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ANTECEDENTS AND CONSEQUENCES OF HUMAN RESOURCE DIFFERENTIATION

Samuel Eyamu

Submitted in total fulfilment of the requirements of the degree of
Doctor of Philosophy

Department of Management and Marketing
Faculty of Business and Economics
The University of Melbourne
Melbourne, AUSTRALIA

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ABSTRACT

Strategic Human Resource Management (HRM) scholars have increasingly acknowledged that firm-level HR systems typically consist of differentiated approaches to managing different types of workers, ranging from arm's length, highly transactional approaches (such as sub-contracting) to highly customised, relationship-based approaches (such as high-commitment HR strategies). To date, the most prominent approach to understanding human resource (HR) differentiation is the HR architecture framework. This framework, first proposed and tested by Lepak and Snell (2002), predicts that firms will use differentiated HR systems to reflect the strategic value and uniqueness of human capital associated with jobs. Although this framework provides an important foundation for understanding HR differentiation, there is a theoretical and empirical limitation within this research space. First, few studies have sought to demonstrate, or empirically test how the HR architecture framework aligns or integrates with contextual factors, which may also shape the tendency of a firm to differentiate its HR practices across different jobs. For example, other research in industrial relations suggests that contextual factors, constraints or conditions have the propensity to influence the extent to which firms employ differentiated HR systems. Second, and perhaps more importantly, employee agency and equity concerns associated with the use of differentiated HR systems has largely been ignored in previous research. To address these issues, this thesis addresses two primary research questions, each of which provides the rationale for an empirical study. First, when/under what conditions are firms likely to use differentiated HR systems to manage employees (**Study 1**)? Second, what does differentiation mean for employees and their experience of work (**Study 2**)?

In **Study 1**, I develop and test a conceptual model of the antecedents of differentiation by extending the HR architecture model. Using data from 200 medium and large establishments within the Australian manufacturing sector, I test a range of contextual factors that are likely to predict intraorganisational variability in employment arrangements. The results from this study offer some support to the HR architecture framework by showing that the strategic value and uniqueness of human capital associated with jobs differs across some employment arrangements. A firm's competitive strategy was found to predict the strategic value and uniqueness of human

capital associated with jobs, while union density was found to interact with human capital strategic value to predict job-based employment arrangement.

In **Study 2**, I develop and test a companion model that examines employee responses to HR differentiation. Results of a study from 733 respondents across several industry sectors in Australia support my hypotheses that perceived favourability of HR practices (which has emerged as a key indicator of employee responses to HR differentiation) is positively associated with job satisfaction, affective organisational commitment, job engagement and lower turnover intentions. The study also showed that perceived organisational support, perceived distributive justice and perceived procedural justice partially mediate the relationship between perceived favourability of HR practices and work-related outcomes examined in the study. Nevertheless, interestingly, the study found that leader-member exchange accentuates perceptions of distributive and procedural justice, but not organisational support. Implications of the study for theory and practice are discussed.

DECLARATION

This dissertation contains no material that has been accepted for the award of any other degree or diploma in any university or institution. It is affirmed, to the best of my knowledge, that this dissertation contains no material previously published or written by another person, except where due reference is made in the text of the dissertation. Selected findings from the dissertation have been presented at conferences and are currently in preparation for journal publication.

Signature of Candidate

Samuel Eyamu

Date

SELECTED PAPERS ARISING FROM THIS STUDY

Listed below are conference papers, which have been presented during the PhD program. These conference papers were based on the information gathered and analysed for this study.

Eyamu, S. (2017). **HR Differentiation and Employee Outcomes: A Social Comparison Process.** Paper presented at the Africa Academy of Management (AFAM) conference held on the 3rd – 6th January 2018 in Addis Ababa, Ethiopia.

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LIST OF STATISTICAL ACRONYMS

AMOS	AMOS (statistical package)
ANCOVA	Analysis of Covariance
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
BC	Bias Corrected (method)
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CI	Confidence Interval
CMB	Common Method Bias
CMV	Common Method Variance
CR	Composite Reliability
<i>df</i>	Degrees of Freedom
DV	Dependent Variable
EFA	Exploratory Factor Analysis
EM	Expectation Maximization
<i>F</i>	F-test
IV	Independent Variable
KMO	Kaiser-Meyer-Olkin test
M	Mediator
MAR	Missing at Random
MCAR	Missing Completely at Random
MD	Mahalanobis Distance
Mdifference	Mean difference
MNAR	Missing Not at Random
OLS	Ordinary Least Square
<i>p</i>	<i>p</i> -value
PCA	Principal Component Analysis
<i>r</i>	Pearson Correlation Coefficient
R ²	Squared Correlation Coefficient

RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation
SE	Standard Error
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
SRMR	Standardised Root Mean Square Residual
t	T-test Statistic
VIF	Variance Inflation Factor
α	Cronbach's Alpha Coefficient
β	Beta Coefficient
χ^2	Chi-square
χ^2 / df	Normed Chi-square
z	Standardised Score

LIST OF ABBREVIATIONS

AOC	Affective Organisational Commitment
E	Engagement
ED	Environmental Dynamism
EMC	Employee-Management Cooperation
HCV	Human Capital Value
HR	Human Resource
HRD	Human Resource Development
HRM	Human Resource Management
HRPs	Human Resource Practices
IS	Innovation Strategy
JS	Job Satisfaction
LMX	Leader-Member Exchange
MLEs	Medium and Large Enterprises
Org.	Organisation
PDJ	Perceived Distributive Justice
PFHRPs	Perceived Favourability of Human Resource Practices
PLS	Plain Language Statement
POJ	Perceived Organisational Justice
POS	Perceived Organisational Support
PPJ	Perceived Procedural Justice
SCT	Social Comparison Theory
Sec	Secondary
SET	Social Exchange Theory
SIC	Standards Industrial Classification
Ter	Tertiary
TI	Turnover Intention
TO	Technological Opportunity
U	Uniqueness
U.S	United States of America

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Developing effective human resource (HR) strategies and systems has been shown to consistently yield substantial benefits for organisations and employees. These practices within organisations have been shown to engender productive work attitudes and behaviours including higher levels of motivation, greater skill usage and commitment to organisational goals (Guest, 1999), which elicit positive organisational outcomes, such as increased productivity (Huselid, 1995; Rogers & Wright, 1998; Stirpe, Bonache, & Revilla, 2014), higher operational performance (Ahmad & Schroeder, 2003; MacDuffie, 1995; Youndt, Snell, Dean, & Lepak, 1996), better financial performance (Becker & Huselid, 1998; Delery & Doty, 1996; Jiang, Lepak, Hu, & Baer, 2012a) and higher ‘market’ performance (Batt, 2002; Dyer & Reeves, 1995; Wright, Gardner, Moynihan, & Allen, 2005). For employees, the benefits derive from skill variety, better pay, employment security, work-life balance, job autonomy, improved communication channels and social support from colleagues and management (Fan et al., 2014). However, although a consensus exists regarding the business implications of HR systems (Jayasinghe, 2016), understanding how these systems can be galvanised for the creation of competitive advantage is still a fundamental stream of research to be fully explored.

One of the earliest approaches to conceptualising HR practices has been to assume that there exists a monolithic set of employees and that firms implement *best* HR practices for all employees (Huselid, 1995; Pfeffer, 1994, 1998). Even where HR practices need to *fit* with internal and external contingencies, such as firm strategy, size, technology and industry dynamism (Cf. Boxall & Purcell, 2008; MacDuffie, 1995; Youndt et al., 1996), HR researchers have generally ignored the potential variations in the way that HR systems are applied within and across different jobs.

However, with the continued advancement in research, it is no longer appropriate to ‘simplify the nature of HR investments and suggest that there exists a single optimal *HR architecture*

for managing all employees' (Lepak & Snell, 1999, p. 32). While this statement may sound like differentiation is a new trend, it probably isn't because firms have tended to differentiate employees (Lepak & Snell, 1999, 2002; Liao, Toya, Lepak, & Hong, 2009) and, as a corollary, implemented 'differentiated' HR systems to create competitive advantage (e.g., Cascio, 1991; Flamholtz & Lacey, 1981; Hauff, Alewell, & Hansen, 2014; Krausert, 2014). One of the key assumptions of this research is that organisational effectiveness can be enhanced by a 'differentiated' workforce within and across organisational boundaries (Cf. Arthur, 1994; Jackson, Schuler, & Jiang, 2014; Powell, 1990; Siebert & Zubanov, 2009).

A cursory review of strategic HRM literature reveals two perspectives for understanding differentiation. The first perspective of differentiation assumes that differentiation occurs across different jobs. For this group of scholars, 'differentiation' concerns the way that firms divide jobs into distinctive segments of their workforce and develop distinctive HR practices and benefits for each workforce segment (Becker & Huselid, 2006; Lepak & Snell, 1999, 2002). For instance, Becker, Huselid, and Beatty (2009) noted that differentiation involves investing in 'those specific jobs and those specific people within jobs that help create strategic success' (p. 3). The second perspective on differentiation assumes that differentiation can also occur within jobs, as echoed in the 'war for talent' literature, whereby talent is said to reside within individuals (Beechler & Woodward, 2009; E. G. Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998) and 'i-deals' literature, where employees can negotiate their own unique terms of employment with their employers (Rousseau, 2005; Rousseau, Ho, & Greenberg, 2006). Taken as a whole, the general consensus across these two perspectives is that differentiation should involve disproportionate investment in employees and/or jobs from which organisations expect the highest returns (Cappelli & Keller, 2014). To this end, the word 'differentiation' is used more broadly to refer to differential employee treatment.

Arguably, the dominant approach to conceptualising differentiation is the HR architecture model, first proposed and empirically validated by Lepak and Snell (1999, 2002). The HR architecture model posits that firms allocate employees to specific employment arrangements according to the strategic value and uniqueness of human capital (Lepak & Snell, 1999, 2002). Lepak and Snell use the term HR *architecture* to refer to the interrelationships among three dimensions that define the relationship between the organisation and employees:

(i) Employment arrangements, defined as the way human capital is allocated within the firm. The authors maintain that this is determined by whether the organisation requires human capital that is acquired (or hired), internally developed (trained), contracted or gained through a strategic alliance (such as outsourcing).

(ii) Employment relationship, defined as the nature of the relationship between the supplier of human capital and the organisation management. For Lepak and Snell, the employment relationship can be organisation-focused, symbiotic, transactional or a partnership.

(iii) The configuration of HR practices, such as selection, training and development, compensation, benefits and performance appraisal systems, among others, which are designed to complement employment arrangements and employment relationships. These configurations of HR practices can be commitment-based, market or productivity-based, compliance-based or collaborative HR practices.

Lepak and Snell further posit that strategic value and uniqueness of human capital are the two key criteria by which firms differentiate employees. Consequently, by juxtaposing strategic value and uniqueness, Lepak and Snell propose four patterns of employment arrangements and HR configurations: Knowledge-based (associated with commitment-based HR systems), job-based (associated with productivity-based HR systems), contractual work arrangements (associated with compliance-based HR systems), and alliances/partnerships (associated with collaborative HR systems). In an empirical study of 148 US-based firms, Lepak and Snell (2002) confirmed that firms allocated jobs across these four employment arrangements based on these two job characteristics. The authors also found that HR configurations vary between employment arrangements.

This observation has led to a large body of prescriptive advice to use HR differentiation to improve firm performance (e.g., Lepak, Takeuchi, & Snell, 2003; Lepak, Taylor, Tekleab, Marrone, & Cohen, 2007; Stirpe et al., 2014). For instance, Batt (2000) noted that there is a variation within firms in the use of high-involvement work practices (HIWPs) across the various employee groups within firms. Using data from a sample of 354 call centres within the United States' (U.S) telecommunications industry, Batt found that firms can segment

customers by their demand characteristics via matching the complexity and potential revenue stream of the customer to the skills of employees and the HR system that shapes the customer-employee interface. The study revealed that service firms are likely to use HIWPs for employees who serve higher value-added customers as opposed to those who serve 'low' value customers. Similarly, a more recent study, conducted by Schmidt, Pohler, and Willness (2018), found that differentiation in human capital was associated with firm performance. However, despite the work linking HR differentiation with firm performance, two key areas have remained largely unexplored.

First, apart from demonstrating the *usefulness* of the HR architecture framework as a way of understanding firm performance, few studies have sought to demonstrate or empirically test how the HR architecture aligns or integrates with contextual factors. This omission limits theoretical and empirical development within this research space. For instance, Jackson, Schuler, and Rivero (1989) found several contextual factors, including innovation strategy, technology, industry sector, organisational structure and union presence to influence the HR practices adopted for managerial and hourly employees. For their part, Toh, Morgeson, and Campion (2008) found that the HR practices adopted by an organisation are influenced by an organisation's contextual factors, such organisational structure, unionisation and strategy (among others). This finding suggests that contextual factors may play a significant role in shaping the nature of HR practices and employment arrangements used by firms. Therefore, I propose that aligning the HR architecture with contextual factors has the potential to transform the HR architecture into a high-performance system (Posthuma, Campion, Masimova, & Campion, 2013). Indeed, studying this question is particularly important in view of the dynamism of the external environment, whereby environmental constraints are important for understanding employment/HR systems. Among these variables of interest in terms of shaping HR/employment systems are the potential role of institutional and bureaucratic pressures (Osterman, 1987, 1994, 2011), dynamic market pressures (Kalleberg, 2001; Sloane, 1989; Wright & Snell, 1998) and competitive strategy (Becker & Huselid, 2006; Becker et al., 2009; Huselid & Becker, 2011).

Second, the HR architecture framework and differentiation literature have largely viewed differentiation from a managerial perspective, with little concern for understanding how employees might respond to HR differentiation. This is a significant omission given the

general recognition in the HR literature that employees are central actors in the employment relationship (Guest, 1999; Jackson, Schuler, & Jiang, 2014), and that their attitudes, intentions and behaviours generate an important set of mediating mechanisms in the HR-performance relationship (Cf. Kehoe & Wright, 2013; Lepak, Marrone, & Takeuchi, 2004; Nyberg, Moliterno, Hale, & Lepak, 2014; Wright, Gardner, Moynihan, & Allen, 2005). Therefore, attempts to explain how differentiated HR systems influence firm performance, without considering employee outcomes, ‘is akin to putting the cart before the horse’ (Lepak, Liao, Chung, & Harden, 2006, p. 220). Even in the case of ‘high-road’ or ‘high-quality’ systems such as high-performance work systems (HPWS) where HR practices ‘operate to influence employee abilities, motivation, and opportunities (AMO) in a potentially harmonious manner’ (Jiang et al., 2012b, p. 74), less research has examined what HPWS mean for employees’ experience of work (Harley, Sargent, & Allen, 2010). Moreover, studies that have sought to investigate the consequences of HPWS for employees, have shown mixed results (e.g., Danford, Richardson, Stewart, Tailby, & Upchurch, 2008; Harley, 2002; Takeuchi, Chen, & Lepak, 2009)—with some showing negative, some positive and some no apparent effect at all. For this reason, Harley et al. (2010) argued that examining employee experience of HR systems such as HPWS provides new possibilities for understanding how HPWS actually ‘work.’ Similarly, in the context of HR differentiation where employees are subject to different HR practices, management scholars have observed that there are likely to be variations in employee experiences with HR systems (Lepak & Snell, 2002; Liao, Toya, Lepak, & Hong, 2009). In fact, various theoretical perspectives would predict that feelings of inequity might arise, leading to mixed employee reactions (e.g., Cooper, 2008; Gelens, Dries, Hofmans, & Pepermans, 2013; Lepak & Shaw, 2008), which in turn, may have implications for firm performance (Marescaux et al. 2013). This stance is further reinforced by several other authors (Gelens et al., 2013; Kinnie, Hutchinson, Purcell, Rayton, & Swart, 2005; Liao et al., 2009). As such, I believe that the link between HR differentiation and firm performance is incomplete and potentially problematic.

Therefore, this thesis addresses two primary research questions, each of which provided the motivation for an empirical study. First, when/under what conditions are firms likely to use differentiated HR systems? Second, what does differentiation mean for employees and their experience of work? In **Study 1**, I developed and tested a conceptual model of the antecedents of differentiation. While this model was based on the HR architecture model

developed by Lepak and Snell (2002), I extended their work by identifying contextual factors that have been theorised to influence variability in employment arrangements. Then, in **Study 2**, I developed and tested a companion model that examined how employees respond to HR differentiation.

1.2 Purpose of the Study

To date, there has been insufficient research that has examined how contextual factors influence employment arrangements, which consist of different sets of HR practices. If contextual factors do indeed make a difference in a firm's use of HR practices (e.g., Toh et al., 2008), it would be theoretically and pragmatically important to know the extent to which these factors might shape employment arrangements. Moreover, considering that employees are each managed with a distinct set of HR practices, understanding how such 'differentiated' HR practices might shape employee attitudes, intentions and behaviours is critical to gain further insights into how differentiated HR practices can improve firm performance. Therefore, the purpose of this study was two-fold: First, to explore the conditions under which firms might use differentiated HR systems, and second, to examine how employees might respond to HR differentiation. Results from this study are expected to shed further light on how to develop effective HR strategies that are beneficial for organisations and employees.

1.3 Significance of the study

Despite the need for HR differentiation as a strategic tool for boosting firm performance and creating competitive advantage, there has been very little effort to examine contextual factors likely to shape intra-organisational variability in the use of differentiated HR practices, or research into how employees might respond to differential treatment. Consequently, there is a call for theoretical refinement and the development of a comprehensive model of HR differentiation that can both provide more insight into HR differentiation and advise organisations about how to develop HR strategies and systems that are beneficial for organisations and employees. Therefore, on a theoretical level, one intended outcome of the study is to identify and examine how contextual factors predict intraorganisational variability in employment/HR systems. On a theoretical level, a second intended outcome is to investigate the mechanisms through which employees might respond to HR differentiation. On a managerial level, findings of the study will be beneficial for policy-makers, businesses,

employees and their representatives via the provision of an evidence-based case for facilitating and adopting an effective HR differentiation approach. Finally, a further concern in the research is the advancement of strategic HRM scholarship by providing insights regarding ways through which trade-offs between management and employees can be achieved.

1.4 Antecedents of Differentiation

Researchers frequently note that organisations use differentiated HR systems (e.g., Becker et al., 2009; Boudreau & Ramstad, 2005, 2007; Collings, 2014; Collings & Mellahi, 2009; Huselid, Beatty, & Becker, 2005; Lepak & Snell, 1999, 2002). Whilst this observation has spurred a growing interest in the phenomena, earlier studies on internal labour market segmentation (e.g., Doeringer & Piore, 1971; Reich, Gordon, & Edwards, 1973) and the flexible firm (e.g., Atkinson, 1984; Miles & Snow, 1984), all demonstrate that differentiation is a long established approach to HRM and to structuring employment systems.

For example, in related studies, Kalleberg (2001, 2003) sought to demonstrate how firms segment their employees to achieve organisational goals and objectives using functional and numerical flexibility. Drawing on the distributions of the labour force statistics in the United States (U.S) between 1995 and 1997, Kalleberg (2003) showed how employers have sought to reorganise their employment arrangements to achieve desired firm outcomes. He demonstrated that firms increasingly use organisational insiders (that is, regular, full-time employees) and outsiders (contingent workers, like part-time, contractors and temporary workers) to achieve functional and numerical flexibilities, respectively. According to Kalleberg, standard employees share an on-going relationship with their employers and receive ‘high road’ HR investments, such as training and development and economic incentives, while nonstandard employees have a limited employment relationship with their employers and only receive ‘low road’ HR investments. Following these studies, other researchers have also shown within-firm variations in the use of HR practices, owing to the nature of human capital characteristics of the different categories of jobs (e.g., Chow, Huang, & Liu, 2008; Lepak et al., 2003; Lepak et al., 2007; Stirpe et al., 2014).

Despite the prominence of this work, there is little understanding about other potential intervening steps or determinants of differentiation beyond a small number of specific job

characteristics. To fully understand the scope of effective HR investments, there is a need to expand strategic HRM to recognise that contextual factors can influence variability in employment arrangements. This expansion will allow us to determine what types of jobs are important, and thereafter, inform the design of effective employment/HR systems that are idiosyncratic for organisations. For instance, Siebert and Zubanov (2009) found that ‘commitment and secondary work systems can coexist within the rank-and-file workforce of an organization’ (p. 311). The authors also noted that even within ‘nonstandard’ work arrangements involving the use of contract and/or casual employees, there could still be significant differences in work systems adopted within each organisation. Using data from 420 establishments in the United States (U.S), Lepak et al. (2007) found that industry membership exerted a unique impact, such that core employees received greater exposure to high-investment HR systems (HIHRs) than support employees. These examples suggest that contextual factors may influence variability in HR/employment systems, yet research on how these contextual factors integrate with employment arrangements is still limited. To this end, there is currently a significant gap in our knowledge regarding how we can establish differentiation as a strategic tool and value-added term for creating competitive advantage. Therefore, this study called for a new perspective to understand how contextual factors shape employment arrangements to offer potential advances in developing effective HR/employment systems. Accordingly, the above arguments led to the following research question:

When/under what conditions do organisations differentiate their workforce (Study 1)?

Several theories were used to justify the hypothesised relationship, including Internal Labour Market theory (Osterman, 2011), the Flexible Firm model (Atkinson, 1984), the Job-Based model (Becker & Huselid, 2006) and the HR architecture framework (Lepak & Snell, 2002). I framed my investigation in two parts:

- (i) The first part of my research sought to investigate how job characteristics shape employment arrangements, including knowledge-based, job-based alliances and contractual employment arrangements.

- (ii) The second part investigated how a firm's competitive strategy (cost minimisation and differentiation strategy) influences intraorganisational variability in the strategic value and uniqueness of human capital associated with jobs, and how contextual factors, including union density, management-employee cooperation, environmental dynamism and technological opportunities interact with job characteristics to predict employment arrangements.

Overall, this approach was a response to calls in the literature to examine the conditions under which firms might use differentiated HR systems to design effective HR systems, policies, procedures and practices.

1.5 Employee Responses to Differentiation

As highlighted previously, differentiation has largely been viewed from the organisational or employers' perspective, with little understanding of how it might shape employees and their attitudes towards work and management. For instance, the HR architecture framework (Lepak & Snell, 2002) argues that HR differentiation allows organisations to select HR practices that are applicable to particular jobs and/or employees. By segmenting employees, the HR architecture framework has implicitly viewed employees as automatons, with no agency and/or desires to either scrutinise or be concerned about the legitimacy and/or consequences of HR differentiation. Besides, while there are a few studies that have sought to examine how HR differentiation might influence employee outcomes, their approach has also been to assume that differentiation only occurs across jobs or different groups of workers (e.g., Clinton & Guest, 2013; Schmidt et al., 2018). While this literature has offered some insights on the effects of HR differentiation on employee groups, it has not fully explained how individual employees might respond to HR differentiation. Accordingly, the inadequate examination of individual employees is a key limitation in the HR differentiation literature because employees are important stakeholders in the employment relationship, and their attitudes, intentions and behaviours are the more proximal variables in the HR-performance link. Moreover, situations that foster differential employee treatments, such as HR differentiation, are likely to trigger social comparisons. As such, I raised the following research question:

What does differentiation mean for employees and their experience of work? (Study 2)

Consistent with Marescaux, De Winne, and Sels (2013), I argued that HR differentiation leads employees to compare their situation with co-workers to assess the ‘favourability’ of the HR practices that define how they work and are treated as employees and groups. Thus, ‘perceived favourability of HR practices’ (hereafter, referred to as PFHRPs) is an important indicator of employee responses to HR differentiation. To model how PFHRPs influenced employee attitudes, I drew on the Social Exchange Theory, proposed by Blau (1964), and I integrated it with Social Comparison Theory (Wood, 1989). The study was undertaken in three parts: First, I proposed and tested the direct relationship between PFHRPs and employee attitudes, including job satisfaction, affective organisational commitment, job engagement and turnover intentions. Second, I examined the partial mediating mechanisms of perceived organisational support, perceived distributive justice and perceived procedural justice in the relationship between PFHRPs and employee attitudes. Third, I investigated how leader-member exchange (LMX) may moderate the relationship between PFHRPs and perceived organisational support, perceived distributive justice and perceived procedural justice. In sum, by examining what differentiation means for employees, this thesis develops knowledge that is useful for the implementation of HR practices that facilitate positive work-related attitudes and intentions, and ultimately, organisational success.

1.6 Research Method

Before undertaking any investigation, choosing the appropriate paradigms and methods of inquiry is essential to yield the highest quality of data obtainable within a given research context. As such, this section describes the research philosophy, study design, target population, sampling process, procedures for data analysis and data presentation, and the ethical considerations that were considered.

1.6.1 Research Philosophy

Research philosophy or paradigm has been understood as ‘the consensual set of beliefs and practices that guide a field’ (Morgan, 2007, p. 49). Certainly, several researchers stress the importance of situating or locating one’s research within a given research philosophy or research paradigm to avoid jeopardising the quality of research (e.g., Doyle, Brady, & Byrne,

2009; Easterby-Smith, Thorpe, & Lowe, 2002). Specifically, Easterby-Smith et al. (2002) highlight three key reasons why understanding research philosophy is important:

- i. It helps the researcher to refine, specify and clarify the research designs to be used for the study.
- ii. The knowledge of research philosophy enables the researcher to evaluate the different existing methodologies and ensure that there is methodological fit between research philosophy and research design adopted for the study.
- iii. It enables the researcher to be creative and innovative in the use of research design within or outside a researcher's experience.

Nevertheless, to develop a philosophical position, Burrell and Morgan (1979) argued that a researcher needs to consider several core assumptions about ontology, epistemology and methodology. Holden and Lynch (2004) assert that whatever the philosophical stand, it is essential that the researcher ensures that ontological, epistemological and methodological assumptions are consistent with each other.

This study was underpinned by a realist philosophy. According to Sayer (1992), some of the main claims of realism include the following:

- i. The world exists, independent of our knowledge of it.
- ii. The world is stratified and differentiated in terms of both objects and events.
- iii. Our knowledge of this world is fallible and is theory-laden.
- iv. There are cause and effect relationships that exist in the natural and social order. Since what we claim to know is only an approximation of reality, every logical new inquiry brings us closer to reality.

To summarise, realism starts with an ontological position that the world is objective and concrete (Easterby-Smith et al., 2002), and proceeds by developing only 'warranted arguments' (Olsen, 2014, p. 103). By 'warranted arguments,' reference is made to the development of logical propositions from existing theories that seek to explain the nature of events and/or objects. I take a realist position by assuming that differentiated HR practices exist (as an objective reality) and that this phenomenon has causes (antecedents - **Study 1**)

and effects (**Study 2**). However, while I view social reality as existing outside of my own consciousness of it, I do not suggest universality in the understanding of relations between things across time, context and space. This is because ‘reality’ can be examined from various perspectives and/or contexts (Maxwell, 2012). Consequently, my thesis draws from specific theoretical frameworks to understand the antecedents and consequences of HR differentiation.

1.6.2 Study Design and Target Population

A study or research design refers to the plan of action or process meant to empirically validate a knowledge claim (Zikmund, Babin, Carr, & Griffin, 2013). It helps a researcher to collect, present, analyse and interpret findings accordingly. Given my realist philosophical position that the world is relatively unchanging, I used a survey design (i.e. cross-sectional survey design) to collect data for both **Study 1** and **Study 2** and adopted appropriate parametric tests to measure the relationships between variables and test the hypotheses formulated a priori. Specifically, I used Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA) to test **Study 1** hypotheses. **Study 2** hypotheses were examined using Ordinary Least Squares (OLS) regression (popularly referred to as Preacher and Hayes (2008) asymptotic and resampling strategies) to assess and compare indirect effects.

Study 1 focused on establishments within the Australian manufacturing sector. I focused on establishments as opposed to companies for two main reasons: (1) establishments as ‘stand-alone’ business units, tend to have fewer strategies than companies, which tend to have several different strategies across various units (Lepak et al., 2007); (2) establishment surveys tend to have higher reliabilities because managers are more likely to be familiar with the employment and HR systems implemented due to their relatively smaller sizes (Batt, 2002; Gerhart, Wright, & McMahan, 2000; R. Takeuchi et al., 2009).

Study 2 targeted medium and large enterprises within Australia. According to the Australian Bureau of Statistics (ABS, 2002), medium enterprises consist of 20-199 employees, while large enterprises consist of 200 plus employees. Focusing on medium and large enterprises removes the possibility of including very small firms that might not have formal HR procedures (Huselid & Becker, 1996; Lepak et al., 2003). The response rates for **Study 1** and **Study 2** are detailed in the method section of each study (i.e. Chapters 3 and 4, respectively).

To improve upon the study design, academic experts evaluated the survey for its readability, understandability, time commitment, and contextual accuracy. The academic experts also suggested that the 15-50 minutes' time required to complete the questionnaire was sufficient. Moreover, all the survey instruments included items used from measures that has been applied in previous studies and published in reputable journals.

It is also important to note that while a matched sample would have been advantageous for making stronger inferences about cross-level effects (Wright & Nishii, 2007), this was not possible due to practical reasons—particularly time and financial constraints. So, a decision was made to collect data for each study from independent samples.

1.6.3 Sampling Techniques and Sample Size Selection

Sampling involves taking any portion of a target population or universe as its representative (Kerlinger, 1986). Thus, a sample is a subset of a population. Generally, probability sampling methods are appropriate for a survey research design due to its aims to estimate the parameters of a population (representativeness), establish relationships, and/or test hypotheses (Whiteley, 2002). I used simple random sampling and stratified random sampling for **Study 1** and **Study 2**, respectively. Full details of these procedures can be found in the methods section of each study.

However, before carrying out sample selection, I sought to establish the level of analysis for each study. According to Klein, Tosi, and Cannella (1999), sensitivity to the levels at which the constructs operate is important to avoid drawing wrong conclusions (See also Klein, Dansereau, & Hall, 1994). Therefore, once the researcher has identified the level of analysis, he/she should then collect data in conformance with that identified level of analysis.

The primary unit of analysis for **Study 1** was employment arrangements. The variables examined in this study, including strategic value and uniqueness of human capital associated with jobs, union density, management-employee cooperation, competitive strategy, environmental dynamism and technological opportunities, require higher levels of abstraction by the workplace's decision-makers. In fact, variables with higher levels of abstraction require decision-makers who are actively involved in the analysis of the business environment and determination of the required set of HR practices (Colbert, 2004; Wright &

Nishii, 2007). Therefore, the sample for **Study 1** was collected from unit heads, operations and/or HR managers because they were in a better position to understand how jobs are created and how jobs are allocated across the different employment arrangements (Lepak & Snell, 2002; Lepak et al., 2007).

Given that the study uses ANCOVA and aims to examine four employment arrangements, 50 observations per employment arrangement (i.e. $N = 200$) would be adequate to generate statistical power of .90 (Borm, Fransen, & Lemmens, 2007). However, considering that the use of key informants usually registers low response rates (Schilke, 2014), aiming for a sample of between 1,000 – 1,500 seemed prudent, because a response rate of 13% – 20% would generate sufficient statistical power to allow for the testing of hypotheses.

For **Study 2**, the unit of analysis was the individual level. As such, data was obtained from employee self-reports. This process was used because the study was concerned with examining employee perceptions of differential treatment and assessing whether the treatment was favourable or not, as indicated by PFHRPs.

Since it was envisaged that data for **Study 2** would be analysed through structural equation modelling (SEM) and OLS regressions, I sought to ensure that I obtained an adequate sample size. The data was expected to be normally distributed, with 60 observed variables in total. Based on Bentler and Chou (1987), who suggested that a ratio as low as 5 cases per observed variable is sufficient for normally distributed data whose latent variables have multiple indicators, I would require a sample size of at least 300. However, since the widely accepted rule of thumb is at least 10 cases or observations per indicator variable to obtain acceptable statistical power (Nunnally, 1967; Wolf, Harrington, Clark, & Miller, 2013), I would require a sample size of at least 600. Moreover, given that ‘returns of less than 40 or 50 percent are common’ in mail surveys (Kerlinger, 1986, p. 380) and that ‘online surveys are much less likely to achieve response rates as high as surveys administered on paper’ (Nulty, 2008, p. 302), I initially sought to contact between 1,000 – 1,500 employees across several industry sectors. A response rate of at least 40% would provide a sample that was large enough to use SEM as the primary approach for statistical analysis, and it would also have acceptable generalisability and statistical power.

