eight items were used to measure how often employees think they work under demanding work conditions. Some examples of the items included (a) 'Do you have to work fast?' (b) 'Do you have too much work to do?' (c) 'Do you have to work extra hard to finish a task' and (d) 'Do you work under time pressure?' The items were adapted from a Dutch scale developed and validated by Van Veldhoven and Meijman (1994, cited in Janssen 2001) which measured demanding aspects of the job (Janssen 2000:291). The measure included the following response options: 1= Never, 2= Rarely, 3= Sometimes, 4= Often and 5= Always. Cronbach's alpha for the measure was .81.

5. 9 Conclusion

This chapter examined positivism as an epistemological approach that is used in this study. In contrast to other epistemological approaches that are subjective and interpretative in nature, a positivistic survey method was adopted due to its usefulness in data collection and analysis in HRM studies. This study acknowledged the usefulness of positivism and survey research, but did not dismiss the importance of interpretivism and its various approaches including critical realism. This study opted for a mixed research approach by conducting interviews among HR managers to enrich the study findings. These interviews were carried out in order to evaluate different aspects of HRM practices that might not be covered by the surveys. Through the use of surveys it was possible to obtain higher reliability in the study because all respondents were administered with a standardised questionnaire. At the same time, by conducting in-depth interviews with the managers, it was hoped to increase the explanatory power of the findings. The chapter also presented a descriptive analysis of the various measures that were used in the study. Factor analysis and reliability tests were also presented.

CHAPTER SIX

COMPANY LEVEL DATA ANALYSIS

6. 1 Introduction

This chapter presents the company level research findings.²⁰ The main objective of this study was to assess the effect and applicability of the utilisation of HPWS on firm performance, in particular workforce innovation, labour productivity and voluntary turnover. The chapter begins with a presentation and descriptive overview of the statistics, and ends with a presentation of the correlation and regression findings. Correlations are used in order to examine the association between variables. Specifically, associations between HPWS (the independent variable) and innovation, productivity and turnover (dependent variables) are elaborated. Findings on regression analysis are used to explain the extent to which HPWS account for changes in innovation, productivity and turnover.

6. 2 Sample Representativeness and Non-Response Bias

Sample representativeness is related to the issue of non-response bias. The two are related since even a relatively high increase in response rate is not a guarantee of representative data (Bjertnaes, Garratt and Botten 2008). Mail surveys have a potential for a low response rate (Blumberg, Cooper and Schindler 2005), thus

²⁰ Much of the research findings in this chapter are from the report by Flood, Guthrie, Liu, Armstrong, MacCurtain, Mkamwa & O'Regan 2008): 'New Models of High Performance Work Systems: The Business Case for Strategic HRM, Partnership, and Diversity and Equality Systems' NCPP & The EA, Dublin. The investigator of this research is named as a co-author in this report.

testing for a non-response bias was necessary to estimate the effects of non-response error (Armstrong and Everton 1977; Moser and Kalton 2004). The threat of non-response bias exists whenever significant numbers of the targeted population fail to respond (Ostroff, Kinicki and Clark 2002; Moser and Kalton 2004). Moser and Kalton argue that 'It is not of course the loss in sample numbers that is serious, but the likelihood that the non-respondents differ significantly from the respondents, so that estimates based on the latter are biased' (2004: 262).

There was a relatively low response rate in this study. Therefore, sample representativeness and possible non-response bias were tested for. This can be done by comparing demographic and contextual variables from the respondents with 'known' values from the population to see if they differ in terms of the available data (Armstrong and Overton 1977; Smith et al. 1994; Wilcox, Bellenger and Rigdon 1994; Spitzmuller, Glenn, Barr, Rogelberg & Daniel 2006). This is one of the desirable methods in assessing sample representativeness and non-response error, since 'Comparing known population characteristics with those of the obtained sample allows direct assessment of error' (Wilcox, Bellenger and Rigdon 1994:52). The investigator (using a one-way ANOVA procedure) compared the respondents (the sample of the population) with the population of the study on company size and industry distribution. The results showed no significant differences between the respondents and the population in company size ($F = 1.21$, sig. = .252) and industry distribution ($F = .503$, sig. = .681). These results provided statistical conclusions based on 'known' values in the sample and population data. In this way, the threats

of sample representativeness and non-response bias were ruled out. Thus, the profile of participating companies was commensurate with the general profile of larger companies in Ireland (that is, the Top 1000 companies).

6. 3 Industry and Company Profile

The companies that responded represented various industries. Table 6.1 below shows that approximately one-third were in manufacturing, 27 per cent were in service industries (finance, personal, recreational, health and other services) while less than 4 per cent of companies were from the energy or water industries. In terms of the age of the companies, the average company had been established for about 37 years with a median number of employees of 270. About 34 per cent of the employees were unionised.

Table 6.1 Industry Distribution of Participating Companies

	Industry	%
1	Other Manufacturing	24.24
2	Retail and Distribution	13.64
3	Banking, Financial Services	12.12
4	Building and Civil Engineering	7.58
5	Other Services	7.58
6	Transport and Communication	6.82
7	Metal Manufacturing	6.82
8	Chemical Products	6.82
9	Agriculture/Forestry/Fishing	4.55
10	Energy and Water	3.78
11	Health Services	3.03
12	Personal, Recreational Services	3.03
13	N = 132	100

6. 4 Profile of the Respondents

For the human resource (HR) questionnaire, 70 per cent of respondents were human resource executives/managers (e.g., Human Resource Director or Human Resource Administrator), 20 per cent of respondents were senior executives (e.g., Managing Director or Chief Executive Officer) and 10 per cent of respondents were other senior executive officers (including Financial Officer, or Operating Officer). For the general manager (GM) questionnaire, 70 per cent of respondents were senior executives (e.g., Managing Director, Chief Executive Officer, Director of Country Business, or Chairperson), and 30 per cent of respondents were other senior executive officers (including HR Officer, Financial Officer, or Operating Officer).

Table 6.2 illustrates the sample's country of ownership profile. 50 per cent of the participating companies were Irish-owned.

Table 6.2: Country of Ownership

	Country	N	%
1	Ireland	66	50
2	USA	34	25
3	Germany	9	6.8
4	UK	7	5.3
5	Other	16	12.9
6	Total	132	100

Table 6.3 presents the breakdown of respondents' replies on the proportionate use of various HPWS practices among Irish companies. On average, Irish companies' utilisation of HPWS is about 48.81 per cent. In other words, a score above 48.8 implies a more extensive utilisation of HPWS and any score below that number implies a less extensive use of HPWS. The highest score in this table (closer to 100%) shows the extent a specific company policy or HR practice is in use in the sample of Irish companies. In this regard, 96 per cent of the sample has access to formal grievance or complaint resolution procedures. Similarly, about 74 per cent receive intensive and extensive training in company specific skills. Lower scores in this measure indicate less extensive use of HPWS. To illustrate how the index was computed, assume a particular company has 600 'Group A' employees and 200 'Group B' employees and that 30% of Group A employees 'Receive intensive/extensive training in generic skills', whereas 60% of Group B employees are covered by this HR practice. The 'weighted average' for this HR practice would be $[(600*30/100) + (200 * 60/100)]/800 = 37.5$. This averaging technique was applied to each of the 18 HR practices.

Table 6.3 The Use of HPWS in Irish Companies

Staffing: What proportion of your employees.....		Pct. Score
	Are administered one or more employment tests (e.g., skills tests, aptitude tests, mental/cognitive ability tests) prior to hiring?	24.19%
	Are hired on the basis of intensive/extensive recruiting efforts resulting in many qualified applicants?	57.67%
	Hold non-entry level jobs as a result of internal promotions (as opposed to hired from outside of the organization)?	34.37%
	Hold non-entry level jobs due to promotions based upon merit or performance, as opposed to seniority?	44.99%
Training & Development: What proportion of your employees.....		Score
	Have been trained in a variety of jobs or skills (are "cross trained") and/or routinely perform more than one job (are "cross utilized")?	53.72%
	Have received intensive/extensive training in company-specific skills (e.g., task or firm-specific training)?	73.58%
	Have received intensive/extensive training in generic skills (e.g. problem-solving, communication skills, etc.)?	37.23%
Performance Management & Remuneration: What proportion of your employees.....		Score
	Receive formal performance appraisals and feedback on a routine basis?	67.32%
	Receive formal performance feedback from more than one source (i.e., feedback from several individuals such as supervisors, peers etc.)?	20.57%
	Receive compensation partially contingent on <i>group</i> performance (e.g., profit-sharing, gainsharing, team-based)?	34.44%
	Are paid primarily on the basis of a skill or knowledge-based pay system (versus a job-based system)? That is, pay is primarily determined by a person's skill or knowledge level as opposed to the particular job that they hold	28.16%
Communication & Participation: What proportion of your employees.....		Score
	Are involved in programmes designed to elicit participation and employee input (e.g., quality circles, problem-solving or similar groups)?	36.88%
	Are provided relevant operating performance information (e.g., quality, productivity, etc.)	72.22%
	Are provided relevant financial performance information?	68.04%
	Are provided relevant strategic information (e.g., strategic mission, goals, tactics, competitor information, etc.) ?	67.41%
	Are routinely administered attitude surveys to identify and correct employee morale problems?.	37.63%
	Have access to a formal grievance/complaint resolution procedure	96.17%
	Are organized in self-directed work teams in performing a major part of their work roles?	36.09%
		Average score
	HPWS Index	48.81%

Table 6.4 presents the results showing the extent to which HPWS are utilised according to organisational characteristics. They include industry sector, country of ownership, organisational size and unionisation. In particular, the results demonstrate that HPWS are more extensively utilised in personal services and chemical products sectors. They are less used in the retail and distribution and health services sectors.

Table 6.4 HPWS Utilisation by Organisational Characteristics

	Industry Sector/Country of Ownership/Firm Size and Unionisation	% of HPWS Usage
1	All Firms	48.81
2	Personal Services	64.41
3	Chemical Products	63.56
4	Transport/Communication	61.35
5	Finance Services	56.49
6	Energy/Water	52.57
7	Metal Manufacturing	47.89
8	Other Manufacturing	47.02
9	Other Services	45.34
10	Agriculture/Forestry	44.98
11	Building	44.75
12	Retail and Distribution	38.02
13	Health Services	35.77
14	Irish Owned	38.72
15	MNCs	57.29
16	Size: less than 100 employees	44.92
17	Size: between 100 and 500 employees	45.88
18	More than 500 employees	58.01
19	Unionisation = 0%	50.57
20	70% \geq unionisation > 0%	47.61
21	100% \geq unionisation > 70%	48.39

Figure 6.1 illustrates the extent to which HPWS is utilised according to company size.

Figure 6.1 HPWS Usage and Number of Employees

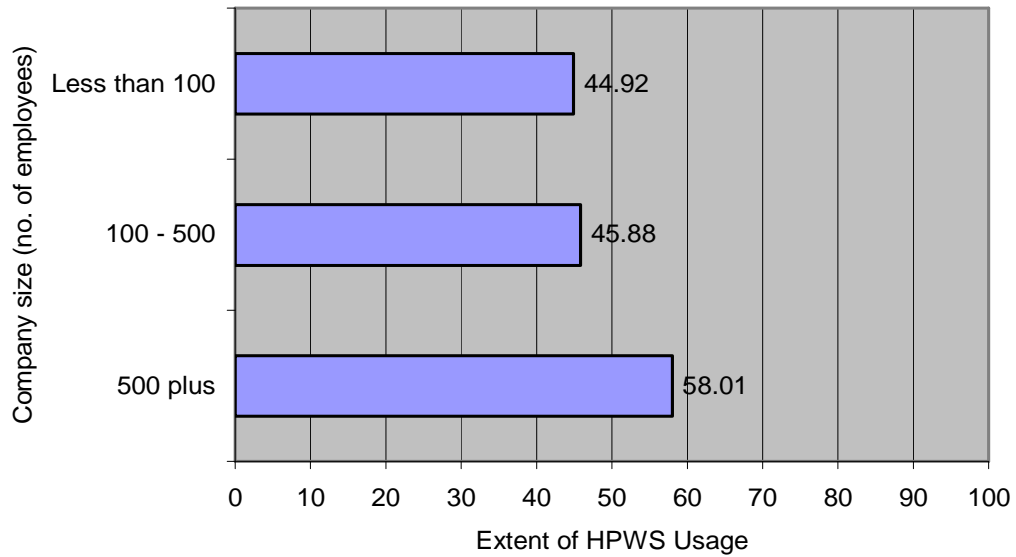


Figure 6.2 illustrates the extent to which HPWS is utilised according to level of unionisation.

Figure 6.2 HPWS Usage and Level of Unionisation

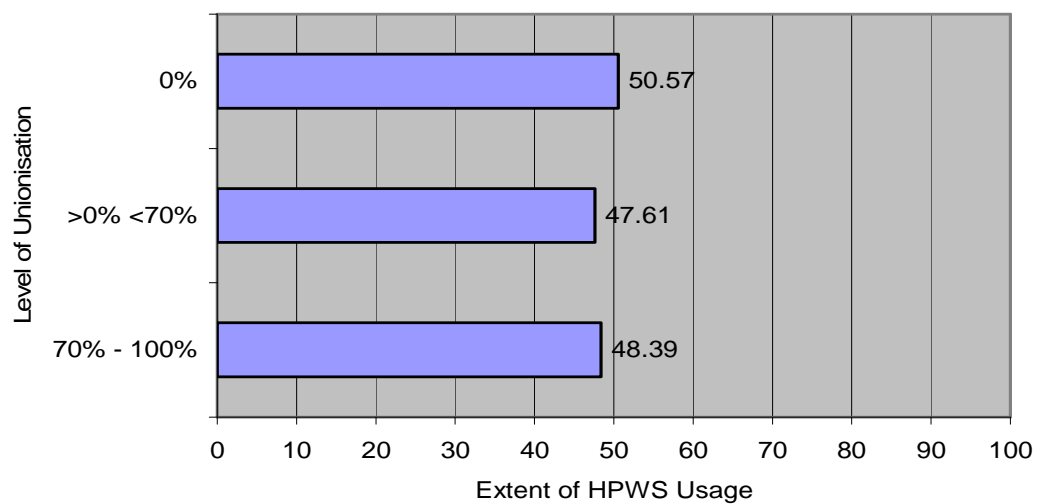
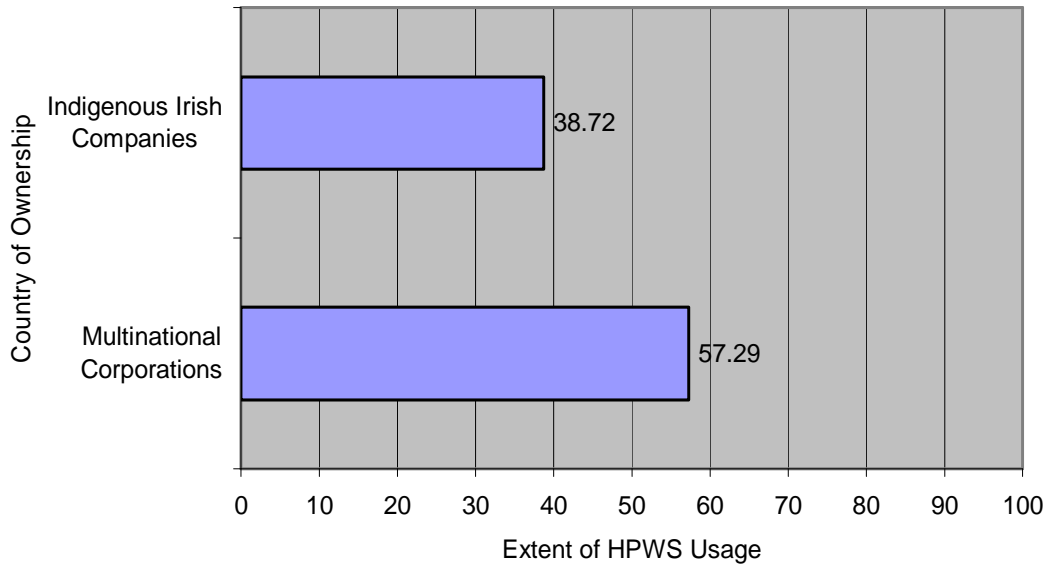


Figure 6.3 shows the extent to which HPWS is utilised according to country of origin.

Figure 6.3 HPWS Usage and Country of Origin



6. 5 Correlation Results

Table 6.5 presents means, standard deviations and correlation coefficient results for the study variables. The study showed that HPWS was positively and significantly correlated with innovation ($r = .35, p < 0.01$) and labour productivity ($r = .16, p < 0.05$), and negatively related with turnover ($r = -.18, p < 0.05$). HPWS was also positively and significantly related to some control variables, namely R&D investment ($r = .37, p < 0.01$) and differentiation strategy ($r = .32, p < 0.01$). Overall, correlation results suggest that greater use of HPWS was positively related to labour productivity and innovation as hypothesised. HPWS was negatively related to turnover, again as hypothesised.

Table 6.5 Means, Standard Deviations and Correlations for Study Variables^{a, b}

		MEAN	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	COUNTRY OF ORIGIN	.5	.5	132	1.00															
2	AGRICULTURE	.16	.37	132	.15(*)	1.00														
3	CHEMICAL	.07	.25	132	-.27(**)	-.12	1.00													
4	MANUFACTURING	.31	.47	132	-.12	-.29(**)	-.18(*)	1.00												
5	RETAIL	.14	.34	132	.31(**)	-.17(*)	-.11	-.27(**)	1.00											
6	SERVICES	.14	.34	132	-.13	-.17(*)	-.11	-.27(**)	-.16(*)	1.00										
7	TRANSPORT & COMMUNICATION	.07	.25	132	-.03	-.02	-.07	-.18(*)	-.11	-.11	1.00									
8	CO. AGE (LN)	3.3	.77	132	.27(**)	.05	-.03	.05	.11	-.08	-.05	1.00								
9	CO. SIZE (LN)	5.7	1.3	132	-.02	.01	-.01	.12	-.12	-.13	.19(*)	.31(**)	1.00							
10	UNIONISATION	34	35	122	-.07	.15(*)	.12	.11	-.23(**)	-.13	.20(*)	.39(**)	.32(**)	1.00						
11	R&D INTENSITY	3.9	4.4	131	-.33(**)	-.21(**)	.31(**)	.08	-.24(**)	.09	.08	-.16(*)	.07	-.08	1.00					
12	DIFFERENTIATION STRATEGY (LN)	3.8	.73	122	-.23(**)	-.26(**)	.21(**)	-.16(*)	.05	.18(*)	-.01	-.10	.05	-.07	.18(*)	1.00				
13	INNOVATION	1.4	1.7	92	-.17	-.14	.13	-.29(*)	.19	.11	.02	-.11	-.53(**)	-.00	.18	.35(**)	1.00			
14	PRODUCTIVITY (LN)	.56	.90	121	-.12	-.04	.11	-.11	.17(*)	-.03	.20(*)	.11	-.30(**)	.12	.08	.09	.69(**)	1.00		
15	TURNOVER	1.7	1.2	117	.08	.02	-.15	-.02	.15	-.05	-.13	-.11	.18(*)	-.25(**)	-.17(*)	-.10	-.34(**)	-.45(**)	1.00	
16	HPWS	48.7	20	126	-.36(**)	-.10	.11	-.05	-.22(**)	.09	-.00	-.11	.12	-.03	.37(**)	.32(**)	.35(**)	.16(*)	-.18(*)	1.00

* $p < 0.05$; ** $p < 0.01$; *** $p < .001$ (one-tailed tests). ^a Coefficient alpha for a multiple-item HPWS index was .85. ^b Pairwise deletion of missing values reduced the sample size from 132 to numbers ranging from 92 to 131.

6. 6 Regression Results

The multiple regression analysis was used as the primary test of the research question. The main question was: what are the effects of HPWS usage on organisations' innovation, productivity and voluntary turnover? Regression results are presented in Table 6.6. Overall, the model accounted for 27 per cent of the variance in workforce innovation ($F = 3.35$; $p < .001$), 36 per cent of the variance in labour productivity ($F = 4.99$; $p < .001$), and 25 per cent of variance in voluntary turnover rates ($F = 2.98$; $p < .05$). In running the regressions, a number of variables were controlled for. Model 1 contains the set of control variables (firm origin, industry sector, firm age, number of employees, level of unionisation, R&D investment and the extent to which the firm pursues a product differentiation strategy). Overall, model 1 accounted for about 24 per cent of the variance in innovation ($F = 3.07$; $p < .05$). The addition of the HPWS variable (model 2) accounted for an additional 3 per cent variance above the variance explained by control variables (model 1) ($\Delta F = 5.31$, $p < .05$). With regard to labour productivity, models 3 and 4 present results relating to the effect of control variables (model 3) and the addition of HPWS variable in the regression (model 4). Model 3 accounted for about 31 per cent of the variance explained in the labour productivity measure. The addition of HPWS (model 4) accounted for approximately 5 per cent of the variance above the variance explained by the control variables [$\Delta F = 9.02$, $p < .05$]. Model 5 and model 6 present results relating to the effect of control variables (model 5) and HPWS variable (model 6) on labour turnover. Overall, model 5 accounted for about 22 per cent of the variance in labour turnover. The addition of HPWS (model 6) accounted for a unique variance of about 3 per cent in turnover ($\Delta F = 4.62$, $p < .05$).