1.6.5 Data Collection Strategies

Data for the study was obtained through structured surveys administered on my behalf by two commercial research companies. The contracted vendors were expected to provide me with bi-weekly fieldwork reports concerning the project's progress.

Study 1 was a telephone-based survey. Participants were asked to indicate the distribution of their workforce in the various job categories within their respective workplaces and indicate other characteristics of their workplaces, including human capital strategic value and uniqueness of the various employee categories, union density, management-employee cooperation levels, competitive strategy, environmental dynamism and technological opportunities. The estimated time commitment from the participants was between 15 – 20 minutes.

Study 2 was an online survey administered through the online survey platform, Qualtrics. Participants were asked questions about the HR practices they were subject to and were requested to make comparisons with their colleagues to capture PFHRPs. They were also asked to rate their levels of job satisfaction, affective organisational commitment, job engagement, turnover intentions, perceived distributive justice, procedural justice, organisational support and LMX. The estimated time commitment from the participants was between 15 – 20 minutes. Copies of the survey instruments used in the two studies are attached in the appendices (See Appendices 1 and 2).

Generally, the items I included in each survey were closed-ended (forced response items), with very few open-ended questions. In fact, the open-ended questions mainly sought to elicit demographic information from respondents, such as age, gender and job title. Knowing the distribution of the sample's demographic characteristics helps to determine how representative the sample is and allows one to control for them. Multiple choice questions were employed with Likert Scales so that respondents could indicate the *intensity* of their attitude towards each aspect of the questionnaire. This process was meant to help respondents make fine distinctions in their perceptions. The structuring of the questionnaire was such that biographic information was sought last. This was done for two reasons: First, scholars argue that demographic information might influence the way respondents might respond to other parts of the survey – a phenomenon they refer to as 'stereotype' bias. Therefore, placing

demographic questions at the end of the survey reduces this ‘stereotype’ bias. Second, respondents are more likely to lose interest in the survey after a while due to respondent ‘fatigue’, and so they might not answer the questions at the end of the survey. As such, placing the demographic questions at the end of the survey is more reasonable (unless the demographic questions also play an important role in the survey).

1.6.6 Ethical Considerations

Before starting data collection, I sought ethics approval from the Ethics Committee of the Faculty of Business and Economics at the University of Melbourne. On receipt of the ethics approval, all the participating establishments and respondents were contacted via a letter outlining my identity, the aims and purpose of the study, the data collection methods and time commitment for participants. Anonymity and potential benefits for the establishments were also outlined.

As required by the Human Ethics Committee of the University of Melbourne, I prepared a Plain Language Statement (PLS) that was distributed to all potential respondents who were invited to participate in the study. This statement explained the nature of the study, including persons whom participants can contact for further information, procedures used and details about how the results of the study will be used. Participation was completely voluntary and consent was implied through participation in the survey. The potential benefits were also outlined. Although there were no expected risks involved in participating in the study, respondents were reminded that they nevertheless reserved the right to ask questions and withdraw from participation at any time, without penalty. Participants’ responses were confidential and anonymous.

Although the surveys for both **Study 1** and **Study 2** were administered by independent research companies, these vendors were contracted in accordance with the University’s procurement procedure. Moreover, they were engaged based on the quality of their proposals for carrying out the fieldwork, relevant qualifications and experience.

I provided a copy of the approved ethics protocol and ensured that the contractors understood their responsibilities arising from the protocol. The contract arrangement, which the contracted vendor signed, included a clearly defined section on the requirement to meet

ethical standards, set out by the University's Human Ethics Guidelines and the National Statement on Ethical Conduct in Human Research.

The completed research materials have been stored in locked storage cabinets in compliance with the university requirements, and the dataset can only be accessed by me. I have and will continue to follow ethics procedures pertaining to academic writing and publishing.

1.7 Scope and Limitations of the Study

The study was divided into two models, representing two distinct studies. The first model (**Study 1**) sought information on the conditions under which firms differentiate their workforce. It examined human capital strategic value and uniqueness and several contextual factors, including firm strategy, levels of management-employee cooperation, union density, technological opportunities and environmental dynamism. However, social, cultural or political impacts were not the focus of the research. Moreover, the study was conducted across establishments with at least 20 employees (and above) within the Australian manufacturing industry. Focusing on one industry (in this case, manufacturing) allowed me to control for several unobservable variables that vary across several industries. The second model (**Study 2**) sought to investigate how employee perceptions of differential treatment shape their attitudes and intentions towards the organisation. Specifically, the study garnered data on PFHRPs, job satisfaction, affective organisational commitment, job engagement, turnover intentions, LMX, perceived organisational support, distributive justice and procedural justice. The study obtained data from employees across all the nineteen major industries listed in the ABS to allow for greater generalisability of findings. Research on other possible employee attitudes and behaviours, such as employee trust, voice and organisation citizenship behaviours, was beyond the scope of this study. It is also important to note that this study focused on employee perceptions. As such, objective data was not sought.

However, while the study was designed to address some clear questions with the aim of filling identified gaps in our knowledge, there are limitations. Regarding **Study 1**, for instance, data was obtained from only one key informant in each establishment. Therefore, it is possible that the results are inflated by single-source bias. Second, while the main purpose of this study was not to explore the effect of the social, cultural and political variables on

employment arrangements, we cannot rule out the possibility that some social, cultural and political factors might have influenced respondents' perceptions in various ways. Moreover, these factors were not captured and controlled for during the analyses. Third, the findings of the study are only applicable to industries within the manufacturing sector, which greatly differ from service industries.

Regarding **Study 2**, the cross-sectional nature of the study implies that the direction of effects can only be argued theoretically rather than empirically tested. Reverse causality is a possible limitation. Second, while the study sought information concerning employee perceptions, we must be cautious about assuming that these subjective assessments reflect objective reality. Third, Common Method Variance (CMV) might have influenced the findings since data was sought from a single source (i.e. employees). Fourth, the study also assumes that differentiating all HR practices has similar effects, which may not necessarily be the case.

1.8 Overall Contributions of the Study

Overall, this study makes significant theoretical and empirical contributions to knowledge and has several important practical and managerial implications for organisations. Theoretically, the two studies make micro and macro-level contributions. At the macro level, **Study 1** extends previous work on differentiation by articulating contextual factors that are likely to predict intraorganisational variability in employment/HR systems. Drawing on theories most relevant in understanding employment systems, including the Internal Labour Market theory, the Flexible Firm model, the Job-Based model and the HR architecture framework, I identify and test how several contextual factors, including firm strategy (i.e. cost and differentiation strategies), union density, management-employee cooperation levels, environmental dynamism and technological opportunities, interact with human capital characteristics associated with jobs to predict employment arrangements. In doing so, the study provides additional insights into ways through which effective employment/HR systems can be designed.

At the micro-level, **Study 2** underscores the importance of employee agency by examining the underlying mechanisms through which employees might perceive and respond to within-job differential treatment. Previous work has theorised that differentiation has the potential to create positive, neutral or even negative employee reactions due to differential employee

treatments (Gelens et al., 2013; Marescaux et al., 2013). As such, a ‘new focus on workforce differentiation’ that seeks to address fairness issues, was necessary (Huselid & Becker, 2011, p. 426). To do so, I drew from social exchange and social comparison theories to demonstrate psychological and social mechanisms through which employees might respond to HR differentiation. The findings support my propositions.

Practically and at the macro-level, **Study 1** provides compelling evidence of the importance of taking contextual factors into consideration when designing employment arrangements. Therefore, rather than view some employment arrangements as more important than others, organisations should develop their own organisational ‘architectures’ based on their own unique contextual factors. At the micro-level, the findings of **Study 2** have the potential to inform HR policy and practice regarding differential employee treatments. The findings of the study suggest that employees draw meaning based on what they receive from the organisation and their subjective assessments of how they are treated relative to their co-workers. Overall, this study provides knowledge to help determine how differentiation can lead to beneficial and effective HR systems.

Managerially, this model may be used by managers and human resource professionals as both a guide and a strategic tool that they may use to design appropriate employment arrangements. It challenges the commonly held view of benchmarking and suggests that manufacturing organisations are better off designing their own unique employment arrangements based on differences in business contextual environments leading to a greater need for HR architecture differentiation within firms (Becker & Huselid, 2006). For instance, firms with higher levels of unionisation may need to employ job-based employment arrangements as opposed to those with few or no unionised workers. Second, the findings of this study suggest that improving employee perceptions of HR practices may indeed translate—directly and indirectly into improved levels of job satisfaction, job engagement, affective organisational commitment and lower levels of turnover intentions. However, while employee attitudes are affected by perceptions of ‘favourability’, perceptions are largely based on the principle of equity (Adams, 1965). Therefore, ensuring equitable distribution of organisational resources might be helpful in creating desirable work-related outcomes. More importantly, the findings also demonstrate the utility of a high-quality LMX as a means of improving employee fairness perceptions, as well as generate more positive employee

outcomes. That is, organisations should aim to build close-knit relationships with their employees and also between employees and their immediate supervisors. This can be done through team building activities, use of ‘open door’ policy, among others (Wayne, Shore, Bommer, & Tetrick, 2002).

1.9 Conclusion

This chapter provided a brief background about issues pertaining to the antecedents of differentiation and their impact on employee perceptions and their experience of work. The purpose, limitations, scope and overall contributions of the study were highlighted. The chapter also provided a general framework that was used to address the research questions raised, including the research philosophy, research design, target population, sampling techniques and the ethical considerations that were upheld during the collection, analysis, interpretation and reporting of the study findings.

This thesis is structured into five chapters, as follows:

Chapter One provided a brief background to the study. It introduced the broader theoretical and methodological background on which the study is built.

Chapter Two is a review of theories and studies relevant to understanding differentiation. Specifically, I review the relevant explanatory theories and frameworks useful for understanding the antecedents and implications of HR differentiation for employees. Based on that, the most pressing gaps in the literature are identified, and research questions are posed accordingly.

Chapter Three presents the theoretical background and development of hypotheses relating to **Study 1**, which seeks to examine the conditions under which firms used differentiated HR systems. It also details the research methods and presents the results of the study.

Chapter Four addresses employee responses to HR differentiation, which constitutes **Study 2**. It also describes the methods used and presents the study’s results.

Chapter Five presents a review of the key findings and overall implications of the study in relation to the two broad research questions and hypotheses. Thereafter, in light of the study's strengths and limitations, a future research agenda is proposed.

The following section, **Chapter Two**, will focus on an in-depth analysis of the literature related to the study. Combining insights from several conceptual and theoretical frameworks, Chapter Two argues for the need to investigate contextual factors that are likely to shape intraorganisational variability in employment arrangements and to examine how employees might respond to HR differentiation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In Chapter One, I outlined the general context and provided an overview of the aims of my research and the two studies that make up this thesis. I also noted a large body of research that argues the use of differentiated HR systems makes good business sense. The HR architecture provides a good example of this argument, in that firms use differentiated HR systems to reflect the different job characteristics that exist within firms. However, a closer look at theoretical and empirical studies regarding HR differentiation reveals that the HR architecture framework does not adequately account for: 1. Contextual factors arising from institutional and dynamic business pressures. 2. Employee reactions to HR differentiation. Understanding these two issues is critical because this process may guide future implementation of effective HRPs for both organisations and employees.

In this chapter, I report a review of relevant theories and previous studies related to differentiation. The discussion about strategic Human Resource Management (HRM) and firm performance is pivotal for this section because it highlights the importance of HR systems and sets the basis for a better understanding of how differentiated HR systems can be leveraged to improve firm performance. This analysis is followed by a discussion about the HR architecture model, as presented by Lepak and Snell (1999, 2002). Thereafter, I discuss the theoretical and empirical underpinnings of HR differentiation to guide the enquiry. To situate the current study within related literature, I undertake a multidisciplinary approach that draws on most relevant theories in understanding employment systems, namely, the Internal Labour Market theory, the Flexible Firm theory, Job-Based framework, the HR architecture framework, Social Exchange Theory and Social Comparison Theory. In doing so, the most prominent gaps in the literature are identified and research questions that this study seeks to answer are posed accordingly. Thereafter, the overall conceptual framework of the study is presented.

2.2 Strategic HRM and Firm Performance

Since HRM has been theorised to contribute to business success, there has been a sustained effort to make it an integral part of business strategy – hence the term, strategic HRM (Lengnick-Hall & Lengnick-Hall, 1988; Schuler & Jackson, 2007). By strategic HRM, reference is made to planned HR investments, deployments and activities that are geared toward the achievement of organisational goals (Wright & McMahan, 1992). Perhaps, a more elaborate definition is that of Jackson and colleagues who define strategic HRM as:

‘The study of HRM systems (and/or subsystems) and their interrelationships with other elements comprising an organizational system, including the organization’s external and internal environments, the multiple players who enact HRM systems, and the multiple stakeholders who evaluate the organization’s effectiveness and determine its long-term survival’ (Jackson et al., 2014, p. 2).

Over the course of the last half century, strategic HRM researchers have built a body of scholarly research that offers insights into the HRM – performance relationship (Jackson et al., 2014; Schuler & Jackson, 1987; Subramony, 2009). Dyer and Reeves (1995) highlight four major indicators of firm performance of concern from an HRM perspective:

- (i) HR *outcomes* (e.g., turnover, absenteeism and job satisfaction).
- (ii) Operational performance (e.g., productivity, quality and service).
- (iii) Financial performance (e.g., profits, return on assets (ROA)).
- (iv) Market performance (e.g., market share, stock value and shareholder returns).

The authors argue that HR practices influence HR *outcomes*, which consequently, shape operational, financial and market performance, respectively. Although there is consensus among strategic HRM scholars that the HR *outcomes*, including employee attitudes (e.g., job satisfaction, AOC, and turnover intentions), are indeed some of the more proximal variables in the HR-performance relationship (Boselie, Dietz, & Boon, 2005; Paauwe & Boselie, 2005; Rogers & Wright, 1998; Wright & Nishii, 2007), there are significant disagreements regarding how HR practices ultimately influence more distal dimensions of firm performance, such as profitability. For their part, Delery and Doty (1996) identify three

schools of thought that draw three different conclusions about the association between HR practices and firm performance: ‘universalistic’ (or best HR practices), contingency HR (best-fit-approach), and configurational HR approach.

The universalistic perspective assumes that there is an association or linear relationship between *best* HR practices and firm performance (Huselid, 1995). The protagonists of this HR approach suggest that since some HR practices are better than others, firms should adopt and implement those *best* HR practices because they are generalisable (Cf. Delaney & Huselid, 1996; Huselid, 1995; Lepak & Shaw, 2008; Osterman, 1982; Pfeffer, 1998). While the underlying assumption is that *best* HR practices will always produce superior firm performance, different authors stress different HRPs. For instance, Pfeffer (1994) identified several HR practices that are linked with ‘best practice’ HRM, including:

- (i) Employment security
- (ii) Selectivity in recruiting
- (iii) High wages
- (iv) Incentive pay
- (v) Employee ownership
- (vi) Information sharing
- (vii) Participation and empowerment
- (viii) Self-managed teams
- (ix) Training and skill development
- (x) Cross-utilisation and cross-training
- (xi) Symbolic equalitarianism
- (xii) Wage compression
- (xiii) Internal promotion

In a study of 590 US organisations, Delaney and Huselid (1996) only found three HR practices to be positively associated with firm performance, namely, selectivity in recruiting, training and incentive pay. Therefore, while certain HR practices might exhibit a stronger positive relationship with organisational performance, research on what constitutes *best* HR practices is remarkably mixed (Boxall & Purcell, 2003; Jiang et al., 2012a; Subramony, 2009). More importantly, this approach neglects the potential synergy or integration of HR

practices to achieve ‘equifinality’, whereby several combinations of HR practices may be used to achieve identical firm-level outcomes, such as improvement in organisational productivity and operational performance.

The contingency approach emphasises the *fit* between HR practices and the firm’s competitive strategy (Miles & Snow, 1984; Wright & Snell, 1991). Contrary to the *best* HR approach, which claims that there are generalisable *best* HR practices, the contingency approach refers to the theory of organisational strategy and then to the individual HR practices that need to be aligned with a firm’s strategy (Delery & Doty, 1996; Gomez-Mejia & Balkin, 1992; Lengnick-Hall & Lengnick-Hall, 1988; Ridder, Baluch, & Piening, 2012). Protagonists of the contingency approach argue that since different firm strategies require different employee role behaviours (e.g., Arthur, 1992, 1994; Porter, 1980, 1985), an organisation that adopts individual HR practices that *fit* or align with its competitive strategy, is likely to achieve higher levels of firm performance (e.g., Wright, 2008; Wright & McMahan, 1992; Wright, McMahan, & McWilliams, 1994). For example, Miles and Snow (1984) classified organisational strategies as ‘prospectors’, ‘analysers’, ‘defenders’ and ‘reactors’, with each strategy requiring different employee role behaviours, and hence, different HR practices. According to Miles and Snow, a firm pursuing a ‘prospectors’ firm strategy (typified by a constant search for new products and markets) will design HR practices that support behaviours required for innovation and creation of new products and market opportunities, such as risk-taking, teamwork, rigorous training and development. It is important to note that implicit in this approach (just like in the *best HR* approach) is the view that there exists a monolithic or ‘uniform’ set of workers. More importantly, although the contingency approach emphasises that business strategy primarily influences the choice of HR practices adopted in an organisation, a host of other contingencies have also been identified, including firm size, technology and industry (See Boxall & Purcell, 2003, 2008; MacDuffie, 1995; Youndt et al., 1996).

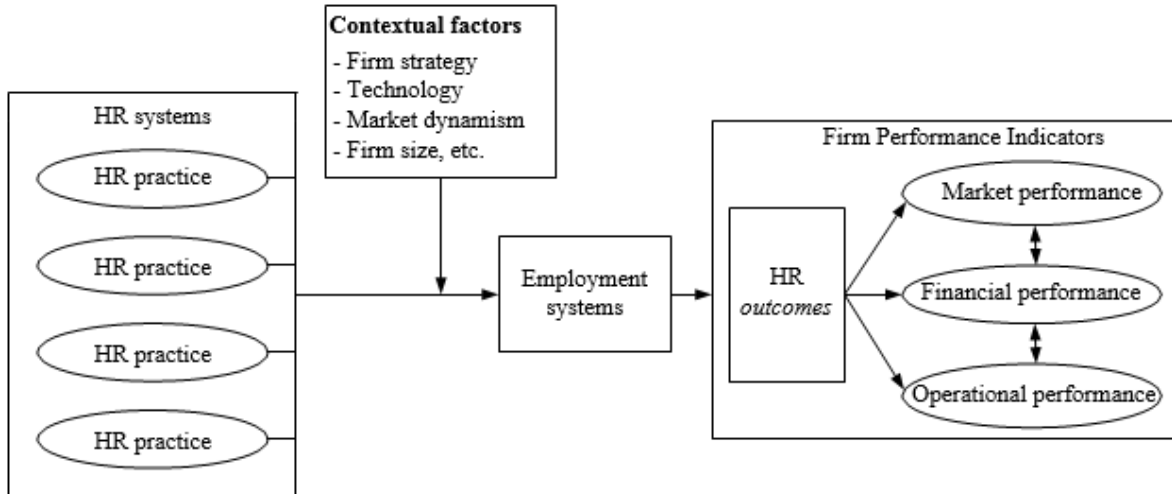
The configurational approach also posits that there is no one best way, and that there might be functionally equivalent bundles of HR practices that need to be simultaneously aligned, both internally and externally, to achieve better firm performance. According to Baird and Meshoulam (1988), firms need to ensure both external and internal *fit* to achieve higher organisational performance: External (vertical) *fit* involves the alignment of a firm’s HR

practices with the contextual factors (e.g., firm strategy), while internal (horizontal) *fit* involves the alignment of a firm's HR practices with one another so that they mutually reinforce. Central in this approach is the adoption of patterns or combinations of HR practices, also referred to as HR systems or HR *bundles* (MacDuffie, 1995; Ridder et al., 2012). Jiang et al. (2012b) argue that 'individual HR practices do not function in isolation but work in concert' (p. 73). The crux of this statement is that individual HR practices must be horizontally (or internally) aligned to the various HR practices to form HR *bundles* or systems that are mutually reinforcing to create synergy. For these scholars, higher business performance can be consolidated through combinations or configurations of HR practices aligned with the corresponding organisational contexts (e.g., Delaney & Huselid, 1996; Delery, 1998; Delery & Doty, 1996; Katou & Budhwar, 2006). As depicted in Figure 2.1, the configurational approach (which is the most expansive approach in trying to understand how effectively to implement HR practices) seeks to examine the complex interactions between *bundles* of HR practices and contextual, institutional and/or organisational factors, for the achievement of superior firm performance, including HR *outcomes*, operational, financial and market performance (Lepak & Shaw, 2008).

Consistent with the configurational approach to conceptualising HR systems, strategic HRM scholars have developed theoretical models of '*employment systems*.' For example, Delery and Doty (1996) propose two '*ideal type*' employment systems that require different configurations of HR practices: The '*internal system*'— typified by the existence of an internal labour market and the '*market type system*'— characterised by hiring from outside an organisation. Although the two ideal employment systems are polar opposites on a single continuum, Delery and Doty acknowledge that a series of effective hybrid employment systems can exist. Therefore, I argue that the existence of several employment systems or arrangements is a result of differences in employee categories or groups. In line with this model, a significant body of knowledge has been built that suggests that firms should use differentiated HR practices to manage the different categories of workers as demonstrated by the HR architecture framework. However, before narrowing down to HR differentiation as espoused by the proponents of the HR framework (Lepak & Snell, 2002), it is important to examine existing Industrial-Organisational (IO) Psychology literature to situate the current study. To do so, I now turn my attention to high performance work systems (HPWS), firm

performance and employee responses. The reason being that IO Psychology offer critical perspectives for understanding HR systems such as HPWS.

FIGURE 2. 1 Configurational perspective for the HR-performance relationship



Source: Adapted from Lepak and Shaw (2008)

2.3 High performance work systems, firm performance and employee responses

As highlighted by the configurational approach to understanding HR systems, one common approach by which Strategic HRM researchers have sought to explore the HR-performance link is by investigating the complex interactions between bundles (synergies) of HRM practices also known as HR systems and other contextual factors such as industry and firm strategy (Delery & Doty, 1996; MacDuffie, 1995). Generally speaking, the dominant theoretical paradigm, which provides a foundation for understanding HR systems is the Ability-Motivation-Opportunity (AMO) framework (Appelbaum, Bailey, Berg, & Kalleberg, 2000), which posits that employees’ ability, motivation and opportunities are key mechanisms through which HR practices influence firm performance (Crook, Todd, Combs, Woehr, & Ketchen, 2011; Jiang, Lepak, Hu, & Baer, 2012a). Jiang and colleagues noted that since “individual HR practices do not function in isolation but work in concert, and employees are exposed to multiple practices simultaneously”, it is important that these practices are synergistic if they are to contribute to firm performance (Jiang et al., 2012b, p. 73).

Overall, the mainstream theoretical model appears to suggest that HPWS enhance organisational performance by improving employee orientations towards work and management (Appelbaum et al., 2000; Becker & Huselid, 1998). While, at least from a managerial perspective, the idea that HPWS have a positive impact for employees in terms of skill development, motivation, job satisfaction and organisational commitment is hardly debatable (Harley, 2002), critical scholars argue that HPWS might in fact negatively impact employees by placing unnecessary burdens on them leading to job strain (Ramsay, Scholarios, & Harley, 2000). Therefore, while there appears to be a general consensus among mainstream management scholars that HR systems such as HPWS are positively associated with firm performance (Huselid, 1995), there are still problematic issues at the employee level—some studies show that HPWS positively impact employee outcomes (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Becker & Huselid, 1998), some studies have found a limited or no impact at all on employee outcomes (Harley, 2002) while others, a negative impact on employees in terms of work intensification and job strain (Ramsay et al., 2000). Therefore, attempts to link HR systems (e.g., HPWS) with firm performance without taking into account individual employee experiences are likely to be inadequate. This view is echoed by Harley, Sargent, and Allen (2010) who argued that rather than view HPWS as universally good or bad for organisations, it might be beneficial to assess circumstances in which particular employee outcomes arise.

Put differently, considering that the effects and/or impact of HR systems (such as HPWS) for employee outcomes could vary, understanding the causal processes through which employee outcomes arise becomes an important line of inquiry (Harley et al., 2010). To do so, I apply a positivist approach to a mainstream theoretical model by contending that psychological responses shape employee responses to work and management. To date, a range of mediating variables have been identified including perceived organisational support (Meyer & Smith, 2000), trust (Appelbaum et al., 2000) and a range of other attitudinal and behavioural variables including employee engagement (Alfes, Truss, Soane, Rees, & Gatenby, 2013b), job satisfaction, organisational commitment and organisational citizenship behaviour (Allen, Shore, & Griffeth, 2003; Kehoe & Wright, 2013; Kuvaas, 2008), among others. In this thesis, I identify perceived organisational support, distributive and procedural justice as key mediating variables (See Chapter Four for details). However, given that positivist research identifies several mediating variables as highlighted above, critics (e.g., Edwards, Bélanger,

& Wright, 2006; Harley, 2002; Ramsay, Scholarios, & Harley, 2000) argue that the bulk of this research is merely statistical work. That is, it seeks to reduce qualitative human experiences into merely quantified statistical figures, which fills gaps and advances theory in a very limited way, and leaves little room for other approaches. Caldwell (1980) for instance, argues that by mainly focusing on precision, causality and objectivity, positivism undermines creativity, reflexivity and human agency, which are also important forms of knowledge.

However, despite these criticisms, I still adopt a positivist perspective, which suggests that the social world exists objectively and that generalisable theoretical models can be developed to explain patterns, associations and/or relationships in the social world using quantitative data (Saunders, Lewis, & Thornhill, 2007). My choice of this perspective is due to three reasons. First, all approaches have limitations and biases (Greene, Caracelli & Graham, 1989), which I recognise. Second, the positivist approach allows us to build knowledge by testing hypotheses and making generalisations, provided that the sample is representative (Easterby-Smith, Thorpe, & Lowe, 2002) (such as the one in this thesis). Third, this approach allows us to know and/or understand what the patterns of associations are, before it would make sense to explore these patterns using alternative methods. In summary, my perspective assumes that differentiated HR practices exist (are an objective reality) and that they have causes (antecedents - Study 1) and effects (Study 2), which can be examined through relevant theoretical frameworks.

Finally, while I view social reality as existing outside of my own consciousness of it, I do not suggest universality in the understanding of relations between things across time, context and space. This is because ‘reality’ can be examined from various perspectives and/or contexts (Maxwell, 2012). Consequently, my thesis draws from relevant theoretical frameworks to understand the antecedents and consequences of HR differentiation. One well-established theoretical frameworks relevant for understanding HR differentiation, a key concern of this thesis, is the HR architecture framework first proposed and empirically validated by Lepak and Snell (1999, 2002), which I expound on the next sub-section.

2.4 The HR Architecture Model

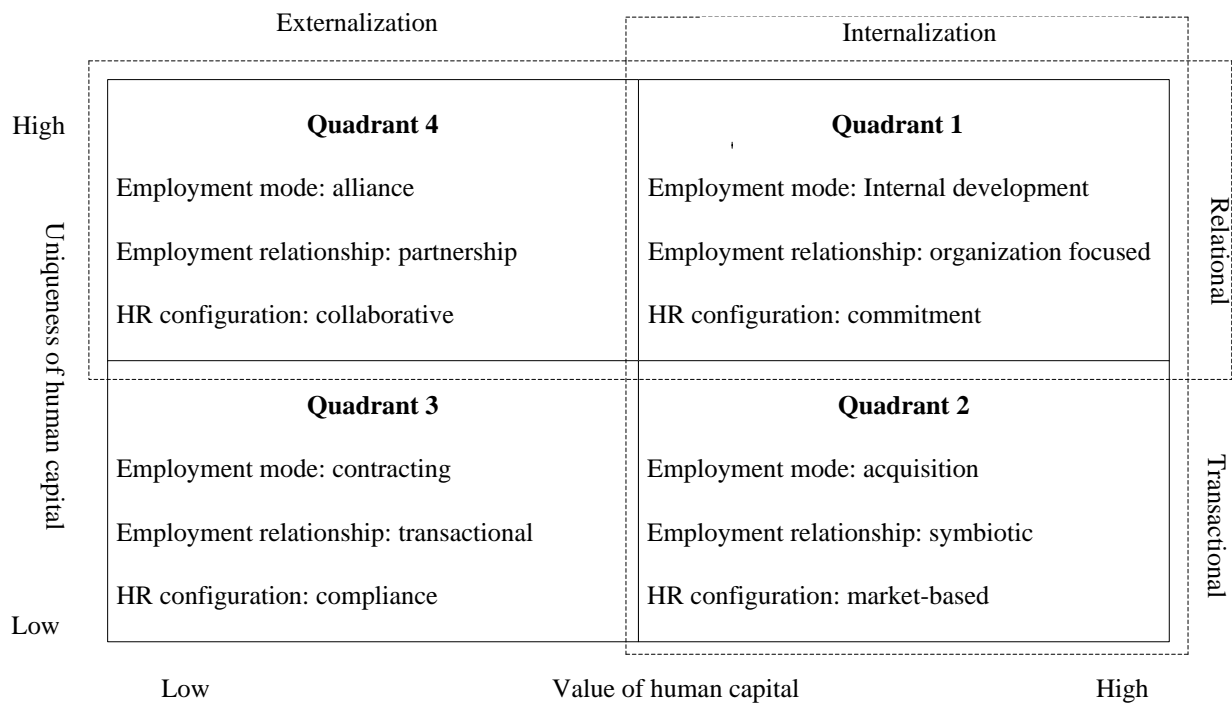
The HR architecture framework (Lepak & Snell, 1999, 2002), which is presented graphically in Figure 2.2, posits that there is no optimal HR architecture for managing all employees. The

authors build on the configurational approach to conceptualising HR systems by calling for a differentiated HR system to manage employees because there is no ‘uniform’ set of workers. For Lepak and Snell (1999, 2002), human capital strategic value and uniqueness are the two key criteria by which employees are allocated to the various employment arrangements for an organisation to achieve competitive advantage. Jobs associated with higher levels of ‘strategic value’ and ‘uniqueness’ should be filled with internally developed employees, while those jobs associated with lower levels of ‘strategic value’ and ‘uniqueness’ are filled externally. They define ‘*strategic value*’ of human capital as ‘its potential to improve the efficiency and effectiveness of the firm, exploit market opportunities, and/or neutralize potential threats’; and ‘*uniqueness*’ as the degree to which human capital is ‘rare, specialized and, in the extreme, firm-specific’ (Lepak & Snell, 2002, p. 519).

Through a consideration of how the strategic value and uniqueness of human capital required for a job combine, Lepak and Snell identified four archetypal employment arrangements, each reflecting different employment relationships and HR configurations:

- (i) Knowledge-based employment arrangements.
- (ii) Job-based employment arrangements.
- (iii) Contractual work arrangements.
- (iv) Alliances/partnerships.

FIGURE 2. 2 HR architecture framework



Source: Adapted from Lepak and Snell (1999, 2002).

Quadrant 1, which is *internal development* (or *knowledge-based employment*), consists of jobs with high strategic value and which require high levels of unique human capital. Workers employed in jobs that form this group are the most important in the organisation because they possess tacit knowledge, skills and abilities that drive the organisation’s core business processes and are a source of competitive advantage. Firms make a significant investment and maintain a long-term commitment to the development of these employees (Lepak & Snell, 2002). Building on the HR architecture, González and Tacorante (2004), argued that since the employment relationship in Quadrant 1 is organisation-focused, employees are more likely to receive extensive training and development programs. Quadrant 1 tends to involve rigorous selection, performance management systems that are aimed at employee development, loosely-defined jobs to allow for greater autonomy, adaptation and flexibility, and employees tend to be heavily involved in organisational decision-making. Indeed, the implementation of such HR investments (commonly referred to as commitment-based HR practices) has the potential to lead to the development of ‘committed, long-term employment relationships, as well as firm-specific human capital, vital for competitive advantage’ (Lepak & Snell, 1999, p.38).