Table 6.6 Multiple Regression Analysis to Test for the Variance Accounted for by HPWS on Three Measures of Company Performance

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	<i>Workplace Innovation</i>		<i>Labour Productivity</i>		<i>Voluntary Turnover</i>	
Step 1: Control Variables	β	β	β	β	β	β
Firm Origin	-.09	-.03	-.16 [†]	-.09	-.01	-.06
Agriculture	-.11	-.13	.23 [†]	.20 [†]	-.09	-.07
Chemical	-.16	-.16	.19 [†]	.20 [*]	-.08	-.09
Manufacturing	-.25 [†]	-.23	.12	.14	-.13	-.14
Retail	.06	.08	.32 ^{**}	.33 ^{**}	.02	-.00
Services	-.10	-.08	.03	.05	-.08	-.10
Transport and Communication	-.02	-.03	.14	.12	-.20 [†]	-.18 [†]
Firm Age	.04	.07	.24 [*]	.27 ^{**}	-.17 [†]	-.19 [†]
Firm Size (no. of employees)	-.36 ^{***}	-.38 ^{***}	-.45 ^{***}	-.48 ^{***}	.36 ^{***}	.39 ^{***}
Unionisation	.17 [†]	.18 [†]	-.03	-.02	-.25 ^{**}	-.26 [*]
R&D Investment	.15	.11	.14	.10	-.16 [†]	-.13
Differentiation Strategy	.23 [*]	.18 [†]	.15 [†]	.08	-.14	-.09
Step 2: Independent Variable						
HPWS	-	.21 [*]	-	.26 ^{**}	-	-.20 [*]
ΔR^2	-	.03 [*]	-	.05 ^{**}	-	.03 [*]
Model R ²	.24 [*]	.27 [*]	.31 ^{**}	.36 ^{**}	.22 ^{**}	.25 ^{**}
Adjusted R ²	.16	.19	.24	.28	.14	.16
Model F	3.07 [*]	3.35 ^{***}	4.36 ^{***}	4.99 ^{***}	2.76 ^{**}	2.98 ^{***}

NOTES: N = 132, *** $p < 0.001$; ** $p < 0.01$, * $p < 0.05$, † $p < .10$; all tests are one-tailed.

6. 7 Conclusion

The main objective of this chapter was an examination of the impact of HPWS on company innovation, productivity and voluntary turnover. In order to examine this relationship, statistical tests to assess the threats of sample representativeness and a non-response bias were carried out. The tests ruled out both the threat of sample representativeness and a non-response bias. After providing a descriptive overview of the sample (the respondents profile, the industry and company profiles) this chapter presented the correlation and regression analyses. Overall, the study showed that greater use of HPWS was associated with an increase in innovation, labour productivity and a reduction in turnover.

These results were consistent with previous theoretical and empirical studies, as discussed in the literature review (Huselid 1995; Guthrie 2001; Batt 2002; Laursen 2002; Lau and Ngo 2004; Datta, Guthrie and Wright 2005; Wang and Zang 2005; Sun, Aryee and Law 2007; Zheng, O'Neil and Morrison 2009). The results also showed a number of control variables that were very significant in explaining the variance accounted for in the measures of innovation, productivity and turnover. These variables included firm size or the number of employees in the company, the level of unionisation, firm age and industry sector.

CHAPTER SEVEN

EMPLOYEE LEVEL DATA ANALYSIS

7.1 Introduction

This chapter provides a descriptive and analytical examination of the employee survey data. It examines employees' responses to the surveys which were conducted in the five companies that participated in employee surveys. It begins with a presentation and descriptive overview of the statistics, and ends with a presentation of the correlation and regression findings. Correlations are used in order to examine the association between variables. Specifically, associations between independent and dependent variables are presented. Findings on regression analysis are used to explain the extent to which independent variables account for changes in dependent variables.

7.2 Characteristics of the Sample

A total of 220 employee respondents were included in the sample. These respondents were drawn from five companies and were pooled together as one sample. The companies came from the manufacturing, financial services, transport and communication industries. Three of them participated in the GM/HR manager survey, and two were administered with the GM/HR survey at a later period. These two companies were not a perfect match with the earlier companies, but they were very close in terms of industry profile. Of these 220 respondents, 67 per cent were

male. In terms of education level 33 per cent of the sample were Leaving Certificate holders. Table 7.1 provides the breakdown of the educational level of the sample.

Table 7.1 Education Level

	N	%
Primary	6	3
Inter/Junior	21	10
Leaving Cert	73	33
Tech/Diploma	52	24
Degree	50	23
MA/PhD	14	7
Total	216	100

With regard to occupational type, while the technician category was the smallest with a 7 per cent of the total sample, the professional group was the largest accounting for 30 per cent of the respondents as illustrated by Table 7.2.

Table 7.2 Occupation Type

	N	Percent
General Skilled	31	14
Skilled Craft	25	12
Technician	15	07
Administrative	44	21
Professional	63	30
Supervisory Administrative	34	16
Total	212	100

Lastly, the sample was categorised according to the country of origin of the respondents. The sample shows that the majority of the respondents were of Irish origin (see Table 7.3).

Table 7.3 Country of Origin

	N	%
Irish	186	85
White (non- Irish)	21	10
West-Euro exc. Irish	7	3
East-Euro exc. Irish	3	1
Asian	3	1
Total	220	100

7.3 Individual Items Descriptive Analysis

This section gives a summary of the respondents' attitudes to various items as asked in the measure of satisfaction with HRM practices, IWB, OCB, tenure intentions and perceptions of job demands. The presentation of the Likert-like scale was collapsed in order to simplify the understanding of employee perceptions of the individual items. In this regard, being *very satisfied* and being *satisfied* were collapsed into one category of being *satisfied*. Similarly, being *very dissatisfied* and being *dissatisfied* were collapsed into one group of being dissatisfied. There was also a neutral position that designates being neither satisfied nor dissatisfied.

Table 7.4 provides a breakdown of employees' perceptions of HRM practices in their workplaces. This indicates that the majority of respondents were satisfied with their level of job security (78%), their ability to perform more than one job (72%),

and their physical working conditions (71%). However, the analysis also shows that quite a high proportion were not satisfied with levels of performance feedback (40%), and the degree to which pay was linked to performance (36%).

Table 7.4 Employee Perceptions of HRM Practices

Satisfaction with HRM practices Measure Q: How satisfied are you with the following aspects of your job?	% Satisfied	% Dissatisfied	% Neutral
The attention paid to suggestions you make	57	18	25
The recognition you get for good work	46	27	27
The number of times you receive performance feedback	35	40	25
Communication between organisation and employees	46	28	26
The amount of training you receive	57	20	23
The intensity of the training you receive	56	17	27
The ability to perform more than one job	72	9	19
Payment according to your performance	40	31	29
Your rate of pay	51	27	22
The way appraisal is related to payment	24	36	40
Your job security	78	11	11
The physical work conditions	71	13	16
Pension provisions	64	13	23
The level of health and safety	66	18	16
N = 220			

With regard to innovative work behaviour, the measure showed a trend among the respondents which indicated that IWB was low among the sample. A very small number of respondents seemed to be innovative in the three areas of innovation that were tested. The majority of the respondents claimed to have either *never* or to have *rarely* engaged themselves in innovative activities. In this regard, Table 7.5 provides a breakdown of the percentage of respondents who thought they have either *never* or *rarely* performed innovative work behaviours versus those who thought they often or always performed innovative work behaviours.

Table 7.5 Descriptive Analysis on Innovative Work Behaviour

Innovative Work Behaviour Q: How often do you perform these behaviours?	% Never/ Rarely	% Often/ Always	% Sometimes
Transforming innovative ideas into useful applications?	34	24	41
Evaluating the utility of innovative ideas?	43	19	38
Mobilizing support for innovative ideas?	36	25	39
Acquiring approval for innovative ideas?	40	24	37
Searching out new working methods, techniques or instruments?	44	25	31
Introducing innovative ideas into the work environment in a systematic way?	43	21	36
Making important organisational members enthusiastic for innovative ideas?	50	17	33
Generating original solutions for problems?	25	31	44
Creating new ideas for difficult issues?	29	36	35
N = 218			

Lastly, Table 7.6 provides a breakdown for the responses to the employee organisational citizenship behaviour measure. In general, employees in these companies agreed to a greater extent that they engaged in activities that could be called pro-social. With the exception of employees' attitudes towards taking personal interest in other employees (69%), almost 80 per cent of the employees agree that they help others who have been absent, and engage in similar pro-social activities such as passing information to co-workers and listening to co-workers' problems and worries. A very small percent of employees showed a complete lack of pro-social behaviours.

Table 7.6 Descriptive Analysis of Citizenship Behaviour

To what extent do you agree with the following statements?	% Disagree	% Agree	% Not Sure
I help others who have been absent	6	80	14
I help others who have heavy work loads	4	89	7
I pass along information to co-workers	3	89	7
I take time to listen to co-workers' problems and worries	2	88	9
I take personal interest in other employees	8	69	23
I complain about insignificant things at work	76	15	9
I spend a great deal of time with personal phone conversations	83	12	5
I take undeserved work breaks	70	20	10
N = 219			

In terms of employees' perceptions of job demands, Table 7.7 provides the breakdown of the percentage of respondents' perceptions of job demands. About 50 per cent of the employees thought that they often had to work too fast and carry out their work under time pressure. Similarly, about 51 per cent thought that they had to work extra hard to finish their tasks. However, about 60 per cent thought that they rarely or never had any problems with the workload.

Table 7.7 Descriptive Analysis on Job Demands

To what extent do you work under the following conditions?	% Never / Rarely	% Always / Often	% Sometimes
Do you have to work fast?	10	48	42
Do you have too much to do?	17	40	43
Do you have to work extra hard to finish a task?	16	32	51
Do you work under time pressure?	18	48	33
Can you do your work in comfort?	49	17	35
Do you have to deal with a backlog at work?	29	31	40
Do you have problems with the pace of work?	63	9	28
Do you have problems with the workload?	59	12	29
N = 218			

7.4 Means and Correlations

This section presents findings based on the correlation analysis performed from the employee survey. Table 7.8 provides the means, the number of respondents, standard deviations and correlations among the variables in the study.

Table 7.8 Means, Standard Deviations and Pearson Correlations^{a, b}

		MEAN	SD	N	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Gender	.68	.47	219															
2	Education	4	1.2	216	-.22(**)														
3	Age	3	1.1	219	.12(*)	-.16(**)													
4	Occupation	4	1.7	212	-.23(**)	.34(**)	.05												
5	Country Origin	3	.69	219	-.05	-.12(*)	.08	.10											
6	Communication & Feedback	3	.85	220	-.11	.15(*)	-.05	.08	-.11	.81									
7	Training & Development	4	.79	219	-.09	.11	-.05	.04	.004	.40(**)	.78								
8	Remuneration	3	.87	220	-.07	.05	.05	-.03	-.03	.54(**)	.28(**)	.77							
9	Job Conditions	4	.74	220	-.12(*)	.13(*)	.12(*)	.21(**)	-.08	.49(**)	.37(**)	.46(**)	.68						
10	^c Perceptions of HRM-Composite	3	.62	220	-.13(*)	.15(*)	.02	.11	-.08	.84(**)	.65(**)	.75(**)	.78(**)	.86					
11	IWB	3	.91	218	.03	.18(**)	-.01	.23(**)	-.19(**)	.37(**)	.13(*)	.15(*)	.14(*)	.28(**)	.95				
12	OCBI	4	.52	218	-.15(*)	.07	.12	.26(**)	-.03	.006	.02	.04	.19(**)	.09	.14(*)	.78			
13	OCBO	4	1.01	219	-.08	-.02	.04	.29(**)	.47(**)	-.19(**)	-.07	-.12(*)	-.097	-.17(**)	-.11	.22(**)	.85		
14	Tenure Intentions	5	1.62	200	.05	-.31(**)	.27(**)	-.02	.18(**)	-.08	.103	-.04	.16(*)	.04	.02	.08	.15(*)		
15	Job Demands	3	.63	218	-.003	.08	-.03	.13(*)	-.12(*)	-.12(*)	.008	-.22(**)	-.20(**)	-.18(**)	.24(**)	.20(**)	-.06	.04	.81

* Correlation is significant at the 0.05 level (1-tailed). ** Correlation is significant at the 0.01 level (1-tailed). ^aPairwise deletion of missing values reduced the sample size from 220 to numbers ranging from 200 to 219 across various measures. ^bCronbach's alpha for multiple item measures only are provided in the diagonal. ^c'Perceptions of HRM-Composite' refers to the composite measure of employee perceptions of HRM practices as distinguished from individual measures of HRM practices namely training and development, communication and feedback, remuneration and job conditions.

7.5 Multiple Regression Analysis

This section presents results for the regression models that are proposed in this study. Essentially, the multiple regression analysis was performed to examine the extent to which employee perceptions of HRM practices (individually represented by perceptions of HRM practices related to communication and feedback, training and development, remuneration and job conditions) explain employee innovative work behaviour, organisational citizenship behaviour and tenure intentions.

Table 7.9 provides the multiple regression results for variance accounted for by employee perceptions of HRM practices on the measures of IWB, OCBI, OCBO and tenure intentions. Models 1 and 2 present results relating to the extent to which control variables (model 1) and independent variables (model 2) explain employee innovative work behaviour. Model 1 accounted for about 11 per cent of the variance in employee innovative work behaviour [$F(9,203) = 2.62, p < .01$]. An addition of certain independent variables in the regression, (that is, perceptions of HRM practices related to communication and feedback, training and development, remuneration and job conditions), accounted for about 13 per cent unique variance, that is, above the variance explained by the control model ($\Delta F = 8.41, p < .001$). Overall, this model accounted for about 24 per cent of the variance (Model R^2) in employee innovative work behaviour [$F(13,203) = 4.68, p < .001$].

Models 3 and 4 present results related to the extent control variables (model 3) and independent variables (model 4) explain employee OCBI. The control variables

(model 3) accounted for about 14 per cent of the variance in employee likelihood of exhibiting OCBI [$F(9,203) = 3.44, p < .01$]. An addition of independent variables to the control model accounted for an increase of about two per cent unique variance above that accounted for by model 3 ($\Delta F = .90, p > .05$). Overall, this model accounted for about 15 per cent of the variance in employee OCBI (Model R^2), [$F(13,203) = 2.66, p < .01$].

Models 5 and 6 present regression results relating to OCB directed towards the organisation (OCBO). The control model (model 5) accounted for about 39 per cent of the variance in employee OCBO [$F(9,204) = 13.56, p < .001$]. The addition of independent variables explained about two per cent unique variance above the control model ($\Delta F = 1.26, p > .01$). Overall, the model accounted for about 40 per cent of the variance in employee likelihood of engaging in citizenship behaviour directed to an organisation [$F(13,204) = 9.82, p < .001$].

Lastly, models 7 and 8 present regression results relating to employee tenure intentions. The control model (model 7) accounted for about 19 per cent of the variance in employee tenure intentions [$F(9,186) = 4.74, p < .001$]. The addition of independent variables in the regression accounted for about six per cent unique variance above the variance explained by the control model ($\Delta F = 3.25, p > .05$). Overall, the model accounted for about 25 per cent of the variance in employee tenure intentions [$F(13,186) = 4.45, p < .001$].

Overall, these findings show that employee perceptions of HRM practices related to communication and feedback and occupation as a control variable were the only significant independent variables for variance explained in employees' innovative work behaviour. Similarly, employee perceptions of HRM practices related to job conditions was the only significant but weak independent variable in explaining the variance accounted for in organisational citizenship behaviour directed towards individuals. However, the control variables gender, occupation and company type were significant variables in explaining OCBI. Regarding OCBO, the results show that employee perceptions of HRM practices related to training and development were significant but weak in explaining OCBO. Employee perceptions of HRM practices related to job conditions significantly explained employee tenure intentions. Similarly, age, education and company type as control variables were significant in explaining employee tenure intentions.

Table 7.9 Multiple Regression Analysis to Test for the Variance Accounted for by Employee Perceptions of a Set of HRM Practices on Measures of Employee IWB, OCBI, OCBO and Tenure Intentions^{a, b}

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	IWB		OCBI		OCBO		Tenure Intentions	
Step 1: Control Variables	β	β	β	β	β	β	β	β
Gender	.11	.09	-.17*	-.17*	-.07	-.07	-.03	-.02
Education	.07	.08	.02	.02	.12†	.13*	-.26**	-.26**
Age	-.01	-.02	.03	.00	-.02	-.04	.18*	.16*
Occupation	.26**	.27**	.24**	.21*	.16*	.14*	.03	-.04
Country of Origin	-.11	-.13†	-.05	-.06	.00	.00	.07	.06
FSI-CO	-.04	-.15†	-.23**	-.24**	-.18**	-.20**	-.20*	-.18*
PEGCO	.02	-.06	-.12†	-.14†	-.07	-.07	.07	.04
DRMCO	.12	.05	.02	-.01	-.57***	-.58***	-.03	-.06
BUCOMCO	.04	.12	-.12	-.11	-.11	-.12†	-.13†	-.12
Step 2: Independent Variables								
Communication & Feedback	-	.45***	-	.00	-	-.04	-	-.07
Training & Development	-	-.01	-	-.06	-	-.12†	-	.06
Remuneration	-	-.04	-	-.05	-	-.01	-	-.14
Job Conditions	-	-.12	-	.16†	-	.08	-	.27**
ΔR^2	-	.13***	-	.02	-	.02	-	.06*
Model R ²	.11**	.24***	.14**	.15	.39***	.40	.19***	.25*
Adjusted R ²	.07**	.19***	.10**	.10	.36***	.36	.15***	.19*
Model F	2.62*	4.68**	3.44**	2.66**	13.56***	9.82***	4.74***	4.45***
N	204	204	204	204	205	205	187	187

Notes: ^a TRAMCO is omitted in this regression since it is a reference group variable; ^b Missing data and listwise deletion reduced sample size from 220 to sizes ranging from 187 to 205 in different variables in the multiple regression analysis; *** $p < 0.001$; ** $p < .01$, * $p < 0.05$, † $p < .10$; all tests are one-tailed.

7.6 Conclusion

The objectives of this chapter included examining the extent to which employee perceptions of HRM practices account for variance in employee IWB, OCBI, OCBO and tenure intentions. It began with an overview of the extent to which employees agreed or disagreed with a number of HRM practices related to communication and feedback, training and development, remuneration and job conditions. It also presented a descriptive overview of employees attitudes related to innovative work behaviour, organisational citizenship behaviour, tenure intentions and perceptions of job demands. Thus, a descriptive statistic was given, showing the extent to which employees agreed or disagreed with the individual items that were used in exploring the respective variables in this study.

The chapter concluded with a presentation of correlation and regression findings. Overall, multiple regression analysis showed that in each model at least one independent variable was significant in explaining the dependent variable. Similarly, a number of control variables were significant in explaining the dependent variables. However, the multiple regression results showed that compared to IWB and tenure intentions, there were weak significant relationships between employee perceptions of HRM practices and the measures of OCBI and OCBO.

CHAPTER EIGHT

TESTS OF MEDIATION AND MEDIATOR ANALYSIS

8.1 Introduction

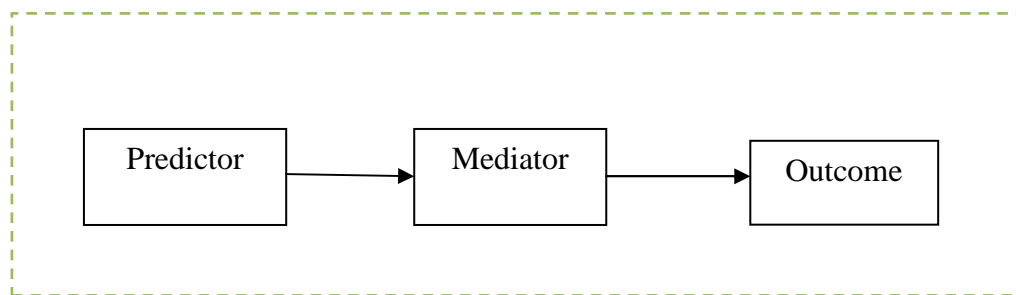
This chapter presents tests of mediation that were conducted in this study. It begins with a brief theoretical description of mediation along with the procedures that were followed in the tests for mediation. Baron and Kenny's (1986) conditions for mediation, and the Sobel test were used as the main procedures. This section ends with a presentation of mediation regression results relating to the mediation effects of employee perceptions of job demands on the relationship between perceptions of HRM practices (measured through the composite measure of employee perceptions of HRM practices) and employee innovative work behaviour, organisational citizenship behaviour and tenure intentions. Lastly, the chapter presents regression results relating to the cross-level inference linking company level utilisation of HPWS and employee level outcomes.

8.2 The Meaning of Mediation and Mediator Analysis

A variable functions as a mediator when it can account for the relation between the predictor and the criterion (James and Brett 1984; Baron and Kenny 1986). This happens when a variable can specify or explain how or why such effects occur in the relationship. This is when the predictor has an effect on the mediator variable and this in turn influences the outcome variable (Miles and Shevlin 2001). Figure 8.1 shows the mediation model where the mediator is a complete influence of the

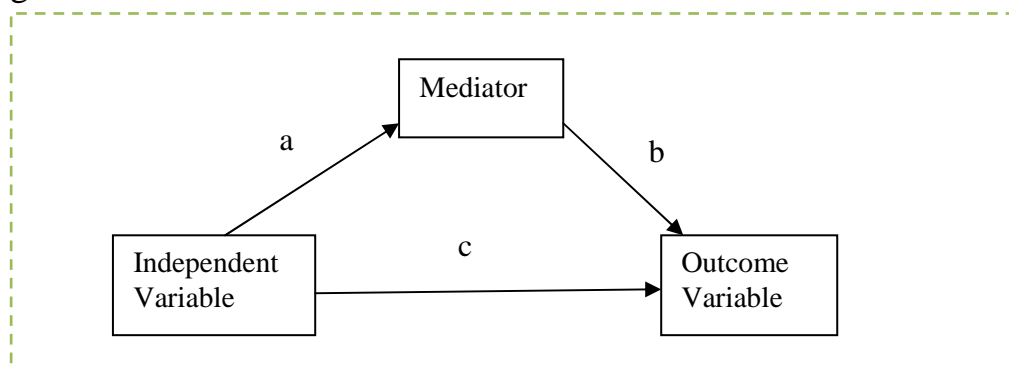
predictor on the outcome variable. This model suggests that the predictor variable does not have influence on the outcome other than the influence through the mediator variable (James and Brett 1984; Miles and Shevlin 2001). On the other hand, Figure 8.2 shows a partial mediation where the predictor variable exerts some of its influence via a mediating variable, and it exerts some of its influence directly and not via a mediator (James & Brett 1984; Baron and Kenny 1986; Preacher and Hayes 2004).

Figure 8.1 Complete Mediation Model



Adapted from: Miles and Shevlin (2001).

Figure 8.2 Partial Mediation Causal Chain



Adapted from: Baron and Kenny (1986); Preacher and Hayes (2004).

In order to test for mediation effects, a variable that functions as a mediator has to meet the following requirements or conditions: (a) Variations in levels of the independent variable significantly account for variations in the presumed mediator (i.e. path *a*). (b) Variations in the mediator significantly account for variations in the dependent variable, i.e. path *b*, and (c) when paths *a* and *b* are controlled, a previously significant relation between the independent and the dependent variable is no longer significant, with the strongest demonstration of mediation occurring when path *c* is zero (Baron & Kenny 1986: 1176).

However, Baron and Kenny (1986) suggest that path *c* being reduced to zero would be strong evidence for a single dominant mediator, but since many studies treat phenomena that have multiple causes, a more realistic goal should be to seek mediators that significantly decrease path *c*, rather than eliminating the relation between the independent and dependent variables altogether. Thus, a significant reduction will demonstrate that the given mediator is a potent though not a necessary or sufficient condition for the effect to occur. Preacher and Hayes (2008), MacKinnon et al. (2002) and Kenny, Kashy & Bolger (1998) suggest that the requirement that path *c* be significant and reduced to zero is not always necessary for mediation to occur.

For the test of mediation, ANOVA offers a limited test and is not recommended for testing the mediational hypothesis (Fiske, Kenny and Taylor 1982). Baron and Kenny (1986) suggest that an estimate of three regression equations should be used in the tests of mediation. Following Baron and Kenny (1986), analysts such as Miles

and Shevlin (2001) and Preacher and Hayes (2004) describe four steps that must be taken to establish the existence of a mediated relationship. When X is considered to be the predictor variable, Y, the outcome variable and M, the mediator variable, the steps include: (1) X significantly predicts Y, using regression (i.e., path $c \neq 0$), (2) X significantly predicts M, using regression (i.e., path $a \neq 0$), and (3) M significantly predicts Y, when X is controlled (i.e., path $b \neq 0$). To do this a multiple regression using X and M as predictors is carried out, with Y as the outcome. If M is a perfect mediator of the relationship between X and Y, the effect of X, when controlling for M, should be zero. James and Brett (1984) call such mediation a complete mediation. When the effect of X on Y decreases by a nontrivial amount, but not to zero, it is only a partial mediator since the effect has been merely reduced, and not eliminated (Miles and Shevlin 2001:188; Preacher and Hayes 2004: 717).

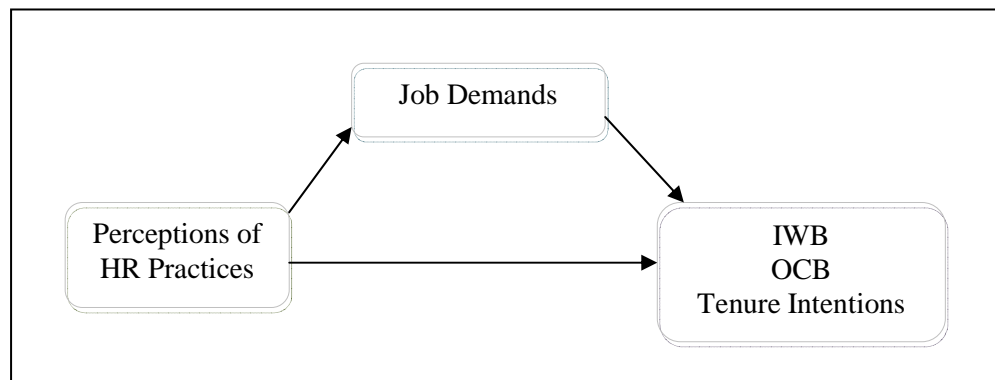
Besides the above conditions of the test for mediation, Baron and Kenny (1986) suggest that there should be no measurement error in M, and Y should not cause M (Preacher and Hayes 2004). Nevertheless, the first assumption is always violated, and thus Preacher and Hayes (2004) recommend that the validity of one's conclusion about mediation is determined by the design of the study as much as by the statistical criteria. Scholars further suggest that in testing for mediation 'there is no need for hierarchical or stepwise regression or the computation of any partial or semi-partial correlations' (Baron and Kenny 1986: 1177). Similarly, they suggest that 'perfect mediation holds if the independent variable has no effect when the mediator is controlled, *and* because the independent variable is assumed to cause the mediator, these two variables should be correlated' (ibid.). With a possibility of

multicollinearity due to the aforementioned correlations, and thus a reduction in power in the test of the coefficients in the third equation, the investigator is advised to examine not only the significance of the coefficients but also their absolute size (Preacher and Hayes 2004). There are other statistically rigorous methods to test for mediation effects. These include the Sobel test, a procedure developed by Sobel (1982) where the procedure provides a more direct test of indirect effect (i.e., Sobel Z). The purpose of this test is to assess whether a mediator carries the influence of an independent variable to a dependent variable. Specifically, this test allows researchers to focus not on individual paths in the mediation model (figure 8.2, paths a and b), but instead focus on the product term (ab), under the logic that this product is equal to the difference between the total and direct effect (Preacher and Hayes 2008: 880).

Based on these mediation concepts and statistical considerations, in order to establish that job demand perceptions mediate the relationship between perceptions of HRM practices and employee behavioural outcomes (IWB, OCBI and tenure intentions), the following causal conditions must be met: Firstly, perceptions of HRM practices must significantly predict IWB, OCB and tenure intentions. Secondly, there must be a causal chain between employee perceptions of HRM practices and job demand perceptions, to the extent that variations in perceptions of HRM practices account for significant variations in employees perceptions of job demands. Thirdly, variations in the perceptions of job demands significantly account for variations in employee outcome variables, namely IWB, OCB and tenure intentions. Fourthly, if 'job demands' is a complete mediator of the relationship

between perceptions of HRM practices and employee outcome variables (IWB, OCB and tenure intentions), then the effect of perceptions of HRM practices when controlling for ‘job demands’ should be zero. Otherwise, for a claim of partial mediation effect, the effect should be merely reduced. Figure 8.3 provides a map for this mediation model. It should be noted that, due to complications of multiple mediation tests (Preacher and Hayes 2008), this study uses simple mediation tests. Thus the outcome variables are regressed individually in this mediation model.

Figure 8.3 Mediation Model: Job Demands as the Mediator



8.3 Job Demands Mediating Perceptions of HRM Practices and Innovative Work Behaviour

After conducting three consecutive regression analyses between the independent variable ‘employee perceptions of HRM practices,’ the mediator variable ‘job demands’ and the dependent variable ‘innovative work behaviour,’ the investigator found the following results: the first causal step in this mediation test was significant. Perceptions of HRM practices did significantly explain innovative work behaviour. The second and third causal steps were also significant, that perceptions of HRM practices significantly predicted job demand perceptions, and job demand

perceptions significantly predicted IWB when controlling for perceptions of HRM practices. The last condition as highlighted by Baron and Kenny (1986) that: in order to claim for a partial or complete mediation, the effect of the predictor (in this case perceptions of HRM practices) on the dependent variable (in this case innovative work behaviour) should be reduced to zero or merely reduced when controlling for the mediator (job demand perceptions) was not met. Thus, the Sobel test was conducted. Table 8.1 provides the mediation regression results for the mediating effects of job demands on the relationship between employee perceptions of HRM practices and employee IWB.

Table 8.1 The Mediated Regression Results Predicting the Mediation Effects of Job Demands on the Relation between Perceptions of HRM Practices and IWB^a

Innovative Work Behaviour							
Predictors	b (s.e)	t	F	df	R ² Change	Total R ²	Sobel Z
Model 1							
Perceptions of HRM Practices	.38** (.097)	3.94**	6.38**	(6,198)	.07**	.16**	
Model 2							
Job Demands	.34** (.095)	3.59**			.05**		
Perceptions of HRM Practices	.46** (.097)	4.75**	7.64**	(7,197)	.09**	.21**	-2.84*

Note: ^aSobel test results are two tailed; N = 198, *p < .05. **p < .001

8.4 Job Demands Mediating Perceptions of HRM Practices and Organisational Citizenship Behaviour - Individuals

After conducting three consecutive regression analyses between the independent variable 'employee perceptions of HRM practices,' the mediator variable 'job demands' and the dependent variable 'organisational citizenship behaviour - individuals,' the results were as follows: the first causal step in this mediation test was violated²¹. Employee perceptions of HRM practices did not significantly explain organisational citizenship behaviour directed towards individuals (OCBI). The second and third causal steps were significant, that employee perceptions of HRM practices significantly predicted job demand perceptions, and job demand perceptions significantly predicted OCBI when controlling for perceptions of HRM practices. Since the first causal step was violated, the Sobel test was used. After running the Sobel test, the study established that there was an indirect effect of the independent variable on the outcome variable via the mediator. In this respect, employee perceptions of HRM practices had an indirect effect on OCBI via job demand perceptions. The Sobel Z was -2.04, ($p < .05$). Table 8.2 presents the regression results predicting the mediation effects of job demand perceptions on the relationship between perceptions of HRM practices and employee OCBI.

²¹ Preacher and Hayes (2004: 717-718) suggested that the first of these assumptions is routinely violated.

Table 8.2 The Mediated Regression Results Predicting the Mediation Effects of Job Demands on the Relation between Perceptions of HRM Practices and OCBI

Organisational Citizenship Behaviour – Individuals							
Predictors	b (s.e)	t	F	df	R ² Change	Total R ²	Sobel Z
Model 1							
Perceptions of HRM Practices	.03 (.057)	.48	3.10**	(10,210)	.001	.14	
Model 2							
Job Demands	.15* (.055)	2.77**			.03**		
Perceptions of HRM Practices	.06 (.057)	1.05	3.61**	(11,204)	.005	.17	-2.04*

Note: N = 205, *p < .05. **p < .001

8.5 Job Demands Mediating Perceptions of HRM Practices and Organisational Citizenship Behaviour – Organisation

After conducting three consecutive regression analyses between the independent variable ‘employee perceptions of HRM practices,’ the mediator variable ‘job demands’ and the dependent variable ‘organisational citizenship behaviour - organisation,’ the results were as follows: the first causal step in this mediation test was not significant. Employee perceptions of HRM practices did not significantly explain organisational citizenship behaviour directed towards the organisation (OCBO). The second causal step was not significant either. Job demand perceptions

did not significantly explain OCBO when controlling for perceptions of HRM practices. The last step was not significant as well; employee perceptions of HRM practices did not significantly predict OCBO when controlling for job demand perceptions. Since no step was significant, no claim of complete or partial mediation was tenable. Consequently, the Sobel test was used to examine if job demands (the mediator) has an indirect effect on the relationship between perceptions of HRM practices and OCBO. The results of this test of mediation are presented in Table 8.3.

The Sobel test was not significant.

Table 8.3 The Mediated Regression Results Predicting the Mediation Effects of Job Demands on the Relation between Perceptions of HRM Practices and OCBO

Organisational Citizenship Behaviour - Organisations							
Predictors	b (s.e.)	t	F	df	R ² Change	Total R ²	Sobel Z
Model 1							
Perceptions of HRM Practices	-.09 (.085)	-1.03	12.4***	(10,205)	.003	.39	
Model 2							
Job Demands	-.04 (.083)	-.46			.001		
Perceptions of HRM Practices	-.10 (.087)	-1.10	11.25***	(11,205)	.004	.39	0.45

Note: N = 205, *p < .05. **p < .001.

8.6 Job Demands Mediating Perceptions of HRM Practices and Tenure Intentions

Following similar procedures to those above, the regression results showed that job demands did not significantly mediate the relationship between perceptions of HRM practices and employee tenure intentions. After conducting the Sobel test, the results did not support an indirect effect of employee perceptions of HRM practices on tenure intentions via job demands perceptions. Table 8.4 provides a summary of the test for mediation effect of job demands on the relation between perceptions of HRM practices and employee tenure intentions.

Table 8.4 The Mediated Regression Results Predicting the Mediation Effects of Job Demands on the Relation between Perceptions of HRM Practices and Tenure Intentions

Predictors	Employee Tenure Intentions						
	b (s.e.)	t	F	df	R ² Change	Total R ²	Sobel Z
Model 1							
Perceptions of HRM Practices	.16 (.186)	.84	4.84**	(10, 187)	.003	.22**	
Model 2							
Job Demands	.24 (.183)	1.31			.008		
Perceptions of HRM Practices	.20 (.188)	1.03	4.53**	(11,186)	.005	.22**	-1.203

Note: N = 187, *p < .05. **p < .001

8.7 Conclusion to Mediation Analysis

The tests for mediation effects in this study showed that in all three mediation models, employee perceptions of job demands (the mediator variable) did not have a complete or partial mediation effect in the relationship between perceptions of HRM practices and employee outcome behaviours, namely IWB, OCB and tenure intentions. However, the models showed that employee perceptions of HRM practices had an indirect effect on employee outcomes (IWB and OCBI) via the perceptions of job demands. In this regard, employee perceptions of HRM practices had an indirect effect on the outcome variables IWB and OCBI through the mediator variable - perceptions of job demands. As mentioned, the regression equations for the tests were conducted individually. The Sobel test was used as a supplementary statistical method to establish the indirect effect in this mediation models. All Sobel test results were two tailed.

8. 8 Linking Company-Level and Employee-Level Outcomes

The following section presents results of a univariate analysis of variance (one-way ANOVA) operationalised through the General Linear Model (GLM) to explain the linkage between organisational level and employee level variables. A General Linear Model procedure offers more information than a one-way ANOVA, particularly information related to regression analysis (Garson 2009). This is because ANOVA and multiple regression analysis conceptually mean the same thing. Thus, a GLM is more appropriate than a one-way ANOVA when the researcher conceptualises

regression analysis on the tests of 'Between-Subjects Effects' (Field 2005; Kinnear and Gray 2008; Garson 2009).

8. 8. 1 The Relationship Between HPWS and Employee Perceptions of HRM Practices

In theory, a researcher can use ANOVA, regression and ANCOVA techniques to estimate variance accounted for in the personal variable by group membership (Field 2005). This can be reported in the form of eta square, omega square, intraclass correlation, or squared multiple correlation. Essentially, the between group analysis shows how much of the variation on the personal variable (as measured on individuals), is associated with or can be accounted for by differences among groups. Thus, cross-level inference means the extent to which variations in a situational attribute are thought to be associated with variations in an individual attribute (Mossholder and Bedeian 1983; Bliese 2000; James & Williams 2000; Hofmann 2002).

Table 8.5 provides results of the univariate analysis of variance (GLM) on the relationship between company-level measure of HPWS and employee perceptions of HRM practices. The results show that on average greater use of HPWS accounted for about 9 per cent of the variance in overall employee perceptions of HRM practices [$F(4,219) = 5.33, p < .001$]. With regard to individual measures of employee perceptions of HRM practices, HPWS accounted for about 14 per cent of the variance in employees' perceptions of HRM practices related to communication

and feedback [$F(4,215) = 8.49, p < .001$]. Similarly, HPWS accounted for about 9 per cent of variance in employees' perceptions of HRM practices related to job conditions [$F(4,215) = 5.29, p < .001$]. HPWS was, however, not significant in predicting employees' perceptions of HRM practices related to training and development and remuneration.

Table 8.5 GLM-Univariate Analysis of Variance Showing the Extent to Which HPWS at Company Level Accounts for Variance in Employee Perceptions of HRM Practices

Predictor Variable	Employee Perceptions of HRM Practices				
	Composite: Perceptions of HRM Practices	Communication and Feedback	Training and Development	Remuneration	Job Conditions
HPWS					
Mean Square	1.87	5.43	.96	1.04	2.68
<i>F</i> Statistic	5.33***	8.49***	1.56	1.38	5.29***
Model R^2	.09***	.14***	.03	.03	.09***
Adjusted R^2	.07	.12	.01	.01	.07
N	219	220	219	220	220

* $p < .10$, ** $p < .05$, *** $p < .001$

8. 8. 2 The Relationship Between HPWS and Employee Outcomes

Table 8.6 provides results of the univariate analysis of variance (GLM) on the relationship between the company-level measure of HPWS and employee-level innovative work behaviour (IWB), organisational citizenship behaviour (OCB) and tenure intentions. The table shows that greater use of HPWS significantly explains employees' innovative work behaviour and accounted for about 4 per cent of the variance in employee innovative work behaviour [$F(4, 213) = 2.06, p < .10$]. HPWS on average also accounted for 4 per cent of variance in employee OCBI [$F(4, 213) = 2.47, p < .05$]. Regarding employee OCB directed towards an organisation, greater use of HPWS explained about 52 per cent of the variance²² in employee likelihood of showing OCB towards organisations [$F(4,214) = 56.83, p < .001$]. Lastly, greater use of HPWS accounted for about 14 per cent of the variance in employee tenure intentions [$F(4,195) = 7.96, p < .001$].

²² The percentage of variance accounted for by HPWS on OCB directed towards the organisations seems to be high relative to other variables in this study. High percentage of variance in OCB studies seems to be common. A study by Orr, Sackett and Mercer (1989) had an R^2 of .84, Kiker and Motowidlo (1999) had an R^2 of .61, Rotundo and Sackett (2002) had R^2 of .67, and Johnson, Erez, Kiker and Motowidlo (2002) had an R^2 of .62.

Table 8.6 GLM-Univariate Analysis of Variance Showing the Extent to Which HPWS at Company-Level Accounts for Variance in Employee-Level Outcomes

Predictor Variable	Employee Outcome Variables			
	IWB	OCBI	OCBO	Tenure Intentions
HPWS				
Mean Square	1.67	.64	28.48	18.28
<i>F</i> statistic	2.06*	2.47**	56.83***	7.96***
Model R ²	.04*	.04**	.52***	.14***
Adjusted R ²	.02	.03	.51	.12
N	217	218	219	200

p* < .10, *p* < .05, ****p* < .001

8. 8. 3 Conclusion

Based on these measures of association (i.e., the tests of between-subjects effects), the model-coefficient of determination (R²) showed that greater use of HPWS at the company level accounted for variance at the employee level on both employees' perceptions of HRM practices and on the three measures of employee outcomes. With regard to employee perceptions of HRM practices, HPWS was significant in predicting overall employee perceptions of HRM practices. It was also related to individual measures of HRM practices related to communication and feedback as well as job conditions. Regarding the employee outcome measures, the effect size for the measure of IWB was rather weak when compared to the other measures. Overall, these results are consistent with various studies that have suggested a cross-

level link between utilisation of HPWS and employee behavioural and attitudinal outcomes (e.g., Nishii and Wright 2008; Nishii, Lepak and Schneider 2008; Takeuchi, Chen and Lepak 2009). A detailed account of the meaning and implication of these findings will be dealt with in the discussion and recommendations chapter.

CHAPTER NINE

DISCUSSION OF FINDINGS

9. 1 Introduction

This chapter begins with a discussion of the company-level and employee-level correlation and regression findings. This includes a discussion of the statistical and practical significance observed in each regression model as presented in the previous chapters. It presents explanations relating to the extent to which the proposed hypotheses in the study were supported. It continues with a discussion of the findings related to the mediation hypotheses as proposed at the employee level. This is followed by a discussion of findings related to the cross-level inference.²³ Finally, the chapter provides a discussion of company differences that were related to the employee-level findings.

9. 2 Discussion of Company-Level Outcomes

Hypothesis 1 related to the relationship between the utilisation of HPWS and innovation. The correlation findings showed a positive association between HPWS and workforce innovation. The multiple regression analysis showed that the standardised coefficient beta (β) for HPWS was .21 ($p < .05$). In practical terms, this

²³ Recall, cross-level inference means the extent variations in a situational attribute are thought to be associated with variations in an individual attribute (Mossholder and Bedeian 1983; Bliese 2000; James & Williams 2000; Hofmann 2002). Thus, GLM results are explained in terms of ‘average’ or ‘situational attribute’ rather than an individual attribute.

meant an increase in one-standard-deviation (SD) in the measure of HPWS is associated with a .21 increase in the measure of innovation. These findings are consistent with studies conducted by Huselid (1995), Laursen and Foss (2003), Richard and Johnson (2004), Flood et al. (2005, 2008), and Jimenez-Jimenez and Sanz-Valle (2008). The findings were, therefore, supportive of hypothesis 1 in this study that ‘More extensive use of HPWS will be positively associated with innovation.’

In practical terms, these findings suggest that companies that have well-developed high performance work systems saw increases in innovation. The gains of innovation include increased process and product innovations. When other factors are held constant, utilisation of HPWS was associated with approximately a three per cent increase in innovation. Since the measure of innovation captures the workforce’s ability to work smart, these findings support the theory that the utilisation of HPWS increases employees’ ability, motivation and opportunity to participate in achieving organisational goals (Bailey 1993; Appelbaum et al. 2000). Accordingly, these findings accentuate the importance of HPWS in a company’s efficiency and show the role of HPWS in enhancing company benefits. These results should encourage practitioners to adopt these practices in their companies, since there are positive benefits which may accrue from extensive utilisation of HPWS.

Hypothesis 2 related to the relationship between utilisation of HPWS and labour productivity, where a significant correlation between the two was found. Moreover, multiple regression results showed that HPWS significantly explained labour

productivity. The standardised coefficient β for HPWS was .26 ($p < .01$). The practical significance of these findings is that a change in one standard deviation in the measure of HPWS is associated with a change of .26 in the measure of labour productivity. Thus, an increase in utilisation of HPWS is positively associated with an increase in labour productivity. These findings are consistent with previous research findings conducted by Huselid (1995), Patterson et al. (1997), Guthrie (2001), Datta, Guthrie and Wright (2005), Zatzick and Iverson (2006) and Guthrie et al. (2009). The findings are supportive of hypothesis 2 in this study that ‘More extensive use of HPWS will be positively associated with labour productivity.’

Practically, these findings suggest that companies that extensively utilise HPWS saw increases in productivity. As productivity can be defined in terms of revenue per employee (Huselid 1995; Guthrie 2001), this study has demonstrated that companies with well-developed high performance work systems saw increases in net income per employee. When other factors are held constant, these companies saw approximately a five per cent increase in productivity. These findings are important when they are appraised in the context of labour productivity as an indicator of workforce performance (Delery and Shaw 2001). In this regard, these findings should encourage companies to adopt HPWS since the findings are strong evidence that well-developed high performance work systems are associated with workforce performance.