Human capital in **Quadrant 2** is acquired from the labour market - hence the term *acquisition* is used to describe jobs allocated to this mode of employment. This Quadrant consists of jobs that have high strategic value, but low or limited uniqueness. Since they are valuable, firms have the incentive to internalise this employment. However, workers in this quadrant do not receive the same HR investment as those in Quadrant 1 because they could leave and transfer knowledge to rival firms (Lepak & Snell, 1999). Generally, workers in Quadrant 2 are autonomous professionals, like teachers or IT technicians who contribute to the success of the firm, but their skills are widely transferable and are also widely distributed in the labour market. Thus, they are hired to perform pre-determined tasks. Lepak and Snell argue that by acquiring valuable human capital that has been developed elsewhere, firms can reap immediate benefits. However, to successfully manage them, firms need to develop a symbiotic employment relationship with these workers that is based on mutual gains. This symbiotic relationship can be forged through the implementation of productivity-based HR configuration that includes payment of competitive market salaries, selective staffing (that is, the recruiting of competent employees through various selection tests), equity in compensation and using result-based performance appraisal systems.

Quadrant 3 represents *contract workers* whose jobs are neither strategically important nor unique. Hence, workers in such positions are often acquired through contracting, which is an external form of employment. Rousseau (1995) argues that due to the increase in supply of qualified employees and the numerous risks involved in employment contracts, firms can employ contract workers without jeopardising their competitive advantage. This is because contract employees are widely available, can be purchased cheaply, and can also be easily disposed. The employment relationship for contract workers is purely transactional. Most jobs in this bracket are often outsourced and are lower-level jobs, such as clerical, support and maintenance jobs. The HR configuration used is compliance-based, which includes compliance to the rules, regulations and policies of the firm. Training efforts (if any) are usually restricted to the provision of company information and/or correction of skill-deficiencies.

Quadrant 4 represents *alliance* workers who perform jobs that are high in uniqueness but are of insufficient strategic value to be employed internally. As much as they possess a unique set

of skills, their full-time employment cannot be justified due to their ‘limited value-creating potential’ (Lepak & Snell, 1999, p. 40). A scenario could be where a dispensary enters into an alliance with a lawyer to provide legal advice in case of need. Lawyers need not be employed full time by dispensaries because they may only be needed occasionally, such as when legal disputes arise. More so, training an employee within the firm to become the dispensary’s lawyer is a costly venture that is often hard to justify. Lepak and Snell (1999) noted that in case ‘internalization is prohibitive from a cost/benefit standpoint and complete contracting involves risks of opportunism, some form of *alliance* between parties may provide a hybrid employment mode that blends internationalization and externalization and overcomes these problems’ (p. 41). However, since what matters most for all the involved parties is the *relationship*, there is the need to nurture this relationship through information-sharing and trust, lest it collapses. Therefore, to build and sustain a collaborative HR configuration, HR activities should focus more on relational exchanges that are geared towards forming partnerships, such as team building, information-sharing, joint decision-making, mentoring relationships, efficient communication channels, job rotations and exchange programs (Nonaka & Takeuchi, 1995).

Lepak and Snell (2002) tested their theoretical model in a subsequent study using data obtained from 148 firms in the United States (U.S). This study revealed that the strategic value and uniqueness of human capital associated with jobs differs across the four groups of workers and that each employment arrangement is associated with a specific HR configuration. Building on this work, several subsequent studies have been published. A summary of these studies and their key findings is presented in **Appendix 4**. However, to identify the most pressing gaps in the literature, I will first provide a critical review of the differentiation literature.

2.5 Antecedents and Consequences of Differentiation

Scholarly interest in HR differentiation varies significantly, with studies concentrated mainly on understanding the link between differentiated HR systems and firm performance. However, recent research has highlighted that to fully understand the implications of HR differentiation, it is important to consider both its antecedents and consequences. Therefore, consistent with Huselid and Becker (2011), I argue that investigating the antecedents and consequences of differentiation has the potential to provide a theoretical and empirical

foundation for a deeper understanding of how differentiated HR systems can be galvanised to achieve competitive advantage.

2.5.1 Differentiation and Firm Outcomes

Much of the existing work on differentiation suggests that firms may realise better firm performance and/or competitive advantage by focusing more on those jobs and employees in which HR investments have the greatest impact (Boudreau & Ramstad, 2007; Huselid et al., 2005; Huselid & Becker, 2011; Stirpe et al., 2014). For instance, Boudreau and Ramstad (2005) stress the importance of ‘pivotal talent pools’ in HR differentiation. They define *pivotal talent pools* as pools where ‘human capital makes the biggest difference to strategic success’ (Boudreau & Ramstad, 2005, p. 129). This contention suggests that by investing more on strategic (*pivotal talent pools*) jobs, firms can reap maximum organisational benefits, including operational, financial and market performance. Huselid et al. (2005) used the distinction of A-B-C positions and A-B-C players, respectively. ‘A’ positions are the core organisational roles through which competitive advantage derives because they are of high strategic value and uniqueness. ‘B’ positions are the supportive roles for the ‘A’ positions, while ‘C’ positions are the *peripheral* roles that are only needed for the smooth functioning of the organisation. Similarly, ‘A’ players are the strategic employees. ‘B’ players have limited strategic value in the sense that an organisation is not likely to win with ‘B’ positions, although it can certainly lose with them. Finally, ‘C’ players have no strategic value to the organisation but play supportive roles. Therefore, *strategic jobs* (i.e. ‘A’ positions) should receive higher levels of HR investments because they have a direct strategic impact to the firm and have a high-performance variability (Huselid et al., 2005). By performance variability, reference is made to the extent to which an employee’s performance may vary depending on his or her ability to do the job. Bidwell and Keller (2014) argue that in strategic jobs, employees without the necessary skill-sets (such as ‘C’ players) may drag performance levels down. Hence, strategic jobs should be occupied by strategic employees given their high levels of performance variability.

Arising from this synthesis is the idea that strategic jobs (i.e. jobs requiring higher levels of human capital value and uniqueness) are key to the organisation, and thus, employees occupying such jobs are managed through an internal employment arrangement due to their high levels of performance variability (Bidwell & Keller, 2014; Cappelli & Keller, 2014). On

the other hand, non-strategic or ‘peripheral’ jobs are managed through externalisation, including contractual work arrangements (Koene & Riemsdijk, 2005). A study by Chow et al. (2008) conducted across 241 organisations in China revealed that commitment-based HRPs enhance organisational performance as opposed to collaborative, market or compliance HRPs. Consequently, Chow and colleagues call for the adoption of commitment-based HRPs to manage strategic employees to improve firm performance. Schmidt et al. (2018) found a positive association between the strategic value of occupation groups and HPWS in those occupation groups.

Despite several attempts to link differentiated HR systems and firm performance (e.g., Boudreau & Ramstad, 2005, 2007; Chow et al., 2008; Collings, 2014; Collings & Mellahi, 2009; Lepak et al., 2003; Schmidt et al., 2018), previous work has been silent on the potential impact of contextual factors. For instance, Boxall and Macky (2009) noted that HRPs adopted by firms could also be dependent on management actions, such as product innovation and production technologies. Lepak and Snell (1999) also acknowledged that *dynamism* and *complexity* might, in fact, influence the nature of the entire *architecture*, although they did not test it in their empirical study. In a related stream of literature, Rousseau et al. (2006) (in their theoretical conceptualisation of ‘i-deals’) revealed that idiosyncratic jobs are impacted by other contextual factors. The authors argued that ‘i-deals’ are likely to be widespread because firms and the people who work in them face a need to innovate in response to change and complexity (Rousseau et al., 2006, p. 977). This research suggests that employment arrangements are susceptible to contextual factors, yet HR differentiation literature is deficient in terms of its inclusion of contextual factors in understanding HR/employment systems. Therefore, in this thesis, I construe contextual factors as important variables that might provide new insights for the development of effective employment/HR systems.

2.5.2 Determinants of Differentiation

It was noted in section 2.4.1 that, notwithstanding the emphasis on understanding the business implications of differentiated HR systems in much of the strategic HRM research, there is a surprising dearth of knowledge about the conditions under which firms might differentiate their workforce. The few studies that have attempted to investigate the conditions under which organisations differentiate the HR systems used for different types of employees have focused mainly on job characteristics (Bidwell & Keller, 2014; Lepak &

Snell, 1999, 2002). For instance, Krausert (2014) highlighted four job-level factors, namely, job complexity, task uncertainty, firm-specific human capital and the strategic value of the employee group, as factors that could potentially influence variability in the use of high-involvement human resource (HIHR) systems across top management teams, middle managers and professional employees.

Consistent with previous work (e.g., González & Tacorante, 2004; Lepak & Snell, 2002), Bidwell and Keller (2014) found that the characteristics of jobs, including demand for firm-specific skills, performance variability and supply of internal candidates, determines whether they are internally or externally filled. They concluded that firms should use differentiated HR systems to manage their employees based on job characteristics. Building on Transaction Cost Economics (Williamson, 1981, 1985), Bidwell and Keller (2014) suggested that job characteristics play a significant role in influencing staffing decisions and the adoption of specific employment systems.

Although the extent to which these different approaches are deployed within an organisation's HR system (or architecture) reflect the nature of human capital characteristics for the different categories of jobs (and the strategic value and uniqueness associated with those jobs) this knowledge is still meagre, at best. First, there is some, albeit limited, research that has identified other factors likely to influence differentiation beyond job characteristics. For instance, Lepak et al. (2007) identified other factors, including innovative business strategy, employee-centred HR philosophy and industry as influencing variability in the adoption of HIHR use for core and support employees. These findings suggest that job characteristics alone may provide an insufficient explanatory foundation for predicting variation and differentiation in HR/employment systems. Second, given the dynamism of the external business environment (e.g., Bidwell & Keller, 2014; Jackson et al., 2014; Ployhart & Hale, 2014), it is likely that institutional and bureaucratic pressures (Osterman, 1987, 1994, 2011), dynamic market pressures (Kalleberg, 2001; Sloane, 1989; Wright & Snell, 1998) and competitive strategy (Becker & Huselid, 2006; Becker et al., 2009; Huselid & Becker, 2011) might also play a significant role in determining the use of differentiated HRPs. For instance, Lewis and Heckman (2006) noted that 'variation in HR practices may reflect differences in competitive climates, geographical regions and socio-economic variables' (p. 143). This finding suggests that contextual factors might shape the nature of HR/employment

arrangements. Third, several scholars are calling for more research to investigate additional factors likely to cause variation in the use of differentiated HR systems (Chow et al., 2008; Lepak et al., 2007; Stirpe et al., 2014). For example, Stirpe et al. (2014) calls on researchers to investigate contextual factors likely to influence variation in HR/employment systems for organisations to reap the productivity pay-off of HPWS. Recently, Jiang and Messersmith (2018) also called for more research that examines internal and external pressures that shape the adoption of HR practices within organisations.

Against this backdrop, it cannot be overemphasised that investigating a wide range of contextual factors might help to advance knowledge on the *functionality* of the HR architecture. I propose that although much is now known about how job characteristics shape HR/employment systems, previous literature examining differentiation has yielded limited insights into the influence of contextual factors on variations in HR/employment systems. It is particularly important for us to determine what sorts of jobs are important and to design effective employment/HR systems. Therefore, to establish these contextual factors, I specifically build on and integrate the theories most relevant to understanding employment systems, including the Internal Labour Market theory, the Flexible Firm model and Job-Based model.

2.5.2.1 Internal Labour Market theory

The notion of differentiation can be traced to economics studies of internal labour markets and the notion of segmentation. Early proponents of this theory were concerned with developing explanations of why and how employers structure their internal employment systems and differentiate or segment between groups of employees (e.g., Doeringer & Piore, 1971; Edwards, 1979; Reich et al., 1973; Rumberger & Carnoy, 1980). Doeringer and Piore (1971) observed that many firms do not arrange their employment systems as economic theory would predict. Rather than a reliance on external labour markets, they suggest that firms establish their own internal labour markets consisting of several key features: First, a tendency to concentrate hiring workers at low skill level ‘entry points’; second, the development of an internal ‘job ladder’ consisting of a hierarchy of jobs with increasing levels of skills. These job ladders were said to be used by firms to select employees from the internal pool of candidates for higher level jobs. This system of internal labour markets is typically associated with several benefits for firms and employees. For employees, it provides

a system of secure employment and incentives to invest in higher skills, often firm-specific in nature, to achieve promotion. For firms, it provides a stable source of labour supply that is protected from external labour market fluctuations, as well as a means to capture and retain any investments in human capital (Reich et al., 1973). Using internal labour markets to capture and retain firm-specific skills has the consequence of differentiation, with low-skill and more generic skill requirements being sourced from the external labour market rather than being developed internally.

Osterman (1982, 1987) extends this conceptualisation of internal labour markets by theorising that beyond the need for *firm specific* skills, employers also consider contextual factors, including physical and social technology, government policies and union activity in developing employment systems. However, a more elaborate and nuanced approach on which I base my proposition is what Osterman (2011) refers to as *institutional perspective*, which proceeds as follows:

First, organizations are characterized by groups with competing objectives and perspectives... Second, the ILM outcomes we observe are the result of an internal political process that is made necessary by the need to resolve these conflicts. (Osterman, 2011, p. 640).

In other words, Osterman contends that internal labour markets emerge from the interplay of competing interests and competing views about work. While New Personnel Economics considerations, such as cost-benefit analysis, are still important, the role of ‘power’ in organising work is unprecedented. In doing so, Osterman provides evidence regarding internal labour markets and how they are continuously changing to reflect institutional pressures and constraints, as can be seen in the use of various job ladders, use of contingent work, slow diffusion of HPWS and adoption of equal opportunity and equal pay processes.

In fact, following Osterman’s (2011) *institutional perspective*, two important features come to the fore: First, *power dynamics* that exist within employment relationships because of the political nature of organisations; second, internal labour market *outcomes*, which are a consequence of an internal organisational political process. Indeed, while Osterman acknowledges that there might be several actors, the key internal political actors in most organisations are government, management, employees and unions. However, since

management and employees are the ones who usually form an employment relationship, I argue that the facet of *power dynamics* is likely to be played by unions, which usually provide the platform under which employers and employees can better understand their rights and obligations. This argument is consistent with Osterman's (2011) institutional perspective, which conceptualises unions as important group-level variables that can potentially shape the way firms organise work. Thus far, since unions represent employees, they are likely to press management to adopt HR practices and employment systems that involve fair treatment and/or rewards for their members.

Similarly, internal labour market or organisational outcomes may also shape employment systems (e.g., G. Morgan, 1986; Osterman, 2011; Rousseau, 1995). By internal labour markets outcomes, Osterman (2011) referred to group phenomena, including group norms, conflict and negotiation, which arise from competing interests within the organisation. For instance, management (employers) may want to maximise economic returns by minimising labour costs as much as possible, while employees may feel that they have not been adequately compensated for their contributions. If unresolved, this may create tension, which ultimately might lead to management-employee conflict. However, despite internal labour markets encapsulating elements of conflict and tension, ILM theorists, such as P. Edwards, Bélanger, and Wright (2006), argued that workplace compromises, such as co-operation, are still achievable under certain conditions, which can ultimately shape the deployment of HR practices in an organisation. Edwards and colleagues argued that the motivation for cooperation is that it leads to *win-win* situations or mutual gains for firms and employees (See also Bélanger & Edwards, 2007; Deery & Iverson, 2005). Consequently, I maintain that an internal labour market outcome, such as management-employee cooperation, may influence the extent to which firms differentiate their workforce. For instance, firms with better cooperative management-employee relations would be expected to develop employment/HR systems that address both employees' and management's concerns, such as knowledge-based employment arrangements, which is mutually beneficial for organisations and employees. A study conducted by Collins and Smith (2006) across 136 knowledge-intensive (or high-technology) firms, revealed that commitment-based HR systems elicited a positive social climate, including trust, cooperation, shared codes and language, which in turn, led to increases in firm revenue and sales growth.

2.5.2.2 *The Flexible Firm Model*

The *flexible* firm theorists go beyond the bureaucratic and institutional boundaries (i.e. internal labour markets) and consider dynamic market pressures (Atkinson, 1984; Kalleberg, 2001, 2003; Miles & Snow, 1984; Prowse, 1990). In fact, the model of the Flexible Firm gained prominence in the 1980s as a response to the growing product market variability and uncertainty, wage rigidity and increase in fixed labour costs (Sloane, 1989). It sought to describe how firms can cope with the dynamic market pressures, or at the least, possible costs (Prowse, 1990).

The first exploration of this flexible firm practice can be traced to Atkinson (1984) in his pioneering study on manpower strategies for flexible organisations. According to Atkinson, market pressures are obliging firms to consider a wide range of employment practices. In his conceptual model, he concentrated on the theme of flexibility and addressed two forms of worker flexibility, namely, numerical and functional flexibilities. Numerical flexibility refers to the variation of employee numbers with fluctuations in the product demand levels. Atkinson argued that this occurs through *peripheral* work arrangements and it can be achieved by temporary work, part-time work and subcontracting. Functional flexibility refers to variations in tasks assigned to *core* employees who are highly trained and multi-skilled—hence, required for *core* or strategic functions. Central to this theory is the view that firms tend to deploy various strategies for *core* and *peripheral* workers, depending on the need for flexibility as posed by the dynamic market constraints.

Although some scholars argue that the idea of the flexible firm is too theoretical or ‘abstract’ (Pollert, 1988), I do not seek to enter into this debate. Rather, I seek to demonstrate that flexibility has influenced the use of differentiated HR systems. This interplay between functional and numerical flexibility can be seen in theoretical and empirical studies, as noted in the distinction between exempt and non-exempt workers (Huselid, 1995), core versus peripheral/support workers (Atkinson, 1984; Lepak et al., 2007), managerial versus non-managerial employees (Jackson et al., 1989), contingent and knowledge workers (Matusik & Hill, 1998), standard and non-standard employees (Broschak & Davis-Blake, 2006; Kalleberg, 2001) and organisational insiders and outsiders (Kalleberg, 2003). This finding suggests that dynamic market pressures influence employment/HR systems adopted by firms.

Building on the Flexible Firm model, scholars have devoted much attention to understanding how firms align their organisational practices and structures with dynamic environmental changes (Karim, Carroll, & Long, 2016). At the same time, ‘the way that work is structured and carried out has also been impacted by technological developments’ (Colbert, Yee, & George, 2016, p. 734). A core reason for this is that dynamic market pressures, such as environmental dynamism and technological opportunities, impact firm performance. For instance, empirical evidence from a variety of empirical settings shows that environmental dynamism (e.g., Garg, Walters, & Priem, 2003; Goll & Rasheed, 2004; Janssen & Van Yperen, 2004; Lepak et al., 2003; Simerly & Li, 2000) and technological opportunities (Eddleston, Kellermanns, & Sarathy, 2008; Zahra, 1996) impact firm performance. However, given that employment arrangements also predict firm performance (Lepak et al., 2003), aligning market dynamism and technological opportunities with HR/employment systems becomes an important line of inquiry.

2.5.2.3 The Job-Based Model

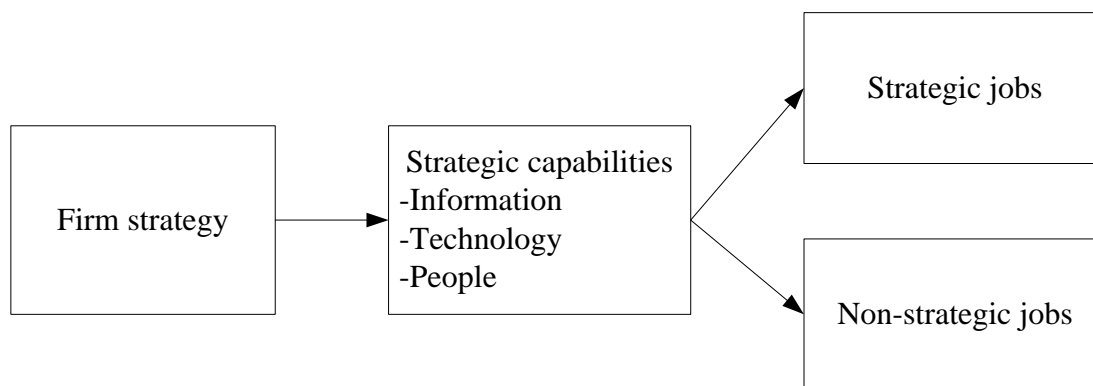
Protagonists of the Job-Based model argue that differentiation arises from strategic capabilities, which are derived from a firm’s strategy (Becker & Huselid, 2006). Eisenhardt and Martin (2000) define strategic capabilities as consisting of ‘strategic and organizational processes like product development, alliancing and strategic decision making that create value for firms within dynamic markets by manipulating resources into new value-creating strategies’ (p. 1106). They assert that these strategic capabilities influence a firm’s creative potential. Makadok (2001) argues that these strategic capabilities are firm specific (i.e., idiosyncratic to a particular firm) and are embedded in jobs.¹ Therefore, jobs that create value for firms are referred to as *strategic jobs* since they are a source of value creation for firms (Becker & Huselid, 2006; Huselid et al., 2005). Inherent in the job-based model is the assumption that all jobs that constitute strategic capabilities are ‘strategic’ and they therefore require employees who can bring new thinking into the firm (Eisenhardt & Martin, 2000).

In all, the Job-Based model of differentiation argues that to determine the nature and the appropriate level of HR differentiation, firms need to identify strategic capabilities and/or jobs before filling those roles with employees who have the appropriate levels of ‘talent’

¹ For a detailed discussion of strategic capabilities see Makadok (2001).

(Becker & Huselid, 2006; Becker et al., 2009). As depicted in Figure 2.3, a firm's competitive strategy is therefore crucial for HR differentiation as it helps to identify or establish strategic jobs and non-strategic jobs (or peripheral roles) (See also Cappelli & Keller, 2014; Collings & Mellahi, 2009; Lewis & Heckman, 2006). This finding suggests that the starting point for HR differentiation should be a firm's strategy rather than the strategic value and uniqueness of human capital, as espoused by the HR architecture.

FIGURE 2. 3 Relationship among firm strategy, strategic business processes and jobs



Source: Adapted from Huselid & Becker (2011), Collis & Montgomery (1994), Boudreau & Ramstad (2005) and Eisenhardt & Martin (2000).

While a plethora of studies drawing from the HR architecture have been conducted, I further this knowledge by examining how contextual factors such as union density, management-employee cooperation, competitive strategy, environmental dynamism and technological opportunities might shape the propensity of organisations to use HR differentiation. Put differently, in **Study 1**, I sought to extend the HR architecture framework by exploring an extended array of organisational factors that are likely to shape decisions to differentiate between employees. To identify the conditions under which firms are likely to use differentiated HR employment systems, I integrate the HR architecture framework with several theoretical frameworks, namely, the Internal Labour Market theory, the Flexible Firm model and the Job-Based model. I argue that a firm's competitive strategy influences the strategic value and uniqueness of human capital associated with jobs and that there is an interactive effect between human capital characteristics (i.e. strategic value and uniqueness of jobs, as proposed by Lepak and Snell, 2002) and organisational factors identified in the Internal Labour Market theory (e.g., management-employee cooperation and union density)

and the flexible firm model (i.e. environmental dynamism and technological opportunities). The hypotheses are detailed in Chapter 3 of the thesis.

More importantly, while the business implications of HR differentiation are undeniable (Lepak et al., 2003; Stirpe et al., 2014), some scholars criticise HR differentiation for its potential to generate mixed reactions at the employee level (Gelens et al., 2013; Marescaux et al., 2013). Consequently, I address this concern in the following sub-section.

2.5.3 Differentiation: Employee agency and equity concerns

Previous studies on HR differentiation have mainly investigated differentiation in the context of the organisation itself, but there is a dearth of research that has explored how employees might respond to HR differentiation. Indeed, consensus in the HR differentiation literature is that to gain competitive advantage, firms need to invest more in the jobs and employees that have the biggest impact for the firm. For instance, exclusive approaches² to understanding differentiation, such as HR architecture (Lepak & Snell, 1999, 2002) and the Job-Based framework (e.g., Becker & Huselid, 2006), posit that firms deploy differentiated HR practices to reflect the characteristics of the different categories of jobs. Similarly, inclusive³ approaches to understanding HR differentiation, such as ‘war for talent’ (Handfield-Jones, Michaels, & Axelrod, 2001) and ‘i-deals’ literature (Hornung, Rousseau, & Glaser, 2008) suggest that organisations should tailor HR practices to individual employees depending on their individual skills and productive capabilities. Both approaches are framed from the managerial perspective of using differentiated HR practices to manage different kinds of workers due to their unique contributions to organisations. Accordingly, the insufficient consideration given to employees becomes a key constraint in HR differentiation literature given that ‘employee perceptions of HR practices are an important mechanism that can explain *why* HR differentiation and organizational outcomes are connected (or not)’ (Schmidt et al., 2018, p. 66).

² Exclusive approaches to understanding HR differentiation call for disproportionate investments across jobs, with strategic jobs receiving ‘high-road’ HR investments due to their higher returns on investment compared with ‘peripheral’ jobs (e.g., Becker et al., 2009; Boudreau & Ramstad, 2005).

³ Inclusive approaches argue that differentiation should be based on the productive and adaptive capabilities of employees, thereby calling for within-job variability in employee treatment (Rousseau, Hornung, & Kim, 2009).

One way that recent differentiation literature has sought to address this lack of knowledge regarding employees is the suggestion that HR differentiation probably leads employees to compare their situation with referent others to assess the ‘favourability’ of HR practices they receive (Marescaux et al., 2013). In that sense, perceived favourability of HR practices (PFHRPs) can be understood as an important indicator of employee perceptions about whether they are differentially treated and whether the treatment they receive is favourable.

More importantly, since differentiation calls for differential employee treatment among employees, it may raise concerns about *fairness* (Lepak & Shaw, 2008; Marescaux et al., 2013). For instance, Gelens and colleagues theorised that differentiation ‘promotes inequality between employees, making it a sensitive matter’ (Gelens et al., 2013, p. 343). A study conducted by Liao et al. (2009) revealed that employees with the highest status had the most favourable perceptions of HPWS in comparison with lower status and least status employees, respectively. In a related study, Gelens and colleagues found that employees who identified as ‘high potential’ (i.e. employees having the highest estimated value to the organisation) reported more favourable perceptions of distributive justice than those employees who were not identified as ‘high potential’ (Gelens, Hofmans, Dries, & Pepermans, 2014). Although informative, these studies do not identify the social and psychological mechanisms through which this influence takes place.

Additionally, previous research assumes a monolithic set of workers and looks more generally at employee responses to HRM. For instance, while Guest (1999) calls for a new perspective on HRM (one that looks at workers as ends, rather than as means to an end) his approach has been to assume that there exists a ‘uniform’ set of employees. Similarly, in his later work, Guest (2002), theorised that researchers might need to consider the association between HRM and work attitudes and behaviours because the latter are some of the intervening variables in the HR - performance link. Building mainly on Social Exchange Theory, several studies have been undertaken that offer support for the mediating role of employee attitudes and behaviours in the HR - performance relationship (e.g., Becker & Huselid, 1998; Boselie et al., 2005; Paauwe & Boselie, 2005; Wright et al., 2005; Youndt et al., 1996). Together, these studies present a reasonably consistent picture: HRM shapes employee reactions by a forging a psychological contract between the employee and the

organisation. However, these studies do not capture employee responses to HR differentiation, but rather more broadly, employee perceptions of HR practices.

I depart from these studies by focusing on employee responses to HR differentiation, which has largely been ignored. Moreover, since HR differentiation involves differential employee treatments, I posit that it might also lead employees to compare the HR practices they receive with those of their co-workers. To model how employees might respond to differential treatment, I draw on Social Exchange Theory and Social Comparison Theory, which are expound in the next sub-sections.

2.5.3.1 Social Exchange Theory

According to Blau (1964) social exchanges are *voluntary actions* that are typically initiated by an organisation's treatment of its employees with the expectation that such treatment will eventually be reciprocated by employees. Nevertheless, within social exchange, there are three overlapping approaches for understanding the mechanisms through which employees may interpret and react to organisational practices. First, is the *Inducements Contributions Exchange* theory, which contends that HR practices maintain fairness between the employee and the organisation in terms of what each contributes and receives (Barnard, 1938; March & Simon, 1958). According to this perspective, organisations use HR practices to promote desirable employee attitudes and behaviours, which are associated with higher levels of firm performance. This occurs because employees tend to perceive HR practices in accordance to the meanings that they attach to those HR practices (Nishii, Lepak, & Schneider, 2008). As a result, I argue that since HR differentiation involves differential employee treatments, it is likely to generate variations in employee perceptions of HR practices, such that employees who perceive 'favourable' HR practices are likely to respond by exhibiting positive work attitudes. Empirical evidence suggests that employees who perceive 'favourable' HR practices show positive work attitudes, such as job satisfaction (Nishii et al., 2008; Takeuchi et al., 2009), affective organisational commitment (Marescaux et al., 2013), job engagement (Schaufeli, Bakker, & Van Rhenen, 2009) and lower turnover intentions (Baluch, Salge, & Piening, 2013; Kehoe & Wright, 2013). Overall, the *Inducements Contributions Exchange* theory suggests that employees are likely to engage in *social exchanges* so long as the perception of *inducements* or incentives (e.g., higher pay and job autonomy) are well matched (i.e. equal) or higher than their contributions (Tsui, Pearce, Porter, & Tripoli, 1997).

A second mechanism that derives from Social Exchange Theory is the *norm of reciprocity*, first proposed by (Gouldner, 1960). This proposition maintains that a social relationship begins with one party bestowing a gift to another party, with the expectation that the receiver reciprocates. When the receiver of this gift reciprocates, feelings of mutual obligation are created (Blau, 1964; Coyle-Shapiro & Parzefall, 2008; Coyle-Shapiro & Shore, 2007). The element of reciprocity enables stakeholders in the exchange relationship (which, in this context, are employers and employees) to develop trust in each other and share mutual benefits (Coyle-Shapiro & Shore, 2007). Through this continuous process of reciprocal exchange, the 'rules of engagement' become clearer and mutual obligations are created (Coyle-Shapiro & Shore, 2007, p. 4). Burger, Sanchez, Imberi, and Grande (2009) maintain that people return favours for two reasons: First, due to 'self-presentation', whereby a favour is returned 'out of a concern for what the other person will think of them' (Burger et al., 2009, p. 12). Second, it might arise out of 'internal standards of behaviour', whereby a person who has received a favour feels within him/herself an obligation to return the favour to preserve his/her self-image. Therefore, 'favourable' HR practices are likely to elicit desirable employee outcomes. In other words, building on the *Inducements Contributions Exchange* theory and *norm of reciprocity*, I expect PFHRPs to be positively associated with job satisfaction, job engagement, affective organisational commitment and negatively associated with turnover intentions.

The third approach within the theories of social exchange that explains mechanisms through which social exchanges might take place is the *Organisation Support Theory* (Eisenberger, Huntington, Hutchison, & Sowa, 1986). According to Eisenberger et al. (1986), employees form a generalised perception regarding whether the organisation values and cares for their wellbeing (Eisenberger et al., 1986). As such, employees view HR investments as a *personalised* commitment to them by the firm (Guzzo & Noonan, 1994; Hannah & Iverson, 2004), which they eventually reciprocate through positive work attitudes and behaviours that support the attainment of organisational goals (Aselage & Eisenberger, 2003; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002). That is, in situations where employees perceive that organisation values reflect care for them (i.e., when employees perceive organisational support), they are more likely to reciprocate this favourable organisational treatment with positive or favourable workplace attitudes, such as job satisfaction, affective organisational commitment and lower turnover intentions (e.g., Aryee,

Budhwar, & Chen, 2002; Masterson, Lewis, Goldman, & Taylor, 2000). Previous studies have found POS to be a critical path through which HRPs influence employee attitudes (Hemdi, 2009; Liao et al., 2009; Meyer & Smith, 2000). Therefore, Organisation Support Theory suggests that POS might be an important intervening variable that could explain how HRPs might influence employee attitudes, including job satisfaction, affective organisational commitment, job engagement and turnover intentions. However, since inducement *Contributions Exchange* theory and *norm of reciprocity* suggest that HR practices can also directly elicit work-related attitudes, I propose a partial rather than a full mediation.