Hypothesis 3 related to the relationship between utilisation of HPWS and voluntary turnover. This study found a negative correlation between HPWS and voluntary

turnover. Moreover, HPWS accounted for about three per cent unique variance on turnover, and the standardised coefficient (β) for HPWS was -0.2 ($p < .05$). Overall, the findings were strong and significant, and were consistent with past research on the relationship between utilisation of HPWS and turnover (Huselid 1995; Guthrie 2001; Richard and Johnson 2001; Guest et al. 2003; Flood et al. 2005; Sun, Aryee and Law 2007; Yalabik, Chen, Lawler and Kim 2008, Flood et al. 2008). These findings supported hypothesis 3 which states that ‘More extensive use of HPWS will be negatively associated with voluntary turnover’.

Literature on HPWS shows that turnover whether voluntary or involuntary is costly to the company (Bohlander and Snell 2007). Companies are also advised to retain well-trained employees because losing these employees to competitors is a loss to the companies who might have spent money increasing their skills (Liu et al. 2007). This study found that companies that extensively utilise HPWS saw approximately a three per cent reduction in turnover. These findings should encourage companies to adopt these practices since they are not only a source of enhancing employees’ knowledge and skills, but they are also a means of encouraging retention of valuable employees. It should be noted however, that employee retention is beneficial to companies only if the workforce in question has the potential to improve its performance. In this case, studies show that HPWS can also be used as a ‘weed-out mechanism’ to get rid of unproductive, resistant or costly employees and get committed ones (Townsend 2007). These findings strongly suggest that companies should adopt HPWS since they are beneficial to both employers and committed employees.

Overall, this study has demonstrated that the correlation and regression analyses on the company-level data were consistent with the hypotheses suggested in the literature review. Table 9.1 provides a summary of the hypotheses and the related findings.

Table 9.1 Summary of Company Level Hypotheses, Examples of Previous Studies and Empirical Support

Hypotheses	Findings in this Study	Previous Studies
H. 1. More extensive use of HPWS will be positively associated with workforce innovation	Positive correlation between HPWS and innovation An increase in utilisation of HPWS was associated with an increase in innovation ($R^2 = .27, p < .05$)	Huselid (1995), Richard & Johnson (2004), Flood et al. (2005, 2008), Jimenez-Jimenez & Sanz-Valle (2008)
H.2. More extensive use of HPWS will be positively associated with labour productivity	Positive correlation between HPWS and labour productivity An increase in utilisation of HPWS was associated with an increase in labour productivity ($R^2 = .36, p < .01$)	MacDuffie (1995), West & Patterson (1999), Guthrie (2001), Datta, Guthrie & Wright (2005), Sun, Aryee & Law (2007)
H.3. More extensive use of HPWS will be negatively associated with voluntary turnover	Negative correlation between HPWS and voluntary turnover An increase in utilisation of HPWS was associated with a decrease in turnover ($R^2 = .25, p < .01$)	Huselid (1995), Batt (2002), Guest et al. (2003), Wang & Zang (2005), Yalabik et al. (2008), Zheng, O'Neill & Morrison (2009)

The company-level study had a number of control variables. These were included since the societal contexts, such as company size, age, technology, degree of unionisation, ownership and location can have an impact on the relationship between HRM practices and organisational performance (Guest 1997; Datta, Guthrie and

Wright 2005; Paauwe and Boselie 2008). There were few significant associations between control variables and the measure of HPWS. Specifically, HPWS was negatively correlated with company origin. The significance of this association was that, compared to non-Irish companies, indigenous Irish-owned companies were less likely to use HPWS extensively. This finding was further explained in the descriptive statistics earlier. While, on average, all Irish companies had a 48 per cent usage of HPWS, Irish-owned companies had about 39 per cent compared to foreign MNCs who had about 57 per cent usage of HPWS. These findings are important because they highlight the need for researchers to pay attention to reasons behind country differences in examining the link between HPWS and performance measures.

9. 2.1 Conclusion Based on Company-Level Discussion

These findings highlight the impact of utilisation of HPWS on company performance. Empirically, this study has demonstrated that HPWS may influence the workforce through the provision of practices and policies that enhance employees' knowledge and skills. HPWS also encourage employee involvement in the companies' major decision-making. The findings are also a step forward in an empirical search for the ways through which management of people can influence a company's performance. Though these findings do not explain *how* HRM practices affect a company's outcomes, they however, contribute to the literature by showing the association between HPWS and performance outcomes. It should be noted that, by showing the association between HPWS and the company's performance

outcomes, this study does not claim to have found the causal link between HRM practices and performance outcomes.

9. 3 Discussion of Cross-Level Findings

The discussion of cross-level findings is related to the study's assessment of the relationship between utilisation of HPWS at the company level and employee behavioural and attitudinal outcomes at the employee level. In particular, the study examined the relationship between utilisation of HPWS and employee perceptions of HRM practices. It also examined the relationship between utilisation of HPWS at company level, and employee-level innovative work behaviour, organisational citizenship behaviour and tenure intentions.

9. 3. 1 HPWS and Employee Perceptions of HRM Practices

The first cross-level findings showed significant relationships between utilisation of HPWS and employees' perceptions of HRM practices (see Table 8.5). The General Linear Model (GLM) univariate analysis of variance results showed that greater use of HPWS explained about nine per cent of the variance in the overall measure of employee perceptions of HRM practices ($p < .001$). These findings were supportive of hypothesis 4, that 'More extensive use of HPWS will be positively associated with employee perceptions of HRM practices.' With regard to individual assessment of employee perceptions of HRM practices, greater use of HPWS was significant in explaining perceptions of HRM practices related to communication and feedback, and job conditions. Thus, the findings supported hypothesis 4a that 'More extensive

use of HPWS will be associated with employees' perceptions of HRM practices related to communication and feedback' and hypothesis 4d that 'More extensive use of HPWS will be associated with employees' perceptions of HRM practices related to job conditions.' Hypotheses 4b that 'More extensive use of HPWS will be associated with employees' perceptions of HRM practices related to training and development' and 4c that 'More extensive use of HPWS will be associated with employees' perceptions of HRM practices related to remuneration' were not supported.

Overall, these findings are consistent with research which suggests that HPWS are associated with a number of positive employee attitudinal outcomes (Vandenberg, Richardson & Eastman 1999; Guest and Conway 1999; Lambert 2000; White et al. 2003; Lee and Bruvold 2003; Frobel and Marchington 2005; Khilji and Wang 2006; Takeuchi 2009). The effect sizes of the link between HPWS at company level and employee perceptions of HRM practices at the employee level are strong and significant. They are consistent with study findings such as Takeuchi et al. (2009) whose effect sizes ranged from $R^2 = .06$ to $R^2 = .52$ across various cross-level variables.

These findings are important to both academicians and practitioners because they demonstrate a link between well-developed high performance work systems at the company level and employee perceptions of HRM practices at the employee level. These findings should encourage employers to examine the way they utilise high performance work systems because the practices have an impact on employees'

perceptions. This study showed that utilisation of HPWS was significant in explaining employee perceptions of HRM practices related to communication and feedback as well as job conditions. There were no significant associations between utilisation of HPWS and employee perceptions of HRM related to training and development and remuneration. These findings suggest to us that employees may more likely be concerned with job conditions, communications and the feedback they get in the company than they would be concerned with remuneration, education and career development. One possible explanation of this suggestion is that while job conditions, communication and feedback are immediate and day-to-day factors in an employee's workplace, remuneration, training and development may be perceived as distant and not felt on daily basis.

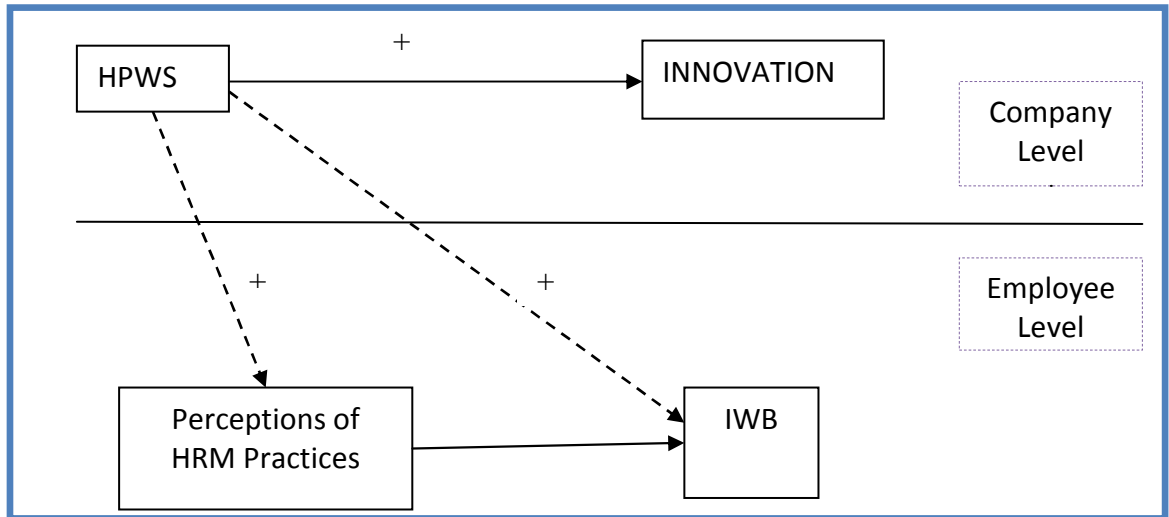
9.3.2 HPWS and Employee Innovative Work Behaviour

The cross-level findings related to the relationship between utilisation of HPWS and employee innovative work behaviour showed that HPWS accounted for about 4 per cent of the variance in employee innovative work behaviour ($p < .10$, see table 8.6). These findings supported hypothesis 5a that 'More extensive use of HPWS will be positively associated with employee innovative work behaviour'. They are consistent with studies which suggest that HPWS can be used as a way of enhancing employees' discretion and effort which are important for company benefits (Purcell et al. 2003; Organ et al. 2006; Liu et al. 2007).

With these findings one can trace the relationship between utilisation of HPWS at the company level down to employee-level outcomes. Figure 9.1 illustrates the map for the impact of utilisation of HPWS on company and employee outcomes. It shows the relationship between the companies' utilisation of HPWS and innovation at company level. It also shows the association between the utilisation of HPWS at company level and employees' perceptions of HRM practices and IWB at employee level. Practically, these findings explain two basic research questions in this study. First, what are the employees' perceptions of HRM practices in companies which extensively utilise HPWS? Second, are employees in companies that utilise HPWS likely to be innovative? These findings are helpful in explaining how HRM practices potentially elicit employees' role behaviours.²⁴

²⁴ Literature suggests that HRM practices can potentially elicit extra role behaviours. This is more likely to happen when companies provide financial and non-financial, but tangible inducements and facilitate employees' extra role behaviours (Uen, Chien and Yen 2009). This proposition was not tested in this study. However, implicitly one can argue that positive employee perceptions of HRM practices related to remuneration suggest the relationship between greater utilisation of HRM practices and financial or non-financial inducements, and employee extra-role behaviours.

Figure 9.1 Illustration of the Impact of Utilisation of HPWS on Company Innovation and Employee Perceptions of HRM Practices and IWB



- A correlation and regression relationship between independent variables and dependent variables
- - - - -→ A cross-level inference of the relationship of company level utilisation of HPWS and employee level variables (perceptions of HRM practices and IWB)

9. 3. 3 HPWS and Organisational Citizenship Behaviour

The cross-level findings related to the relationship between utilisation of HPWS and employee organisational citizenship behaviour showed that HPWS accounted for about 4 per cent of the variance in employee OCBI ($p < .05$) and about 52 per cent of the variance in OCBO ($p < .001$). These findings are consistent with research which suggests that HRM practices engage employees in a more responsible and responsive manner (Becker and Gerhart 1996; Whitfield and Poole 1997), and that these practices may motivate employees to get involved with their jobs and show citizenship behaviours (Biswas, Srivastava and Giri 2007). These findings are

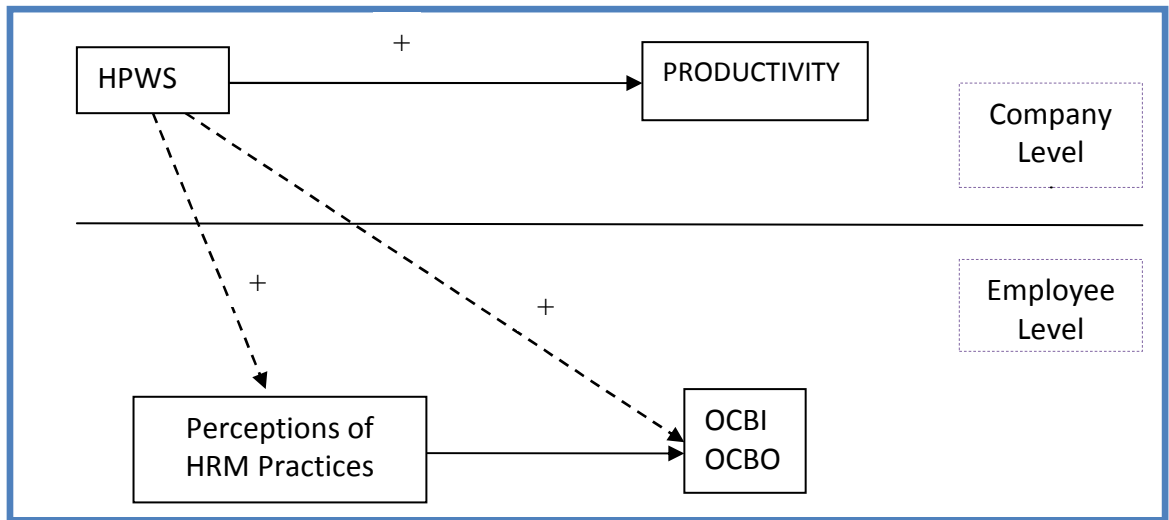
supportive of hypothesis 6a that ‘More extensive use of HPWS will be positively associated with employee organisational citizenship behaviour’.

Labour productivity and employees’ organisational citizenship behaviour are mapped in this study because organisational citizenship behaviour consists of discretionary behaviours that constitute ‘proactivity’²⁵ and can translate effectively into productivity.²⁶ In this regard, these findings are important to practitioners and academics because one can trace an association between utilisation of HPWS and labour productivity at company level and the extent to which employees’ exhibit discretionary effort in the form of organisational citizenship behaviour at the employee level. Based on these findings, this study found an association between the companies’ utilisation of HPWS and labour productivity at the company level, and a link between utilisation of HPWS and employee perceptions of HRM practices at employee level. The study also found a link between utilisation of HPWS at company level and employee OCBI and OCBO at employee level. Figure 9.2 illustrates the association between utilisation of HPWS at the company-level and its impact on company and employee outcomes.

²⁵ Proactivity refers to the extent to which individuals take self-directed action to anticipate or initiate change in the work system or work roles (Griffin, Neal and Parker 2007). Proactivity is also an effective way of supporting personal and organisational effectiveness (Watson and Clark 1992).

²⁶ OCB promotes a supportive work environment, where employees are motivated to share tacit knowledge, and this knowledge leads to enhanced productivity (Sun, Aryee and Law 2007).

Figure 9.2 Illustration of the Impact of Utilisation of HPWS on Company Productivity and Employee Perceptions of HRM Practices and OCB



- A correlation and regression relationship between independent variables and dependent variables
- - - - -→ A cross-level inference of the relationship of company level utilisation of HPWS and employee level variables (perceptions of HRM practices and OCBI/OCBO)

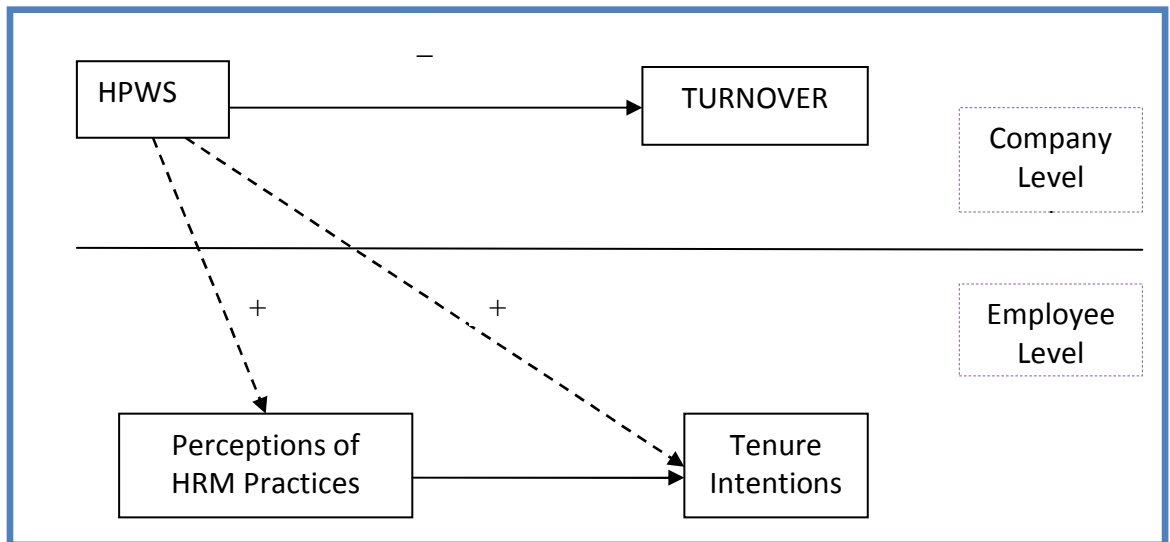
9.3.4 HPWS and Employee Tenure Intentions

The cross-level findings on the relationship between utilisation of HPWS and employee tenure intentions showed that HPWS accounted for about 14 per cent of the variance in employee tenure intentions ($p < .001$). These findings are supportive of hypothesis 7a, that 'More extensive use of HPWS will be positively associated with employee intentions to remain with their current employer'. They are consistent with studies which suggest that employees are less likely to quit if HPWS provide them with opportunities for employee discretion, skills development, human resource incentives such as high relative pay, and opportunities for growth and

development within the organisation (Shaw et al. 1998; Batt 2002; Guest et al. 2003; Sun, Aryee and Law 2007; Yalabik et al. 2008; Guthrie et al. 2009).

Based on these findings, one can trace an association between a company's utilisation of HPWS and labour turnover (at company level) and employee-level tenure intentions. Figure 9.3 below illustrates the association between utilisation of HPWS at the company level and its impact on employee perceptions of HRM and tenure intentions at employee level. These findings support the view that utilisation of HPWS matters in influencing employee perceptions of HRM practices and also their attitudes and behaviours (Appelbaum et al. 2000; Bowen and Ostroff 2004). It is important for practitioners to understand that well-developed HPWS are associated with employees' tendency to stay longer with their employer. This point has been discussed in the section on the impact of HPWS on turnover. As stated earlier, retaining well-trained and committed employees should be beneficial to companies.

Figure 9.3 Illustration of the Impact of HPWS on Voluntary Turnover and Employee Perceptions of HRM Practices and Tenure Intentions



- > A correlation and regression relationship between independent variables and dependent variables
- - - - -> A cross-level inference of the relationship of company level utilisation of HPWS and employee level variables (perceptions of HRM practices and tenure intentions)

9.3.5 Conclusion Based on Cross-Level Discussion

The discussion of the findings in this study suggests that one can trace cross-level inferences between company-level utilisation of HPWS and employee-level perceptions of HRM practices and behavioural and attitudinal outcomes. These findings are important since they extend the literature that integrates multiple levels of analysis (Tsui et al. 1997; Ostroff and Bowen 2000; Bowen and Ostroff 2004; Wright and Nishii 2007; Takeuchi, Chen and Lepak 2009). The findings are also significant because, as Wright and Nishii (2007) argue, ‘Individuals may behave

differently as a result of their perceived HRM practices, but whether or not the behavioural differences positively impact organisational performance may depend on the level of coordination across them' (Wright and Nishii 2007: 18). These findings improve our understanding of the positive association between the greater use of HPWS and employee outcomes. Therefore, one can assume based on social exchange theory (Blau 1964) and the norm of reciprocity (Gouldner 1960) that employee behaviours and attitudes matter in explaining company performance. The rationale of this assumption stems from the literature on organisational climate which suggests that shared perceptions of the HRM practices which are expected and rewarded by these practices can predict organisational performance (Schneider, Salvaggio and Subirats 2002; Wright and Nishii 2007). Similarly, employees are expected to reciprocate positive experiences because reciprocation is a form of social exchange (Cropanzano and Mitchell 2005). The effect sizes of the cross-level inferences in this study are strong and consistent with previous studies on the linkages between employee level and company level outcomes (see for example Takeuchi et al. 2009 whose effect sizes ranged from 6 per cent to 52 per cent of the variance explained). Table 9.2 provides a summary of the hypotheses related to cross-level regressions and the empirical support as proposed in this study.

Table 9.2 Summary of Hypotheses Related to Cross-Level Inference

	Hypotheses	Predicted Direction/ Coefficient Sign	Support
H4	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices	+	YES
H4a	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices related to communication and feedback	+	YES
H4b	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices related to training and development	+	NO
H4c	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices related to remuneration	+	NO
H4d	More extensive use of HPWS will be positively associated with employee perceptions of HRM practices related to job conditions	+	YES
H5a	More extensive use of HPWS will be positively associated with employee IWB	+	YES
H6a	More extensive use of HPWS will be positively associated with employee OCB	+	YES (OCBI) NO (OCBO)
H7a	More extensive use of HPWS will be positively associated with employee tenure intentions	+	YES

9. 4 Discussion of Employee-Level Outcomes

Hypothesis 5b related to the relationship between employee perceptions of HRM practices and innovative work behaviour. It stated that, ‘Positive employee perceptions of HRM practices will be associated with innovative work behaviour’. The study showed positive and significant correlations between innovative work behaviour and the composite measure of employees’ perceptions of HRM practices. Similarly, the regression model showed that positive employee perceptions of HRM practices accounted for about 13 per cent unique variance on innovative work

behaviour above the control model. Employee perceptions of HRM practices related to communication and feedback and occupation type were the only significant explanations of changes in IWB. These findings are consistent with studies which have associated employee perceptions of HRM practices with innovation, and innovative work behaviour (Van de Ven 1986; Scott and Bruce 1994; Parker 2000; Dorenbosch, Van Engen and Verhagen 2005). A study by Axtell et al. (2000), for example, found that employee perceptions of individual, group, and organisational factors had an impact on innovation process and IWB. Similarly, these findings are consistent with studies that suggest that HRM practices can be used as ways of encouraging employees to work innovatively (Janssen 2000; Axtell et al. 2000; Purcell et al. 2003; Chow 2005; Dorenbosch, Van Engen and Verhagen 2005; Liu et al. 2007).

The most significant variable in explaining employee IWB in these companies was employees' perceptions of HRM practices related to communication and feedback. These findings suggest that employees are more likely to engage in innovation and innovative work behaviour depending on the extent to which they are happy with the communication and feedback they get from their employer or their manager. Literature shows that innovative work behaviour is also related to employees' efforts and decision to 'take charge' and initiate change in a respective work role (Morrison and Phelps 1996). The relationship between 'taking charge' and 'communication and feedback' between employees and the employer may explain the reason behind employees' perceptions of HRM practices related to communication and feedback being a significant independent variable in explaining employees' IWB. Thus in

order to get more benefits from employees' extra-role behaviours, the management should extensively use HPWS that foster communication and feedback since these practices have the potential for the likelihood of influencing employees extra role behaviours.

These findings are beneficial to both the employer and the employees because understanding employees' perceptions of HRM practices can assist in channelling employee voice²⁷ and in ensuring that people management aligns with company goals. Literature on social exchange relationships (Blau 1964) suggests that employees will respond to the employer depending on the treatment they receive (Lambert 2000; Cropanzano and Mitchell 2005; Song, Tsui and Law 2009). The treatment could create a social relationship filled with trust and feelings of long term obligations to the employer (Song, Tsui and Law 2009). As discretionary or extra-role behaviour, IWB can be encouraged when a company provides its employees with benefits, which in turn reinforce feelings of mutual reciprocity. These findings should encourage companies to use HRM practices that will motivate employees to engage in extra-role and discretionary behaviours. The significant association between positive employee perceptions of HRM practices and IWB in this study should suggest to practitioners that employees can be motivated and developed in knowledge, skills and abilities, to work innovatively for the benefit of the company.

²⁷ 'Employee voice encompasses the involvement of employees either directly or indirectly or through representatives in decision making within the wider enterprise' (Wood and Wall 2007:1336). Similarly, employee voice can be used as a means through which employees suggest improvements in working conditions, training methods, and safety procedures (ibid).

With regard to the association between employees' perceptions of HRM practices and organisational citizenship behaviour, the study showed that positive employee perceptions of HRM practices were correlated with OCB directed towards individuals (OCBI). Multiple regression results were significant but weak with a 2 per cent unique variance explained for in the dependent variable, that is, OCBI. Occupation, gender and type of company - as control variables - and perceptions of HRM practices related to job conditions were significant independent variables in the model. Regarding gender, the findings suggested that women were more likely to engage in OCBI than men. Similarly, these findings suggested that, employees who were in the financial services and insurance company were more likely to engage in OCBI than employees from other companies. Overall, the findings suggested that employees identified themselves with the work-group or local workplace, depending on their perceptions of job conditions, and whether their occupation provided them with an opportunity to engage in citizenship behaviours.

On the other hand, employee perceptions of HRM practices were negatively correlated with OCB directed towards the organisation (OCBO). Multiple regression analysis showed that education, occupation and company type - as control variables - and perceptions of HRM practices related to training and development were the main significant independent variables explaining OCBO. In general terms, these findings suggested that highly educated employees and employees who held high positions in the workplace were more likely to have positive perceptions towards the

company and would attach themselves with the company than employees with low levels of education and who held low occupation jobs.

These findings have practical importance for companies because understanding that there is a link between employees' perceptions of HRM practices and their likelihood of engaging in extra-role behaviours can assist in the search for ways through which companies can foster discretionary effort among employees. This study does not show how (or express the process through which) employees are motivated to exert citizenship behaviours. However, it shows theoretically and suggests empirically, that based on the norm of reciprocity (Gouldner 1960) employees will engage in these discretionary behaviours when they have positive perceptions of the companies' HRM practices. It should be noted that these findings have also shown a tendency among employees to generally identify themselves more with individuals than with the organisation. To the employers, this tendency might sound negative. However, citizenship behaviours within work-groups or local workplaces can have positive impact on organisational performance since employees may identify themselves with the line managers or the immediate bosses, who by virtue of their work represent the organisation.

These findings are also related to observations made by managers from these companies, whose comments, though not a justification for generalising these findings, suggest that companies have to critically examine the way they treat their employees. The Manager in Learning and People Development at TRAMCO in one of the interviews commented:

People all across the country respond to our surveys and they say a couple of interesting things; at the local level, they would say for example, my manager treats me with respect, I look forward to coming into work, I am proud to work with TRAMCO, very positive. Without being carried away, there is a but, and the but is when we look and ask, "Is morale generally good in the company?" people say, no it is not. They are almost saying, locally it is good, my manager and so on, but broadly they are setting it in the corporate performance, and are saying the morale is not good. This tells us something about our culture, and tells us something about our management style (Manager at TRAMCO).

These comments concurred with what the Leadership Development Manager at DRMCO said in one of the interviews with regard to employee citizenship behaviour and benefits in the company:

Generally, there is a perception that there are very good people in the organisation, but a lot of time people will be frustrated with the organisation, that it could be better, but that comes out of loyalty and affection for the company. ...There would be a feeling within HR that we need to be more proactive about communicating all of the benefits that the company provides, we need to be more flexible with our benefits which will make more work for us, but I think it will be better for us in enhancing employees' commitment and their sense of citizenship within the organisation (Manager at DRMCO).

These comments may explain the reason behind employees having a tendency to engage in citizenship behaviour towards individuals more than towards organisations in general. The Group Equality and Diversity Officer at FSI-CO was positive about employee citizenship behaviour and in particular the extent to which employees were ready to help one another, stating:

The other day, I had to ring an IT department in Cork, I knew absolutely nobody, I did not know anybody working there, so I took the phone, looked at our intranet directory, and rang a random person, and they were unbelievably friendly, nice and helping with my query. So, I would honestly think people are quite proud working in our company (Equality and Diversity Officer at FSI-CO).

These findings support hypothesis 6b that ‘Positive employee perceptions of HRM practices will be associated with organisation citizenship behaviour’. However, hypothesis 6b was partially supported since; employee perceptions of HRM practices were positively associated with OCBI but negatively associated to OCBO. As the survey and interview data suggest, companies have to examine their management styles and their organisational culture in order to enhance employees’ sense of citizenship not only towards individuals or work groups, but also towards the companies in general.

Regarding the relationship between employees’ perceptions of HRM practices and tenure intentions, hypothesis 7b stated that, ‘Positive employee perceptions of HRM practices will be associated with intentions to remain with the current employer’. This hypothesis was partially supported. Employee perceptions of HRM practices, in particular, perceptions of job conditions were significantly and positively correlated with employees’ willingness to stay longer with their current employer. The standardised coefficient (β) for job conditions in the multiple regression analysis was .27, ($p < .01$). These findings are consistent with research literature which suggests that HRM practices can predict employee turnover intentions (Batt and Valcour 2003; Lee and Bruvold 2003; Ghebregiorgis and Karsten 2006; Kuvaas 2008). Batt and Valcour (2003) for example, suggest that human resource incentives significantly reduce employees’ turnover intentions.

These findings suggest to employers that HRM practices can be used to influence employee turnover or tenure intentions. A study by Batt and Valcour (2003)

suggested that HRM practices can predict employee turnover intentions. Similarly a study by Chen et al. (2008) suggested that there is an association between determinants of turnover intentions and actual turnover. These findings should encourage employers of companies where there is a threat of a high turnover rate to examine their HRM practices and see how they can use them to increase the likelihood of employees' intent to stay longer with the companies. Understanding the reasons behind employee tenure intentions should be beneficial to companies because these attitudes are related to actual turnover, which as discussed earlier is detrimental to the companies' performance.

Overall, although the proposed hypotheses were not fully supported in this study, these findings are to some extent close to consistency with the hypotheses. Hypothesis 6b, for example, was partially supported since employee perceptions of HRM practices were positively associated with organisational citizenship behaviour directed towards individuals (OCBI) but negatively associated to OCB directed towards organisations (OCBO). Similarly, only one dimension of employee perceptions of HRM practices was significant in each regression model. In other words, there was no consistent pattern among the independent variables in explaining the dependent variables. In this regard, employee perceptions of HRM related to communication and feedback were significant in explaining IWB; perceptions of job conditions were significant in explaining OCBI and tenure intentions, and perceptions of training and development were significant in explaining OCBO. Table 9.3 provides a summary of the employee-level hypotheses and the related findings in this study.

Table 9.3 Summary of Employee-Level Hypotheses, Examples of Previous Studies and Empirical Support

Hypotheses	Findings in this Study	Previous Studies
H.5b. Positive employee perceptions of HRM practices will be associated with innovative work behaviour	Positive correlation between employee perceptions of HRM practices and IWB Employee perceptions of HRM practices accounted for about 24% variance in IWB ($p < .01$)	Axtell et al. (2000), Janssen (2000), Parker (2000), Dorenbosch, Van Engen, & Verhagen (2005), Chow (2005)
H.6b. Positive employee perceptions of HRM practices will be associated with OCB	Employee perceptions of HRM practices positively related to OCBI, and negatively related to OCBO Employee perceptions of HRM practices accounted for about 15% variance on OCBI ($p < .01$), OCBO not significant	Biswas & Varma (2007), Biswas, Srivastava, & Giri (2007), Oikarinen et al. (2007), Nishii et al. (2008), Uen, Chien & Yen (2009)
H.7b. Positive employee perceptions of HRM practices will be associated with intentions to remain with the current employer	Positive correlation between employee perceptions of HRM practices (job conditions) and tenure intentions Employee perceptions of HRM practices accounted for about 25% variance in employee tenure intentions ($p < .05$)	Batt & Valcour 2003), Lee & Bruvold (2003), Chen et al. (2008), Kuvaas (2008), Lee, Lee & Lum (2008)

9. 5 Discussion of Employee Level-Mediated Regressions

The results for the mediation analysis between employee perceptions of HRM practices and innovative work behaviour, organisational citizenship behaviour and tenure intentions showed that employee perceptions of job demands did not fully or partially mediate any of the relationships that were hypothesised in this study. Thus, the following hypotheses were not supported in this study: hypothesis 8a, ‘Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and innovative work behaviour’, hypothesis 8b, ‘Job demand perceptions will mediate the relationship between employee perceptions of HRM

practices and organisational citizenship behaviour’ and hypothesis 8c, ‘Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and their tenure intentions’.

There were, however, findings related to the *indirect effects* of employee perceptions of HRM practices on employee IWB and OCBI via perceptions of job demands. These indirect effects were assessed using the Sobel test²⁸. Osborne (1995) highlights that, an understanding of how people behave at work, and how they interact with their working environment, machines and emotional levels, can assist a company in the creation of an environment that does not require more than the worker can give. Osborne (1995) further suggests that, when people and machines are in harmony, productivity output will increase. These findings have practical implications to the employer because understanding employees’ perceptions of the demanding aspects of the job can aid a company in designing work roles that are not detrimental to both the company and employees. It is also important to the employers to understand the role of perceptions of job demands especially when these perceptions are related to performance-enhancing practices and employee-behavioural outcomes. These findings should aid employers to understand that, though perceptions of job demands do not specify or explain how or why HRM perceptions are related to behavioural outcomes, they do play a role in carrying over the influence of these HRM perceptions on behavioural outcomes. Thus, employee perceptions of demanding aspects of the job indirectly influences the relationship

²⁸ Recall: the purpose of the Sobel test is to assess whether a mediator carries the influence of an independent variable to a dependent variable (Preacher and Hayes 2008: 880; Wood et al. 2008).

between perceptions of HRM practices and IWB and OCBI. These findings should likewise caution employers that negative employee perceptions of job demands may be detrimental to company performance. On the other hand, favourable employee perceptions of job demands may be beneficial to both the company and the employees.

There was one significant observation in the mediation regressions in this study. The mediator variable had an additive effect whenever it was included in the regression model. One of James and Brett's (1984) conditions for mediation suggests that the mediator should add uniquely to the prediction of the dependent variable in relation to the independent variable (that is, $R^2_{y.mx}$ is significantly greater than $R^2_{y.x}$). On the other hand, Baron and Kenny's (1986) conditions highlight the possibility of a high correlation between the independent and mediator variables. This correlation results in multicollinearity in the regression estimation which in turn reduces the power in the test of mediation. Wood et al. (2008) caution, however, that it is not entirely clear if James and Brett (1984) required this as a condition for mediation. If this condition is required and is appropriate in the assessment of mediation effects, then this study can claim that employee perceptions of job demands partially mediated the relationship between perceptions of HRM practices and employee behavioural outcomes. In all three mediation models, the addition of a mediator variable accounted for a unique variance explained in the relationship between the predictor and the outcome variable.

However, following Wood et al. (2008) and other statistical analysts (Cohen, Cohen, West and Aiken, 2003), such a claim cannot be made easily since a mediator is a mechanism that accounts for the impact of the independent variable on the dependent variable. Furthermore, any additional variance explained by the mediator does not preclude its role as mediator, but it is evidence of an additive effect, rather than evidence of mediation (Wood et al. 2008). Since the mediator in this study had an additive effect on the dependent variable, it should be concluded that there is a need for further theory that could break the tie between analysts who suggest that an additive effect is enough reason to claim for mediation, and those analysts who argue that an additive effect is not enough reason to make such claims.

9.6 Conclusion Based on the Mediated-Regressions Discussion

Overall, based on Baron and Kenny's (1986) conditions and suggestions by Wood et al. (2008), this study concludes that employee perceptions of job demands do not mediate the relationship between perceptions of HRM practices and employee innovative work behaviour, organisational citizenship behaviour and tenure intentions. This conclusion seems reasonable because a mediator functions as a necessary condition for an effect between a predictor and a criterion variable to occur (Baron and Kenny 1986). In this regard, this study does not suggest that perceptions of job demands are the necessary conditions for employees to be innovative or to engage in citizenship behaviour. On the contrary, these perceptions can have an indirect influence in the relationship between HRM perceptions and employee IWB and OCBI.

Table 9.4 Summary of Mediated-Regression Hypotheses and the Empirical Support

	Hypotheses	Predicted Direction	Support
H8a	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and innovative work behaviour	N/A	NO
H8b	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and organisational citizenship behaviour	N/A	NO
H8c	Job demand perceptions will mediate the relationship between employee perceptions of HRM practices and their tenure intentions	N/A	NO

CHAPTER TEN

IMPLICATIONS, CONTRIBUTION AND CONCLUSION

10. 1 Research Contribution

This chapter reiterates the original research questions and underlines how these questions and the methodological approach employed contributes to the literature. The main objective of this study was to assess the relationship between company level utilisation of HPWS and both company and employee outcomes through a multilevel research design. Literature suggests that ‘in order to achieve a more realistic assessment of how HRM actually works in practice, it is necessary to ask workers themselves what they think and how they perceive HRM practices in their daily lives’ (Marchington and Zagelmeyer 2005:6). Similarly, in order to better understand the causal links between HRM practices and company performance employee perceptions of HRM practices must be taken into account. Kinnie et al. (2005:11) highlight this point noting that, ‘the fulcrum of the HRM-performance causal chain is the employees’ reactions to HR practices as experienced by them’. Theoretically, this study has contributed to literature by making use of various theoretical perspectives in analysing the HRM-performance link. These theoretical perspectives improve our understanding of the association between HRM practices and performance outcomes. This is because the relationship between HRM and performance is not a simple linkage that can exhaustively be explained by a single theoretical approach. The approach used in this study, therefore, improves research richness in terms of gathering and assessing company and employee information

from various theoretical perspectives, but primarily through a single methodological lens.

Numerous reservations have been presented in the literature regarding the theoretical and methodological difficulties which research on the HRM-performance relationship faces in trying to establish causal links between strategic HRM practices and business performance (Guest 1997; Wright and Gardner 2003; Huselid et al. 2005; Marchington and Zagelmeyer 2005; Fleetwood and Hesketh 2006, 2008; Purcell and Kinnie 2008). One of the theoretical challenges is the lack of literature on 'the theory of HRM' (Cappelli and Neumark 2001; Gerhart 2008; Watson 2008) and the lack of consensus regarding the mechanism by which HRM practices impact on firm performance (Wright and Gardner 2003). This makes it difficult to formulate a theory that can adequately explain the relationship between HRM practices and company performance (Purcell and Kinnie 2008; Paauwe and Boselie 2008). Most of the theories used in HRM studies are theoretical concepts borrowed from studies such as psychology, sociology, economics and strategic management just to mention a few (Watson 2008). The resource-based view of the firm has found wide acceptance and proposes that firms should look inward to their resources, both physical and intellectual, for sources of competitive advantage (Barney 1991; Barney 2001; Allen and Wright 2008). A study by Boselie, Dietz and Boon (2005), for example, suggests that the resource-based view of the firm has been widely used for over a ten-year period up to the end of 2003 relative to other theories such as the contingency theory and the institutional theory in explaining the HRM-performance relationship. In recognising that the resource-based view of the firm is not without

criticisms (for example Priem and Butler 2001a; 2001b), the present research incorporated other theoretical approaches in examining the relationship between HRM practices and company and employee outcomes. These included the social exchange theory (Gouldner 1960; Blau 1964; Cropanzano and Mitchell 2005) and the ability, motivation and opportunity theory (Bailey 1993; Boxall and Purcell 2003; Boselie et al. 2005; Gerhart 2007) to examine the association between the companies' utilisation of HRM practices and employees' behavioural and attitudinal outcomes. The rationale behind this approach is that despite employees being resourceful, their ability, motivation, and opportunity to contribute, and their perceptions of HRM practices matter in the assessment of the relationship between HRM practices and company and employee outcomes (Appelbaum et al. 2000; Batt 2002; Bowen and Ostroff 2004; Paauwe and Boselie 2008). Thus, this study has contributed to the literature by using various theories in examining the HRM-performance phenomenon, knowing that linking HRM and performance is a never-ending search (Marchington and Zagelmeyer 2005). Furthermore, the theories which are used in the study are not contradictory to each other; rather they may be used together in explaining the matter of the study. The rationale for this suggestion is that each of the approaches can be right in its own way (Boxall & Purcell 2003; Paauwe & Boselie 2005). In this regard, the study has contributed to the literature by addressing previous reservations regarding the extent to which one theoretical approach can adequately explain the HRM-performance linkages (Fleetwood and Hesketh 2006). This study incorporated various theoretical approaches and thus was a step further in seeking methodologies that adequately explain the phenomenon of the HRM-performance linkage.

The study established an association between well-developed high performance work systems and increases in business performance in terms of innovation, productivity and a reduction in voluntary turnover. These findings support the theoretical perspectives which argue that HPWS can be used to manoeuvre and develop employees to perform better in a company (Paauwe and Boselie 2008). In this regard, these findings support the theory that performance in a company is a function of employee ability, motivation and opportunity to participate in substantial company activities (Bailey 1993; Appelbaum et al. 2000). These findings are evidence that when companies empower their employees in terms of increasing their relevant knowledge, skills and abilities, these companies may see increases in business benefits. Thus, employees should not be considered as tools and costs to be avoided by the company, rather they should be considered as resources and a source of competitive advantage for the benefit of the company.

The study also evaluated the theoretical and empirical relationships between employee perceptions of HRM practices and behavioural outcomes. Overall, it found that HRM practices could be examined under various dimensions according to employee perceptions and these dimensions varied in explaining various employee outcomes. In this regard, companies are urged to identify practices which may be more important to employees in order to better align company practices and employee management. By identifying the best practices, the companies may be in a better position to utilise HRM practices which enhance employee contribution to both the company and employee outcomes. Similarly, by identifying important

practices in their companies, employers will be in a better position not to assume that all HRM practices work in the same way. In this way, practices which work better than others can be fostered to enhance company and employee outcomes. On the other hand, practices which are not effective can be discontinued or designed in a different manner in order to fit the company strategy and cater for employee needs.

From a methodological perspective, although a number of studies in the US and UK have examined the linkages between the use of HPWS at company and employee levels (Appelbaum et al. 2000; Fulmer et al. 2003; Guest et al. 2003), no such multilevel study has been conducted in the Republic of Ireland. Some studies in Ireland have linked company findings with employee outcomes without studying employee perceptions among the employees themselves (Flood et al 2005, 2008; Guthrie et al. 2009). In this regard, only inferences of company practices or outcomes have been made to suggest employee outcomes without conducting surveys or interviews among employees who are the main subjects of these practices. Guthrie et al. (2009), for example, examined the association between greater use of HPWS and employee turnover and absenteeism from survey findings reported by HR and GM executives. Such studies are legitimate and useful, but they do not address the employee perspectives about the effectiveness of HPWS in their workplaces. In particular, they do not assess employee behaviour and attitudes that may enhance skills and abilities, motivation or opportunity to innovate, work productively and decide to remain with their employers. This study has accordingly, added evidence regarding what various commentators (e.g., Guest 1999; Guest et al. 2003; Paauwe and Boselie 2005; Guest 2008) suggested was missing in studies

attempting to link HPWS and performance. According to these scholars, it is important to examine employees' attitudes and behaviours and their satisfaction in order to better understand the HRM-performance link (Guest 2008). This research has, therefore, provided evidence of the effectiveness of HPWS not only from the employers' perspective, but also from the employees through a multilevel study and a multi-industry sample in the Republic of Ireland. In this regard, this examination has also added evidence regarding the importance of using both employee and company perspectives in designing appropriate research methodology.