Generally, as much as the exact nature and extent of future returns are dependent on the discretion of the recipient, the three *social exchange* approaches discussed above provide strong foundations for thinking about mechanisms through which HR practices might shape work-related attitudes, intentions and behaviours. These theories suggest that employees attach ‘absolute value’ to the resources exchanged, and as such, HR practices are likely to generate psychological processes that engender employees to respond based on gratitude, personal obligation and trust (Coyle-Shapiro & Shore, 2007; Haas & Deseran, 1981). Therefore, HR practices that are perceived as ‘favourable’ are likely to (1) directly induce positive work attitudes (Den Hartog, Boon, Verburg, & Croon, 2013; Ostroff, 1992; R. Takeuchi, Lepak, Wang, & Takeuchi, 2007) and (2) augment POS, which in turn, leads to desirable employee outcomes (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001).

However, while Social Exchange Theory suggests that *social exchanges* induce employees to reciprocate in specific ways (e.g., Coyle-Shapiro & Shore, 2007; Takeuchi et al., 2007), its emphasis has mainly been on absolute outcomes – that is, what an employee gives in return for what they receive from the organisation. Therefore, to further elucidate the implications of HR differentiation (which implicitly necessitates differential employee treatments), I draw on Social Comparison Theory, which I elaborate in the next sub-section.

2.5.3.2 Social Comparison Theory

Social Comparison Theory was originally developed by Festinger to explain individual self-evaluations (Festinger, 1954). According to this theory, individuals possess an innate desire to evaluate themselves, particularly in relation to their co-workers or colleagues. Scholars across several disciplines have used Festinger’s theoretical framework, and many comparable

situations have been explored (Bandura & Jourden, 1991; Buunk, Collins, Taylor, VanYperen, & Dakof, 1990; Heslin, 2005). However, in the field of management and organisation studies, Social Comparison Theory has mainly been examined in terms of its outcome, which is ‘equity’, ‘fairness’ or perceived organisational justice (POJ) (Cf. Adams, 1965; Cropanzano & Mitchell, 2005; Lam, Schaubroeck, & Aryee, 2002). That is, employees are understood to make social comparisons through their individual fairness perceptions. In the context of HR differentiation, I would expect employees to make comparisons of the HR practices they receive. However, while employees in each employment arrangement or job category may compare their inputs-outputs ratio with those of employees in other job categories, social comparisons are more salient within the same referent categories. This is because of the ‘similarity’ hypothesis, which suggests that employees compare their inputs – output ratios with those of ‘comparable’ employees, such as their colleagues or co-workers (Wood, 1989). Therefore, to develop a clear understanding of how employees may respond to HR differentiation, one first needs to understand the underlying experiences inherent in HR differentiation.

I argue that since HR differentiation entails differential employee treatment, employees are likely to respond by evaluating the ‘favourability’ of what they receive relative to their co-workers. My conjecture is consistent with Marescaux et al. (2013), who theorised that HR differentiation leads employees to compare their situation with co-workers to assess the ‘favourability’ of the HR practices that they receive. Therefore, I view POJ, ‘equity’ or ‘fairness’ (which I use interchangeably) as important variables for assessing fairness of organisational *outcomes*. Indeed, the consensus among management scholars thus far, is that POJ is a useful variable for understanding ways through which employees react and/or interpret organisational practices (Björkman, Ehrnrooth, Mäkelä, Smale, & Sumelius, 2013; Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001).

The concept of ‘equity’ or ‘fairness,’ which gained currency in the early 1960s with Adam’s Equity Theory, maintains that workers are not concerned with absolute *outcomes*, but rather, with their fairness (Adams, 1963, 1965). For their part, Walster, Walster, and Berscheid argued that:

individuals [who] find themselves participating in inequitable relationships...will become distressed...and will attempt to eliminate their distress by restoring equity. The greater the inequity that exists, the more distress they will feel, and the harder they will try to restore equity. (Walster, Walster, & Berscheid, 1978, p. 6).

Since then, a substantial body of research has been built (Cohen-Charash & Spector, 2001; Colquitt et al., 2001; Greenberg, 1990, 1993). However, in all these studies, POJ has been construed to refer to an individual's subjective perceptions of the fairness of treatment, allocations and/or *outcomes* received from the organisation (Colquitt, 2001; Gelens et al., 2013; Greenberg, 1990). Like several other scholars in strategic HRM, I specifically focus on POJ for three main reasons:

- 1) POJ has been tested and found to explain a wide range of employee attitudes and behaviours (Farndale, Hope-Hailey, & Kelliher, 2011; Folger & Konovsky, 1989; H. S. Kim, 2005; McFarlin & Sweeney, 1992).
- 2) POJ allows the study of a phenomenon from the employees' perspective rather than that of the employers (Farndale et al., 2011; Gelens et al., 2013).
- 3) POJ is also widely used in Social Exchange Theory (Björkman et al., 2013; Gelens et al., 2013; Masterson et al., 2000) as well as in social comparisons (Choi, 2008; Folger & Cropanzano, 2001; Marescaux et al., 2013; Shore & Shore, 1995).

Although POJ takes many forms, including distributive, procedural, interpersonal and informational justice (e.g., Bies & Moag, 1986; Colquitt, 2001; Colquitt et al., 2001; Gelens et al., 2013; Loi, Yang, & Diefendorff, 2009), scholars have focused more on fairness of reward *outcomes* (PDJ) and fairness of formal organisational processes/procedures (PPJ) to explain mechanisms through which HRPs may influence employee attitudes (S. Alexander & Ruderman, 1987; Folger, 1977; Lam et al., 2002). Moreover, since HR differentiation involves differential employee treatment arising from the organisation itself, PDJ and PPJ are expected to be strong predictors of employee attitudes given their strong implications for workplace attitudes regarding organisational practices. This argument is consistent with previous work that identifies PDJ and PPJ as the most relevant factors in understanding mechanisms through which fairness processes influence work-related attitudes (Folger & Konovsky, 1989; Greenberg, 1990; Lind & Tyler, 1988). Therefore, I argue that PDJ and PPJ

may also be some of the intervening mechanisms through which HR practices might influence employee attitudes and intentions.

Therefore, in this thesis, I bring together Social Exchange Theory and Social Comparison Theory. This is because, in addition to Social Exchange Theory, Social Comparison Theory has also been used to explain mechanisms through which HR practices influence employee attitudes and behaviours. Social Comparison Theory is similar to theories of *social exchange* in that it also recognises that HR practices induce employees to respond or reciprocate in certain ways. However, Social Comparison Theory (operationalised by POJ) adds further specificity to my theorising by highlighting that employees not only care about absolute outcomes but also fairness of those outcomes. As such, employee responses are also likely to be shaped by fairness perceptions (i.e. PDJ and PPJ). Integrating insights from both Social Comparison Theory and Social Exchange Theory, I, therefore, develop a set of specific hypotheses that link PFHRPs to fairness perceptions (i.e. PDJ and PPJ), POS and several employee attitudes (i.e. affective organisational commitment, job satisfaction, job engagement and turnover intention).

However, while HR differentiation arises from the organisation itself, supervisors might also play a role in its implementation. For instance, supervisors might provide information regarding employees to be promoted within a specific work group. As such, the relationships that employees develop with their supervisors (denoted by leader-member exchange, LMX) might also play a significant role in employee fairness perceptions as well as POS. Therefore, I theorise LMX is a potential moderator of the relationship between PFHRPS and POS, PDJ and PPJ. Details of how the specific hypotheses are developed are provided in Chapter 4.

Although the aforementioned theories suggest that employee reactions to HR differentiation are better understood through *social exchanges* between employees and the organisation and fairness or 'equity' perceptions, this research field is still in its infancy. Moreover, having also considered the need to investigate the antecedents of HR differentiation, this thesis calls for an integrated model of HR differentiation. The dearth of empirical work and the lack of conceptual clarity does continue to hinder our understanding of the antecedents and effects of HR differentiation for employee outcomes, and therefore constitutes the motivation for an empirical study.

2.6 Towards an Integrated Model of Differentiation

The general argument in management theory and scholarship is that with HR differentiation ‘companies may adjust their level of investment in different employee groups based on their potential contribution toward competitive advantage’ (Lepak & Shaw, 2008, p. 1496). To date, a plethora of theoretical (Becker et al., 2009; Boudreau & Ramstad, 2005, 2007; Boxall & Macky, 2009; Cappelli & Keller, 2014; Collings, 2014; Collings & Mellahi, 2009; Huselid et al., 2005; Krausert, 2014) and empirical studies (Batt, 2000; Bidwell & Keller, 2014; Chow et al., 2008; Lepak et al., 2003; Lepak et al., 2007; Stirpe et al., 2014; Tsui et al., 1997) linking the use of differentiated HR systems with firm performance have been undertaken. However, despite this shared enthusiasm, researchers know little about whether and how contextual factors might facilitate or hinder the use of differentiated HR systems. For instance, Matusik and Hill (1998) theorised that dynamic business environments may influence ways in which firms might segment their employees, yet research in this area is still limited. Therefore, my research extends the growing body of literature on Internal Labour Market theory, the Flexible Firm and Job-Based model, which together suggest that certain contexts may influence the employment arrangements adopted by a firm. Consistent with these frameworks, I argue that understanding the conditions under which firms use differentiated HR systems may help determine what sorts of jobs are important, and accordingly, to design effective employment systems.

Second, and perhaps more importantly, while the link between differentiated HR systems and firm performance is indeed important, ‘employees have become at least as important as, if not more important... in driving organisational initiatives’ (Wang, Tong, Takeuchi, & George, 2016, p. 535). Therefore, understanding their responses to HR differentiation is equally important. Social Exchange Theory and Social Comparison Theory suggest that HR practices elicit several responses from employees, which implies that HR differentiation has several implications for employee perceptions, including their attitudes, intentions and behaviours. For instance, *Inducement Contributions theory*, which is one of the theories within *social exchange*, suggests that HR practices induce employees to respond in terms of what they receive from the organisation (March & Simon, 1958). Therefore, when employees receive similar or higher outcomes relative to their contributions, they are likely to respond with desirable work attitudes. In the context of differential employee treatments, however, I argue that beyond assessing their own contributions relative to organisational *outcomes* (i.e. HR

practices they receive), employees are also likely to assess the HR practices that they receive relative to those of their referent others. This tendency is due to social comparisons, which usually happen when people receive differential treatments. The HR practices (e.g., pay and autonomy) received by referent others becomes the criterion through which employees assess how they have been treated (Kim, Edwards, & Shapiro, 2015). As such, attempts to link HR differentiation with firm performance, without considering employees, are inadequate. In fact, these issues are reflective of the challenges that HR differentiation faces as a tool for the attainment of competitive advantage, and consequently, there is a clear need for an empirical inquiry.

2.7 Research Questions

As noted in the previous sections, much less research has explored contextual factors or conditions under which firms differentiate their workforce and how employees might respond to HR differentiation. Consequently, I propose two studies (which are motivated by two research questions) to provide new insights into how HR differentiation can be used to design effective HR practices that are necessary for the attainment of competitive advantage:

1. When/under what conditions do firms differentiate their workforce (**Study 1**)?
2. What does differentiation mean for employees and their experience of work (**Study 2**)?

The HR architecture framework suggests that the strategic value and uniqueness of human capital associated with jobs shapes the nature of HR practices and employment systems adopted by an organisation (Lepak & Snell, 2002). The addition of my perspective (i.e. **Study 1**) allows us to accommodate the potential effects of institutional, bureaucratic and dynamic market pressures. I argue that effective employment systems can be developed by considering both human capital characteristics associated with jobs as well as organisational factors. For instance, Internal Labour Market theorists (Osterman, 1987, 2011) suggest that institutional pressures, such as unions and management-employee cooperation, may influence the employment systems adopted by a firm. Beyond the internal labour markets, the Flexible Firm model (Kalleberg, 2001) posits that there are *contingent* and core employees who are employed by firms to cope with dynamic market pressures, such as technological opportunities and market dynamism. For their part, the job-based theorists (Becker & Huselid, 1998) place significant emphasis on business strategy as the most important factor in

designing strategic and no-strategic jobs/roles. In combination, these theorists suggest that employment systems need to be maintained in tandem with institutional and dynamic business pressures. In Chapter Three, I provide details about how these factors are likely to shape employment systems.

Although HR and organisational scholars have not explored the mechanisms through which HR differentiation may influence employee reactions, they recognise that it has important implications for employees. For example, research suggests that it can lead to fairness concerns ‘making it a sensitive matter’ (Gelens et al., 2013, p. 343), yet this has not been fully explored. Additionally, since employee attitudes and behaviours are some of the key mechanisms in the HR - performance link (Boselie et al., 2005; Kehoe & Wright, 2013), understanding what differentiation means for employees is crucial to achieve business success. Consequently, I argue that if we are to fully appreciate the strategic importance of differentiation for firms, we first need to understand how it influences employee attitudes, intentions and behaviours. As such, I propose **Study 2** to investigate employee responses to HR differentiation. Consistent with the theories of *social exchange*, HR practices facilitate the formation of different *social exchanges* between the organisation and employees (Rupp & Cropanzano, 2002). Therefore, employees who are treated favourably by the organisation, are also likely to respond favourably (Gouldner, 1960). Building on Social Exchange Theory, Masterson et al. (2000), for instance, found that POS was indicative of the employees’ *social exchange* with their organisation, while leader-member exchange (LMX) was indicative of the *social exchange* between employees and their supervisors.

In addition to creating a sense of obligation (e.g., POS), HR differentiation is also likely to create ‘fairness’ issues, which in turn, shape employee attitudes, intentions and behaviours. That is, employees who perceive less favourable HR practices may show feelings of ‘inequity’ or unfairness, which may lead to undesirable employee attitudes, such as turnover intentions. However, when employees receive ‘favourable’ HR practices, fairness is exhibited. According to Lind and colleagues, ‘justice judgments have a strong self-interest component – that what is seen as fair is, to some extent at least, that which benefits the individual making the judgment’ (Lind & Tyler, 1988, p. 3). Drawing on Social Comparison Theory, I demonstrate that HR differentiation is likely to lead employees to assess themselves relative to referent others. Consistent with previous studies, particularly research on POJ, I

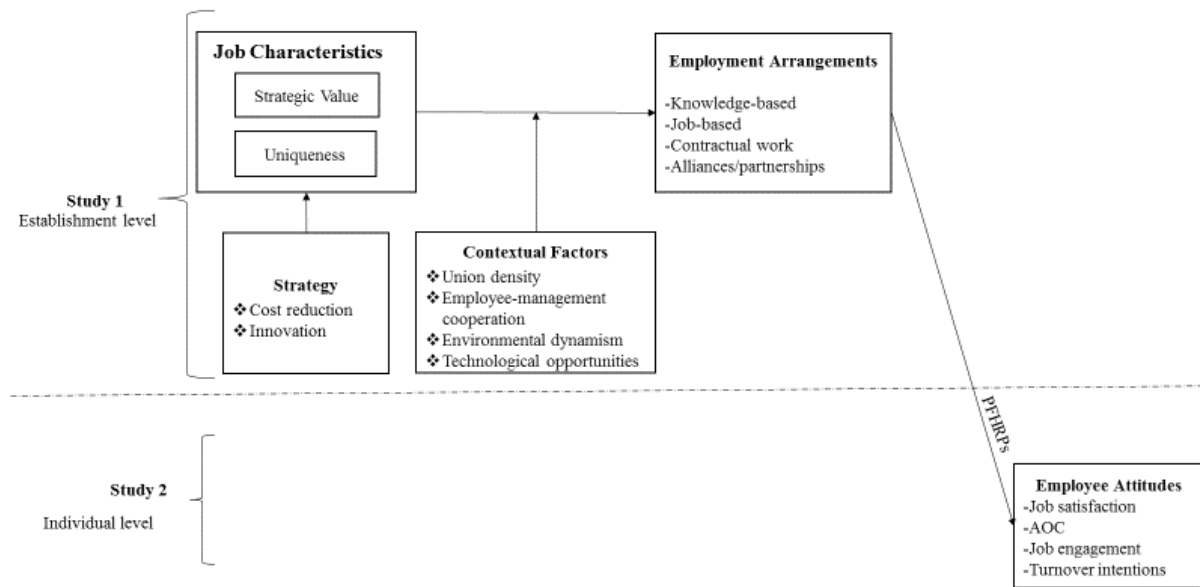
maintain that PDJ and PPJ are the two most important dimensions of justice for assessing employee perceptions since they are attributable to the entire organisation. Details of the hypotheses are in Chapter Four.

2.8 Conceptual Framework

Although a variety of theoretical perspectives suggest that differentiated HR systems can be leveraged for the achievement of firm performance, scholars have suggested that this relationship is more complex than previously thought (Huselid & Becker, 2011; Zhou & Hong, 2008). Building on the HR architecture framework, I first demonstrate how job characteristics shape employment arrangements and then conceptualise potential relationships between contextual factors and human capital characteristics associated with jobs. Specifically, I draw on theories most relevant for understanding employment systems, such as the Internal Labour Market theory, the Flexible Firm model and the Job-Based model to tease out other likely antecedents of differentiation. While this list is not by any means exhaustive, it highlights how various contextual factors are likely to predict intraorganisational variability in employment systems. This inquiry constitutes **Study 1** of the project.

Second, using the theoretical lenses of social exchange and social comparison, I attempt to investigate how the different ways in which jobs have been allocated shape employee attitudes. I do this by investigating the link between PFHRPs, which is a key indicator of employee responses to HR differentiation, and several work-related attitudes, including job satisfaction, affective organisational commitment, job engagement and turnover intentions. This forms **Study 2** of the project. Figure 2.4 offers an overall, heuristic illustration of these relationships and influences.

FIGURE 2. 4 Conceptual Framework of the antecedents and consequences of differentiation



2.9 Conclusion

To understand the scope of effective HR investments, I argue that it is crucial to integrate contextual factors with job characteristics and investigate employee experiences of work that arise due to HR differentiation. My approach is consistent with Huselid and Becker (2011), who theorised that investigating the antecedents and consequences of differentiation might be a critical path toward facilitating the achievement of competitive advantage. Accordingly, I propose that there is a need to expand strategic HRM theory to recognise the dynamism associated with employment systems and assess how contextual factors predict intraorganisational variability in HR/employment systems, and second, to investigate how differentiation might shape employee experience of work and management. This proposal has several important implications for research and practice.

The following chapter, Chapter Three, will focus on the determinants of HR differentiation. Beyond the empirical validation of the HR architecture, Chapter Three examines how several contextual factors, including firm strategy, union density, management-employee cooperation levels, technological opportunities and environmental dynamism, shape intraorganisational variability in employment systems. It presents results of the study's tests of hypotheses and highlights its contributions for research and practice.

CHAPTER THREE

ANTECEDENTS OF HR DIFFERENTIATION

3.1 Introduction

In the previous chapter, I highlighted that firm-level HR systems typically consist of differentiated approaches to managing different types of workers, ranging from arm's length, highly transactional approaches (such as sub-contracting) to highly customised, relationship-based approaches (such as high commitment HR strategies). I made the observation that one of the most prominent approaches to understanding the extent to which these different approaches are deployed within an organisation's HR system is the HR architecture model (Lepak & Snell, 1999, 2002), which maintains that organisations deploy different employment approaches to reflect the characteristics of the different categories of jobs. This finding has led to a burgeoning body of research that examines the link between HR differentiation and firm performance (e.g., Lepak et al., 2003; Lepak et al., 2007; Stirpe et al., 2014).

However, despite receiving wide-spread attention, the HR architecture approach does not adequately accommodate the role of contextual factors as forces that could alter the feasibility of the different employment/HR arrangements. This theoretical and analytical neglect is not trivial because organisations can only achieve competitive advantage by structuring, leveraging and bundling their resources in line with the dynamic environmental changes (Sirmon, Hitt, & Ireland, 2007). A study by Jackson et al. (1989) conducted across 1,300 organisations in the United States (U.S) found environmental or contextual factors, including innovation strategy, technology, industry sector, organisational structure and union presence, to influence the HRPs adopted for managerial and hourly employees. This finding suggests that employment/HR systems could, in fact, be contingent on other business environment or contextual factors.

In this chapter, my primary aim is to investigate the environmental constraints or conditions that might influence an organisation's HR architecture. To do this, I draw insights from the Internal Labour Market theory (Doeringer & Piore, 1971; Osterman, 1987), the Flexible Firm model (Atkinson, 1984; Sloane, 1989) and the Job-Based model of differentiation (Becker &

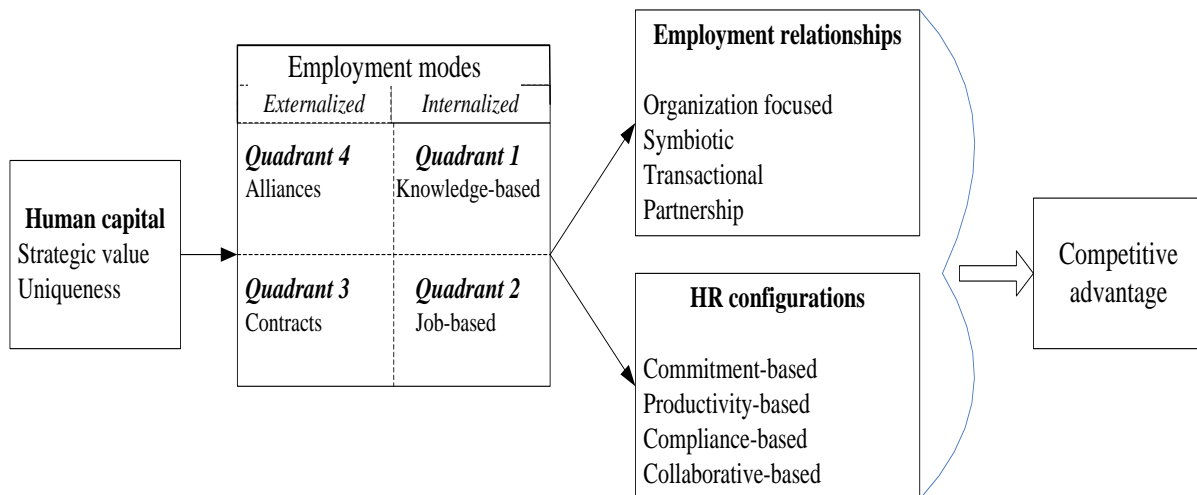
Huselid, 2006; Becker et al., 2009). In doing so, I will develop a theoretically-informed argument about the potential ways in which the context in which organisations design jobs and HR policies is likely to influence its HR system and, therefore, the allocation of jobs to different HR architectures, as defined by Lepak and Snell (2002). My proposition is that contextual factors are likely to influence intraorganisational variability in HR/employment systems. Therefore, with a clear understanding of how these contextual factors shape the way human capital characteristics impact on the choice of HR/employments, we may be in a better position to determine what sorts of jobs are important under which conditions, and therefore, be able to design effective employment/HR systems.

Structurally, this chapter consists of three thematic sections. In the first section, I discuss and develop hypotheses regarding ways through which the strategic value and uniqueness of human capital associated with jobs, relates with employment arrangements. Then, I detail how a firm's competitive strategy influences the strategic value and uniqueness of human capital associated with jobs. Next, I develop a series of hypotheses concerning ways through which contextual factors interact with job characteristics to predict employment arrangements. In the third section, I present the results of the study that tests these hypotheses and their implications for theory and practice. Finally, a summary of this chapter and focus for the following chapter is provided.

3.2 Theoretical background and hypothesis development

It will be recalled from Chapter Two that Lepak and Snell (1999, 2002) have typically focused on the strategic value and uniqueness of jobs as the two key criteria for creating competitive advantage. Through combining the extent to which jobs have strategic value and uniqueness, Lepak and Snell derive four employee groups, each reflecting different employment modes/arrangements, employment relationships and HR configurations, as illustrated in Figure 3.1.

FIGURE 3. 1 HR Architecture Framework



Source: Adapted from Lepak and Snell (2002)

Knowledge and job-based workers belong to an *internalised* employment arrangement. Knowledge-based workers are those with high strategic value and high uniqueness, while job-based workers have high strategic value but low uniqueness. Contractual work arrangements and alliances belong to an *externalised* employment mode. However, unlike employees in contractual work arrangements who have low strategic value and low uniqueness, alliance/partnerships have high uniqueness. Lepak and Snell (2002) tested their theoretical model in a subsequent study using data obtained from 148 U.S firms. Their study confirmed that the strategic value and uniqueness of jobs and the human capital characteristics associated with these job categories varies across the four groups of workers, and that each group of workers is associated with a specific employment arrangement and HR configuration.

While the authors maintain that human capital, strategic value and uniqueness are key in obtaining competitive advantage, Lepak and Snell recognise that maintaining a firm’s HR architecture may prove difficult when competitive environments are dynamic. According to Lepak and Snell, competitive situations, such as changes in customer needs and preferences, may render some employee skills irrelevant or obsolete. As such, organisations might need to re-skill their employees; yet the HR architecture framework does not adequately accommodate this reality. This suggests that there is need to integrate the HR architecture framework with dynamic business or contextual factors to develop effective HR practices for organisations and employees.

To further elucidate how dynamic business factors might impact the firm's architecture, I therefore draw on the Flexible-Firm model (Atkinson, 1984), the ILM theory (Osterman, 2011) and the Job-Based model (Becker & Hueslid, 2006). The Flexible-Firm model (Atkinson, 1984) holds that there are *contingent* and core employees who occupy *peripheral* and core jobs, respectively, and that each group requires differentiated HR practices. For instance, when operating in highly dynamic environments, firms may need to ensure strategic flexibility; that is, they may need to be able 'to respond to various demands from dynamic competitive environments' (Sanchez, 1995, p. 138). To do so, firms may choose to either emphasise functional (or resource) flexibility (i.e., use more knowledge-based employees) or emphasize numerical (or coordination) flexibility by using contractual work arrangements (Lepak et al., 2003; Wright & Snell, 1998).

Aside from external market pressures, such as technological opportunities and environmental dynamism, Internal Labour Market theorists argue that since firms operate within institutional and bureaucratic boundaries, these factors might also shape the nature of HR practices adopted, and consequently, the firm's architecture. Although Internal Labour Market theorists suggest several choice constraints, I specifically focus on unions and employee-management cooperation for two reasons: First, these factors directly relate to the employment relationship itself, and second, they are explicitly discussed in Osterman's (2011) *Institutional Perspective Theory*.⁴ Earlier, Osterman (1987) had concluded that unions are likely to oppose the adoption of secondary employment systems, such as contractual work arrangements, yet this consideration is not addressed by the HR architecture framework.

More importantly, although dynamic market pressures and institutional and bureaucratic boundaries may shape a firm's architecture, the Job-Based model suggests that the starting point for HR differentiation should be a firm's competitive strategy (Becker & Huselid, 2006). That is, a firm's competitive strategy should be used to determine what constitutes strategic and non-strategic jobs/roles yet this consideration is not sufficiently addressed by the HR architecture framework.

⁴ Refer to Chapter 2 for a detailed discussion of Osterman's (2011) *institutional perspective theory*.

Indeed, while the HR architecture has expanded our knowledge about the role of job characteristics in predicting employment arrangements, it does not fully explain how within firm variation in employment systems might arise due to changes in the business environment, thereby potentially masking important differences in job characteristics that arise when firms face various institutional and competitive pressures. As such, I extend the HR architecture framework to consider the role of contextual factors as predictors of within firm variations in employment arrangements. My central argument suggests that, since competitive situations change, HR/employment systems are also likely to change to reflect the changes in the complex and dynamic business environment.

3.2.1 Strategic Value of Jobs

According to Lepak and Snell (1999, 2002), *strategic value* and *uniqueness* are the two key factors that influence the allocation of jobs and employees to different HR architectures. Strategic value refers to the potential that a firm has to explore market opportunities and neutralise threats in the business environment. Resources may create value either by differentiating products and/or services to enable a firm to charge a premium price or by decreasing products' and/or services' costs (Barney & Wright, 1998). Prior studies have demonstrated that valuable resources can yield higher market returns and improve operational performance (Lengnick-Hall & Lengnick-Hall, 2002, 2003; Snell, Lepak, & Youndt, 1999). Since they are strategically valuable to the firm, employees associated with valuable human capital are likely to be employed under internal employment arrangements, such as knowledge-based and job-based employment arrangements (Kang, Morris, & Snell, 2007; Lepak & Snell, 1999). In their empirical study, Lepak and Snell (2002) found that strategic value was higher within knowledge-based and job-based employment than in alliance and contractual work arrangements. In this study, I aim to test these same hypotheses and expect to replicate these results:

Hypothesis 1: *The strategic value of a job will be related to its allocation to employment arrangements, such that (a) jobs with high strategic value will be allocated to knowledge-based and job-based employment and (b) jobs with low strategic value will be allocated to contract work and alliances.*

3.2.2 Uniqueness of Jobs

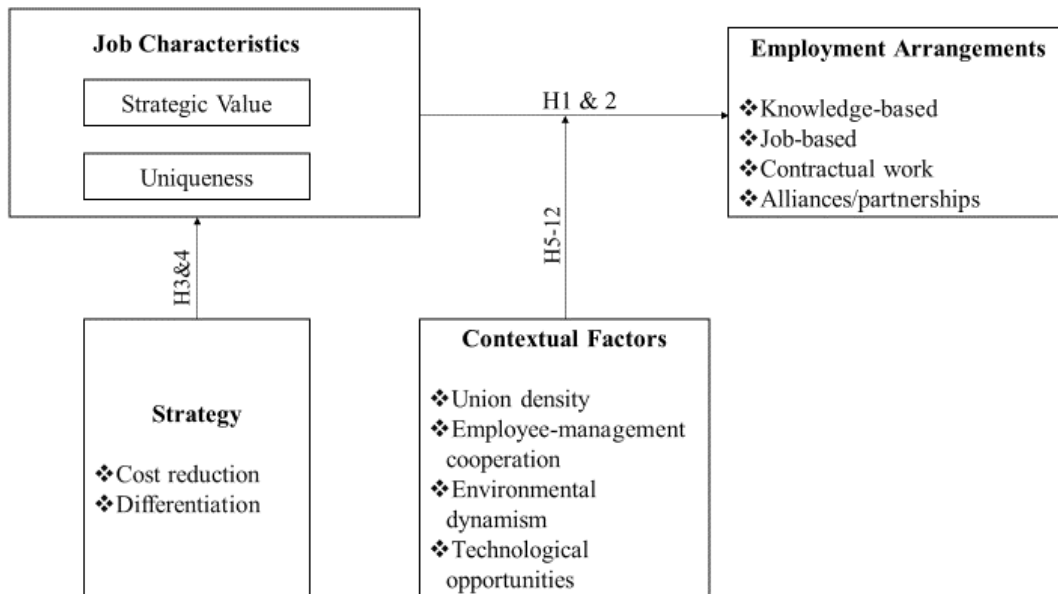
Unique or rare human capital refers to human capital that is firm-specific and cannot be copied or imitated easily by other competitors (Lepak & Snell, 2002; Raffiee & Coff, 2016). In fact, several scholars highlight why firm-specific human capital cannot be easily transferred, let alone duplicated by rival firms (Campbell, Coff, & Kryscynski, 2012; Lengnick-Hall & Lengnick-Hall, 2002; Ployhart & Hale, 2014; Raffiee & Coff, 2016). Consequently, employees with unique human capital are considered *rainmakers*, as their idiosyncratic knowledge contributes to innovation (Kang et al., 2007; Lopez-Cabrales, Perez-Luño, & Cabrera, 2009). Indeed, harnessing employees' creative potential to develop highly differentiated products, is of paramount significance (Fuchs, Mifflin, Miller, & Whitney, 2000). The study of Lepak and Snell (2002) revealed that human capital uniqueness was higher within alliances and knowledge-based employment arrangements than the other two employment arrangements. Accordingly, I hypothesise:

Hypothesis 2: *The uniqueness of a job will be related to its allocation to employment arrangements, such that (a) jobs with high uniqueness will be allocated to alliances and knowledge-based employment and (b) jobs with low uniqueness will be allocated to contract work and job-based employment.*

3.3.3 Influence of Contextual Factors on Job Characteristics

Lepak and Snell (2002) provide a useful foundational framework, but in developing their model, they have, by and large, missed to account for factors that other studies and theoretical approaches have emphasised as important in shaping the design of jobs and employment systems. In this section, I draw on that work to extend the Lepak and Snell framework in a way that accommodates these institutional, bureaucratic and dynamic market pressures. Specifically, I examine how firm strategy might predict within firm variability in the strategic value and uniqueness of jobs and how other contextual factors, such as union density, management-employee cooperation levels, environmental dynamism and technological opportunities, might predict within firm variability in employment arrangements. Figure 3.2 depicts the relationships that will be tested in the model.