Another methodological challenge in the HRM-performance research includes the choice of an appropriate level of analysis (Wright and Gardner 2003). Most studies have been designed such that employee or individual levels of analysis are used to infer relations between HRM and performance at company level (Gerhart 2005, 2007, 2008). This type of research may suggest relationships between HRM and performance which are due to common method variance. Ideally, researchers are supposed to include both levels of analysis in their research design (Gerhart 2007). This approach can be conducted through Hierarchical Linear Modeling (HLM) (Raudenbush and Bryk 2002), where individual data is nested within organisations (Ostroff and Bowen 2000). This study addressed this methodological challenge and contributed to the multilevel literature by using the traditional or classical regression/ordinary least square (OLS) procedure to associate company level with employee level data. Through the cross-level inference approach, which is regarded as appropriate in accomplishing the same objective as HLM in allowing for the estimation of robust standard errors (Bliese 2000; Hofmann 2002; James and

Williams 2000; Shipton et al. 2004; Gerhart 2008), this study was able to establish associations between company level and employee level findings. Overall, through this cross-level inference approach, the study showed that one can trace the association between utilisation of HPWS at company level to outcomes at the employee level. These findings were supportive of the theoretical approaches used in examining the nature of the relationship between employers and employees. Based on social exchange theory (Blau 1964) and the norm of reciprocity (Gouldner 1960), this study demonstrated that employees will reciprocate in beneficial ways when they perceive that their company treats them well. This theoretical point was supported by the repeated findings regarding employee perceptions of HRM practices related to communication, feedback and job conditions as the main significant independent variables in regressing employee outcomes. Utilisation of HPWS was likewise significant in explaining employee perceptions of HRM practices related to communication and feedback. This pattern of findings suggests that reciprocation and social exchange relationships can be the dominant factors in explaining employees' likelihood of engaging in extra-role behaviours, and in their willingness to attach themselves to their current employers. Mediation tests in this study were conducted and were useful in examining the extent to which employee perceptions of job demands may affect their attitudes and behaviours. The mediated regression analysis showed that there were indirect effects of employee perceptions of HRM practices on employee outcomes via perceptions of job demands. In other words, positive employee perceptions of job demands may influence the relationship between perceptions of HRM practices and employee behavioural and attitudinal outcomes. In this regard, employers are advised to examine the demands they place

on their employees because various demanding aspects of the job such as working too hard, working under time pressure and having too much work to do may reflect on negative employee perceptions of job demands. These negative perceptions in turn may reduce employee discretionary efforts in terms of innovative work behaviour and organisational citizenship behaviour.

10. 2 Implications for Theory and Practice

There are numerous theoretical and practical implications arising from these findings. They indicate that employers should include greater usage of HPWS in order to realise positive company and employee benefits. The implications for theory include that gains accrued from increased innovation, productivity and a reduction in turnover reflect the ability, motivation and opportunity of the workforce to work smart. These findings therefore support the theory that employees' knowledge, skills and abilities are a source of competitive advantage and when used well may improve companies' efficiency and business performance. These employer–employee relationships were examined based on the social exchange and the ability, motivation and opportunity to contribute theories. Notwithstanding potential limitations regarding generalisation (explored in more detail below), these findings are consistent with research evidence which suggest that companies adopt HRM practices because they produce more output and profit (Kaufman and Miller 2009).

Similarly, the findings suggest that employers examine the way in which they integrate HRM practices at the company-level with people management at the employee-level. The study has shown that there is a positive correlation between employee perceptions of HRM practices and behaviour outcomes. This association indicates that employees' perceptions matter in determining attitudinal and behavioural outcomes such as IWB, OCBI and tenure intentions. These employee outcomes are important in eliciting discretionary efforts, which in turn affect company performance. Thus, employers have to adopt HPWS and provide employees with practices that elicit employee discretionary efforts. In particular, employers should foster practices that address the manner in which employee get performance feedback, and the way the company communicates with employees. Other practices that have to be fostered include job security, the level of health and safety and physical working conditions. It is apparent from the findings that employee perceptions of HRM practices related to communication, feedbacks, and job conditions, were significant in explaining these employee outcomes.

10. 3 Limitations of the Study

There are a number of potential limitations to this study. Though empirically the study showed positive associations between the greater use of HPWS and a number of company and employee outcomes, these findings do not suggest that HPWS cause these outcomes. Claims of causation between HPWS and company and employee outcomes are complicated with regard to theory and methodology, and constitute the 'black box' problem of how HRM practices affect performance among

employees and companies (Hutchinson et al. 2003; Boxall and Purcell 2003). Thus, this study has not been able to identify or show, as suggested by scholars, the processes through which this association is created (Wright and Gardner 2003) or ‘the channels of influence through which HRM practices affect performance’ (Kaufman and Miller 2009:1). Taking that limitation into consideration, it can be suggested here that the findings in this study should still be open to interpretation rather than being treated as conclusive evidence in this area. This caution is necessary because strategic HRM literature suggests that the HRM-performance links may not be linear but rather more complex than has been previously assumed (Chadwick 2007).

Due to a relatively small response rate for the employee level surveys, this study confined itself to the use of cross-level inference rather than using alternative statistical techniques such as SEM, WABA or HLM. Ideally, HLM would have been used between different levels of analysis, whereby an investigator could control the variance explained based on the level of analysis in which respective data were nested (Bliese 2000; Hofmann 2002). Thus, research findings regarding the link between company-level and employee-level variables were confined to average estimation due to the methodological approach used. In this respect, the impact of HPWS was always considered as a situational attribute suggesting how ‘on average’ the use of HPWS influenced employee variables. Related to this limitation regarding response rates is the difficulty for this study to generalise its findings to a wider population. As a multilevel research investigation, this study ideally required a large sample from the employee level in order to ensure representation among employees

across all the companies in Ireland. The greatest challenge relating to securing companies to participate in employee surveys involved claims by the management that they have had numerous employee surveys submitted to the company for completion. Therefore, additional surveys were considered unnecessary, inconvenient, and costly in terms of finance and time that employees usually spend out of the job completing questionnaires. Despite the investigator's efforts to convince the companies that the surveys would be beneficial for the companies and the researchers, very few companies accepted the invitation. Accordingly, these research constraints necessitated that any generalisations of this work should be made in the knowledge that the response rate for the employee sample was relatively small.

However, in order to reduce the limitations of the study, such as the potential for common method variance, two questionnaires were administered to both the HR manager and GM manager. Previous research suggests that a single respondent who has unique access to relevant information may serve as a data source (Kozlowski and Klein 2000). Having two respondents is, however, more appropriate and thus increases the reliability of the study. This procedure has been used in studies such as Guthrie (2001), Flood et al. (2005, 2008) and Guthrie et al. (2009). This procedure produced matched pairs (between HR and GM questionnaires) for respondents which were used in data analysis. In addition, this study carried out employee level surveys and interviews among managers in the companies where employee surveys were carried out. Though this study does not claim that this is the perfect approach, it is consistent with researchers who advocate multi-source research and particularly

the detailed interviews among employees in order to increase and enhance the explanatory power of the findings (Fleetwood and Hesketh 2006, 2008).

As stated earlier, there was a low response rate for companies that participated in the employee survey. Another related weakness was a low response rate among employees who completed the questionnaires. Due to lack of information about employees who did not complete the surveys, it was difficult for this study to assess a non-response bias between responding and non-responding employees. This weakness may limit generalisations that can be made in this study.

10. 4 Directions for Further Research

Previous studies on the HRM-performance link have for the past two decades faced various challenges and criticisms. One of the criticisms is the lack of a ‘theory of HRM’ (Cappelli and Neumark 2001; Watson 2008). Future research in this field should examine the possibility of having an appropriate mix of theories that can explain and facilitate exploration of the link between HRM practices and company performance. Relying on one theory as the best, universal or most widely acceptable can diminish research endeavours to explore alternative possibilities for unlocking the HRM-performance link phenomenon. What is important in this theory building, therefore, is to examine whether or not the theories deviate from the core HRM practices that are employed in people management in the HRM literature. It is possible that theories may diverge on particulars, but converge on the central or essence of HRM practices (Cropanzano and Mitchell 2005). Thus, further research

on the HRM-performance link can develop theories that will help researchers explore the 'black box' problem without relying exclusively on widely accepted theories such as the resource-based view of the firm. As stated earlier, this argument does not suggest that the RBV of the firm is problematic; rather it is clear that even among these widely accepted theories, there are critics who suggest that the RBV is not always a useful perspective for strategic management research (Priem and Butler 2001a, 2001b).

This study further suggests that despite the methodological and theoretical challenges, future research on the HRM-performance linkage should be multisource, large scale and longitudinal, and ideally include partnerships among researchers, practitioners and government communities (Wall and Wood 2005; Marchington and Wilkinson 2005; Marchington and Zagelmeyer 2005). In this regard, research should include a more extensive use of employee surveys, detailed interviews and case studies which will aid in getting a detailed account of the extent to which employees' experience the utilisation of HPWS in their workplaces (Guest et al. 2003; Marchington and Zagelmeyer 2005; Fleetwood and Hesketh 2006, 2008). This proposition is to some degree consistent with researchers who advocate interpretivism, hermeneutics and critical-realism as epistemological and ontological approaches to the social sciences (Marchington and Wilkinson 2005; Fleetwood and Hesketh 2006, 2008). This study advocates surveys, positivism and objectivism in analysing large amount of data. Nonetheless, using to some degree these other approaches may not diminish the study of the HRM-performance link; on the contrary, the new approach may enrich study findings that are obtained from surveys

and the related scientific techniques. This study proposes that future research in the HRM-performance relationship be longitudinal because addressing specific causal mechanisms linking major constructs and the appropriate lag period for the effects of HRM practices after their implementation may not be easy to realise with cross-sectional research (Chadwick 2007). Similarly, future research should move from the traditional view of considering theoretical and methodological positions as opposing and conflicting doctrines, to a view where theories can be used as 'complementary' in exploring the 'black box' phenomenon. In this regard, future research should not underestimate employee perceptions, interpretations, values and experience in exploring the impact of HPWS on both company and employee outcomes.

10. 5 General Conclusion

Literature on HPWS suggests that research that explores the directions of causality in the relationship between the HRM-performance linkage and the company and employee outcomes is still wanting in theory and empirical evidence (Mohr and Zoghi 2008). This study has attempted to address some of the issues raised in literature, and has suggested possible pathways for future research. As posited by Marchington and Zagelmeyer (2005), this search for linkages between HRM practices and company performance is a never ending search. Nevertheless, accommodating other theoretical and methodological approaches in future research may facilitate this search for positive links between HRM practices and performance. Overall, the present study has theoretically and empirically established

the association between greater use of HPWS and both company and employee outcomes. The research findings supported the view that when employees are empowered, they can be a resource to the company, and their discretionary efforts matter in influencing company and employee outcomes.

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APPENDIX A: APPLICATION FORM: University of Limerick Research Ethics Committee (ULREC)

1 Title of Research Project
HIGH PERFORMANCE WORK SYSTEMS AND DIVERSITY MANAGEMENT IN IRELAND

2 Period for which approval is sought
Eight months

3 Project Investigators

3a Principal Investigator	
Name	Professor Patrick Flood
Department	Personnel and Employment Relations
Position	Research Professor
Qualifications	Research Professor in the Kemmy Business School, University of Limerick
Telephone Number	061-202929
e-mail address	Patrick.Flood@ul.ie

3b Other Investigators		
Name	Qualifications & Affiliation	Signature
Prof. James P. Guthrie	Prof. of HRM, University of Kansas in Lawrence	
Dr. Sarah Mac Curtain	Lecturer of Organisation Behaviour in KBS, UL	
Dr. Claire Murphy	Research Scholar in the KBS, UL	
Dr. Wenchuan Liu	Postdoctoral Fellow at the University of Limerick	

Cathal O' Regan	National Coordinator at the NCPP, Ireland	
Thaddeus Mkamwa	PhD Student in the KBS, University of Limerick	

4 Head of Department(s)

I have read through this application and am aware of the possible risks to subjects involved in this study. I hereby authorise the Principal Investigator named above to conduct this research project.

Name	Department	Date	Signature
Joe Wallace			

5 Study Descriptors

<i>Please indicate the terms that apply to this research project</i>			
Healthy Adults	<input checked="" type="checkbox"/>	Healthy Children (< 18 yrs)	<input type="checkbox"/>
Patient Adults	<input type="checkbox"/>	Patient Children (< 18 yrs)	<input type="checkbox"/>
'Potentially Vulnerable' Adults	<input type="checkbox"/>	'Particularly Vulnerable' Children	<input type="checkbox"/>
Physical Activity	<input type="checkbox"/>	Questionnaire/Interview	<input type="checkbox"/>
Medical Devices / Drugs	<input type="checkbox"/>	Video Recording/Photography	<input type="checkbox"/>
Food/Drink Supplementation	<input type="checkbox"/>	Collection of Personal Details	<input type="checkbox"/>
Measure Physical in Nature	<input type="checkbox"/>	Measure Psychological in Nature	<input type="checkbox"/>
Body Tissue Samples	<input type="checkbox"/>	Observational	<input type="checkbox"/>
Body Fluids Samples (e.g. blood)	<input type="checkbox"/>	Record Based	<input type="checkbox"/>

6 Project Design

6a **Justification for Research Project** (*Include reference to published work*)

Pfeffer (1994), argues that success in today's hyper-competitive markets depends less on advantages associated with economies of scale, technology, patents, and access to capital and more on innovation, speed, and adaptability. Pfeffer argues further that these latter sources of competitive advantage are largely derived from a firm's human resources. Thus workplace innovation is critical to a country's future as a dynamic, inclusive and knowledge-based economy and society (Forum on the Workplace of the Future, 2005). Increasingly, both researchers and practitioners in human resource management have been exhorted to adopt a more strategic perspective. Strategic human resource management (SHRM) is directly concerned with the interplay of human resource management practices, organizational strategy and firms' market competitiveness.

SHRM research has examined the impact of 'bundles' of HR practices on organizational outcomes. While there is some disagreement as to the specification of the set of HR practices comprising what we term high performance work systems (HPWS), the common theme in this literature is an emphasis on utilizing a system of management practices that provide employees with skills, information, motivation and latitude, resulting in a work force which is a source of competitive advantage. According to (Appelbaum et al. 2000; Levine 1995), such HPWS have the potential to deliver mutual gains with increased firm performance and improved pay and job satisfaction for employees. HPWS include, inter alia, the use of cross-functional teams, high levels of training, information sharing, participatory mechanisms and group-based rewards. Huselid's (1995) landmark study examined the relationship between the use of what he termed "high performance work practices" and firm performance. His main finding was that greater use of these types of HR practices was associated with decreased turnover and higher levels of productivity, profitability and market value. Other studies have also indicated a positive relationship between high involvement or high performance HR systems and firm outcomes (e.g., Arthur, 1994; Datta, Guthrie & Wright, 2005; Guthrie, 2001; Koch & McGrath, 1996; MacDuffie, 1995).

Though some of the most competitive countries in the world have long recognized the usefulness of workplace innovation, few have developed a co-ordinated national workplace strategy. Therefore this is an area in which Ireland can have a 'first mover advantage' (Forum on the Workplace of the Future, 2005). Our 2005 study highlighted the economic benefits associated with HPWS practices in the four areas of communication and participation, training and development, staffing and recruitment and performance management and remuneration. This report highlighted the cost of not making investments in HR, revealing up to a 16 per cent difference between the average user of HPWS and the below-average user (Flood et al., 2005).

Ireland's workforce is becoming more diverse and working patterns are becoming more varied. However, in spite of this, in common with all higher-skilled economies, unacceptable levels of exclusion still affect many people and increasing efforts are being made to rectify the situation. In recognition of this fact, in the current study, we are extending our previous description of HPWS to include equality, diversity, work life balance and quality of work life initiatives. We will examine the relationship between these variables and business performance and innovation.

6b Hypotheses or questions to be answered
a) What is the impact of HPWS, diversity management, partnership, worklife balance and equality of opportunity on firm performance?
b) What is the reaction of employees to HPWS and diversity practices and policies?
c) To what extent do the policies and practices of HPWS and partnership contribute to organizational innovation and performance?
d) What factors (e.g., unionization, firm size,) explain differences in HPWS adoption?

6c Plan of Investigation
1. A letter asking for permission to conduct the survey (from the principal investigator) will be sent to each organisation under study
2. Investigators will administer questionnaires to the HR managers and directors. For case studies the questionnaires will be administered to the employees by investigators
3. A follow up letter will be sent in 30 days in case of delays in responses from the companies
4. Data collection and analysis will follow after all data are collected
5. Presentation of findings to NCPP and Equality Authority will be the final stage
6. The Gantt chart attached describes the time framework:

6d Research procedures
The basic procedure will be to solicit survey-based descriptions of HR systems in the areas of communication and participation, training and development, staffing and recruitment, performance management and remuneration and equality and diversity management and to match these with objective indices of firm performance. An important consideration is to utilize independent sources for measures of each of these factors. This limits concerns of bias emanating from common method variance. Survey instruments will be sent to the top HR manager in sample firms.

6e Associated risks to subjects
There are no risks foreseen for filling the questionnaire which may take less than 15 minutes.

6g Statistical approach to be used and source of any statistical advice
The investigators will use SPSS as the basic statistical tool for the analysis. Specifically, they will use multiple regression analysis to establish the relationship between HPWS, diversity, work-life balance, equality of opportunity and firm performance. The University of Limerick Statistical Consulting Unit (SCU) may be sought for further advice.

6h Location(s) of Project
The study will be based in the Republic of Ireland

7 Subjects

7a How will potential research participants be sourced and identified?
Potential research participants will be sought through the use of Irish Times Top 1000_Business World in creating a company database.

7b Will research participants be recruited via advertisement (poster, e-mail, letter)?

YES NO

If YES, please provide details below, or attach the recruitment advertisement if written.
Research subjects, particularly HR managers and directors will be informed by letters. To access employees to fill the questionnaire, permission from the companies' administration will be sought.

7c How many subjects will be recruited?

Male Female

Provide further information if necessary
The first stage of the survey will consist of HR managers and Directors of a 1000 top companies in Ireland. The second part of the survey will include general employees who might range from 500 men to 1000 women and vice versa.

7d What are the principal inclusion criteria? (Please justify)
HR managers and directors will be included to get the company's perspective of HPWS and diversity management on performance. In a certain small number of organisations, employees will also be surveyed to investigate their lived experience and reactions to HPWS and diversity practices and policies.

7e What are the principal exclusion criteria? (Please justify)
In the first stage, people below the level of HR directors would be excluded since they would not have access to information regarding firm performance or diversity management.

7f What is the expected duration of participation for each subject?
Each subject is expected to participate for at least 15 minutes.

7g **What is the potential for pain, discomfort, embarrassment, changes to lifestyle for the research participants?**
There is no potential for pain for discomfort or changes to lifestyles for the participants in this study. We don't foresee any harm in the questionnaire administration.

7h **What arrangements have been made for subjects who might not adequately understand verbal explanations or written information in English?**
We expect that every HR manager or director in Ireland will be fluent in English. For other employees who might have problems with interpretation of the questions, our investigators will be available for explanation or interpretation if that might be needed. Our investigators will administer questionnaires to the employees in person.

7i **Will subjects receive any payments or incentives, or reimbursement of expenses for taking part in this research project?**

YES NO

If YES, please provide details below, and indicate source of funding:

8 Confidentiality of collected data

8a **What measures will be put in place to ensure confidentiality of collected data?**
Our investigators will abide by research ethos particularly those stipulated by the ULREC. There will be no disclosure of information collected for research purposes. All data collected will be used solely for the research purposes. With regard to confidentiality, data will be aggregated. No individual company will be identified in data presentation.

8b **Where will it be stored?**
The data will be stored in Patrick Flood's office. This office has a locked filing cabinet and data will be stored in a password protected computer.

8c **Who will have custody and access to the data?**
The Principal Investigator and other investigators.

8d **For how long will the data from the research project be stored? (Please justify)**
There is likelihood that the data will be used for publication in the public domain with NCPP and Equality Authority, thus the data collected might be stored for ten years after the research analysis.

9 Drugs or Medical Devices

Are Drugs or Medical Devices to be used?

YES NO

If YES please complete 9a to 9c

9a Details of the Drugs or Devices (including name, strength, dosage, route of administration)
Not applicable

9b Details of Clinical Trial Certificate, Exemption Certificate or Product Licence (The Product Licence must cover the proposed use in the Project – see Guidelines No. 11)
Not applicable

9c Details of any Risks (Both to subjects and staff; indicate current experience with the drug or device)
Not applicable

10 Professional Indemnity

Does this application conform to the University’s professional indemnity policy?

YES NO

If NO please indicate the professional indemnity arrangements in place for this application (attach policy if necessary):

11 Information Documents

Please note: failure to provide the necessary documentation will delay the consideration of the application. Please complete the checklist below:

<i>Documents</i>	<i>Included?</i>		
Subject Information Sheet	YES <input checked="" type="checkbox"/>	<input type="checkbox"/>	N/A
Parent/Carer Information Sheet	YES <input type="checkbox"/>	<input type="checkbox"/>	N/A

Subject Informed Consent Form	YES	<input type="checkbox"/>	<input type="checkbox"/>	N/ A
Parent/Carer Informed Consent Form	YES	<input type="checkbox"/>	<input type="checkbox"/>	N/ A
Questionnaire	YES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	N/ A
Interview/Survey Questions	YES	<input type="checkbox"/>	<input type="checkbox"/>	N/ A
Recruitment Letters/Advertisement/e-mails, etc	YES	<input type="checkbox"/>	<input type="checkbox"/>	N/ A
Risk Assessment Form(s)	YES	<input type="checkbox"/>	<input type="checkbox"/>	N/ A

*Please ensure any additional documents are included with this application.
These should be attached as a single document and included in the e-mail submission.*


12 Declaration

The information in this application form is accurate to the best of my knowledge and belief, and I take full responsibility for it.

I undertake to abide by the ethical principles outlined in the UL Research Ethics Committee guidelines.

If the research project is approved, I undertake to adhere to the study protocol without unagreed deviation, and to comply with any conditions sent out in the letter sent by the UL Research Ethics Committee notifying me of this.

I undertake to inform the UL Research Ethics Committee of any changes in the protocol, and to submit a Report Form upon completion of the research project.