FIGURE 3. 2 Theoretical framework of the antecedents of differentiation



Competitive strategy and job characteristics

Following Porter’s (1980; 1985) classifications of generic strategies, several scholars maintain that there are essentially two strategies pursued at business level: Cost leadership and differentiation strategies (e.g., Arthur, 1992; Becheikh, Landry, & Amara, 2006; Neal, West, & Patterson, 2005; Thornhill & White, 2007; Wang & Verma, 2012; Wright, 2008). Osterman (1994) noted that ‘employers face the choice of either competing on the basis of cost or competing on the basis of quality, variety, and service’ (p. 179). In fact, other scholars even maintain that ‘failure to choose between one of cost- or differentiation-leadership will result in inferior performance, the so-called “stuck-in-the-middle” hypothesis’ (Campbell-Hunt, 2000, p. 127). Consistent with this line of research, I construe cost leadership and differentiation as two generic strategies that are likely to be implemented by firms (See also Thornhill & White, 2007; Wang & Verma, 2012).

Cost reduction or minimisation strategy involves enhancing competitiveness by lowering the cost of products, goods and/or services. This strategy enhances production efficiency and reduces expenditures by adopting new technology, enlarging the scale of production, or re-engineering production processes so that a business can sell its products or services at a lower price in the market (Lee, Lee, & Wu, 2010; Takeuchi, 2009). Firms that adopt a cost-

reduction strategy struggle for greater economies of scale and strictly control and minimise expenses (Schuler & Jackson, 1987). Such firms tend to use administrative HR practices such as increased use of contingent employees, flexibility in job assignments and hourly pay, among others (Takeuchi, 2009). According to Wang and Verma (2012), firms with a cost reduction strategy create jobs that require routine, generic and unskilled human capital. This is because a cost reduction strategy perceives all employees as costs to be controlled (Bamberger & Meshoulam, 2000).

In contrast, a **differentiation strategy** is meant to achieve success by offering a high standard of quality and/or innovative products and services (Huang, 2001; Sanz-Valle, Sabater-Sanchez, & Aragon-Sanchez, 1999). Generally, a differentiation competitive strategy requires employees who possess skills relevant for the production of high quality and innovative products (Snell & Dean, 1992; Wright, 2008). Therefore, firms that use this strategy are likely to employ HR practices that enhance human capital value and uniqueness, such as selective staffing, developmental and behaviour-based performance appraisal, group incentives and market-based compensation (Arthur, 1992). Lepak et al. (2007) found the use of high-investment HR (HIHR) systems for core employees in establishments with a high emphasis on innovation to be greater than the use of HIHR systems for core employees in establishments with a low emphasis on innovation. Extending this logic, I anticipate that an innovation strategy influences firms to focus more on strategic jobs, which offer ‘something new and different’ (Chow, Huang, & Liu, 2008, p. 691). Therefore, I predict:

Hypotheses 3: *The strategic value of jobs in establishments pursuing an innovation strategy will be higher than the strategic value of jobs in establishments pursuing a cost reduction strategy.*

Hypotheses 4: *The uniqueness of jobs in establishments pursuing an innovation strategy will be higher than the uniqueness of jobs in establishments pursuing a cost reduction strategy.*

Union density

Unions play a role in shaping competing interests between firms and employees (e.g., Bélanger & Edwards, 2007; Edwards, 1979; Osterman, 2011). Bélanger and Edwards (2007), argue that unions may predispose management to compromise with workers through the introduction of high road HR practices such as HPWS. Similarly, Osterman (2011) argues that unions develop rules regarding appropriate and inappropriate behaviour for employers and employees. However, since employees have less power than their employers, unions mainly protect employee interests. Godard (2001) found that workers' interests are more likely to be considered when there are strong unions as opposed to situations where unions are weak or non-existent. In his empirical study on 'what is best for workers?', Godard (2010) found that 'traditional' HR practices in countries with union representation have strong implications for employees.

Similarly, in a study conducted across 2,001 Australian medium and large workplaces, Benson (2000) found that union workplaces had higher levels of collective negotiations, industrial action, employee surveys, joint consultative meetings and equal employment than non-union workplaces. This finding suggests that unions can, in fact, press firms to adopt certain HR/employment systems. In fact, other scholars also noted that unions might call for restrictive employment and HR systems to limit management exploitation of employees (e.g., Blanchflower & Bryson, 2004; Freeman & Medoff, 1984). Building on internal labour market theory, particularly on Osterman's (2011) institutional perspective, which argues that the rules of internal labour markets emerge from reconciling the organisation's and employees' interests, I expect unions to influence the employment arrangements and HR systems adopted by firms. One such employment arrangement that offers mutual benefits for organisations and employees is the knowledge-based employment arrangement, which involves the use of 'high road' HR systems such as HPWS. However, since the implementation of 'high road' HR systems such as HPWS could instead be a deliberate strategy by management to avoid unionisation (See Gill, 2009; Kaufman, 1997; Keenoy, 1991; Kochan, 1980; Kochan, Katz, & McKersie, 1994; Verma, 2005), employees working in organisations that utilise HPWS are less likely to feel the need for unionization given that HPWS act as a substitute for unions. Put differently, since high performance work practices may act as substitutes for unions (e.g., Gill, 2009), knowledge-based employment arrangements (associated with 'high road' HR systems) are less likely to be adopted because

workers join a union precisely because their employer does not adopt such “progressive” employment and HR practices. On the contrary, the adoption of external and/or secondary employment systems, such as contractual work arrangements, is likely to be opposed by unions (Osterman, 1987). Consequently, the higher the union density, the more likely it is for organisations to compromise. One employment arrangement that has HR practices reflective of a compromise is the job-based employment arrangement since it facilitates a “symbiotic” or an “integrative” employment relationship (Lepak & Snell, 2002). Lepak and Snell (2002) describe workers in a job-based employment arrangement as autonomous professionals, like teachers, nurses, accountants or IT technicians who are valuable to the firm although their skills are widely transferable and distributed in the labour market. For Lepak and Snell, such workers are managed with a market-based HR system—delivering benefits for both management and employees. That is, while management reaps immediate benefits in terms of higher levels of productivity, employees receive competitive market pay and equity in compensation, among others. In Australia, several unions represent interests of such professional workers in various industries including transport, mining, manufacturing, education, among others to ensure that worker interests are safeguarded lest they are exploited by some organisations. Accordingly, I hypothesize:

Hypotheses 5: *The positive relationship between the strategic value of jobs and their allocation to employment arrangements will be moderated by union density, such that (a) the relationship between strategic value of jobs and knowledge-based employment arrangement will be weaker for high levels of union density and (b) the relationship between strategic value of jobs and job-based employment arrangement will be stronger for high than low levels of union density.*

Hypotheses 6: *The positive relationship between the uniqueness of jobs and their allocation to employment arrangements will be moderated by union density, such that (a) the relationship between the uniqueness of jobs and knowledge-based employment arrangement will be weaker for high levels of union density and (b) the relationship between the uniqueness of jobs and alliances will be weaker for high than low levels of union density.*

Management-employee cooperation

Previous research in Internal Labour Market theory suggests that employment relationships may be characterised by different organisational outcomes, including co-operation, conflict and negotiation (Bélanger & Edwards, 2007; Edwards et al., 2006; Morgan, 1986). However, the major outcomes discussed with regards to the employment relationship are co-operation and conflict (Bacon & Blyton, 1999; Edwards et al., 2006), which ‘are two sides of the same coin’ (Watson, 1987, p. 213). To date, the main concern for researchers has been the development of less conflictual and more cooperative employment relations in a bid to deliver mutual gains for organisations and employees whose contributions are equally important for the realisation of business success (Bacon & Blyton, 1999; Monks, 1998; Walton, Cutcher-Gershenfeld, & McKersie, 1994).

According to Edwards et al. (2006), cooperation is an indication that the firm has the ability to develop employee engagement either through consensual mechanisms, like teamwork, or overt conflict management processes. In particular, management and employees always seek to enter into a cooperative relationship when both parties perceive associated benefits (Deery & Iverson, 2005). As such, high levels of management-employee cooperation reduce the avenues for antagonism or conflict between management and employees. This is succinctly supported by theories of social exchange which maintain that an organisation’s treatment of its employees is often reciprocated by employees (Blau, 1964; Gouldner, 1960). A study conducted by Tsui et al. (1997) across ten US companies revealed that employees tend to respond to HR practices that they receive in accordance with the employee-organisation relationship with employees in an overinvestment (by the employer) or mutual investment relationship, exhibiting higher levels of trust and affective commitment in comparison to quasi-spot-contract and underinvestment employee-organisation relationships.

In the context of HR differentiation, however, anecdotal evidence suggests that highly ‘differentiated’ firms tend to have higher levels of differential employee treatments, which could generate *fairness* concerns, leading to mixed employee outcomes. Conversely, in less ‘differentiated’ firms, the HR practices implemented are more inclusive; hence, employees are likely to show higher levels of management-employee cooperation. Therefore, consistent with Osterman’s (2011) *institutional perspective*, which suggests that the Internal Labour Market outcomes (e.g., conflict and cooperation) emerge from internal political processes and

that they shape the nature of HR practices adopted, management-employee cooperation is likely to influence the extent to which firms use differentiated HR/employment systems, such that firms with higher levels of management-employee cooperation are less likely to use differentiated HR systems in comparison with those firms with low levels of management-employee cooperation. Accordingly, I posit:

Hypotheses 7: *The positive relationship between the strategic value of jobs and their allocation to employment arrangements will be moderated by management-employee cooperation, such that (a) the relationship between the strategic value of jobs and knowledge-based employment arrangement will be weaker for high levels of management-employee cooperation and (b) the relationship between the strategic value of jobs and job-based employment arrangement will be weaker for high than low levels of management-employee cooperation.*

Hypotheses 8: *The positive relationship between the uniqueness of jobs and their allocation to employment arrangements will be moderated by management-employee cooperation, such that (a) the relationship between the uniqueness of jobs and knowledge-based employment arrangement will be weaker for high levels of management-employee cooperation and (b) the relationship between the uniqueness of jobs and alliances will be weaker for high than low levels of management-employee cooperation.*

Environmental dynamism

Generally, ‘either by choice or by circumstance, firms increasingly find themselves operating in turbulent and highly unpredictable environments’ (Dyer & Ericksen, 2005, p. 183). Thus, firms are constantly seeking innovative ways of developing employees who are extremely flexible (Atkinson, 1984; Kalleberg, 2001) and agile (Matusik & Hill, 1998; Palthe & Ernst Kossek, 2003). Indeed, with these constant changes in the business environment, firms find it difficult to determine beforehand the tasks and roles that employees have to perform (Lepak et al., 2003). Consequently, the flexible firm theorists maintain that dynamic environments require flexible employees to neutralise threats and exploit opportunities in the business

environment (Cappelli & Neumark, 2004; Kalleberg, 2003). In support of this proposition, Lepak and Snell (1999) theorised that when competitive situations change, the *value* and *uniqueness* of jobs also changes - hence the need to shift employees to *Quadrant 1* (i.e. knowledge-based employment arrangement). However, Lepak and Snell (2002) did not test this proposition in their empirical assessment of the HR architecture model. Accordingly, I hypothesise:

Hypotheses 9: *The positive relationship between the strategic value of jobs and their allocation to employment arrangements will be moderated by environmental dynamism, such that (a) the relationship between strategic value of jobs and knowledge-based employment arrangement will be stronger for high levels of environmental dynamism and (b) the relationship between strategic value of jobs and job-based employment arrangement will be weaker for high than low levels of environmental dynamism.*

Hypotheses 10: *The positive relationship between the uniqueness of jobs and their allocation to employment arrangements will be moderated by environmental dynamism, such that (a) the relationship between the uniqueness of jobs and knowledge-based employment arrangement will be stronger for high levels of environmental dynamism and (b) the relationship between the uniqueness of jobs and alliances will be weaker for high than low levels of environmental dynamism.*

Technological opportunities

Previous research has also pointed to the importance of technology in shaping the optimal mix of human resources (Kintana, Alonso, & Olaverri, 2006; Scott, 1992). That highly specialised technologies require highly skilled and competent employees (e.g., knowledge workers) is scarcely in dispute (e.g., Ceylan, 2013; Hambrick, Black, & Fredrickson, 1992; Osterman, 1987; Snell & Dean, 1992). In a study on adoption of workplace transformation that examined 694 US manufacturing establishments, technology was found to be an important factor in the establishments' adoption of innovative work practices (Osterman, 1994). Indeed, it cannot be overemphasised that for firms to cope with the demands of new

technologies and/or benefit from available technological opportunities, firms require highly skilled and competent employees. This finding suggests that technology might, in fact, play an important role in the adoption of HR/employment systems.

Contrary to technological uncertainty, which leaves organisations with a dilemma about how to predict future events (Reuer & Devarakonda, 2016), technological opportunities present firms with avenues to maximise firm performance. Zuboff (1988) theorised that technological opportunities will have a significant influence on the nature of jobs and HR/employment systems adopted by firms. A core reason for this is that technological opportunities lead firms to invest in their knowledge roles, which generate higher returns on investment. Zahra (1996) theorised that firms presented with higher technological opportunities exhibit rapid growth potentials and higher levels of research and development spending. These findings suggest that firms with high technological opportunities might rely more on knowledge-based employment arrangements. Accordingly:

Hypotheses 11: *The positive relationship between the strategic value of jobs and their allocation to employment arrangements will be moderated by technological opportunities, such that (a) the relationship between the strategic value of jobs and knowledge-based employment arrangement will be stronger for high levels of technological opportunities and (b) the relationship between the strategic value of jobs and job-based employment arrangement will be weaker for high than low levels of technological opportunities.*

Hypotheses 12: *The positive relationship between the uniqueness of jobs and their allocation to employment arrangements will be moderated by technological opportunities, such that (a) the relationship between the uniqueness of jobs and knowledge-based employment arrangement will be stronger for high levels of technological opportunities and (b) the relationship between the uniqueness of jobs and alliances will be weaker for high than low levels of technological opportunities.*

3.3 Methods

3.3.1 Sample and procedures

The purpose of the study was to examine the contextual factors that might influence a firm's HR architecture. During the months of September to December 2016, respondents were sent letters inviting them to participate in the telephone-based survey by a market research company. Simple random sampling procedure was employed to draw a sample of 1200 medium and large establishments from a data file of Australian manufacturing businesses, compiled by Dunn & Bradstreet, Australia. The criteria for participation was that the respondent had to be a senior executive: that is, either Chief Executive Officer (CEO), HR Director/Manager, or Operations Manager. This decision was made because senior executives are in a better position to understand how jobs are created and how employees are managed across the different employment arrangements (Lepak & Snell, 2002; Lepak et al., 2007).

Following previous research conducted across Australian workplaces, I excluded small establishments - those consisting of less than 20 employees (Benson, 2000). This exclusion follows previous studies, where it has been argued that small organisations are less likely to have formal HR procedures (Huselid & Becker, 1996; Lepak et al., 2003). I focused on establishments (i.e. 'stand-alone' business units or workplaces) as opposed to companies or corporations, because: First, establishments are less likely to implement multiple business strategies in comparison with enterprises (Lepak et al., 2007), and second, establishment surveys tend to have higher reliabilities because managers are more likely to be familiar with the employment and HR systems being implemented due to their relatively smaller sizes (e.g., Batt, 2002; Gerhart et al., 2000; Takeuchi et al., 2009).

Once respondents had indicated their willingness to participate in the study, they were called at an agreed time. Regarding job characteristics, the data collection procedure involved asking participants to answer questions about only one employment arrangement with the highest number of employees in their establishment. However, if respondents indicated more than one employment arrangement as having the highest number of employees, they were asked to choose which of those employment arrangements with which they were most familiar.

Out of the 1200 invitation letters that were sent out, the study returned 200 surveys, giving a response rate of 16.7%, which is consistent with prior comparable studies using key informant methodology (e.g., Lepak & Snell, 2002; Lepak et al., 2003; Lepak et al., 2007; Youndt et al., 1996). Of the sample ($n = 200$), 50 focused on knowledge-based employment arrangement, 144 on job-based employment and only 6 focused on contractual work arrangements. The mean establishment size was 1,216 employees [(standard deviation), SD 13,919.9], while the mean establishment age was 5.9 years (SD 1.5). Most of the establishments, that is, 93%, belonged to the private sector and 70% were involved in alliances/partnerships.

Non-response bias

Non-response bias is said to occur if the responses of the participants differ significantly from those who did not participate, such that one cannot ascertain how the entire sample would have responded to the survey (Armstrong & Overton, 1977). Given that the response rate for the study was 16.7% ($n = 200$), I checked for potential non-response bias. First, I conducted one-way Analysis of Variance (ANOVA) to determine whether there is a significant difference between responding and non-responding establishments regarding an establishment's revenue. The additional data for testing non-response bias using revenue (ranging from less than one million AUD to 100 million AUD or more) was obtained after the survey was conducted from the same data file of an Australian manufacturing businesses, compiled by Dunn & Bradstreet, Australia. The total number of cases used for this analysis was 2,300 ($n = 200$ for responding establishments and $n = 2,100$ for non-responding establishments). The ANOVA results found no significant differences at the .05 level between responding ($M = 3.96$) and non-responding ($M = 3.82$) establishments in terms of revenue, $F(1, 2298) = 1.60, p > .21$. Second, following the procedures outlined by Lepak and Snell (2002), I tested for non-response bias for industry differences at the four-digit Australian Standards Industrial Classification (SIC) code level using a chi-square test of association. The study found no association in industry differences between responding and non-responding establishments, $\chi^2(326, N = 2300) = 219.23, p > 1.00$. These results provide support that our respondents did not significantly differ from those in non-responding establishments.

Measures

Since the unit of analysis was the establishment, questions were framed in such a way that participants would only focus on their business unit, workplace or location when answering the questions. A complete list of items used for each measure appears in Appendix 1: Management Survey.

Employment arrangement. At the beginning of the survey, participants were provided with descriptions of the four employment arrangements of interest in the study. While the definitions were adopted from Lepak and Snell's (2002) study, some of the wording was altered to reflect the Australian context. For instance, job-based employment arrangement was referred to as 'task-based roles' and contractual work arrangements as 'support staff roles,' and were defined as follows:

- i. Knowledge-based roles are where firms develop and cultivate the knowledge, skills and abilities of their workers over time. These employees' development is important for contributing to the longer-term needs of the firm (e.g., HR Managers, Chief Financial Officers, designers).
- ii. Task-based roles are where employees are hired to contribute immediately to the firm by performing a specific set of tasks or duties related to producing goods or services. Employees are accountable for meeting relatively short-term performance objectives (e.g., assembly workers, fabricators, plant operators).
- iii. Support staff roles are those where employees are engaged to perform limited and routine jobs that are not directly related to the production of goods or services (e.g., cleaners, clerks).
- iv. Alliances are mutual partnerships with independent or external parties or subcontractors to jointly perform projects or tasks (e.g., temporary help agencies).⁵

⁵ Regarding alliances, we only asked respondents to indicate whether their workplace uses them. Data was not sought regarding the job characteristics of employees involved in alliances. This decision was made because, in the Australian manufacturing sector, alliances/partnerships are external to the firm. Hence, respondents were less familiar with those job characteristics.

After describing the employment arrangements, we instructed each participant to indicate what proportion of their employees are employed under each employment arrangement. To make certain that they understood and were visualising a set of jobs, participants were asked to mention at least three jobs their establishment typically employed in the employment arrangement with the highest number of employees or that with which they were most familiar. Table 3.1 describes the sample of jobs. Just as Lepak and Snell (2002) and Lepak et al. (2007) found, some jobs are listed in multiple employment arrangements. This finding offers support to the assumption that firms allocate similar jobs in different ways.

TABLE 3.1 Sample of jobs identified for each employment arrangement

Knowledge-based roles	Task-based roles	Support staff roles
Managers	Professionals	Clerical staff
Professionals	Sales workers	Administrative workers
Sales workers	Machinery operators	Labourers
Machinery operators	Technicians	Community workers
Technicians	Trade workers	Personal service workers
Trade workers	Managers	
	Drivers	
	Labourers	

Human capital strategic value was measured using Cabello-Medina, López-Cabrales, and Valle-Cabrera (2011) five-item scale. Participants were asked to indicate on a five-point Likert Scale (where 1 = strongly disagree and 5 = strongly agree) statements about the skills, expertise and knowledge levels of employees under the employment arrangement with the highest number of employees or that with which they were most familiar. An example item was: ‘Employees in the [selected] employment arrangement have skills that create customer value’.

Human capital uniqueness was measured using a four-item scale developed by Cabello-Medina et al. (2011). Participants were asked to assess the skill-set of employees in the employment arrangement with the highest proportion of employees or that with which they were most familiar. Using a five-point scale (where 1 = strongly disagree and 5 = strongly agree), participants were asked to indicate whether they agreed or disagreed with statements

about how specialised those employee skills were. An example item was: ‘Employees in the [selected] employment arrangement have skills that are not available to our competitors’.

Union density. This was measured by a single question (e.g., Lepak & Snell, 2002; Wang & Verma, 2012): ‘What proportion of employees in your workplace are members of a union?’ I used a five-point scale, ranging from 1 (20% or less) to 5 (81-100%).

Cost reduction strategy. The cost reduction strategy was measured with a three-item scale by Wang and Verma (2012). The items include, ‘reducing labour costs’, ‘using part-time, temporary, or contract workers’ and ‘minimising production and service delivery costs’. Participants were asked to rate the relative importance of items regarding their workplace’s general business plans using a five-point scale, ranging from 1 (Not important) to 5 (Crucial).

Differentiation strategy. This was measured by 4 items that were consistent with items used in previous research (e.g., Lepak et al., 2007; Wang & Verma, 2012). Sample items were ‘undertaking research and development’ and “being ‘first to the market’ with new products/services”. Participants were asked to rate the relative importance of items regarding their workplace’s general business plans using a five-point scale, ranging from 1 (Not important) to 5 (Crucial).

Management-employee cooperation. This was measured by 10 items, adapted from Deery and Iverson (2005) and Dastmalchian, Blyton, and Adamson (1989). The items were reworded to reflect ‘management and employees.’ Sample items included: ‘Management and employees work together to make this organisation a better place in which to work’ and ‘employees generally view the conditions of their employment here as fair.’ Respondents answered questions based on their assessment of the levels of collaboration between management and employees at their workplace, ranging from 1 (strongly disagree) to 5 (strongly agree).

Environmental dynamism. Jansen, Vera, and Crossan (2009) five-item scale was used to assess environmental dynamism. On a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree), participants were asked statements about the market in which their

workplace operated. Sample items were: ‘business changes in your local market are intense’ and ‘in your market, the volumes of products and services to be delivered change fast and often.’

Technological opportunities was measured by 4 items that were consistent with items used in previous research (Eddleston et al., 2008; Zahra, 1996). On a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree), participants were asked statements about the technological opportunities available at their workplace’s environment. Example items included: ‘opportunities for product innovation are abundant in your major industry’ and ‘spending on research and development is higher in your major industry than in most industries’.

Control variables

I included several controls in my analysis: (1) organisational size: I used the natural logarithm of the total number of employees within the establishment (log size) (Lepak & Snell, 2002; N. Takeuchi, 2009); (2) establishment age: the number of years since the workplace’s founding date (Liao et al., 2009); (3) whether it belongs to the public or private sector (private = 1 and public = 2) (Zacharatos, Barling, & Iverson, 2005); (4) whether the establishments are involved in alliances (Yes = 1 and No = 0) (Schilke, 2014); and (5) whether it is Australian or foreign-owned due to potential differences in how local and foreign workplaces manage their employees.

Assessment and treatment of missing values

There are several ways to treat missing data, including listwise deletion, pairwise deletion, multiple regression and expectation-maximisation (EM) algorithm, among others (Allison, 2003). However, the decision rule/criteria for making a choice among them requires us to make some assumptions about why our data is missing. Hair, Black, Babin, and Anderson (2014) identify three types of ‘missingness’:

- i. Missing Completely At Random (MCAR).
- ii. Missing At Random (MAR).
- iii. Missing Not At Random (MNAR).

Data is said to be MCAR when the probability of ‘missingness’ is independent of all the variables in the study. Little’s MCAR test is a statistical test of randomness used to determine whether the missing data can be classified as MCAR. The test analyses the pattern of missing data and compares it with the expected pattern for data that is randomly missing, such that if there are no significant differences, the data can be said to be MCAR (Hair et al., 2014; Little & Rubin, 1987).

Data is said to be MAR when the missing data is dependent on the variables that were measured, but independent of those that were not measured, while MNAR refers to the scenario where the missing data may be related both to the variables that were measured and to those that were not measured (Allison, 2003; Enders, 2011). Little and Rubin (1987) argued that if Little’s MCAR test is significant, then our data can be said to be either MAR or MNAR. To determine whether the data is MAR or MNAR, missing value analysis (MVA) is usually conducted to analyse missing data patterns. If there is no specific pattern in ‘missingness’, the data is said to be MAR. It is important to note that while there are several ways of testing whether the data is MCAR or MAR, one can never confirm nor deny the possibility that the data might be MNAR (Allison, 2003). The rule of thumb, however, is that missing data of less than 10% are *ignorable* because they do not bias results (Cohen & Cohen, 1983).

Therefore, before addressing ‘missingness’, I checked for missing values in the data across all the latent variables: Human capital strategic value, human capital uniqueness, employee-management cooperation, cost minimisation strategy, product innovation strategy, environmental dynamism and technological opportunities. The total missing values constituted up to 2.86%. One common approach to managing missing values would be to use list-wise deletion of cases with missing data (Hair et al., 2014; Kline, 2005). However, this method would have significantly reduced the sample size used in any subsequent analysis. Therefore, I decided to impute the missing data as ‘one could do even better by modeling the missing data mechanism as part of the estimation process’ (Allison, 2003, p. 545).

However, before imputing the missing values, I assessed the extent to which missing values were systematic or randomly distributed. To do this, I conducted Missing Value Analysis (MVA) on all the latent variables used in the study using Little’s MCAR test (Dempster,

Laird, & Rubin, 1977). The Little's MCAR test obtained for the study's latent variables resulted in a chi-square = 635.516 (df = 628; $p > .409$), which indicated that the data is indeed MCAR. Hence, I imputed the missing values using expectation-maximization (EM) algorithm. Cohen, Cohen, West, and Aiken (2013) maintained that when the missing data is small (5% or less) and is randomly missing, EM algorithm yields the best estimates.

Outliers

I then checked the dataset to identify outliers because they can bias results. According to Tabachnick and Fidell (1996), if the analysis to be performed contains a grouping variable, such as ANOVA and ANCOVA, as is the case for this study, univariate outlier assessment is recommended. To do this, I used two commonly used procedures for univariate outlier assessment in continuous variables: Outlier Labeling Rule and Standardised (z) scores. First, using the Outlier Labeling Rule, which is based on multiplying the Interquartile Range (IQR) by a factor of 2.2 (Hoaglin, Iglewicz, & Tukey, 1986), I did not find any outliers in the dataset. Second, I used standardised (z) scores to identify outliers. Cases with 3.29 SD above and below the mean score could be regarded as outliers as they lie below $p = .001$ (2-tailed test) (Tabachnick & Fidell, 1996). Except for four cases (i.e. one observation in the items used to measure human capital strategic value and three observations in the items used to measure labour-management cooperation), none of the other observations used in this study returned a z score greater than 3.29. I chose to delete these cases from subsequent analyses.

Normality

Given that the study involves ANOVA, ANCOVA and independent samples t -tests, I decided to test for the assumption of normality. This is because ANCOVA and t -tests are parametric tests, which assume that the observations are normally distributed. If this assumption does not hold, results from such analyses may not be robust, producing biased estimates and/or leading to inappropriate results and inferences drawn from them. Therefore, I first tested for normality of the data using graphical and numerical techniques (Park, 2008). Scholars contend that using both methods offers more robust results than the use of only one technique (Curran, West, & Finch, 1996; Razali & Wah, 2011).

Visual inspection of histograms, box plots and Q-Q plots were used to graphically assess the shape of the distribution, while measures of skewedness and kurtosis provided the numerical

tests of normality. A variable with an approximately normally distributed set of observations is expected to return a kurtosis value approaching three and a skewness value of zero (Kline, 2005; Park, 2008). In this study, all latent variables were either positively or negatively skewed, with absolute values near zero and kurtosis absolute values less than 2. Following the recommendation from George and Mallery (2010), kurtosis values between -2 and +2 are deemed acceptable to demonstrate approximately normal univariate distribution. Consequently, data transformation was not deemed necessary because none of the latent variables had a kurtosis absolute score equal to or greater than 2 (the highest kurtosis value recorded was .778).

Addressing Common Method Variance

Although the use of key informants is common in research that requires higher levels of abstractions from the firm's or establishment's decision-makers (Lepak & Snell, 2002; Lepak et al., 2003; Lepak et al., 2007), Common Method Variance (CMV), also known as Common Method Bias (CMB), might pose serious threats because data were obtained from the same source (Podsakoff & Organ, 1986). By CMV, reference is made when variations in responses are a result of the survey instrument rather than the actual predisposition of the respondent that the survey seeks to uncover (MacKenzie & Podsakoff, 2012; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Since it can inflate and also attenuate relationships, CMV can lead to unsound conclusions (Richardson, Simmering, & Sturman, 2009). Thus, researchers are encouraged to use various methods to identify and mitigate its effects.

To minimise the potential for CMV, I took both procedural approaches by exercising due diligence in the design of the study and administration of the survey, and I used statistical approaches to assess and control for its potential effects. First, I reworded some of the measurement items to minimise item ambiguity and improve clarity. For instance, job-based and contractual work arrangements were reworded as task-based and support staff roles, respectively. Moreover, the survey was telephoned-based. Podsakoff et al. (2003) argued that the use of telephone-based surveys improves item clarity and minimises ambiguity. In other words, with the use of telephone-based surveys, there is a platform for respondents to seek for clarification; hence, to be able to link the questions to the relevant information sought. Second, measures of human capital, strategic value and uniqueness were obtained using shortened versions of the scale used by Cabello-Medina et al. (2011) in their empirical study.

According to Hinkin (1995), shortened versions of items mitigate some of the bias that might arise out of carelessness and fatigue that arises when the survey instrument is long. Third, I protected respondent anonymity by highlighting in the plain language statement (PLS) that all information provided will be strictly confidential. Moreover, I encouraged them to provide honest opinions because there are no right or wrong answers. Such an approach helps minimise CMV because respondents might not be tempted to ‘edit’ their responses to make them more socially desirable and convenient (Podsakoff et al., 2003). Fourth, data was collected from senior executives (i.e. either CEOs, HR directors/managers, or operations managers) who are decision-makers and were more likely to be familiar with the employment arrangements in their workplaces and the different ways in which employees in the various job categories are managed. Given their knowledge regarding the different kinds of jobs and the various features of their respective workplaces, the accuracy of their responses may not have been greatly compromised.