Name of Principal Investigator	Prof. Patrick C. Flood
Signature of Principal Investigator (or Head of Department*)	
Date	May 29th, 2006

**Please note: where the Principal Investigator is not a permanent employee of the University of Limerick, the relevant Head of Department should sign this declaration.*

1. Once completed, this form along with a single document containing and additional documentation should be submitted **electronically** to the Vice President Academic and Registrar's Office at vparg@staffmail.ul.ie.
2. In addition, **10 copies** of the fully signed application and any attachments should be submitted to:

The Secretary,
University of Limerick Research Ethics Committee,
Vice President Academic and Registrar's Office,
University of Limerick

APPENDIX B: ULREC APPROVAL LETTER



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH

*University of Limerick Research Ethics Committee
C/o Vice President Academic and Registrar's Office, University of Limerick
Tel: (061) 202022, Fax: (061) 330027, Email: VPAReg@staffmail.ul.ie*

14 June 2006

Professor Patrick Flood
Department of Personnel and Employment Relations
University of Limerick
Limerick

Re: ULREC No. 06/52 - High Performance Work Systems And Diversity Management
In Ireland

Dear Professor Flood

I hereby confirm receipt of revised documentation addressing the conditions outlined
by the University of Limerick Research Ethics Committee at its meeting on 8 June
2006.

Full approval is herewith granted for this application.

Yours sincerely

Dr Kevin Kelleher
Chairman
University of Limerick Research Ethics Committee

APPENDIX C: INVITATION LETTER - GM AND HR SURVEY

15th July, 2006

«P_TITLE2» «P_FNAME2» «P_SNAME2»

«P_POSIT2»

«CO_NAME»

«ADDRESS1», «ADDRESS2»

«COUNTY»

Dear «P_TITLE2» «P_SNAME2»,

I am writing to invite your participation in a major study on management practices and firm competitiveness in Ireland which has been authorized by the National Centre for Partnership and Performance (NCPPI). I realize that you likely receive quite a number of surveys and requests for your time. However, without the willingness of the business community to provide support to university research efforts such as this -- in the present case with a small investment of your time -- conducting research with direct “real world” applicability would be very difficult. This “real world” knowledge is important for both research and teaching.

A survey is enclosed. This survey addresses “human resource practice” including diversity and equality as we are interested in establishing the relationship between HR practices, diversity and firm performance. This survey should be completed by yourself or someone knowledgeable with regard to your firm’s HR practices.

Please be assured that responses will be **confidential**, and **no individual companies will be identified**. Results of this study will be reported in aggregate form only and individual firms will not be identifiable from the report. While the code number on the last page of the survey will enable us to track responses, it also prevents anyone other than the researchers from associating questionnaires with your firm.

As a token of our appreciation, we can provide you with an **executive summary of research findings** and a **customized company specific report** which benchmarks your organization relative to your industry. Please try to complete and return the surveys **by 25th June, 2006**. This survey is accompanied by a self-addressed envelope. If you have any questions, please do not hesitate to contact me at patrick.flood@ul.ie or 061-202929. Thank you very much for your help.

Sincerely,



Prof. Patrick Flood, Ph.D.

Enc: Endorsement letter from NCPPI, 2006 survey and our 2005 report for you to keep.

APPENDIX D: GENERAL MANAGER QUESTIONNAIRE SURVEY



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH



University of Kansas
School of Business

UL - KU 2006 SURVEY OF GENERAL MANAGEMENT PRACTICES IN IRELAND

A research study sponsored by

National Centre for
Partnership  Performance

Prof. Patrick Flood
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PROJECT DIRECTORS

Patrick Flood, Ph.D., received his doctorate from the London School of Economics. He is currently Research Professor in the Kemmy Business School at the University of Limerick where he also directs the strategic leadership research programme. Previous appointments include EU Postdoctoral fellow at London Business School, Fulbright scholar at the R.H. Smith School of Business, University of Maryland at College Park, Academic Visitor and British Council scholar at the London School of Economics.

James P. Guthrie, Ph.D., is Professor of Business and Charles W. Oswald Faculty Fellow with the School of Business at the University of Kansas. He received his B.A. and M.B.A. from the State University of New York at Buffalo and his PhD from the University of Maryland. He is currently Visiting Professor with the Kemmy Business School, University of Limerick. He has previously held visiting faculty appointments with the University of Waikato in New Zealand and with the Consortium of Universities for International Business Studies in Italy.

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Sarah MacCurtain, Ph.D., is a Lecturer with the Kemmy Business School, University of Limerick. She received her PhD from Aston University. She is co-author of Effective Top Teams (2001, Blackhall) and Managing Knowledge Based Organisations (2002, Blackhall).

Claire Murphy, Ph.D., is a Research Scholar at the Kemmy Business School, University of Limerick. She received her PhD from the University of Limerick in 2004. She has conducted research on organizational justice, the psychological contract, absenteeism, continuing professional education, and health services management.

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Cathal O'Regan, is currently a National Coordinator at the National Centre for Partnership and Performance of Ireland. He is a registered doctoral student at the University of Limerick.

If you have questions about any aspect of this study, please contact one of the project directors. Contact information is provided on the front page of the questionnaire.

Would you like a summary report of the findings of the study? Yes_____ No_____

If 'yes', please provide name and address or attach a business card:

Name: _____

Address: _____

Email: _____

I. ORGANISATIONAL CHARACTERISTICS

During 2005-06, what proportion of your organisation's total sales (turnover) was achieved through each of these two strategic approaches? Your answers should total 100%.

- **LOW COST:** Compete on the basis of lower costs (through economies of scale, experience, technology, etc), resulting in lower prices to consumers ____%
 - **DIFFERENTIATION:** Create products or services perceived industry-wide as unique ____%
- Total: 100%**

Please allocate 100 points across the following factors reflecting how your firm's top managers would view each factor's relative importance in achieving competitive success:

- Products or services ____
 - Advertising/marketing ____
 - Employees/workforce ____
 - Technology ____
- Total: 100 Points**

How would you **describe the industry and environment** within which your organisation functions? Where relevant please consider not only the economic, but also the social, political, and technological aspects of the environment. Write a scale number in the space provided beside each statement.

Strongly Disagree 1 2 3 4 5 Strongly Agree

- Very dynamic, changing rapidly in technical, economic and cultural dimensions..... ____
- Very risky, one false step can mean the firm's undoing ____
- Very rapidly expanding through expansion of old markets and emergence of new ones... ____
- Very stressful, exacting, hostile; hard to keep afloat ____
- Actions of competitors are quite easy to predict ____
- Demand and consumer tastes are fairly easy to forecast..... ____
- Very safe, little threat to the survival of my company ____
- The rate at which products or services are getting obsolete in the industry is very slow... ____

The relative importance of different functional activities (e.g., manufacturing, marketing) varies across organisations. Please indicate how your firm's top managers would rate the relative importance of each functional activity in achieving competitive success. Write a scale number in the space beside each function to indicate its relative importance.

Of little importance	1	2	3	4	5	Extremely important
R & D						_____
Manufacturing						_____
Marketing/Sales						_____
Human Resource Management						_____
Finance/Budgeting						_____
Information Systems						_____

Please circle a response on each scale to answer the following questions:

In general, the top managers of my firm favor

A strong emphasis on the marketing of tried and true products or services	1	2	3	4	5	6	7	A strong emphasis on R&D, technological leadership and innovations
---	---	---	---	---	---	---	---	--

How many new lines of products or services has your firm marketed in the last few years?

No new lines of products or services	1	2	3	4	5	6	7	Very many new lines of products or services
--------------------------------------	---	---	---	---	---	---	---	---

In the last few years in my firm

Changes in product or service lines have been mostly minor in nature	1	2	3	4	5	6	7	Changes in product or service lines have usually been quite dramatic
--	---	---	---	---	---	---	---	--

In dealing with competitors, my firm

Typically responds to actions that competitors initiate	1	2	3	4	5	6	7	Typically initiates actions that competitors respond to
Typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture	1	2	3	4	5	6	7	Typically adopts a very competitive, 'undo-the-competitors' posture
Is very aggressive and intensely competitive	1	2	3	4	5	6	7	Makes no special effort to take business from competitors

In general, the top managers of my firm have

A strong preference for low-risk projects (with normal and certain rates of return)	1	2	3	4	5	6	7	A strong preference for high-risk projects (with chances of very high returns)
A strong tendency to 'follow-the-leader' in introducing new products/services, technology or management ideas	1	2	3	4	5	6	7	A strong tendency to be ahead of competitors in introducing new products/services, technology or management ideas

In general, the top managers of my firm believe that

Owing to the nature of the environment, it is best to explore it gradually via timid, incremental behavior	1	2	3	4	5	6	7	Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives
--	---	---	---	---	---	---	---	--

When confronted with decision-making situations involving uncertainty, my firm

Typically adopts a cautious 'wait-and-see' posture in order to minimize the probability of making costly decisions	1	2	3	4	5	6	7	Typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities
--	---	---	---	---	---	---	---	--

Please indicate the current position of your organisation relative to your direct competitors:

	We are much lower	Same	We are much higher
Product or service cost	1	2	5
Product or service selling price	1	2	5
Per cent of sales (turnover) spent on R & D	1	2	5
Per cent of sales (turnover) spent on marketing	1	2	5
Product or service quality	1	2	5
Brand image	1	2	5
Product or service features	1	2	5
After sales service	1	2	5
Sales growth	1	2	5
Return-on-Sales	1	2	5
Profitability	1	2	5

What proportion of your organisation's total sales (turnover) comes from products or services introduced within the previous 12 months? %

How long has your local organisation been in operation? _____ years.

In what country is your corporate headquarter located? _____

Which of the following categories best describes your **primary** industry sector? (Please tick **one**)

- | | | |
|--|--|--|
| <input type="checkbox"/> Agriculture/forestry/fishing | <input type="checkbox"/> Building & civil engineering | <input type="checkbox"/> Health services |
| <input type="checkbox"/> Energy & Water | <input type="checkbox"/> Retail & distribution; hotels | <input type="checkbox"/> Other services (e.g., |
| <input type="checkbox"/> R&D, | | television, radio, etc.) |
| <input type="checkbox"/> Chemical Products | <input type="checkbox"/> Transport & Communication | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Metal Mfg. (mechanical, electrical & instrument engineering; data processing machinery) | <input type="checkbox"/> (e.g., rail, postal, telecoms) | |
| <input type="checkbox"/> Other Mfg (e.g., food, drink, tobacco; textiles, clothing; paper, publishing; rubber, plastics) | <input type="checkbox"/> Banking; finance, insurance; business services (e.g., consultancies, PR, legal, etc.) | |
| | <input type="checkbox"/> Personal, domestic, recreational services | |

Approximately what proportion of your total sales (turnover) is from the above industry? _____ %

Which category best approximates the **percentage of total annual sales/turnover** spent on research & development (R&D) in your organisation? (Please **circle one** category).

- | | | | | | |
|----------|--------|--------|---------|---------|-----------|
| (a) < 1% | (d) 3% | (g) 6% | (j) 9% | (m) 12% | (p) 15% |
| (b) 1% | (e) 4% | (h) 7% | (k) 10% | (n) 13% | (q) 16% |
| (c) 2% | (f) 5% | (i) 8% | (l) 11% | (o) 14% | (r) > 16% |

Which category best approximates the **percentage of your total annual operating expenses** accounted for by labour costs in your organisation? (Please **circle one** category).

- | | | | | | |
|----------|---------|---------|---------|---------|-----------|
| (a) < 5% | (d) 15% | (g) 30% | (j) 45% | (m) 60% | (p) 75% |
| (b) 5% | (e) 20% | (h) 35% | (k) 50% | (n) 65% | (q) 80% |
| (c) 10% | (f) 25% | (i) 40% | (l) 55% | (o) 70% | (r) > 80% |

How do your labour costs compare with your direct competitors?

Our costs are ***much lower*** **1** **2** **3** **4** **5** Our costs are ***much higher***

As measures of size:

a. Please estimate the total number of employees in your local organisation:

Three years ago _____

Today _____

b. Please estimate your local organisation's annual sales revenue (turnover):

Three years ago million Euro

Today million Euro

Please use the scale below to indicate your level of agreement or disagreement with each of the following statements. Write a scale number in the space provided beside each statement.

Strongly Disagree 1 2 3 4 5 Strongly Agree

Our employees can expect to stay with the organization as long as they wish..... _____

Our company is committed to a goal of long-term employment security..... _____

If this organization were facing economic problems, employee downsizing would be the last option used _____

During the last two years, has your firm engaged in employee downsizing (redundancies)? Yes _____ No _____

If yes, what percentage of your workforce was made redundant during this time? _____%

Partnership: To what extent do you agree with the following statements?

Strongly disagree 1 2 3 4 5 Strongly agree

There is a high level of trust between management and employees _____

Employees are well informed on the views and concerns of company management _____

Company management are well informed on the views and concerns of employees _____

Partnership: In this organisation...

Workplace partnership is... (Please circle appropriate number)

1	2	3	4	5	6
Non-existent	Largely confined to a few key individuals	Largely confined within formal partnership structures	Evident in at least certain parts	Evident across most of it	Now the norm for working

Partnership: Are there formal arrangements in place for...

Workplace partnership? (Please tick one)

No

No, but under active consideration

Yes How many years has this arrangement been in place? _____

Informing and consulting employees? (Please tick one)

No

No, but under active consideration

Yes, but may require adjustment to comply with forthcoming legislation

Yes, and already largely compliant with requirements of forthcoming legislation

Partnership: To what extent are each of the following issues the subject of discussion between management and employees (and/or their representatives)?

(Please insert appropriate number in space provided)

No discussion	1	2	3	4	5	Very substantial discussion
Production issues (e.g. level of production or sales, quality of product or service)						_____
Employment issues (e.g. avoiding redundancies, reducing labour turnover)						_____
Financial issues (e. g. financial performance, budgets or budgetary cuts)						_____
Future plans (e.g. changes in goods produced or services offered, company expansion or contraction)						_____
Pay issues (e.g. wage or salary reviews, bonuses, regarding, job evaluation)						_____
Leave and flexible working arrangements, including working time						_____
Welfare services and facilities (e.g. child care, rest rooms, car parking, canteens, recreation)						_____
Government regulations (e.g. EU Directives, Local Authority regulations)						_____
Work organisation (e.g. changes to working methods, allocation of work between employees, multi-skilling)						_____
Health and safety						_____
Equal opportunities						_____
Training						_____
Product innovations						_____
Service innovations						_____
Technical innovations						_____
Other (please specify) _____						_____

Please use the scale below to indicate your level of agreement or disagreement with each of the following statements. Write a scale number in the space provided beside each statement.

Strongly Disagree 1 2 3 4 5 Strongly Agree

- Our employees are highly skilled_____
- Our employees are widely considered the best in our industry._____
- Our employees are creative and bright....._____
- Our employees are experts in their particular jobs and functions_____
- Our employees develop new ideas and knowledge_____
- Our employees are skilled at collaborating with each other to diagnose and solve problems....._____
- Our employees share information and learn from one another_____
- Our employees interact and exchange ideas with people from different areas of the company..._____
- Our employees partner with customers, suppliers, alliance partners, etc., to develop solutions .._____.
- Our employees apply knowledge from one area of the company to problems

and opportunities that arise in another.

Please use the scale below to indicate your level of agreement or disagreement with each of the following statements. Write a scale number in the space provided beside each statement.

Strongly Disagree 1 2 3 4 5 Strongly Agree

The HR department or function has helped to enhance the firm's competitive position

The HR department or function provides value-added contributions to the firm's bottom line

The HR department or function contributes to building or maintaining the firm's core competence... ..

The HR department or function contributes to building the firm's human capital (employees, managers) as a source of competitive advantage

II. RESPONDENT BACKGROUND

Please indicate the number of years of work experience you have in each of the following areas:

- Sales yrs
Marketing..... yrs
R & D..... yrs
Operations/Production... yrs
Accounting yrs
Finance..... yrs
Information Systems..... yrs
Human Resources..... yrs
Engineering..... yrs
Law..... yrs
General Management..... yrs
Other (specify) yrs

What is your organisational position or title?

How many years have you been in the above position? years

How many years have you been with this organisation? years

How many total years of post secondary/high school education have you attained if any? years

Have you earned a post secondary/high school degree? ...Yes _____. No _____.

If yes, what is the highest degree you have obtained (e.g., associates, BA, MS, etc)? _____

Academic area of above degree (e.g., business, engineering, liberal arts, etc.)? _____

THANK YOU FOR YOUR HELP!
When completed, please return in the envelope provided or send to:
PROFESSOR PATRICK FLOOD, KEMMY BUSINESS SCHOOL

APPENDIX E: HR MANAGER QUESTIONNAIRE SURVEY



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH



UL - KU 2006 SURVEY OF HUMAN RESOURCE PRACTICES AND WORKPLACE INNOVATION

A research study sponsored by

National Centre for
Partnership  Performance

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PROJECT DIRECTORS

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Cathal O'Regan, is currently a National Coordinator at the National Centre for Partnership and Performance of Ireland. He is a registered doctoral student at the University of Limerick.

If you have questions about any aspect of this study, please contact one of the project directors. Contact information is provided on the front page of the questionnaire.

Would you like a summary report of the findings of the study? Yes_____ No_____

If 'yes', please provide name and address or attach a business card:

Name: _____

Address: _____

Email: _____

Please provide responses that best describe HR practices in your operations in Ireland during 2005-06.

I. HUMAN RESOURCE PRACTICES

Please answer the following questions *with respect to two broad groups of employees during 2005-06:*

Group A = Production, maintenance, service and clerical employees.

Group B = Executives, managers, supervisors and professional/technical employees.

Group A **Group B**

Staffing: What proportion of your employees

Are interviewed during the hiring process using structured, standardized interviews
(e.g., behavioural or situational interviews), as opposed to unstructured interviews _____% _____%

Are administered one or more employment tests (e.g., skills tests, aptitude
tests, mental/cognitive ability tests) prior to hiring? _____% _____%

Are hired for entry level jobs based on employment test(s) which have been
analysed in terms of the test's ability to predict job success (i.e., the tests
have been validated) _____% _____%

Are hired on the basis of intensive/extensive recruiting efforts resulting in many
qualified applicants _____% _____%

Hold jobs which have been subjected to a formal job analysis to identify position
requirements (such as required knowledge, skills or abilities)? _____% _____%

Hold non-entry level jobs as a result of internal promotions (as opposed to hired
from outside of the organisation)? _____% _____%

Hold non-entry level jobs due to promotions based upon merit or performance,
as opposed to seniority? _____% _____%

Have job security: Employment with the firm is almost guaranteed..... _____% _____%

Please provide responses that **best describe HR practices** in your operations in Ireland during **2005-06**.

Group A = Production, maintenance, service, clerical employees.

Group B = Executives, managers, supervisors, professional/technical employees.

Group A **Group B**

Performance Management & Remuneration: What proportion of your employees

- Receive formal performance appraisals and feedback on a routine basis? _____% _____ %
- Receive formal performance feedback from more than one source (i.e., feedback from several individuals such as supervisors, peers etc.)?..... _____% _____ %
- Receive compensation partially contingent on *individual* merit or performance?..... _____% _____ %
- Receive compensation partially contingent on *group* performance (e.g., profit-sharing, gainsharing, team-based)?..... _____% _____ %
- Own shares of your organisation's stock (e.g., an employee stock ownership plan)? _____% _____ %
- Are paid primarily on the basis of a skill or knowledge-based pay system (versus a job-based system)? That is, pay is primarily determined by a person's skill or knowledge level as opposed to the particular job that they hold _____% _____ %
- In terms of total remuneration (pay and benefits), what is your organisation's position relative to the market? Assume the market is at the 50th percentile and indicate your position relative to this. For example, a response of "40" indicates that you are at the 40th percentile -- 10% below the market. _____% _____ %
- What proportion of the average employee's total annual remuneration is contingent on performance? _____% _____ %

Training & Development: What proportion of your employees

- Have been trained in a variety of jobs or skills (are "cross trained") and/or routinely perform more than one job (are "cross utilized")? _____% _____ %
- Have received intensive/extensive training in company-specific skills (e.g., task or firm-specific training)..... _____% _____ %
- Have received intensive/extensive training in generic skills (e.g., problem-solving, communication skills, etc.)..... _____% _____ %
- What is the *average number of hours of training* received by a typical employee *per year*? _____# _____ #

Please provide responses that best describe HR practices in your operations in Ireland during 2005-06.

Group A = Production, maintenance, service, clerical employees.

Group B = Executives, managers, supervisors, professional/technical employees.

Group A **Group B**

Communication & Participation: What proportion of your employees

Are involved in programmes designed to elicit participation and employee input
(e.g., quality circles, problem-solving or similar groups)? % %

Are provided relevant operating performance information (e.g., quality,
productivity, etc.) % %

Are provided relevant financial performance information % %

Are provided relevant strategic information (e.g., strategic mission,
goals, tactics, competitor information, etc.) % %

Are routinely administered attitude surveys to identify and correct employee
morale problems? % %

Have access to a formal grievance/complaint resolution procedure..... % %

Are organized in self-directed work teams in performing a major part of their
work roles? % %

Other HR Issues:

What proportion of your workforce is unionized? % %

Please estimate your annual **voluntary** employee turnover rate (percent who
voluntarily departed your organisation)..... % %

Please estimate your annual **involuntary** employee turnover rate (percent who
involuntarily departed your organisation – i.e., were discharged)..... % %

Please estimate the average number of days per year employees were absent..... # #

Please estimate the approximate number of full time equivalent (FTE) employees
in your organisation # #

Please provide responses that best describe HR practices in your operations in Ireland during 2005-06.

Group A = Production, maintenance, service, clerical employees.

Group B = Executives, managers, supervisors, professional/technical employees.