To assess CMV statistically, I first conducted Harman’s single factor test using Principal Component Analysis (PCA) by loading all the study’s seven latent constructs into the analysis and constrained the number of factors to be extracted to ‘1’ (Podsakoff et al., 2003; Schilke, 2014). The total variance extracted (TVE) was only 22.71%. Since the extracted component accounts for less than 50% of all the variables in the model, it is unlikely that CMV posed a serious threat to the data. Second, I performed Harman’s one-factor test using Confirmatory Factor Analysis (CFA) (McFarlin & Sweeney, 1992) by comparing a single factor model with the proposed 7-factor model factor. Results of the CFA showed that the one factor model had a very poor fit: The chi-square/degrees of freedom (χ^2/df), $\chi^2 (377) = 1852.590$, $p < .001$, Standard Root Mean Residual, SRMR = .14, Tucker–Lewis Index, TLI = .33, Incremental Fit Index, IFI = .38, Comparative Fit Index, CFI = .37 and Root Mean Square Error of Approximation, RMSEA = .14.

However, since Harman’s single factor test is not enough for one to be confident that CMV is not an issue (e.g., Craighead, Ketchen, Dunn, & Hult, 2011; Podsakoff et al., 2003), I tested for CMV using the marker variable technique. According to Craighead et al. (2011), the marker variable technique involves incorporating an additional variable into the study that is theoretically unrelated to at least one of the study’s constructs. The authors argued that a marker variable may be a multi-item, single item, or an objective measure. CMV is then

evaluated on the basis of the correlations between the marker variable and the variables of interest (Yee, Yeung, & Cheng, 2008). If there is a significant relationship between the marker variable and variables of interest, then CMV might be a problem. The marker-variable I included was a demographic question that asked participants to indicate whether their workplace was a subsidiary of a larger company. Williams, Hartman & Cavazotte (2010) suggested that demographic variables are a good choice of marker variable as ‘it seems unlikely that any theoretical connection with substantive measures is possible’ (Williams, Hartman, & Cavazotte, 2010, p. 30). An independent samples *t*-test was used to test differences between the marker variable and variables of interest. No significant differences were found between the marker-variable and the strategic value of jobs, $t(197) = -.694, p > .49$, uniqueness of jobs, $t(198) = -.504, p > .62$, cost minimisation strategy $t(198) = .989, p > .32$, innovation strategy $t(198) = -1.226, p > .22$, employee-management cooperation, $t(195) = -.891, p > .37$, technological opportunities, $t(198) = .687, p > .49$ and environmental dynamism $t(198) = .225, p > .82$. However, to determine if there was an association between the marker variable and union proportion, a chi-square test of association was used. It was found that there was no association between the marker variable and union proportion, $\chi^2(4, N = 87) = 8.79, p > .07$. Hence, I conclude that CMV did not pose a serious threat to this study.

3.3.2 Reliability and Validity Checks

Consistent with recommended practice, I conducted Factor Analysis for all the latent variables to identify cross-loading items for subsequent removal from the analysis, if necessary. I selected SPSS’ default analysis, PCA, since it is the most common tool for factor reduction (Hair et al., 2014; Pallant, 2007) using Varimax rotation, which is the most widely used orthogonal rotation method as it generates an invariant pattern structure with a very clear separation of factors. Thereafter, the reliability of the scales was tested using Cronbach’s alpha (α). Generally, a Cronbach’s α of .70 and above are acceptable for research purposes (e.g., Hair et al., 2014; Nunnally & Bernstein, 1994).

In addition to assessing reliability, I also sought to establish validity to ensure that the items measured what they were intended to measure. Specifically, I sought to measure Convergent and Discriminant Validity (Hair, Hult, Ringle, & Sarstedt, 2014). Convergent Validity was assessed by calculating Composite Reliability (CR) and Average Variance Extracted (AVE)

for each measurement scale. CR assesses the Construct Reliability of the measurement model, while AVE indicates the amount of shared variance between the construct and its measurement items (Baluch et al., 2013). It is recommended that CR should be at least .70 (Nunnally & Bernstein, 1994) and AVE be .50 above (Gefen, Straub, & Boudreau, 2000; Hair, Ringle, & Sarstedt, 2012). AVE and CR were calculated using the following formulae:

$AVE = \Sigma\lambda^2/N$, where λ is the factor loading and N is the number of factor loadings.

$CR = (\Sigma\lambda)^2/((\Sigma\lambda)^2 + \Sigma\varepsilon)$, where ε is the error variance denoted as $1-\lambda^2$.

Discriminant Validity was established by examining the item-to-item correlations. As a rule of thumb, it is recommended that items should correlate more strongly with their own latent construct than with other constructs (Alexander & Honig, 2016). Moreover, if the AVE estimate is higher than the square of the inter-construct correlations, then Discriminant Validity is said to be established (Fornell & Larcker, 1981).

Before Factor Analysis, the Kaiser-Meyer-Olkin (KMO) test and the Bartlett test of sphericity were conducted to evaluate factorability. The KMO value was 0.810 and the Bartlett test of sphericity was significant ($\chi^2(595) = 3064.174, p < .001$), indicating that Exploratory Factor Analysis (EFA) can be applied to the dataset.

EFA was conducted to extract the new factor structure and to examine the Construct Validity. The number of factors to be extracted was determined following a visual inspection of the scree-plot and calculation of communalities values and number of factors with eigenvalues greater than one. A total of nine factors were extracted, and the cumulative total variance explained (TVE) was 65.19%. The Rotated Component Matrix, presented in Table 3.2, showed two items used for creating Employee-management cooperation construct, ‘EMC10 *Employees have a positive view on joint management-employee committees here*’ and ‘EMC9 *In this workplace, joint management-employee committees achieve definite results*’ and one item used for creating environmental dynamism, ‘ED4 *In a year, nothing has changed in your market (R)*’ as loading separately as component 8, while component 9 consisted of one item contained in the uniqueness construct, ‘U2...*have skills that are developed through on-the-job experiences*’ and also one item contained in the strategic value construct, ‘HCV ...*are needed to maintain high quality products/services*’.

TABLE 3.2 Rotated Component Matrix^a for all the study's latent variables

Item Code in SPSS	Component								
	1	2	3	4	5	6	7	8	9
HCV1	.060	.054	.170	-.117	.705	.155	.015	-.115	-.040
HCV2	-.018	.175	.005	.110	.731	.049	.010	-.042	.270
HCV3	.061	.038	-.023	.006	.758	.102	.072	.217	.070
HCV4	.120	.058	.164	-.137	.716	.216	-.029	-.092	-.154
<i>HCV5</i>	.070	.130	.002	.108	.384	.005	.176	.100	.459
U1	.164	.032	.069	-.087	.149	.762	.018	.041	.032
<i>U2</i>	.172	.011	.024	-.100	.026	.138	-.024	.009	.810
U3	.021	.239	.107	.050	.130	.797	.022	.028	.105
U4	.088	.101	.033	-.020	.173	.862	-.037	-.018	.038
CMS1	-.041	-.049	.042	-.087	.038	-.011	.847	.035	.008
CMS2	-.018	-.097	.169	-.134	.135	.088	.784	.154	.040
<i>CMS3</i>	.028	.299	-.028	-.054	-.080	-.087	.525	-.128	.009
EMC1	.724	-.006	.142	-.109	.037	.029	-.062	.348	.013
EMC2	.712	.035	.087	-.073	.172	.039	.013	.386	.068
EMC3	.672	.029	.071	-.016	-.022	.184	.139	.209	.184
EMC4	.564	.193	.174	-.031	.059	.090	.222	-.096	-.116
EMC5	.796	.024	.021	-.037	.013	-.064	.002	.050	.113
EMC6	.712	.075	.052	-.019	.021	.067	-.126	.041	.123
EMC7	.794	.005	-.017	-.011	.071	.062	-.030	-.028	-.051
EMC8	.843	-.003	.048	-.070	.017	.044	-.030	-.018	-.015
<i>EMC9</i>	.468	.046	.171	-.040	.002	-.008	.130	.596	.027
<i>EMC10</i>	.374	.087	.197	-.113	-.055	.072	-.005	.708	.065
IS1	.136	.187	.831	-.010	.136	.095	.050	.095	.042
IS2	.083	.226	.827	-.180	.065	.018	.032	.181	-.009
IS3	.187	.174	.598	-.095	.055	.040	.414	-.030	.127
IS4	.109	.034	.688	-.381	.092	.097	-.008	.055	-.083
ED1	-.140	-.110	-.022	.766	.012	.127	-.162	-.095	.097
ED2	.016	-.200	-.332	.655	-.062	-.150	.013	-.194	.069

Item Code in SPSS	Component								
	1	2	3	4	5	6	7	8	9
ED3	-.019	-.213	-.152	.783	.036	.001	-.010	.050	.024
<i>ED4</i>	-.036	-.126	-.363	.502	.077	-.152	-.074	.355	-.294
ED5	-.089	-.002	-.038	.690	-.106	-.051	-.121	-.018	-.159
TO1	.110	.696	.241	-.173	.083	.113	.060	-.029	-.032
TO2	.042	.857	.069	-.081	.014	.044	.076	-.045	.020
TO3	.056	.834	.058	-.151	.136	.083	.009	.107	.039
TO4	.025	.634	.200	-.085	.134	.169	-.058	.084	.084

Notes. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^aRotation converged in 6 iterations. Components: (1) EMC: Employee-management cooperation; (2) TO: Technological opportunities; (3) IS: Innovation strategy; (4) ED: Environmental dynamism; (5) HCV: Human capital value; (6) U: Uniqueness; (7) CMS: Cost minimisation strategy. Bold items in italics were deleted.

To assess whether an item should be kept or deleted when assessing EFA, Hair et al. (2014) suggest using standardised factor loadings and sample size. For instance, for a sample size of 200 (such as this one), the authors suggest using a standardised factor loading threshold of .40. Stevens (1992) also suggests using a cut-off of 0.4, irrespective of sample size. However, when there are cross-loadings, Stevens argues that there should be at least a gap of .20 between the ‘target’ construct standardised factor loadings and each of the cross-loadings. Consequently, I deleted items that did not meet these minimum requirements (i.e. all the items in italics). However, it is important to note that while the item, ‘CMS3 *Using part-time, temporary or contract workers*’, apparently satisfied the requirements to be included as an item for creating cost minimisation construct, a decision to delete it was made because the Cronbach’s α of cost minimisation was only .62, which is below the acceptable level of .70. The deletion of item, ‘CMS3 *Using part-time, temporary or contract workers*’, raised the Cronbach’s α of cost minimisation construct to .77.

On deletion of the items highlighted in italics, I re-ran PCA and fixed the number of factors to be extracted to ‘7.’ Table 3.3 presents the standardised factor loadings, average variance extracted (AVE) and reliabilities of all the constructs.

TABLE 3.3 Factor Loadings, reliabilities and validity of latent constructs (n = 200)

Construct	Factor Loading
Employee-management cooperation ($\alpha = .88$; CR = .91; AVE = .56)	
Management and employees work together to make this workplace a better place in which to work.	.79
Management and employees have respect for each other's goals.	.78
The parties in this workplace keep their word.	.71
There is a great deal of concern for the other party's point of view in the management employee relationship.	.52
In this workplace negotiations take place in an atmosphere of good faith.	.80
The outcome of negotiations is regarded as fair by employees in this workplace.	.72
Employees generally view the conditions of their employment here as fair.	.77
A sense of fairness is associated with management-employee dealings in this workplace.	.83
Eigenvalue	6.59
% of variance Explained	22.71
Technological opportunities ($\alpha = .82$; CR = .85; AVE = .59)	
Opportunities for product innovation are abundant in your major industry.	.70
Opportunities for technological innovation are abundant in your industry.	.87
Opportunities for major technological breakthroughs are abundant in your major industry.	.84
Spending on research and development is higher in your major industry than in most industries.	.64
Eigenvalue	3.53
% of variance Explained	12.19
Product innovation strategy ($\alpha = .82$; CR = .81; AVE = .53)	

Construct	Factor Loading
Undertaking research and development.	.78
Developing new products/services.	.84
Developing new production/operating techniques	.55
Being 'first to the market' with new products/services.	.70
Eigenvalue	2.62
% of variance Explained	9.02
Environmental dynamism ($\alpha = .76$; CR = .82; AVE = .53)	
Business changes in your local market are intense.	.78
Your clients regularly ask for new products and services.	.67
In your local market, changes are taking place continuously.	.78
In your market, the volumes of products and services to be delivered change fast and often.	.68
Eigenvalue	1.93
% of variance Explained	6.67
Human capital strategic value ($\alpha = .75$; CR = .83; AVE = .54)	
Employees in the [selected employment arrangement] have skills that ...are instrumental for creating innovations.	.71
...create customer value.	.75
...enable our firm to provide exceptional customer service.	.77
...contribute to the development of new markets or products or service opportunities.	.72
Eigenvalue	1.52
% of variance Explained	5.24
Human capital uniqueness ($\alpha = .80$; CR = .85; AVE = .65)	
Employees in the [selected employment arrangement] have skills thatare not available to our competitors.	.77
...are difficult for our competitors to buy away from us.	.80
...are difficult for our competitors to imitate or duplicate.	.85
Eigenvalue	1.45

Construct	Factor Loading
% of variance Explained	4.99
Cost minimisation strategy ($\alpha = .77$; CR = .86; AVE = .75)	
Reducing labour costs.	.89
Minimising production and service delivery costs.	.84
Eigenvalue	1.39
% of variance Explained	4.78
Cumulative % of Total variance explained	65.58%

All the latent constructs indicated very high levels of individual item reliabilities, with Cronbach's α values ranging from .75 to .88. Similarly, composite reliabilities ranged from .81 to .91, exceeding the minimum requirement of .70 for Convergent Validity. The Discriminant Validity results, summarised in Table 3.4, show that all of the constructs were greater than .50 and were also much higher than the squared correlations with all other latent variables (Fornell & Larcker, 1981). Therefore, the measurement model was based on reliable and valid measures.

TABLE 3.4 Discriminant Validity analysis (n = 200)

<i>Variable</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1 Value	0.54						
2 Uniqueness	0.15	0.65					
3 Employee-management cooperation	0.03	0.04	0.56				
4 Technological opportunities	0.08	0.09	0.04	0.59			
5 Product innovation	0.08	0.05	0.08	0.16	0.53		
6 Cost minimisation	0.01	0.00	0.00	0.00	0.06	0.75	
7 Environmental dynamism	0.02	0.01	0.04	0.11	0.19	0.04	0.53

Notes. Boldface values on the diagonal row show the AVE. Values below the diagonal show squared interconstruct correlations.

3.3.3 Data Analytic Strategy

I further tested the soundness and distinctiveness of the measurement model by conducting CFA. According to Bentler (1990), a good model fit has Tucker–Lewis index (TLI), Incremental Fit Index (IFI) and Comparative Fit Index (CFI) values greater than 0.9. Regarding the Standard Root Mean Residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA), values less than 0.08 indicate a good model fit (Cudeck & Browne, 1993; Hu & Bentler, 1998).

In the second stage, I examined correlations among studied constructs to predict preliminary support for the proposed hypotheses. Results of the bivariate correlations are presented in Table 3.5. To ensure that the hypotheses are analysed appropriately, I followed the procedures used by Lepak and Snell (2002). Specifically, I used ANOVA and ANCOVA. Regarding hypotheses 1 and 2, I also performed independent samples t-tests to compare the levels of the strategic value and uniqueness of jobs between specific employment arrangements. To test hypotheses 5-12, however, a series of hierarchical multiple regression analyses was used.

3.4 Results

3.4.1 Measurement model tests

The measurement model was a good fit to the data $\chi^2(356) = 553.498, p < .001$, SRMR = .06, TLI = .90, IFI = .92, CFI = .92 and RMSEA = .05. This finding further demonstrates the distinctiveness of our measurement model.

3.4.2 Descriptive statistics

Following CFA results, I calculated the sum of scores of each item for every latent variable and then ran bivariate correlations across all of the study variables. The mean of human capital value was 3.79, while that of human capital uniqueness was 2.67. Human capital value was positively correlated with human capital uniqueness ($r = .38^{**}, p < .01$). Respondents indicated a strong reliance on task-based employment ($M = 3.20$) and least reliance on support staff employment ($M = 1.17$). There was also a strong positive correlation between knowledge-based employment and human capital strategic value ($r = .39^{**}, p < 0.01$) and uniqueness ($r = .21^{**}, p < .01$). The results showed preliminary support for the hypotheses.

TABLE 3.5 Descriptive statistics and correlations among study variables (n = 200)

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 Ln (Est ^a . size)	4.34	1.15	-															
2 Est ^a . Age	5.99	1.51	.25**	-														
3 Alliances	0.70	0.46	.23**	-0.06	-													
4 Private or public	1.08	0.26	0.14	-0.01	0.10	-												
5 Australian or foreign	2.07	1.71	.42**	0.13	.22**	.18*	-											
6 Strategic value	3.79	0.76	-0.07	-0.03	-0.02	0.06	0.04	(.75)										
7 Uniqueness	2.67	0.97	-0.12	-.14*	-0.04	-0.01	0.00	.38**	(.80)									
8 Union density	2.09	1.26	.30**	-0.13	0.17	0.13	0.11	-0.21	0.03	-								
9 Mgt-employee coop ^b	4.18	0.46	-.15*	-0.13	0.01	0.02	0.00	.18*	.21**	-0.09	(.88)							
10 Tech. opportunities ^c	3.07	0.90	.16*	-0.06	0.08	0.08	0.12	.28**	.30**	-0.04	.20**	(.82)						
11 Innovation	3.77	0.94	0.00	0.02	-0.04	0.11	-0.05	.29**	.23**	-.38**	.28**	.40**	(.82)					
12 Cost minimisation	3.73	0.91	0.13	0.02	0.09	0.03	0.04	0.09	0.04	0.10	0.03	0.05	.24**	(.77)				
13 Dynamism	2.41	0.83	-0.12	-0.07	0.02	-0.10	0.00	-.15*	-0.11	0.10	-.19**	-.34**	-.44**	-.21**	(.76)			
14 Knowledge emp ^d	1.88	1.12	-0.10	0.02	0.01	0.05	0.13	.39**	.21**	-0.17	0.06	.25**	.17*	-0.05	-.18*	-		
15 Task-based emp ^d	3.20	1.21	0.05	-0.02	0.02	0.03	-.15*	-.30**	-.18*	.32**	-.15*	-.25**	-.24**	-0.02	.15*	-.57**	-	
16 Support staff emp ^d	1.17	0.61	0.00	0.00	-0.07	0.02	0.08	0.01	0.01	-0.11	0.02	0.02	0.11	-0.06	-0.07	-0.02	-.30**	-

Notes. **Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed). Bold values in brackets on the diagonal show the Cronbach's α of the latent constructs. Est^a. is the establishment. Mgt-employee coop.^b is management employee cooperation. Tech. opportunities^c refers to technological opportunities. Emp^d refers to employment arrangement.

Tests of Main effects (Hypotheses 1 and 2)

Hypothesis 1 predicted that the strategic value of a job will be related to its allocation to employment arrangements, such that (a) jobs with high strategic value will be allocated to knowledge-based and job-based employment and (b) jobs with low strategic value will be allocated to contract work. The ANCOVA results indicated that the means were significantly different for the strategic value of jobs ($F = 25.01, p < .001$). Results of an independent samples *t*-test indicated a significant difference between knowledge-based and support-staff roles ($M_{\text{difference}} = .52, t = 2.72, p < .01$). Counter to our hypothesis, however, there was also a significant difference between knowledge-based and task-based roles ($M_{\text{difference}} = .81, t = 7.33; p < .001$) while task-based and support-staff roles ($M_{\text{difference}} = -.30, t = -.96; p > .34$) were not significantly different, showing partial support for hypothesis 1.

Hypothesis 2 predicted that the uniqueness of a job will be related to its allocation to employment arrangements, such that (a) jobs with high uniqueness will be allocated to knowledge-based employment and (b) jobs with low uniqueness will be allocated to contract work and job-based employment arrangements. The ANCOVA results presented in Table 3.6 indicated that the means were significantly different for the uniqueness of jobs ($F = 5.35, p < .01$), with the highest being that of knowledge-based roles, followed by support staff roles, and lowest for task-based roles. As hypothesised, results of the independent samples *t*-test indicated significant differences between knowledge-based and task-based roles ($M_{\text{difference}} = .53, t = 3.41; p < .001$) and no significant differences between task-based and support-staff roles ($M_{\text{difference}} = -.36, t = -.95; p > .35$). However, no significant differences were found between knowledge-based and support-staff roles ($M_{\text{difference}} = .17, t = .39; p > .70$), showing partial support for hypothesis 2.

TABLE 3.6 Job characteristics under the three employment arrangements

Job characteristics	Control variables ¹ ANCOVA <i>F</i>	Knowledge-based roles			Task based roles			Support staff roles			<i>r</i> ² for overall model
		Mean	SD	N	Mean	SD	N	Mean	SD	N	
Value	20.01	4.39	(.40)	50	3.58	(.75)	143	3.88	(.70)	6	.22***
Uniqueness	5.35	3.06	(1.02)	50	2.52	(.93)	144	2.89	(.89)	6	.08**

Notes. ***Correlation is significant at the 0.001 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). ¹Controlling for establishment size (ln), age, public or private, alliances and whether the establishment is Australian or foreign-owned.

Tests of hypotheses 3 and 4

To determine whether there was a significant difference in the strategic value of jobs for establishments pursuing cost reduction and differentiation strategies (hypothesis 3), I categorised firm strategy using a median split approach and employed a two-way factorial ANOVA. I found a significant difference for innovation strategy, $F(1,190) = 10.30, p < .01$. No significant differences were found in the strategic value of jobs when broken down by cost reduction strategy $F(1,190) = .09, p > .77$, and there was no significant interaction across cost reduction and innovation strategies, $F(1,190) = .004, p > .95$. Therefore, it is appropriate to interpret the strategic value of jobs in terms of innovation strategy across all levels of cost reduction strategy. That is, it appears that innovation strategy influences the strategic value of jobs when compared to cost reduction strategy. Eta squared revealed that 5.1% of the variance in the strategic value of jobs was explained by innovation strategy. This finding indicates support for hypothesis 3.

Similarly, I conducted a two-way factorial ANOVA to determine whether there was a significant difference in the uniqueness of jobs for firms pursuing a cost reduction and innovation strategy (hypothesis 4). I found a significant difference for innovation strategy, $F(1,191) = 13.81, p < .001$. No significant differences were found in the uniqueness of jobs when broken down by cost reduction strategy $F(1,191) = .47, p > .49$, and there was no significant interaction across cost reduction and innovation strategies, $F(1,191) = 2.92, > .09$. Eta squared revealed that 6.7% of the variance in the uniqueness of jobs was explained by innovation strategy. It appears that innovation strategy influences the uniqueness of jobs when compared to cost reduction strategy. This result shows support for hypothesis 4.

Tests of interactions between job characteristics and employment arrangements (Hypotheses 5-12)

I standardised all of the study's independent variables prior to entry into the equation and before calculating the interaction terms to minimise the effects of multicollinearity (Aiken & West, 1991). Nevertheless, the dependent variables (i.e. employment arrangements) were unstandardised. The control variables (i.e. establishment size, age, sector, involvement in alliances and ownership) were entered at Step 1, the main effects, that is, strategic value and uniqueness of jobs, union density, employee-management cooperation, environmental

dynamism, and technological opportunities, were entered at Step 2, while the relevant interaction terms were entered at Step 3.

The next set of hypotheses predicted that the relationship between the strategic value and uniqueness of jobs and knowledge and job-based employment arrangements would be moderated by union density (H5&6), employee-management cooperation (H7&8), environmental dynamism (H9&10) and technological opportunities (H10&12). As can be seen in Table 3.7, the relationship between the strategic value of jobs and job-based employment was moderated by union density ($\beta = .32, p < .05$). These results showed support for hypothesis 5b. I then operationalised high and low levels of union density as 1 SD above and below the mean score and then plotted a graph, which is depicted in Figure 3.3.

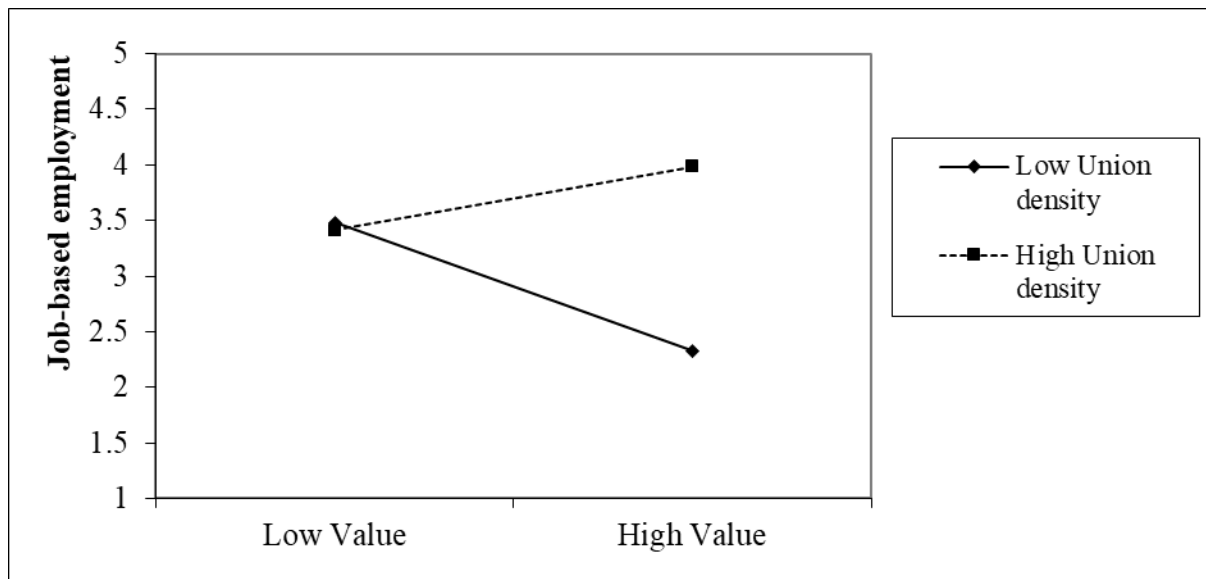
TABLE 3.7 Results of regression analysis for testing for interactions between job characteristics and contextual factors

	Knowledge-based employment arrangement			Job-based employment arrangement		
	Step			Step		
	1	2	3	1	2	3
<i>Beta</i>						
Establishment size	-.20	-.18	-.23	.13	.04	.12
Establishment age	.04	.05	.07	-.03	.00	-.04
Alliances	.02	.03	.06	.02	-.01	-.06
Sector: Private or public	.04	.01	.01	.05	.05	.07
Ownership: Australian or foreign	.19	.16	.14	-.21 [†]	-.18	-.16
Value		.28*	.29*		-.13	-.12
Uniqueness		.05	.05		-.08	-.04
Union density		-.07	-.06		.28*	.33**
Employee-management cooperation		-.06	-.08		-.04	-.04
Environmental Dynamism		-.11	-.11		.05	.03
Technological opportunities		.14	.15		-.14	-.14
Union density x Value			-.15			.32*
EMC x Value			.01			-.02
Environmental Dynamism x Value			-.02			-.03
TO x Value			.05			.04

Union density x Uniqueness				.20			-.24 [†]
EMC x Uniqueness				.00			-.11
Environmental Dynamism x Uniqueness				.07			-.12
TO x Uniqueness				.033			-.06
<i>R</i> ² (Adj. <i>R</i> ²)	.05(-.012)	.22(.10)	.26(.05)	.04(-.02)	.22(.10)	.33(.14)	
<i>R</i> ² Δ	-	.17	.04		.18	.11	
<i>F</i> Δ	.79	2.71*	.47	.69	2.84*	1.36	

Notes. ***p* < .01, **p* < .05, †*p* < .1. Dependent variables are knowledge and job-based employment arrangements. EMC: Employee-management cooperation. TO: Technological opportunities. Significance testing of *R*² is compared with the control model.

FIGURE 3.3 Strategic value and Job-based by union density



Robustness Checks

First, to determine whether a firm's competitive strategy might also interact with job characteristics to predict employment arrangement, I conducted separate analyses for each strategy, with knowledge and job-based employment arrangements as dependent variables. This approach is consistent with Neal et al. (2005). As depicted in Table 3.8, measures of competitive strategy did not moderate the relationship between job characteristics (i.e., the strategic value and uniqueness of human capital associated with jobs) and employment arrangements (i.e., knowledge and job-based employment arrangements).

TABLE 3.8 Results of the regression analysis testing for interactions between job characteristics and competitive strategies

	Cost minimisation strategy						Product innovation strategy					
	Knowledge-based employment			Job-based employment			Knowledge-based employment			Job-based employment		
	Step			Step			Step			Step		
	1	2	3	1	2	3	1	2	3	1	2	3
<i>Beta</i>												
Est ^a size	-.20*	-.14 [†]	-.13 [†]	.13 [†]	.10	.10	-.20*	-.16*	-.15*	.13 [†]	.11	.11
Est ^a age	.04	.06	.06	-.03	-.04	-.05	.04	.06	.06	-.03	-.03	-.04
Alliances	.02	.04	.03	.02	.01	.01	.02	.03	.03	.02	.01	.00
Private or public	.04	.02	.03	.05	.06	.06	.04	.01	.01	.05	.09	.09
Australian or foreign	.19**	.15*	.15*	-.21**	-.18*	-.19**	.19*	.16*	.16*	-.21**	-.20**	-.20*
Value		.33***	.34***		-.22***	-.23***		.31***	.31***		-.18*	-.19*
Uniqueness		.08	.08		-.09	-.07		.07	.07		-.05	-.07
Strategy		-.09	-.09		.00	.00		.07	.08		-.20**	-.19*
Strategy x Value			.08			-.05			.04			-.01
Strategy x Uniqueness			.00			.13 [†]			-.02			.06
R^2 (Adj. R^2)	.05(.02)	.18(.15)	.19(.14)	.04(.02)	.11(.07)	.12(.08)	.05(.02)	.18(.15)	.18(.14)	.04(.02)	.15(.11)	.15(.10)
$R^2 \Delta$	-	.14	.01	-	.07	.01	-	.13	.00	-	.11	.00
$F \Delta$	1.90 [†]	10.5***	.65	1.64	5.04**	1.44	1.90 [†]	10.31***	.14	1.64	7.92**	.29

Note. *** $p < .001$, ** $p < .01$, * $p < .05$, [†] $p < .1$. Dependent variables are knowledge and job-based employment arrangements entered one at a time for cost minimisation and product innovation strategies, respectively. (H) is hypothesis. Significance testing of R^2 is compared with the control model.

Second, since most of the interaction terms were not significant, I was curious as to how else contextual factors might influence a firm's HR architecture. To do so, I categorised union density, management-employee cooperation, environmental dynamism and technological opportunities using a median split approach (Cf. Lepak et al., 2007), and tested their effects on human capital characteristics associated with jobs.

Specifically, to assess whether other contextual factors, namely, union density, employee-management cooperation, environmental dynamism and technological opportunities might also influence intraorganisational variability in job characteristics, I used ANCOVA. The results are presented in Table 3.9. The ANCOVA results for union density revealed that the strategic value of jobs was significantly lower ($F = 5.55, p < .05$) in establishments facing higher levels of union density. However, although the uniqueness of jobs was low in high levels of union density, it was not statistically significant ($F = .04, p > .85$).

Regarding management-employee cooperation, the ANCOVA results revealed that the strategic value of jobs was only significantly higher ($F = 3.29, p < .10$) in establishments with higher levels of management-employee cooperation at $^+P < .10$. The ANCOVA results also revealed that the uniqueness of jobs in establishments with higher levels of management-employee cooperation was significantly higher than the uniqueness of jobs in establishments with lower levels of management-employee cooperation ($F = 7.25, p < .01$).