	<u>Group A</u>	<u>Group B</u>
Diversity / Work-life balance / Equality of Opportunity: What proportion of your employees		
Receive equality/diversity training	_____ %	_____ %
Would receive their normal, full rate of pay going on maternity leave from this workplace? (Calculate on the basis of female employees only)	_____ %	_____ %
Are afforded any of the following working time arrangements?		
Working at or from home in normal working hours.....	_____ %	_____ %
Ability to reduce working hours (e.g. switching from full-time to part-time employment).....	_____ %	_____ %
Ability to increase working hours (e.g. switching from part-time to full-time employment).....	_____ %	_____ %
Job sharing schemes (sharing a full-time job with another employee).....	_____ %	_____ %
Flexi-time (where an employee has no set start or finish time but an agreement to work a set number of hours per week or per month).....	_____ %	_____ %
Ability to change shift patterns.....	_____ %	_____ %
Working compressed hours (e.g. a 9 day fortnight / 4½ day	_____ %	_____ %
Night working.....	_____ %	_____ %
Are entitled to any of the following?		
Working only during school term-time.....	_____ %	_____ %
Workplace nursery or nursery linked with workplace.....	_____ %	_____ %
Financial help with child-care (e.g. loans, repayable contributions to fees for childcare outside of the workplace, subsidised places not located at the establishment).....	_____ %	_____ %
A specific period of leave for carers of older adults (in addition to time off for emergencies).....	_____ %	_____ %
Belong to the following categories		
Female	_____ %	_____ %
Aged	_____ %	_____ %
50+		
White		
• Irish.....	_____ %	_____ %
• Western European (excl. Irish).....	_____ %	_____ %

- Eastern European..... _____% _____%
- Other white background..... _____% _____%
- Black _____% _____%
- Asian _____% _____%
- Has a long-term disability that affects the amount or type of work they can do..... _____% _____%

Please use the scale below to indicate your level of agreement or disagreement with each of the following statements. Write a scale number in the space provided beside each statement.

Strongly Disagree 1 2 3 4 5 Strongly Agree

Our employees can expect to stay with the organization as long as they wish..... _____

Our company is committed to a goal of long-term employment security..... _____

If this organization were facing economic problems, employee downsizing would be the last option used _____

During the last two years, has your firm engaged in employee downsizing (redundancies)? Yes ____ No ____
If yes, what percentage of your workforce was made redundant during this time? _____%

Please provide responses that best describe HR practices in your operations in Ireland during 2005-06.

Diversity / Work-life balance / Equality of Opportunity

Does this workplace have a formal written policy on equal opportunities or managing diversity? Yes ____ No ____

Has a senior manager been designated to champion equality and diversity in your organization? Yes ____ No ____

To what extent is it integrated into overall corporate strategy? (Please circle as appropriate)

Not at all 1 2 3 4 5 To a very great extent

If yes, on which of the following grounds does the policy explicitly mention equality of treatment or discrimination? (Please circle all that are appropriate)

- | | | | | |
|------------|----------------|--------------------|--|--------------------|
| Sex/Gender | Race/Ethnicity | Religion or belief | Membership of the travelling community | Sexual orientation |
| Disability | Age | Marital status | Family status | Nationality |

Other (please specify)

How is the policy made known to employees? (Please circle all that are appropriate)

Part of induction programme	In contract of employment	In staff handbook	Other way
Told by supervisor/line-manager/foreman	In letter of appointment	Notice-board	(please specify)

Have you tried to measure the effects of your equal opportunities policies on the workplace or on the employees at this establishment? Yes_____ No_____

Do you monitor recruitment and selection by any of the following characteristics? If yes, which ones? (Please circle all that are appropriate)

Gender	Ethnic background	Disability	Age	Other, please specify_____
--------	-------------------	------------	-----	----------------------------

Do you monitor promotions by any of these characteristics? If yes, which ones? (Please circle all that are appropriate)

Gender	Ethnic background	Disability	Age	Other, please specify_____
--------	-------------------	------------	-----	----------------------------

Do you monitor relative pay rates by any of these characteristics? If yes, which ones? (Please circle all that are appropriate)

Gender	Ethnic background	Disability	Age	Other, please specify_____
--------	-------------------	------------	-----	----------------------------

Have you made a formal assessment of the extent to which this workplace is accessible to employees or job applicants with disabilities? Yes_____ No_____

Have you made any adjustments at this workplace to accommodate disabled employees? Yes_____ No_____

If an employee needed to take time off at short notice to deal with an emergency involving a child or family member, how would they usually take this time off? (Please circle as appropriate)

Take time off but make it up later	As leave without pay	As sick leave	Other (please specify)
As annual leave	As special paid leave	Is not allowed	Has never been requested

Partnership: To what extent do you agree with the following statements?

Strongly disagree 1 2 3 4 5 Strongly agree

There is a high level of trust between management and employees _____

Employees are well informed on the views and concerns of company management _____

Company management are well informed on the views and concerns of employees _____

Partnership: In this organisation...

Workplace partnership is... (Please circle appropriate number)

1	2	3	4	5	6
Non-existent	Largely confined to a few key individuals	Largely confined within formal partnership structures	Evident in at least certain parts	Evident across most of it	Now the norm for working

Partnership: Are there formal arrangements in place for...

Workplace partnership? (Please tick one)

- No
- No, but under active consideration
- Yes How many years has this arrangement been in place? _____

Informing and consulting employees? (Please tick one)

- No
- No, but under active consideration
- Yes, but may require adjustment to comply with forthcoming legislation
- Yes, and already largely compliant with requirements of forthcoming legislation

Partnership: To what extent are each of the following issues the subject of discussion between management and employees (and/or their representatives)?

(Please insert appropriate number in space provided)

No discussion	1	2	3	4	5	Very substantial discussion
Production issues (e.g. level of production or sales, quality of product or service)						_____
Employment issues (e.g. avoiding redundancies, reducing labour turnover)						_____
Financial issues (e.g. financial performance, budgets or budgetary cuts)						_____
Future plans (e.g. changes in goods produced or services offered, company expansion or contraction)						_____
Pay issues (e.g. wage or salary reviews, bonuses, regarding, job evaluation)						_____
Leave and flexible working arrangements, including working time						_____
Welfare services and facilities (e.g. child care, rest rooms, car parking, canteens, recreation)						_____
Government regulations (e.g. EU Directives, Local Authority regulations)						_____
Work organisation (e.g. changes to working methods, allocation of work between employees, multi-skilling)						_____
Health and safety						_____
Equal opportunities						_____

Training _____

Product innovations _____

Service innovations _____

Technical innovations _____

Other (please specify) _____

II. ORGANISATIONAL CHARACTERISTICS

What proportion of your organisation's total sales (turnover) comes from products or services introduced within the previous 12 months? _____%

How long has your local organisation been in operation? _____ years.

In what country is your corporate headquarter located? _____

Which of the following categories best describes your **primary** industry sector? (Please tick one)

- | | | |
|--|--|---|
| <input type="checkbox"/> Agriculture/forestry/fishing | <input type="checkbox"/> Building & civil engineering | <input type="checkbox"/> Health services |
| <input type="checkbox"/> Energy & Water | <input type="checkbox"/> Retail & distribution; hotels | <input type="checkbox"/> Other services (e.g. R&D, television, radio, etc.) |
| <input type="checkbox"/> Chemical Products | <input type="checkbox"/> Transport & Communication (e.g., rail, postal, telecoms) | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Metal Mfg. (mechanical, electrical & instrument engineering; data processing machinery) | <input type="checkbox"/> Banking; finance, insurance; business services (e.g., consultancies, PR, legal, etc.) | |
| <input type="checkbox"/> Other Mfg (e.g., food, drink, tobacco; textiles, clothing; paper, publishing; rubber, plastics) | <input type="checkbox"/> Personal, domestic, recreational services | |

Approximately what proportion of your total sales (turnover) is from the above industry? _____ %

Which category best approximates the **percentage of total annual sales/turnover** spent on research & development (R&D) in your organisation? (Please **circle one** category).

- | | | | | | |
|----------|--------|--------|---------|---------|-----------|
| (a) < 1% | (d) 3% | (g) 6% | (j) 9% | (m) 12% | (p) 15% |
| (b) 1% | (e) 4% | (h) 7% | (k) 10% | (n) 13% | (q) 16% |
| (c) 2% | (f) 5% | (i) 8% | (l) 11% | (o) 14% | (r) > 16% |

Which category best approximates the **percentage of your total annual operating expenses** accounted for by labour costs in your organisation? (Please **circle one** category).

- | | | | | | |
|----------|---------|---------|---------|---------|---------|
| (a) < 5% | (d) 15% | (g) 30% | (j) 45% | (m) 60% | (p) 75% |
|----------|---------|---------|---------|---------|---------|

employees about the nature of the research and how they are supposed to participate in the survey (a group of employees in a room will be desirable).

In order to maintain efficiency, about 100 employees across your organizations should be selected at random. They are however, to come from two groups of employees that are representative in terms of the nature of the job in your workplace. Thus employees from Group A would include workers who are in production, maintenance, service, and clerical areas. Employees from *Group B* would include executives, managers, supervisors, professional and technical employees. These employees are generally subject to the operation of the strategic HR practices, i.e. areas of communication and participation, training and development, staffing and recruitment, performance management and remuneration, and equality and diversity management.

This survey is important to your company since it will produce a set of company specific benchmarks for your company. Again, you will also receive a report of the study, which will help you set your economic strategies in relation to other companies.

We look forward to hearing from you,

Kindest Regards,

Thadeus Mkamwa

CC. Prof. Patrick. Flood

APPENDIX G: EMPLOYEE QUESTIONNAIRE SURVEY



UNIVERSITY of LIMERICK
OLLSCOILLUIMNIGH



2006 SURVEY OF EMPLOYEE PERCEPTIONS OF HRM PRACTICES IN IRELAND

A research study sponsored by

National Centre for
Partnership  Performance

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1. How satisfied are you with the following aspects of your job? Please, fill in an answer that is most appropriate to you according to the scale shown below.

1. **Very Satisfied**
2. **Satisfied**
3. **Neutral**
4. **Dissatisfied**
5. **Very Dissatisfied**

- | | |
|--|--------------------------|
| 1. The physical work conditions | <input type="checkbox"/> |
| 2. Your job security | <input type="checkbox"/> |
| 3. The level of healthy and safety | <input type="checkbox"/> |
| 4. The overall hours of work | <input type="checkbox"/> |
| 5. Your rate of pay | <input type="checkbox"/> |
| 6. Pension provisions | <input type="checkbox"/> |
| 7. Payment according to your performance | <input type="checkbox"/> |
| 8. Relationship with fellow workers | <input type="checkbox"/> |
| 9. Relationship with your immediate boss | <input type="checkbox"/> |
| 10. Communication between organisation and employees | <input type="checkbox"/> |
| 11. The recognition you get for good work | <input type="checkbox"/> |
| 12. The number of times you receive performance feedback | <input type="checkbox"/> |
| 13. The way appraisal is related to payment | <input type="checkbox"/> |
| 14. The amount of training you receive | <input type="checkbox"/> |
| 15. The intensity of the training you receive | <input type="checkbox"/> |
| 16. The ability to perform more than one job | <input type="checkbox"/> |
| 17. Industrial relations between management and workers | <input type="checkbox"/> |
| 18. Your involvement in programmes that discuss former grievance or complaint procedures | <input type="checkbox"/> |
| 19. Your opportunity to use your abilities | <input type="checkbox"/> |
| 20. The amount of variety in your job | <input type="checkbox"/> |
| 21. The attention paid to suggestions you make | <input type="checkbox"/> |
| 22. Your chance of promotion | <input type="checkbox"/> |
| 23. Your team leader | <input type="checkbox"/> |
| 24. Training for teamworking | <input type="checkbox"/> |
| 25. The way team members work together | <input type="checkbox"/> |
| 26. The selection process for team members | <input type="checkbox"/> |
| 27. The selection process for team leaders | <input type="checkbox"/> |
| 28. Distribution of work load among team members | <input type="checkbox"/> |

2. To what extent do you agree with the following statements? Please read the scale carefully and then circle the most appropriate answer on the 1-5 scale.

1. **Strongly Disagree**
2. **Disagree**
3. **Not Sure**
4. **Agree**
5. **Strongly Agree**

- | | |
|---|--------------------------|
| 1. I am able to work from home in normal working hours | <input type="checkbox"/> |
| 2. I am able to reduce my working hours | <input type="checkbox"/> |
| 3. I am able to increase my working hours, e.g. switching from part time to full time | <input type="checkbox"/> |
| 4. I am able to work by compressed hours, e.g. a 9 day fortnight/ 4 ½ day week | <input type="checkbox"/> |
| 5. I am satisfied with the diversity training offered by this company | <input type="checkbox"/> |
| 6. I am satisfied with the equality of opportunity training offered by this company | <input type="checkbox"/> |
| 7. There is no gender or sex discrimination in this workplace | <input type="checkbox"/> |

3. How often do you perform these innovative work behaviours at your workplace?

1. **Never**
2. **Rarely**
3. **Sometimes**
4. **Often**
5. **Always**

- | | |
|--|--------------------------|
| 1. Creating new ideas for difficult issues? | <input type="checkbox"/> |
| 2. Generating original solutions for problems? | <input type="checkbox"/> |
| 3. Mobilizing support for innovative ideas? | <input type="checkbox"/> |
| 4. Transforming innovative ideas into useful applications? | <input type="checkbox"/> |
| 5. Evaluating the utility of innovative ideas? | <input type="checkbox"/> |
| 6. Introducing innovative ideas into the work environment in a systematic way? | <input type="checkbox"/> |
| 7. Making important organisational members enthusiastic for innovative ideas? | <input type="checkbox"/> |
| 8. Searching out new working methods, techniques or instruments? | <input type="checkbox"/> |
| 9. Acquiring approval for innovative ideas? | <input type="checkbox"/> |

4. To what extent do you agree with the following statements?
Please circle the most appropriate answer on the 1-5 scale.

- 1. **Strongly Disagree**
- 2. **Disagree**
- 3. **Not Sure**
- 4. **Agree**
- 5. **Strongly Agree**

- 1. The demands of my work interfere with my family life
- 2. The amount of time my job takes up makes it difficult to fulfil family responsibilities
- 3. Things I want to do at home do not get done because of the demands my job puts on me
- 4. My job produces strain that makes it difficult to make changes to my plans for family activities
- 5. Due to work-related duties, I have to make changes to my plans for family activities
- 6. My job is extremely stressful
- 7. Very few stressful things happen to me at work
- 8. I feel a great deal of stress because of my job

5. How fair or unfair are the following procedures at your work? Please use the scale below.

- 1. **Very Unfair**
- 2. **Unfair**
- 3. **Not Sure**
- 4. **Fair**
- 5. **Very Fair**

- 1. How fair or unfair are the procedures used to communicate performance feedback?
- 2. How fair or unfair are the procedures used to determine pay raises?
- 3. How fair or unfair are the procedures used to evaluate performance?
- 4. How fair or unfair are the procedures used to determine promotion?

6. To what extent do you work under the following conditions? Please indicate using the scale provided below.

- 1. **Never**
- 2. **Rarely**
- 3. **Sometimes**
- 4. **Often**
- 5. **Always**

- 1. Do you have to work fast?
- 2. Do you have too much work to do?
- 3. Do you have to work extra hard to finish a task?
- 4. Do you work under time pressure?
- 5. Can you do your work in comfort?
- 6. Do you have to deal with a backlog at work?
- 7. Do you have problems with the pace of work?
- 8. Do you have problems with the workload?

7. To what extent do you agree with the following statements? Please circle the most appropriate answer on the 1-5 scale.

- 1. **Strongly Disagree**
- 2. **Disagree**
- 3. **Not Sure**
- 4. **Agree**
- 5. **Strongly Agree**

- 1. I am quite proud to be able to tell people who it is that I work for
- 2. What this organisation stands for is important to me
- 3. I feel a strong sense of belonging to this organisation
- 4. I feel like 'part of the family' at this organisation
- 5. This organisation appreciates my accomplishment on the job
- 6. This organisation does all that it can to recognise employees for good performance
- 7. It would be very hard for me to leave my organisation right now, even if I wanted to
- 8. Right now staying with my organisation is a matter of necessity as much as desire
- 9. I feel that I have too few options to consider leaving this organisation

8. To what extent do you agree with the following statements? Please circle the most appropriate answer on the 1-5 scale.

- 1. **Strongly Disagree**
- 2. **Disagree**
- 3. **Not Sure**
- 4. **Agree**
- 5. **Strongly Agree**

- 1. People who belong to a group should realise that they are not always going to get what they want
- 2. I prefer to work with others than work alone
- 3. Only those who depend on themselves get ahead in life
- 4. A group is more productive when its members follow their own interests and concerns
- 5. Winning is everything
- 6. People in a group should be willing to make a sacrifice for the sake of the group's well being
- 7. Working with a group is better than working alone
- 8. What happens to me is my own doing
- 9. A group is more efficient when members do what they think is best rather than what the group wants them to do
- 10. It annoys me when others perform better than I do
- 11. People should be made aware that if they are going to be part of the group, they are sometimes going to do things that they don't want to do
- 12. Given a choice, I would rather work alone than with a group
- 13. In the long run, the only person you can count on is yourself
- 14. A group is more productive when its members do what they want to do rather than what the group wants them to do
- 15. Doing your best isn't enough; it is important to win
- 16. People who belong to a group should realise that they sometimes are going to have to make sacrifices for the sake of the group as a whole

17. If you want to get something done right, you've got to do it yourself

18. I feel that winning is important in both work and games

19. Success is the most important thing in life

9. How long do you intend to stay with your current employer?

- 1. Less than 1 year
- 2. One to 2 year
- 3. Two to 3 years
- 4. Three to 4 years
- 5. Four to 5 years
- 6. Over 5 years

10. To what extent do you agree with the following statements? Please circle the most appropriate answer on the 1-5 scale.

- 1. **Strongly Disagree**
- 2. **Disagree**
- 3. **Not Sure**
- 4. **Agree**
- 5. **Strongly Agree**

- 1. I help others who have been absent
- 2. I help others who have heavy work loads
- 3. I assist supervisor with his/her work (when not asked)
- 4. I take time to listen to co-workers' problems and worries
- 5. I go out of way to help new employees
- 6. I take personal interest in other employees
- 7. I pass along information to co-workers
- 8. My attendance at work is above the norm
- 9. I give advance notice when I am unable to come to work
- 11. I take undeserved work breaks
- 12. I spend a great deal of time with personal phone conversations
- 13. I complain about insignificant things at work
- 14. I conserve and protect organisational property
- 15. I adhere to informal rules that are devised to maintain order

RESPONDENT BACKGROUND

Please, indicate your gender

Male Female

What is the highest level of education that you have attained?

Primary Level	<input type="checkbox"/>	Third Level	
Inter/Junior Certificate	<input type="checkbox"/>	Technical/Diploma Level	<input type="checkbox"/>
Leaving Certificate	<input type="checkbox"/>	Degree Level	<input type="checkbox"/>
		Masters/PhD	<input type="checkbox"/>

Other

Please, indicate your age category:

Under 20	<input type="checkbox"/>	41-50	<input type="checkbox"/>
21-30	<input type="checkbox"/>	51-60	<input type="checkbox"/>
31-40	<input type="checkbox"/>	60+	<input type="checkbox"/>

Would you describe the occupation you trained for as:

General Skilled	<input type="checkbox"/>	Administrative	<input type="checkbox"/>
Skilled Craft	<input type="checkbox"/>	Professional	<input type="checkbox"/>
Technician	<input type="checkbox"/>	Supervisory Administrative	<input type="checkbox"/>

Please indicate as appropriate: I belong to the following category:

White (Non-Irish)	<input type="checkbox"/>	Irish	<input type="checkbox"/>
Western European (excl. Irish)	<input type="checkbox"/>	Eastern European	<input type="checkbox"/>
Other White background	<input type="checkbox"/>		
Black/African Origin	<input type="checkbox"/>		
Asian	<input type="checkbox"/>		

THANK YOU FOR YOUR HELP!

When completed, please return in the envelope provided or send to:
Professor Patrick Flood,
Kemmy Business School University of Limerick
Limerick, Ireland

APPENDIX H: HR MANAGER INTERVIEW ITEMS

Dublin City University Business School



INTERVIEW ITEMS FOR HR/GM IN A HPWS SURVEY EXTENSION November 2008

Name of interviewee: _____

Name of the interviewer: Thadeus Mkamwa

Date and Time: _____

Name and Location of the Company: _____

Position: _____

Show Status: Recorded/Not Recorded

Introduction: the aim of this interview is to understand the extent HR practices are perceived by the management in the company.

A. Communication:

1. What is the overall mission of the company? How is it communicated to employees?
2. Do your employees participate in company's decision making? In what areas would employees get involved in decision making?
3. Does the company communicate all the important information to employees? Can you give examples?
4. Is the senior management well informed about what people at the lower level do or think? How does the management get informed?

B. Training and Employee Development

1. What practices does your company have/use with regard to employee training?
2. To what extent do you think the practices in training help the company and employees enhance performance?
3. What type of training does the company put more emphasis on? Generic or company specific skills?

C. Job Satisfaction

1. Generally, what do you think of the level of job satisfaction among your employees?
2. Are there any indicators of job dissatisfaction among your employees at all levels?
3. What practices do you employ to enhance or increase employees' job satisfaction?

D. Grievances and Complaints

1. What type of compliments does the senior management normally get from lower level employees?
2. What sort of grievances or complaints would the management get from lower level employees?
3. To what extent do such concerns if they exist at all damage the company image, goals and mission of the company? Or enhance the image of the company?

E. Tenure

1. What proportionate of your employees may be willing to stay over a long period of time (say over five years) with you, their current employer?
2. What is the rate of employee turnover (employees who voluntarily leave the organisation) say over the last two years?
3. What are the main reasons for employees leaving your company? (turnover)

F. Employee Citizenship

1. Do your employees have a sense of helping one another in their duties?
2. To what extent is the company satisfied with employees concern of conserving the company's property/properties?
3. Do your employees offer help to senior management or supervisors even when they are not asked to do so?
4. In general, are you satisfied with the way employees work together in teams, groups, or the way they are ready to support the management in running the organisation?

G. Innovation and Creativity

1. To what extent are you satisfied with the way employees generate new ideas for difficult issues?
2. To what extent are your employees enthusiastic to generating original solutions for problems?
3. To what extent are you satisfied with the way employees transform innovative ideas into useful applications?
4. To what extent is your organisation creative or innovative in providing services and or products?

H. Diversity and Equality

1. Do you have diversity and equality of opportunity practices and policies in your company?
2. What does a good diversity and equality management look like in your company?
3. What are the main challenges that face your company in the implementation of diversity and equality management practices?