Interestingly, the ANCOVA results for environmental dynamism revealed that the strategic value of jobs was higher in establishments facing higher levels of environmental dynamism but not significantly different ($F = 2.23, p > .13$). Similarly, the ANCOVA results showed that the uniqueness of jobs in establishments facing higher levels of environmental dynamism was higher but not statistically significant ($F = 1.15, p > .29$).

Regarding technological opportunities, the ANCOVA results revealed that the strategic value of jobs was significantly higher ($F = 10.69, p < .001$) in establishments facing higher levels of technological opportunities. Similarly, the ANCOVA results revealed that the uniqueness of jobs in establishments facing higher levels of technological opportunities was statistically greater ($F = 14.10, p < .001$).

TABLE 3.7 ANCOVA results of the study

Description ¹	Strategic value of jobs							Uniqueness of jobs						
	High			Low			F-Values	High			Low			F-Values
	Mean	SD	N	Mean	SD	N		Mean	SD	N	Mean	SD	N	
Union density	3.41	.67	28	3.81	.69	58	5.55*	2.49	.81	28	2.54	.89	59	.04
Mgt-employee cooperation	3.93	.75	81	3.70	.75	118	3.29 [†]	2.91	1.12	82	2.50	.82	118	7.25**
Environmental dynamism	3.71	.78	100	3.87	.74	99	2.23	2.61	.96	100	2.72	.99	100	1.15
Technological opportunities	3.96	.72	96	3.63	.76	103	10.69***	2.90	1.04	97	2.45	.85	103	14.10***

Notes. ***Correlation is significant at the 0.001 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed). [†]Correlation is significant at the 0.10 level (2-tailed). ¹Controlling for establishment size (ln), age, public or private, alliances and whether the establishment is Australian or foreign-owned. Mgt: management.

Finally, I combined support and task-based roles into one employment category (which I refer to as ‘less knowledge-intensive’ employment arrangement) and performed ANOVA to see whether there were any significant differences between knowledge-based employment and less knowledge-intensive employment arrangement regarding the strategic value and uniqueness of jobs. ANOVA results indicated that knowledge-based roles (Mean = 4.39) have higher levels of strategic value than less knowledge-intensive roles (Mean = 3.59; $F = 52.54, p < .001$). Also, the ANOVA results indicated that knowledge-based roles (Mean = 3.06) have higher levels of uniqueness than less knowledge-intensive roles (Mean = 2.54; $F = 11.14, p < .001$).

3.5 Discussion

The primary objective of this study was to examine contextual factors, constraints or conditions that might influence an organisation’s HR architecture. To do so, I first sought to explore the validity of the HR architecture framework by investigating how the different employment arrangements differ in terms of job characteristics. Second, I assessed how firm strategy might predict variations in the strategic value and uniqueness of jobs and how other contextual factors predict variations in employment arrangements. Specifically, I focused on four other contextual factors beyond firm strategy, namely, union density, management-employee cooperation, cost environmental dynamism and technological opportunities.

Overall, the results of this study support the notion that employment arrangements differ in terms of job characteristics. Specifically, the study revealed that jobs within knowledge-based employment arrangements have higher levels of strategic value and uniqueness. Counter to our hypothesis, the strategic value of jobs under job-based employment was significantly lower than that of knowledge-based employment arrangements. Also, no significant differences were found in job characteristics between job-based employment arrangements and contractual work arrangements. It may be that, within the Australian manufacturing sector, establishments demarcate between knowledge roles (core roles) and job-based roles (task-based roles). The bivariate correlations revealed that there was a very strong negative correlation between knowledge-based and task-based roles ($r = -.93^{**}, p < .01$). Therefore, in deciding whether to use knowledge-based or job-based employment arrangements, firms consider the strategic value and uniqueness of jobs to be used in these arrangements.

The results support the idea that firm strategy shapes organisational variability in job characteristics. Specifically, the findings indicate that the strategic approach adopted by a firm influences the strategic value and uniqueness of jobs within a firm. For instance, the study revealed that manufacturing firms with a high emphasis on innovation have jobs with higher levels of strategic value and uniqueness than those with a high emphasis on cost reduction. This finding is consistent with the job-based theory, which argues that a firm's competitive strategy determines what constitutes strategic and non-strategic roles (e.g., Becker & Huselid, 2006; Cappelli & Keller, 2014; Makadok, 2001). The finding is also consistent with studies conducted within manufacturing firms, which show that an innovation strategy influences the adoption of particular HRPs to bolster employee creativity and innovation (e.g., Teo, Le Clerc, & Galang, 2011; Youndt et al., 1996).

Union density was found to moderate the relationship between the strategic value of jobs and job-based employment arrangement. This finding is consistent with earlier work around ILMs. In an extensive review of work around unions, Verma (2005), for instance, found that unions influence HRPs and managerial practices in two key ways. First, management might make changes in the workplace, so that it has exclusive control, in a proactive attempt to minimise 'clashing' with unions. Second, management may engage with the union to reach a consensus. Verma argues that it is this dialogue between management and unions that can potentially lead to beneficial organisational outcomes, such as organisational efficiency. Australian manufacturing industries seem to develop 'symbiotic' employment relationships with their unionised workers. These 'symbiotic' employment relationships are found in job-based employment, characterised by payment of competitive market salaries and equity in compensation, among others (Lepak & Snell, 1999, 2002). The study's data showed that union density was positively and significantly related to job-based employment ($\beta = .33, p < .01$). However, there was no evidence to suggest that union density influences knowledge-based employment arrangements. It is possible that organisations provide workers in knowledge-based employment arrangements with alternative 'voice' mechanisms as a substitute for those provided by unions—consequently, such employees are less likely to be unionised. As such, no interaction effects could be found between job characteristics and knowledge-based employment.

The results of the study do not support the prediction that management employee cooperation, environmental dynamism and technological opportunities moderate the relationship between job characteristics and employment arrangements. Similarly, none of these factors had a significant effect on job-based or knowledge-based employment arrangement. It is possible that these factors do not predict individual employment arrangements *per se* but HR differentiation in general. As such, the construction of a HR differentiation scale would allow us test how these contextual factors might moderate HR differentiation. Unfortunately, measures for the concept of HR differentiation are yet to be developed. Despite these concerns, there is cause for optimism. Results of supplemental analyses suggest that the contextual factors shape intraorganisational variability in job characteristics. Specifically, the findings indicate that the strategic value and uniqueness of jobs in establishments with higher levels of management-employee cooperation was higher than the strategic value and uniqueness of jobs in establishments with lower levels of management-employee cooperation. This result suggests that when management-employee cooperation is high, organisations tend to create more knowledge roles, which have mutual gains for management and employees. That is, firms can benefit from increased productivity and service quality, while employees can benefit from better financial gains, promotions and job autonomy, among others (Deery & Iverson, 2005).

Similarly, although technological opportunities did not moderate the interaction between job characteristics and employment arrangement use, as predicted, they were found to significantly influence variability in the strategic value and uniqueness of jobs. This finding suggests that technological opportunities are important antecedents of job characteristics. That is, the more technological opportunities firms are exposed to, the more likely it is for firms to invest more in knowledge roles associated with high strategic value and uniqueness. This contention is supported by Eddleston et al. (2008), who found that the innovative capabilities of firms is higher in environments with higher technological opportunities. Indeed, it is unanimously agreeable among strategic HRM scholars that employees occupying knowledge roles are highly skilled, developed and trained — hence, their levels of creativity and innovation are likely to be high.

Contrary to what I hypothesised, environmental dynamism did not moderate the relationship between job characteristics and employment arrangements. One explanation for the failure to

find an interaction in this study could be due to the subjective operationalisation of environmental dynamism. Most strategic HRM scholars operationalise environmental dynamism using secondary data sources (Dean & Snell, 1996; Goll & Rasheed, 2004; Lepak et al., 2003). Authors who operationalise environmental dynamism subjectively focused on small firms (Covin & Slevin, 1989), had multiple respondents (Lumpkin & Dess, 2001) or conducted a longitudinal study (Schilke, 2014). Therefore, further research may be directed towards further development of the measure for environmental dynamism. The other possible explanation is that in the face of environmental dynamism, firms seek out numerical flexibility as opposed to functional flexibility (Atkinson, 1984). Numerical flexibility refers to the variation of employee numbers with fluctuations in the product demand levels. The flexible firm theorists, particularly Atkinson (1984), argued that this can occur through *peripheral* work arrangements including temporary work, part time, and subcontracting. Most importantly, given the turbulence in the current Australian manufacturing sector, which is characterised by layoffs and factory closures, establishments could be forced to use peripheral jobs, which are associated with low levels of strategic value and uniqueness. The results of the study have several contributions and implications, which I now consider.

3.5.1 Theoretical Implications

This study offers some support for the HR architecture framework (Lepak & Snell, 2002) because it highlights the importance of job characteristics in allocating employees to the various HR/employment arrangements. At the same time, it introduces the question of how employment arrangements differ in terms of job characteristics. While previous research has typically assumed that knowledge-based and job-based employment arrangements will have higher levels of strategic value and that contractual work arrangements will have the least levels of strategic value and uniqueness (e.g., Lepak & Snell, 2002), the results of this study suggest that this may not always be the case. Differences in job characteristics in ‘non-strategic’ employment arrangements (i.e. between job-based and contractual work arrangements) are not clear-cut, suggesting that organisations may choose to demarcate between knowledge roles and any other roles in a bid to attain competitive advantage. This finding has implications for other studies in HR differentiation because it highlights the trade-offs of ‘non-strategic’ employment arrangements and how they can be used to support knowledge-based employment arrangements.

A second major implication of the study is that it adds empirical support to previous work that has theorised about how contextual factors may predict employment arrangements. Therefore, instead of looking at some employment arrangements as being more important than others, firms are better served by identifying and using employment systems based on contextual factors that they are facing and/or are likely to face. With respect to internal labour markets (Osterman, 2011), for instance, the results of the study are consistent with previous work, which suggests that unions play a significant role in the adoption of particular HR practices and employment systems (e.g., Godard, 2001, 2010; Guest & Conway, 2004). The results show that union density leads organisations to adopt a job-based employment arrangement, which has a ‘symbiotic’ employment relationship. This finding suggests that organisations may be wise to synchronise their employment arrangements with union demands.

Another important theoretical implication of these findings is that the architecture and job-based frameworks should be viewed as complementary rather than as competing models. Put differently, while there are some conceptual differences between the HR Architecture and Job-Based models, together these models complement each other and provide a solid framework that guides research around HR differentiation. The HR architecture has underpinned the significance of human capital strategic value and uniqueness as the two important criteria by which employees are differentiated (Lepak & Snell, 1999, 2002), while the Job-Based model maintains that HR differentiation arises from a firm’s strategic capabilities, which are embedded in jobs (Becker & Huselid, 2006), such that jobs located in strategic capabilities are referred to as *strategic jobs* and are the source of value creation in firms (Becker & Huselid, 2006). Specifically, the results show that, unlike a cost reduction strategy, a differentiation strategy influences the strategic value and uniqueness of human capital associated with jobs. This finding is consistent with earlier work on competitive strategy (Lepak et al., 2007; Wang & Verma, 2012). That is, firms with emphasis on innovation tend to invest more in knowledge-based roles that require ‘strategic’ employees to assist in innovation, explore existing markets, and also, to create new market opportunities (Teo et al., 2011; Terziovski, 2010).

3.5.2 Practical Implications

Foremost, imitating other organisations or benchmarking HR/employment practices with other organisations, is likely to be less effective for organisations because of the potential effects of contextual factors, such as union density. Therefore, managers and HR professionals need to carefully align their specific employment arrangements with their own unique contextual factors.

Second, organisations need to be wary that job characteristics are susceptible to contextual factors. Therefore, an organisation seeking to attain competitive advantage should place less emphasis on benchmarking and consider designing its own unique architecture that integrates job characteristics and contextual factors into a logical and coherent framework.

3.5.3 Managerial implications

Several insights from the study apply to managers. First, although job characteristics shape the kinds of employment arrangements adopted by firms, understanding the conditions under which firms differentiate their employees may be even more important. For instance, for organisations with unionised employees, it may make sense to emphasise job-based employment arrangements. As such, managers should not focus exclusively on the strategic value and uniqueness of jobs, while ignoring the necessity of contextual factors.

Second, the findings of the study suggest that managers, and indeed, HR professionals, need to identify what constitutes strategic and non-strategic roles/jobs by examining their competitive strategy (Becker et al., 2009; Huselid & Becker, 2011). Only by doing so, can organisations generate value-creating organisational architectures.

Third, given that contextual factors (e.g., union density) appear to influence intraorganisational variability in job characteristics, this suggests that the HR architecture is dynamic. Thus, effective employment/HR systems can be created by responding to, and perhaps even anticipating, environmental changes. In fact, one might even argue that the failure to replicate all the assumptions of the HR architecture, presupposes the idiosyncratic nature of organisations' architectures.

3.5.4 Limitations

Despite its contributions, the results of the study should be viewed in light of its limitations. First, despite the sample size being 200 firms, 50 participants focused on knowledge-based employment arrangement, 144 on task-based employment and only 6 focused on support staff employment arrangement. The sample of support staff employment arrangement (n = 6) was considered too small to generate enough power. Moreover, participants did not give any information regarding the human capital strategic value and uniqueness of partnerships/alliances. Therefore, I excluded alliances from the analysis. This, therefore, presents an opportunity for future research in the manufacturing sector involving all employment arrangements.

Second, data was collected from only one respondent for each establishment. Therefore, it is possible that the results were inflated by single-source bias. In other words, although the constructs of human capital strategic value and uniqueness were distinct from firm level factors, including technological opportunity, competitive strategy, union density, management-employee cooperation and environmental dynamism, I cannot categorically rule out CMV. As such, I believe that this study could be improved by using multiple data sources from each establishment.

Third, I only examined the key contextual factors, as espoused by the Internal Labour Market theory, the Flexible Firm model and the Job-Based model. Future research could consider a host of other contingencies, as discussed by the Contingency Theory (Jackson & Schuler, 1995; Woodward, 1970).

3.6 Conclusion

In this study, I examined the antecedents of differentiation. Building on the HR architecture framework and other theoretical frameworks relevant in understanding employment systems (ILM theory, the *Flexible* Firm model, and Job-Based model), the study found that job characteristics shape employment arrangements. The study also found a firm's competitive strategy to influence intraorganisational variability in job characteristics. Furthermore, union density was found to positively moderate the adoption of job-based employment arrangement. This study, therefore, provides an early step towards understanding the

constraints or conditions that might influence the extent to which firms might use differentiated HR systems.

Aside from the areas of research examined in this study, increasing attention is being paid to employee reactions to HR differentiation, but this increasing attention has not been accompanied by a stronger focus on the psychological processes through which HR differentiation might influence employee attitudes. Therefore, Chapter Four revisits this important area of research. Thereafter, the chapter presents results of the study's tests of hypotheses and highlights its contributions for research and practice.

CHAPTER FOUR

UNDERSTANDING EMPLOYEE RESPONSES TO HR DIFFERENTIATION:

THE LINK BETWEEN PERCEIVED FAVOURABILITY OF HR PRACTICES AND EMPLOYEE ATTITUDES

4.1 Introduction

Chapter One introduced the concept of HR differentiation and examined the conditions under which firms might use differentiated HRPs for different types of employees. I argued that employee responses to HR differentiation has been overlooked despite the general recognition in the HR literature that employees are central actors in the employment relationship, and that their attitudes and behaviours generate an important set of mediating mechanisms in the HR-performance relationship. Indeed, the central argument in much of the work around HR differentiation is that the ‘architecture’ of a firm’s HR system can yield significant benefits for the firm, such as financial performance (e.g., Chow et al., 2008; Lepak et al., 2003) and productivity (e.g., Siebert & Zubanov, 2009; Stirpe et al., 2014).

While these studies support the proposition that there is a ‘business case’ for HR differentiation (Becker et al., 2009; Boudreau & Ramstad, 2005, 2007; Hauff et al., 2014), some scholars have questioned whether differentiation may, at the same time, be detrimental for employees. Marescaux et al. (2013), for instance, have argued that HR differentiation may be a double-edged sword because the negative reactions among ‘disadvantaged’ employees may temper, neutralise or even outweigh the positive reactions among ‘advantaged’ employees. Also, Koene and Riemsdijk (2005) noted that HR differentiation may generate mixed employee reactions depending on how an employee perceives the HR practices to which she/he is subjected. These streams of research highlight a fundamental tension in HR differentiation literature, as exemplified by the question: What does HR differentiation mean for employees and their experience of work?

In seeking to address this question, I commence by contending that differential employee treatment leads employees to compare their situation with referents to assess whether they receive unfavourable, neutral or favourable treatment (Marescaux et al., 2013). In that sense,

perceived favourability of HR practices can be understood as an important indicator of employee perceptions about whether they are differentially treated, and whether the treatment they receive is favourable. In recent years, the ‘perceived favourability of HR practices’ (hereafter, PFHRPs) construct has become an important variable in research examining HR differentiation (Marescaux et al., 2013). My theoretical approach draws on Social Comparison Theory (Festinger, 1954) and integrates it with Social Exchange Theory (Blau, 1964) to develop an integrated model. This model proposes that perceived organisational support (POS), perceived distributive justice (PDJ) and perceived procedural justice (PPJ) together mediate the relationship between PFHRPs and employee attitudes and intentions. I extend my theory by identifying leader-member exchange (LMX) as an important moderator of POS and justice perceptions (i.e. PDJ and PPJ). Specifically, I examine job engagement (Rich, Lepine, & Crawford, 2010), turnover intentions (Siebert & Zubanov, 2009), job satisfaction (Scandura & Lankau, 1997) and affective organisational commitment (Nishii et al., 2008) as key employee outcomes, because these constructs are associated with managerial practices and have been found to be important HR factors that predict firm performance.

Overall, my investigation, which responds to calls in the literature to examine employee reactions to HR differentiation (e.g., Björkman et al., 2013; Huselid & Becker, 2011; Lepak & Shaw, 2008), makes three contributions to previous research. First, I advance theoretical and empirical understanding of ways through which employees may respond to HR differentiation. To do so, I borrow insights from Social Comparison Theory and argue that PFHRPs is a meaningful construct with several implications for work attitudes and intentions. I then explain how PFHRPs might influence fairness perceptions (i.e. PDJ and PPJ). This approach helps unravel the psychological mechanisms through which the influence takes place. Second, I integrate Social Exchange Theory and Social Comparison Theory to link PFHRPs with POS. My argument is that POS can be better understood using the theoretical lenses of both SET and SCT, as opposed to SET only, as it has largely been theorised. The third contribution is the delineation of a moderated mediation model in which the quality of leader-member exchange (LMX) moderates the mediating mechanisms of POS, PDJ and PPJ. Studies using SET as a theoretical framework have mainly viewed LMX as an important predictor of employee work attitudes, intentions and behaviours (Bauer, Erdogan, Liden, & Wayne, 2006; Gerstner & Day, 1997) and as an outcome of POJ (Masterson et al., 2000;

Wayne, Shore, Bommer, & Tetrick, 2002). To date, scant attention has been directed towards understanding how LMX might influence POJ (e.g., Dirks & Ferrin, 2002; Gelens et al., 2013). Building on Social Comparison Theory and Social Exchange Theory, I not only examine how LMX influences fairness perceptions, but also POS.

This chapter proceeds as follows. First, I briefly review literature guiding the relationships proposed in my model. Using Social Exchange Theory and Social Comparison Theory perspectives, I then detail how POS, PDJ and PPJ might mediate the relationship between PFHRPs and job satisfaction, affective organisational commitment, job engagement and turnover intentions. Next, I examine how LMX might moderate the relationship between PFHRPs and PDJ, PPJ and POS. Thereafter, I conclude with a discussion of the findings and limitations of this research.

4.2 Theoretical background and hypothesis development

In this sub-section, I give an overview of Social Exchange Theory and Social Comparison Theory as well as the justification for integrating these theories to assess employee responses to HR differentiation. Thereafter, a series of hypotheses are developed. Figure 4.1 shows the predicted relationships that will be tested in this study.

Social Exchange Theory

Overall, my formulation posits that the HR practices that employees receive induce employees to reciprocate in ways that are congruent with the HR practices that they receive, such that those employees who receive ‘favourable’ HR practices are likely to exhibit positive work *outcomes*, including affective organisational commitment, job satisfaction, job engagement and lower turnover intentions. My theorising is consistent with both Social Exchange Theory and Social Comparison Theory. For instance, as theories of social exchange illustrate, ‘three aspects are fundamental to social exchange: relationship, reciprocity, and exchange’ (Coyle-Shapiro & Shore, 2007, p. 3). Indeed, it is unanimously agreed among social exchange theorists (e.g., Blau, 1964; Gouldner, 1960) that a social exchange relationship starts by one party (e.g., employer) offering a gift to another party (e.g., employee). If the latter reciprocates, a series of benefits are exchanged, creating mutual obligations between the giver and the receiver. Over time, this leads to the creation of important relationships between those two parties.

However, while several kinds of relationships might be formed, Social Exchange theorists usually classify them into two broad categories:

- (i) The relationship among employees and the organisation or POS.
- (ii) The relationship among employees and their immediate supervisor or LMX (Settoon, Bennett, & Liden, 1996; Wayne et al., 2002; Wayne, Shore, & Liden, 1997).

POS ‘relates to the history of decisions and the associated employee interpretations of organizational caring...’ (Shore & Shore, 1995, p. 160). It involves employees’ assessment of the extent to which they feel that the organisation cares and values not only their contributions but also their wellbeing (Eisenberger et al., 1986). Therefore, ‘favourable’ HR practices motivate employees to act in ways that are beneficial to the organisation. For instance, based on the norm of reciprocity, favourable HR practices are likely to induce employees to form beliefs that the organisation values them (denoted by POS), which in turn, obligates employees to recompense through positive work attitudes and intentions (Eisenberger et al., 2001; Wayne et al., 1997). Similarly, building on Organisation Support Theory, studies show that employees who receive ‘favourable’ HR practices tend to exhibit higher levels of POS as well as positive work attitudes, such as affective organisational commitment (Rhoades, Eisenberger, & Armeli, 2001; Shore & Shore, 1995; Shore & Wayne, 1993). This finding suggests that POS is an important mechanism through which employees might respond to the HR practices that they receive.

However, LMX relates to the quality of the relationship between an employee and his/her supervisor (Roch & Shanock, 2006). Similar to POS, LMX also involves the exchange of economic resources, that is, resources that directly relate to the terms and conditions of the employment contract (e.g. pay and working conditions), as well as socio-emotional resources, that is, resources that go beyond the terms and conditions of work spelled out in the employment contract, such as trust and respect (Eisenberger et al., 2001; Rupp & Cropanzano, 2002; Shapiro, Hom, Shen, & Agarwal, 2016). The relationship that involves the exchange of socio-emotional resources, such as respect, trust, and mutual obligations between an employee and his/her supervisor(s), is regarded as a high quality LMX (Graen &

Uhl-Bien, 1995; Shapiro et al., 2016). While some studies show that a high quality LMX might also lead to positive work attitudes and behaviours, others argue that an employee involved in a high quality LMX relationship ‘would feel obligated not only to perform the job adequately, but also to engage in behaviours that directly benefit the leader and are beyond the scope of usual job expectations’ (Wayne et al., 1997, p. 85). This finding suggests that LMX might also be an important predictor of POS (Ballinger, Lehman, & Schoorman, 2010; Harris, Wheeler, & Kacmar, 2011; Shapiro et al., 2016). For their part, Rhoades and colleagues posited that ‘the employee’s receipt of favorable treatment from a supervisor should contribute to POS’ (Rhoades & Eisenberger, 2002, p. 698). Consistent with this argument, I posit that a high quality LMX accentuates POS.

Indeed, the current discourses on SET show that the nature of the relationship developed is dependent on the organisational resources (i.e. HR practices) that the employees receive. This is because social exchanges in an employee perspective are contingent on an employee receiving mutual or more HR practices than their individual contributions. Building on Social Exchange Theory, Takeuchi et al. (2007), for instance, noted that ‘high-road’ HR investments, such as rigorous employee training and extensive benefits, are more likely to create a mutual obligation among employees. The takeaway messages from this synoptic overview of Social Exchange Theory are threefold. First, ‘favourable’ HR practices, such as development experiences and promotions, may directly induce positive work attitudes and intentions, such as affective organisational commitment and lower turnover intentions (Wayne et al., 1997). Second, ‘favourable’ HR practices may augment POS, which in turn, leads to positive work attitudes and intentions (Eisenberger et al., 2001). Third, a high quality LMX might accentuate employees’ POS. However, although the HR practices received induce employees to respond, we cannot accurately predict what the employee responses would be in the context of HR differentiation, which entails differential employee treatments. Toward this end, I borrow further insights from Social Comparison Theory.

Social Comparison Theory

As noted in Chapter Two, Social Comparison Theory (e.g., Festinger, 1954) suggests that employees perceive HR practices that they receive in accordance with their individual inputs as well as those of the referent others, that is, other employees with more or less similar status, qualifications and job responsibilities. Consistent with Social Comparison Theory,

Marescaux et al. (2013) theorised that HR differentiation leads employees to compare their individual outcomes and inputs relative to those of their co-workers. As such, Marescaux and colleagues concluded that PFHRPs is an important variable for assessing employee perceptions of HR differentiation. I build on this work and posit that beyond directly influencing employee work attitudes, such as affective organisational commitment (as Marescaux and colleagues found in their empirical study), PFHRPs might also influence fairness perceptions. I posit that social comparisons influence employee fairness perceptions. My conjecture is consistent with Greenberg, Ashton-James, and Ashkanasy (2007), who argued that social comparisons influence fairness perceptions.

Building on Social Comparison Theory, Kim et al. (2015) in their study across 393 employees in East Asia, found that employees' PDJ increased when the HR practices that they received, including pay, promotion opportunity and job security, exceeded those of their referent others. This finding suggests that favourable HR practices are positively linked to PDJ. I extend this work by incorporating PPJ, which has also been theorised to have strong implications for workplace attitudes, intentions and behaviours. This view is supported by Alexander and Ruderman (1987), who noted that to 'understand the role of perceived fairness or judgments..., one must examine process as well as outcomes' (p. 178). That is, when the HR practices we receive are favourable, we tend to perceive the rewards that we receive (i.e. PDJ) as well as the procedures used during the distribution of those rewards (denoted by PPJ) as favourable. This tendency is mainly due to egocentric bias, whereby people tolerate reward outcomes as well as procedures when they are favourable compared with those of their colleagues or co-workers (Greenberg et al., 2007). Thus, I predict that the PFHRPs is positively related to PDJ and PPJ. Moreover, since both PDJ and PPJ have also been found to be significantly related to work attitudes and intentions, such as job satisfaction and turnover intentions (Alexander & Ruderman, 1987; Cohen-Charash & Spector, 2001; Masterson et al., 2000), and that PFHRPs is significantly related to work attitudes, such as affective organisational commitment (Marescaux et al., 2013), I posit that PPJ and PDJ might partially mediate the relationship between PFHRPs and employee attitudes and intentions examined in the study. What remains less clear, however, is how LMX might interact with POJ, including PPJ and PDJ. To do so, I integrate Social Exchange Theory and Social Comparison Theory.

Integration of SET and SCT

While some scholars argue that LMX is an antecedent of organisational justice (Dirks & Ferrin, 2002; Gelens et al., 2013), others argue that LMX is an outcome of organisational justice (Masterson et al., 2000; Moorman, Blakely, & Niehoff, 1998; Rhoades et al., 2001; Roch & Shanock, 2006; Wayne et al., 2002). Within the context of differentiation, which necessarily raises justice or ‘fairness’ issues (Marescaux et al., 2013), I argue that LMX may, in fact, moderate employees’ perceptions of justice (i.e. PDJ and PPJ). The reason for this argument is that ‘fair procedures and perceptions of organizational justice depend on aspects of the work context’, of which LMX is a part (Piccolo, Bardes, Mayer, & Judge, 2008, p. 278). As such, a high quality LMX can potentially buffer negative perceptions of inequity (Johnson, Truxillo, Erdogan, Bauer, & Hammer, 2009). Using SET, I theorised that a high quality LMX might positively moderate POS. Therefore, by integrating SET and SCT, a high quality LMX positively accentuates POS, PDJ and PPJ.

Understanding employee responses to HR differentiation

A focus on employees’ perception of HR differentiation is fundamental given their intervening role in the HR-performance link (Coff & Kryscynski, 2011; Guest, 2002; Kehoe & Wright, 2013), but also as important ‘actors’ in the employment relationship (Guest, 1999; Jackson et al., 2014). As organisations treat employees differently (Broschak & Davis-Blake, 2006; Kalleberg, Reskin, & Hudson, 2000), understanding employee reactions to the HR practices they receive is important. Indeed, while the limited HR differentiation research is suggestive of employee responses (e.g., Gelens, Dries, Hofmans, & Pepermans, 2015; Gelens et al., 2014; Liao et al., 2009), it does not offer a complete picture of how employees might respond to HR differentiation. For example, employees who perceive that they are identified as talent tend to be more committed to performance demands and identify with the focal unit than those who don’t know their talent status (Björkman et al., 2013). Similarly, Gelens et al. (2015) found that employees identified as talent perceived stronger organisational support and experienced higher affective organisational commitment than employees who were not designated as talent. However, these studies focused on employee groups, but they do not sufficiently address the social and psychological processes through which the influence takes place. As such, I focus on within-group variations in HR practices perceptions that arise out of differential employee treatment.

To do so, I posit that differential employee treatment leads employees to make social comparisons with their co-workers of their treatment. This is because of the ‘similarity hypothesis’, which maintains that people are more likely to respond to organisational treatment based on how they are treated relative to their colleagues (Festinger, 1954; Wood, 1989). Consistent with Social Comparison Theory, Marescaux et al. (2013) theorised that HR differentiation leads employees to assess their situations against those of their co-workers to assess the ‘favourability’ of HR practices they receive. Hence, PFHRPs is a key indicator of employee perceptions of the extent to which differential HR practices apply and the extent to which differential treatment is favourable. However, in this study, the process through which PFHRPs influence job satisfaction, affective organisational commitment, job engagement and turnover intentions is examined through the theoretical lens of Social Exchange Theory and Social Comparison Theory perspectives (elaborated in Chapter Two of this thesis).

4.2.1 PFHRPs, job satisfaction, affective organisational commitment, job engagement, and turnover intentions

Previous research has linked HR practices to a diverse range of work-related attitudes and intentions, including job engagement (Alfes, Shantz, Truss, & Soane, 2013a; Alfes, Truss, Soane, Rees, & Gatenby, 2013b), job satisfaction (Ducharme, Singh, & Podolsky, 2005; Scandura & Lankau, 1997) affective organisational commitment (Meyer & Smith, 2000; Tsui et al., 1997) and turnover intentions (Kuvaas, 2008; Paré & Tremblay, 2007). Similarly, ‘favourable’ HR practices, such as training and job autonomy, have been linked with job engagement (e.g., Salanova, Agut, & Peiró, 2005; Schaufeli et al., 2009). This proposition can be supported from a number of theoretical perspectives. Building on the *norm of reciprocity* (Gouldner, 1960) and the *inducements contributions* (Barnard, 1938) concepts drawn from Social Exchange Theory, I hypothesise that PFHRPs is likely to foster job satisfaction, affective organisational commitment, job engagement and lower turnover intentions. This is because HR practices induce employees to reciprocate in positive ways. Accordingly:

Hypothesis 1: *PFHRPs is positively related to (a) job satisfaction, (b) affective organisational commitment and (c) job engagement.*

Hypothesis 1d: *PFHRPs is negatively related to turnover intentions.*

4.2.2 The mediating influence of POS, PDJ, and PPJ

The theoretical perspectives of social exchange and social comparison, discussed in Chapter Two, offer unique, yet complementary insights into how exactly POS, PDJ and PPJ mediate the relationship between PFHRPs and employee attitudes and intentions. Therefore, this section examines the mediating influence of POS, PDJ and PPJ, respectively.

The relationship between PFHRPs and POS

POS is defined as the extent to which employees perceive the organisation as valuing their contribution to the organisation and provides adequate support for their wellbeing (Cropanzano & Mitchell, 2005; Cropanzano, Prehar, & Chen, 2002; Masterson et al., 2000). Embedded in the concept of Social Exchange Theory, the *Inducements Contributions Exchange* theory (Barnard, 1938; March & Simon, 1958) suggests that employers who can balance inducements and contributions are well placed to develop better social exchange relationships with their employees (Takeuchi et al. 2007; Tsui et al., 1997). That is, ‘positive, beneficial actions directed at employees by the organization and/or its representatives contribute to the establishment of high quality exchange relationships that create obligations for employees to reciprocate in positive [and] beneficial ways’ (Settoon et al., 1996, p. 219). Similarly, Organisation Support Theory, which is a theory embedded within social exchange, suggests that ‘favourable’ HR practices are indicative that the organisation values and cares for the wellbeing of its employees (Eisenberger et al., 2001; Rhoades & Eisenberger, 2002). As such, favourable HR practices, such as promotions and developmental experiences, are likely to elicit higher levels of POS (Wayne et al., 1997). Eisenberger et al. (2001) concluded that favourable treatment received by employees from the organisation is likely to strengthen POS. Consequently, I hypothesise:

Hypothesis 2: *PFHRPs is positively related to POS.*

POS, job satisfaction, affective organisational commitment, job engagement and turnover intentions

Beyond the direct link between PFHRPs and work-related attitudes and intentions, Organisational Support Theory (Kurtessis et al., 2017), which is one of the frameworks within social exchange, may also help to explain how employees might react to organisational practices. Consistent with Social Exchange Theory, I argue that when

employees hold the belief that the organisation cares and supports them, they feel an obligation to return that favour by engaging in actions and behaviours that are beneficial to the organisation. Rhoades et al. (2001) offer two possible explanations for this contention. First, based on the norm of reciprocity, POS induces a felt obligation to remain in the same organisation. This explanation is indicative of affective organisational commitment and lower turnover intentions. Second, POS fulfils socioemotional needs (self-worth, affiliation and approval), leading to positive emotions, such as job satisfaction and job engagement. Gelens et al. (2015) found POS to fully mediate the relationship between an employee's designation as talent and affective organisational commitment. However, since Inducement Contributions Theory (which is also a theory embedded in social exchange), suggests that HR practices can also directly induce work-related attitudes, intentions and behaviours, I propose a partial rather than a full mediation.

Hypothesis 3 *The positive relationship between PFHRPs and (a) job satisfaction, (b) affective organisational commitment and (c) job engagement is partially mediated by POS.*

Hypothesis 3d: *The negative relationship between PFHRPs and turnover intentions is partially mediated by POS.*

The relationship between PFHRPs and PDJ

Since HR differentiation involves differential employee treatment, employees are also likely to interpret and react to organisational treatment based on the fairness of reward *outcomes* (PDJ) and organisational processes (PPJ). PDJ refers to employees perceptions of fairness of reward *outcomes*, such as pay (Farndale et al., 2011). This concept is derived from Equity Theory, which holds that motivation stems from a comparison of the inputs an employee invests in a job and the reward *outcomes* that s/he receives in comparison with the inputs and reward *outcomes* of his/her co-workers (Adams, 1963, 1965; Cohen-Charash & Spector, 2001; Colquitt, 2001; Gelens et al., 2013; Walster et al., 1978). When employees perceive favourable 'inequity' (i.e. favourable HR practices), they are likely to exhibit higher levels of PDJ (Erdogan, 2003). This is because of the ego-centric bias, where people appreciate comparisons that are favourable to them relative to their co-workers (Greenberg et al., 2007; Kim et al., 2015). Therefore, I expect PFHRPs to augment PDJ. Gelens and colleagues found

that high-potential employees exhibited more favourable perceptions of distributive justice than non-high-potential employees (Gelens et al., 2014). Hence, I posit:

Hypothesis 4: *PFHRPs is positively related to PDJ.*

PDJ, job satisfaction, AOC, job engagement and turnover intentions

PDJ may be another mechanism through which PFHRPs might influence work-related attitudes. My mediating argument is informed by Social Comparison Theory (Wood, 1989), which suggests that employee reactions are not merely based on absolute reward *outcomes* but fairness of these *outcomes* (PDJ) as well as processes (PPJ). Therefore, the more employees perceive that they are receiving favourable organisational resources (e.g., higher pay and benefits), the more employees would be expected to engender positive attitudes (e.g., job satisfaction, affective organisational commitment, job engagement, and lower turnover intentions). This is because of the alternative version of ego-centric bias, which argues that people give greater weight to the favourability of their own individual outcomes when comparing themselves with referent others (Chambers & Windschitl, 2004). A study conducted by Gelens et al. (2014) revealed that the effect of an employee's identification as a high-potential on job satisfaction was fully mediated by PDJ. I argue, therefore, that PDJ may be a dominant path by which PFHRPs might also influence job satisfaction, AOC, job engagement and turnover intentions. However, since POS has also been hypothesised to play a mediating role between PFHRPs and employee attitudes (hypothesis 3a & 3b), I posit a partial mediation.

Hypothesis 5: *The positive relationship between PFHRPs (a) job satisfaction, (b) affective organisational commitment, and (c) job engagement is partially mediated by PDJ.*

Hypothesis 5d: *The negative relationship between PFHRPs and turnover intentions is partially mediated by PDJ.*

The relationship between PFHRPs and PPJ

Procedural justice refers to the perceived fairness of the formal organisational procedures used for decision-making (Erdogan, 2003; Farndale et al., 2011; Kim, 2005). For instance,

employees may find it easier to accept reward *outcomes* or decisions if the decision-making process was perceived to be fair, equitable, consistent and unbiased (Folger & Konovsky, 1989). Thus, workers tend to perceive procedural justice if they actively participate or influence the decision-making process (Bies & Shapiro, 1988; Greenberg, 1990; Lind & Tyler, 1988).

Consistent with this framework, I expect the experience of 'favourable' HRPs to be positively linked to PPJ. This is because perceptions of 'favourability', such as participation and autonomy, may be considered as representative of employee views and opinions. Research has shown high involvement HR practices to relate to PPJ (Meyer & Smith, 2000; Paré & Tremblay, 2007). Tremblay, Cloutier, Simard, Chênevert, and Vandenberghe (2010) in a study of 1,219 employees from a Canadian hospital, found a positive relationship between HR practices and PPJ.

Hypothesis 6: *PFHRPs is positively related to PPJ.*

PPJ, job satisfaction, affective organisational commitment job engagement and turnover intentions

Although some findings show a direct relationship between PPJ and work attitudes, such as turnover intentions (Cohen-Charash & Spector, 2001; Masterson et al., 2000), job engagement (Saks, 2006), job satisfaction (Cohen-Charash & Spector, 2001; Colquitt et al., 2001) and affective organisational commitment (Masterson et al., 2000; Sweeney & McFarlin, 1993), some scholars have found that these relationships are not necessarily direct or unconditional. Consistent with Social Comparison Theory (Wood, 1989), I argue that fairness of organisational processes (PPJ) may also act as mechanisms through which PFHRPs influences employee attitudes. That is, although the reward *outcomes* may be fair (PDJ), the procedures used to arrive at those decisions may still be unfair; hence, employee reactions may be mixed (Erdogan, 2003). In fact, there is theoretical (Folger & Cropanzano, 2001; Greenberg et al., 2007) and empirical (Alexander & Ruderman, 1987; Folger & Konovsky, 1989) evidence that suggests that when employees perceive differential treatment, they are more likely to react by evaluating the fairness of the whole entity to which the unfairness is attributable: the reward *outcomes* (PDJ) as well as the organisational decision-making processes (PPJ). Therefore, I propose a partial rather than a complete mediation.

Hypothesis 7: *The positive relationship between PFHRPs and (a) job satisfaction, (b) affective organisational commitment and (c) job engagement is partially mediated by PPJ.*

Hypothesis 7d: *The negative relationship between PFHRPs and turnover intentions is partially mediated by PDJ.*

4.2.3 The Moderating Influence of Leader-Member Exchange (LMX)

As noted earlier, Social Exchange Theory describes two relationships that are likely to arise out of social exchanges between organisations and employees: POS and LMX (e.g., Masterson et al., 2000; Wayne et al., 1997). The former consists of details of employees' assessment of organisational treatment over time, while the latter is based on employee relationships with their supervisors/leaders. Just like POS, LMX has been found to influence work attitudes, intentions and behaviours because it also involves the exchange of economic and socio-emotional resources (Ballinger et al., 2010; Creary, Caza, & Roberts, 2015; Harris et al., 2011). However, it is a high quality as opposed to a low quality LMX that has been construed to have significant positive effects on employee perceptions, attitudes, intentions and behaviours (Graen & Uhl-Bien, 1995; Scandura & Graen, 1984). While differential employee treatment arises from the organisational entity itself, a high quality LMX may still make a significant contribution in terms of determining whether employees believe that the organisation cares for them and whether they believe that the HR practices they receive are fair. In line with this speculation, management scholars have noted that a high quality LMX is critical in keeping employees attached to the organisation (Ballinger et al., 2010; Harris et al., 2011; Shapiro et al., 2016). For instance, Shapiro et al (2016) theorised that when there is a high quality LMX, employee's 'organizational attachment should strengthen, not weaken' (p. 495). Therefore, building on Social Exchange Theory, I would expect a high quality LMX to accentuate POS.

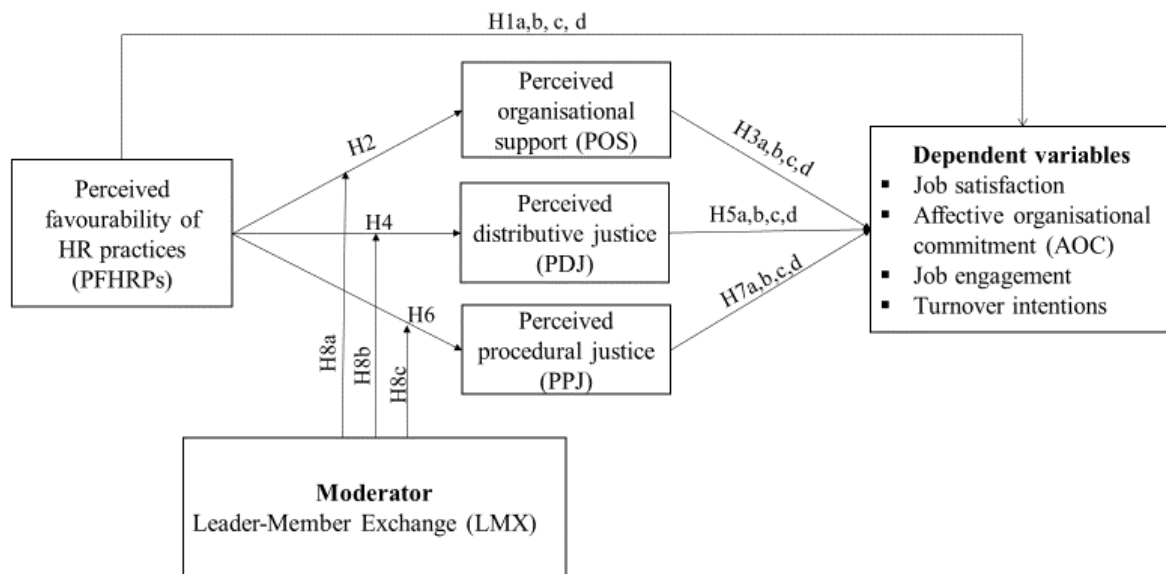
In the preceding section, I developed a theoretical model of how POS, PDJ and PPJ partially mediate the relationship between PFHRPs and the employee attitudes examined in this study. In the context of HR differentiation, I integrate Social Exchange Theory and Social Comparison Theory. My argument is that social comparisons initiated by differential employee treatments evoke other 'motivational' factors that engender employees to respond

in specific ways (Goodman, 1977). Therefore, beyond PFHRPs, these ‘motivational’ factors are also likely to generate variability in how employees might assess fairness of organisational rewards and processes. One such important factor is LMX, which relates to the quality of the relationship between an employee and his/her supervisor (Roch & Shanock, 2006; Shapiro et al., 2016).

Indeed, given that a high quality LMX goes beyond economic resources to include socioemotional resources, such as trust, respect and mutual obligations for employees and their supervisors (Graen & Uhl-Bien, 1995), it suggests a critical role for employee differences in their perceptions of fairness. This finding is consistent with Greenberg et al. (2007), who argued that fairness perceptions can also be dependent on LMX. Therefore, the integration of Social Exchange Theory and Social Comparison Theory leads to the proposition that since supervisors represent the organisation during social exchanges, employees in a high quality LMX are likely to show higher levels of POS, PDJ and PPJ. Building on Social Comparison Theory, Piccolo et al. (2008) observed that employees in a high quality LMX showed higher levels of justice perceptions, while Johnson et al. (2009), who built their work around Social Exchange Theory, argued that a high quality LMX may make employees ‘believe that the organization will act in their best interests, will fulfil its obligations, and be consistent and reliable’ (p. 436). From this vantage point, I expect a high quality LMX to strengthen POS as well as justice perceptions (i.e., PDJ and PPJ).

Hypothesis 8: *LMX will positively moderate the relationship between PFHRPs and (a) POS, (b) PDJ and (c) PPJ.*

FIGURE 4. 1 Hypothesised Model



4.3 Methods

4.3.1 Sample and procedures

The purpose of the study was to examine how employees might respond to HR differentiation using PFHRPs as a key indicator of employee responses to HR differentiation and several employee attitudes: Job satisfaction, affective organisational commitment, job engagement and turnover intentions. During the month of November 2016, participants were sent an email by a market research company commissioned to complete the fieldwork, inviting them to complete an online survey. These participants consisted of individuals who were registered with the survey firm. The sample drawn from this list were selected using stratified random sampling, whereby a random sample was drawn from all the 19 major industry sectors in Australia. Participants also had to be aged 18 and over and working in an organisation with at least 20 employees. The aim in drawing on participants working across different sectors was to take account of different organisational contexts, and potentially, different approaches to HR differentiation. Out of the 1,342 employees contacted to complete the survey, I received 767 complete surveys, giving a response rate of 57%.

Of these 767 completed surveys, 34 were removed during data screening, leaving a total sample of 733. Details of the industry sectors and other sample demographics are presented in Appendix 3. A similar proportion of respondents reported working in organisations with 1000 or more employees (i.e. 29% of respondents) and 50-199 employees (28%). Among the respondents, the average age was 44.3 years, and males constituted 51% of the sample. The average job tenure of respondents was 7.7 years and the average organisational tenure was 12.7 years. Around one-third (31%) of respondents had an undergraduate degree or equivalent, and only 4% had not completed high school.

4.3.2 Measures

A complete list of items used for each measure is provided in Appendix 2.

Independent variable

PFHRPs was measured using an 8-item scale developed by Marescaux et al. (2013). First, perceptions can be negative, neutral or positive. Second, I specified a comparison point whereby respondents were asked to indicate whether the HRPs they received were lower,

similar or higher than those of their co-workers.⁶ Six of these items were measured using a five-point Likert Scale, ranging from 1 (much lower) to 5 (much higher). The remaining two items were measured on a three-item scale, ranging from 1 (negative) to 3 (positive). For all the 8 items, a ‘not applicable’ option was also made available to respondents to capture cases where an HR practice item was not used in their workplace. Following Marescaux et al. (2013), I created an additive index of these 8 HRPs to reflect PFHRPs. Descriptive statistics (percentages) for all these 8 items are reported in Table 4.2.

Moderating variable

LMX was measured by 7 items derived from Janssen and Van Yperen (2004), Wayne et al. (1997) and Scandura and Graen (1984). An example statement was, ‘My supervisor recognises my potential’. This was to be answered on a five-point scale, ranging from 1 (totally disagree) to 5 (totally agree).

Mediating variables

POS was measured using an 8-item version of a scale by Eisenberger, Cummings, Aemeli, and Lynch (1997); Eisenberger, Rhoades, and Cameron (1999); Eisenberger et al. (2002); Gelens et al. (2015); Lynch, Eisenberger, and Armeli (1999) and Rhoades et al. (2001). This shortened scale has been used across several job and industry sectors and has been shown to have high levels of internal reliability (e.g., Eisenberger et al., 2002; Lynch et al., 1999; Settoon et al., 1996). Example items were, ‘My workplace strongly considers my goals and values’ and ‘My workplace shows little concern for me (Reverse coded)’. This was measured on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

PDJ was measured by 4 items adapted from Colquitt (2001) and Judge and Colquitt (2004). However, while Colquitt (2001) focused on ‘outputs,’ I refined it to include rewards, with accompanying examples, such as incentives, pay, stock-options, etc. A sample item was ‘To what extent do the rewards (e.g., incentives, pay, stock-options, etc.) you have received at your current workplace reflect the effort you have put into your work?’ This was measured on a five-point scale, ranging from 1 (Not at all) to 5 (a very large extent).

⁶ I defined co-workers as employees in their workplace with whom they have frequent contact and/or who perform similar jobs.

PPJ was measured by 7 items adapted from Colquitt (2001) and Judge and Colquitt (2004). I added specific mention to formal procedures to make decisions to allocate rewards in the employee's workplace. Example items were, 'To what extent have you been able to express your views and feelings during those procedures?' and 'To what extent have you been able to appeal the pay arrived at by those procedures?' The scale was measured on a five-point scale, ranging from 1 (Not at all) to 5 (a very large extent).

Dependent variables

Job satisfaction was measured using 3 items, as suggested by R. Takeuchi et al. (2009). A sample item was, 'All things considered, I am satisfied with my current job'. This was measured on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Affective organisational commitment was measured using 8 items that were consistent with items used in previous research (e.g., N. J. Allen & Meyer, 1990; Meyer, Allen, & Smith, 1993). A sample item was, 'I would be very happy to spend the rest of my career with this organization'. This was measured on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Job engagement was measured using 14 items developed by Rich et al. (2010). An example item was, 'I exert my full effort to my job'. This was measured on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Turnover intentions was measured using 3 items of the survey of Björkman et al. (2013). A sample item was, 'I often think about quitting my job at this organisation'. This was measured on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Control variables

In my analysis, I also included the following variables as controls: Organisational size, industry, respondent age, gender (Female = 1 and Male = 0), educational level, job and organisational tenure, union membership (Yes = 1 and No = 2), contract of employment and whether the respondent had supervisory responsibilities. These variables have been found to influence workplace attitudes, such as affective organisational commitment (Takeuchi et al.,

2009), justice perceptions (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Sweeney & McFarlin, 1993, 1997) and POS (Gelens et al., 2015; Loi, Hang-Yue, & Foley, 2006).

Assessment and treatment of missing values

Before conducting data analysis, I checked for missing values in the data across all variables. While the control variables recorded no missing values for any case, this was not the case for items used to construct latent variables: PFHRPs, LMX, POS, PDJ, PPJ, job satisfaction, job engagement, affective organisational commitment and turnover intentions. Research shows that for surveys involving employee attitudes, missing data is common. Hair et al. (2014) argued that missing data can generally be ignored if it is under 10% for any individual observation. Except for PFHRPs (to be discussed later), the proportion of respondents who recorded missing values in all the other latent variables was 3.68%. Hence, I followed the same procedure described in Chapter Three to impute the missing data.

However, in the case of PFHRPs, the proportion of the cases that recorded a missing value was significantly higher than 10% for most of the HRPs used to construct this variable. The descriptive statics in Table 4.1 indicate the number of valid cases for each HR practice item. One common approach to managing missing values would be to use list-wise deletion of cases with missing data (Hair et al., 2014; Kline, 2005). However, this method would have significantly reduced the sample size used in any subsequent analysis. Similarly, while pairwise deletion would allow for the inclusion of more cases in the analysis, it presents different numbers of cases in a covariance matrix and may generate out of range values. Consequently, 'pairwise deletion is not generally recommended for use in SEM unless the number of missing observations is small' (Kline, 2005, p. 54). For this reason, I chose to generate values for this variable by averaging scores over those items where a valid response has been given. Only in those cases (n = 26) where all items were missing was the case deleted from the analysis because such cases had no information concerning HR differentiation.

TABLE 4. 1 Descriptive statistics for Perceived Favourability of HRPs (n = 733)

HRPs	n	Perceived favourability (%)		
		<i>Negative</i>	<i>Neutral</i>	<i>Positive</i>
Mentoring	489	21.9	63	15
Development appraisals	582	13.4	76.8	9.8
Bonuses	376	29.3	48.7	22.1
Benefits	480	24.0	54.8	21.3
Training	676	21.4	62.6	16.0
Autonomy	690	12.3	47.5	40.1
Flexibility	662	16.2	54.5	29.3
Participation	696	17.4	59.3	23.3

Outliers

Data were checked for outliers using univariate techniques, described in Chapter Three. However, since this study involves multivariate data analysis, I also used Mahalanobis Distance (MD), which is a widely used technique to identify outliers in multivariate data. Using MD (Hair et al., 2014; Tabachnick & Fidell, 1996), given as $(N - 1)(h - 1/N)$ with ‘h’ the critical value for leverage set at $\alpha = 0.001$ and ‘N’ as the total number of cases, I regressed all the latent variables used in this study against a randomly generated dependent variable (computed as RV.CHISQ) and specified it as 9 degrees of freedom (since 9 was the total number of latent variables to be checked for outliers). Thereafter, I computed probabilities of MD for the multivariate items and compared it with the critical value for leverage, $\alpha = 0.001$. ‘A very conservative probability estimate for a case being an outlier, say, $p < .001$ for the χ^2 value, is appropriate...’ (Tabachnick & Fidell, 1996, p. 68). Using this approach, I identified and deleted 8 cases in my data set, which had MD probability values below .001. Hence, the final data set used for the analysis consisted of 733 respondents.

Violations of Assumptions of Multivariate Analysis

I examined my data to ascertain whether the data met the assumptions underlying multivariate analysis, including normality, linearity, homoscedasticity and multicollinearity.

a) Normality

According to Kline (2005), most multivariate statistical procedures assume that the observations are normally distributed. If this assumption does not hold, results from such analyses may not be robust, producing biased estimates and/or leading to inappropriate results and inferences. Therefore, I followed the same procedures described in Chapter Three of the thesis.

b) Linearity

The assumption of linearity maintains that the relationship between two variables is estimated with a line of constant slope. In a practical sense, meeting the assumption of linearity is important because Pearson's correlation coefficient, r , can only capture linear relationships. Thus far, biased estimates and incorrect inferences can be drawn if the variables are nonlinear (Tabachnick & Fidell, 1996). I tested for linearity by inspecting bivariate correlations and scatterplots across all the latent independent variables. The bivariate scatterplots between the variables had more or less the same width all over, with some bulging towards the middle, suggesting linearity.

c) Homoscedasticity

For the assumption of homoscedasticity to hold, also known as homogeneity of variance, the variance of the error term (e) should be constant across all levels of the independent variable(s) (Hair et al., 2014). For instance, for ungrouped univariate data, variables are considered homoscedastic when score variability in one continuous variable is more or less the same across all values of another continuous variable (Tabachnick & Fidell, 1996). Serious violations in homoscedasticity (i.e., assuming a distribution of data is homoscedastic when it is heteroscedastic) may result in overestimating the goodness of fit, particularly in ordinary least squares (OLS) regression analyses (used in this study), thereby providing biased estimates of the true relationship between variables. I tested for the assumption of homoscedasticity by inspecting histograms and scatter plots of the standardized residuals. The histograms between the independent variables and each of the dependent variables indicated that the residuals approximated a normal distribution. The scatter plots produced from the regression equation were roughly distributed in a rectangular shape, with most of the scores concentrated around the middle; i.e. at the 0-axis point. This showed that the variables were somewhat normally distributed—hence, homoscedastic.

d) Multicollinearity

Multicollinearity is said to occur when there is a ‘strong linear relationship between two or more of the predictors’ (Lomax, 2001, p. 62). When multicollinearity exists, it becomes difficult to ascertain which independent variable is actually influencing the outcome variable since the various independent variables are said to contain the same information. Thus, the variances and the standard error terms of the regression coefficient estimators (i.e. β) may become inflated, leading to a Type 2 error (β): Failure to reject the null hypothesis when it is false.

To test for the extent of multicollinearity among the independent variables used in this study, I used:

- i. Bivariate correlations.
- ii. Tolerance and Variance Inflation Factors (VIF).

Chatterjee, Hadi, and Price (2000) suggest that one of the easiest ways to check for multicollinearity is to examine the bivariate correlations and look for ‘big’ values, such as .80 and above. Although all the correlations were significant, as detailed in Table 4.2, the correlation among PFHRPs and all the other independent variables was the least, with the lowest being with PDJ ($r = .28^{**}$, $p < 0.01$) and the highest being with POS ($r = .35^{**}$, $p < 0.01$). The highest correlation was between PDJ and PPJ ($r = .71^{**}$, $p < 0.01$), followed by the correlation between POS and LMX ($r = .67^{**}$, $p < 0.01$).

TABLE 4.2 Correlations among independent variables (n = 733)

	1	2	3	4	5
1. Perceived favourability of HRPs	(.84)				
2. Perceived organizational support (POS)	.35 ^{**}	(.92)			
3. Perceived procedural justice (PPJ)	.30 ^{**}	.63 ^{**}	(.92)		
4. Perceived distributive justice (PDJ)	.28 ^{**}	.59 ^{**}	.71 ^{**}	(.95)	
5. Leader-member exchange (LMX)	.29 ^{**}	.67 ^{**}	.48 ^{**}	.45 ^{**}	(.94)

^{**}. Correlation is significant at the 0.01 level (2-tailed). Bold values in brackets on the diagonal show the Cronbach’s α of the latent constructs.

Given the conceptual relationships that exist between a number of variables used in this study, such as LMX and POS (Wayne et al., 1997), and also PDJ and PPJ (Lind & Tyler, 1988), I decided to run a multicollinearity test using Tolerance and VIF. Tolerance represents the amount of variability of a particular independent variable that is not explained by other independent variables (Hair et al., 2014). This test generates a value between 0 and 1, with values approaching 0 indicating a higher degree of multicollinearity and values approaching 1 indicating that multicollinearity was not a significant issue likely to affect subsequent analysis. Generally, however, tolerance values below 0.1 are considered critical. VIF represents the inverse of Tolerance (i.e. 1/tolerance) and it measures ‘the effect that the other independent variables have on the standard error of a *regression coefficient*’ (Hair et al., 2014, p. 157). VIF value greater than 10 suggests that multicollinearity could be an issue. Following established procedures for doing so (Hair et al., 2014), I ran multiple linear regressions with each of the independent variables as an ‘outcome’ variable. Results of the multicollinearity tests are shown in Table 4.3. The tolerance values for the independent variables were well above the critical value of 0.1 (i.e. ranged from 0.43 to 0.75). Similarly, VIF values were well below 10 (i.e. ranged from 1.35 to 2.34). Together, these tests suggest that multicollinearity was not an issue.

TABLE 4.3 VIF and Tolerance Test to Check Multicollinearity (n = 733)

Dependent variable	Independent variable	Tolerance	VIF
POS	PPJ	.466	2.144
	PDJ	.481	2.078
	LMX	.749	1.350
PPJ	PDJ	.642	1.557
	LMX	.553	1.808
	POS	.448	2.230
PDJ	LMX	.553	1.809
	POS	.427	2.341
	PPJ	.593	1.687
LMX	POS	.556	1.798
	PPJ	.427	2.341
	PDJ	.463	2.162

Addressing Common Method Variance

Common method variance (CMV), also known as Common Method Bias (CMB), is usually a concern when self-reported survey instruments are used to collect cross sectional data from a single source. It happens when variations in responses are a result of the survey instrument rather than the actual predisposition of the respondent that the survey seeks to uncover (MacKenzie & Podsakoff, 2012; Podsakoff et al., 2003). Since it can inflate and also attenuate relationships, CMV can lead to unsound conclusions (Richardson et al., 2009). Thus, researchers are encouraged to use various methods to identify and mitigate its effects.

Given the nature of data collection (same source for all items; subjective measures), CMV is expected to be a potential issue that requires consideration. My proactive approach to minimising the potential effects of CMV was to use both positively and negatively (reverse-coded) items in my survey instrument. Also, I reworded some of the measurement items to minimise item ambiguity and improve their clarity (Podsakoff, MacKenzie, & Podsakoff, 2012). Regarding PDJ, for instance, I asked the respondents to indicate their fairness perceptions about the rewards they receive, including incentives, pay and stock options, while for PPJ, I specifically asked respondents to indicate their fairness perceptions regarding the formal workplace procedures used for decision-making.

To assess CMV statistically, I conducted Harman's single factor test using EFA by loading all the 9 latent constructs into the analysis and constrained the number of factors to be extracted to '1'. The total variance explained (TVE) was only 32.13%. Since the extracted component accounts for less than 50% of all the variables in the model, CMV did not pose a serious threat to the data.

However, since Harman's single factor test is not sufficient for one to be confident that CMV is not an issue (e.g., Podsakoff et al., 2003), I also tested for CMV using the marker variable technique (Lindell & Whitney, 2001; Richardson et al., 2009). According to Craighead et al. (2011), the marker variable technique involves incorporating an additional variable into the study that is theoretically unrelated to at least one of the study's constructs. The authors argue that a marker variable may be a multi-item, single item, or an objective measure. CMV is then evaluated on the basis of the correlations between the marker variable and the variables of interest (Yee et al., 2008). If there is a significant relationship between the marker variable

and variables of interest, then CMV might be a problem. The marker-variable I included was a demographic question that asked employees, ‘which territory in Australia do you live?’ With ‘the use of demographic variables as marker variables, it seems unlikely that any theoretical connection with substantive measures is possible’ (Williams et al., 2010, p. 30). One-way ANOVA was used to examine the correlation between the marker variable and all the other latent variables. No significant differences were found between the marker-variable and PFHRPs, $F(7,722) = 1.946, p > .06$; job satisfaction, $F(7,725) = 1.196, p > .302$; AOC, $F(7,725) = 1.184, p > .309$; job engagement, $F(7,725) = .607, p > .751$; turnover intentions, $F(7,725) = .908, p > .499$; PDJ, $F(7,725) = 1.095, p > .365$; LMX, $F(7,725) = 1.06$; and POS, $F(7,725) = 1.184, p > .309$; except for PPJ, $F(7,725) = 2.141, p < .05$. Thus, I conclude that CMV did not pose a serious threat to this study.

4.3.3 Reliability and Validity Checks

To check for the reliability and validity of the survey data, I conducted factor analysis. Several researchers argue that conducting factor analysis enables one to determine the underlying relationships between the measured constructs.

Exploratory Factor analysis (EFA)

Consistent with recommended practice, I conducted factor analysis for all the latent variables to identify cross-loading items for subsequent removal from the analysis, if necessary. I selected SPSS default program Principal Component Analysis (PCA) since it is the most common tool for factor reduction (Hair et al., 2014; Pallant, 2007) and rotated by Varimax Rotation. Varimax Rotation is the most widely used orthogonal rotation method as it generates an invariant pattern structure with a very clear separation of factors (Hair et al., 2014).

Thereafter, I tested for the reliability of the scales, which I constructed using Cronbach’s alpha (α) to determine the consistency of scaled data. Several scholars maintain that Cronbach’s alpha of .70 and above is acceptable for research purposes (e.g., Hair et al., 2014; Nunnally & Bernstein, 1994).

In addition to assessing reliability, I also sought to establish validity to ensure that the items measured what they were intended to measure. Specifically, I sought to measure Construct,

Divergent and Discriminant Validity (Hair Jr et al., 2014). Construct Validity was assessed before a full-scale study was undertaken. Expert review of the relevance of each item included in the survey instrument was sought from supervisors and academic experts. Convergent validity was assessed by calculating Composite Reliability (CR) and Average Variance Extracted (AVE) for each measurement scale. CR assesses the construct reliability of the measurement model, while AVE indicates the amount of shared variance between the construct and its measurement items (Baluch et al., 2013). It is recommended that CR should be at least .70 (Nunnally & Bernstein, 1994) and AVE be at least .50 (Gefen et al., 2000; Hair et al., 2012).

Discriminant Validity was established by examining the item-to-item correlations. As a rule of thumb, it is recommended that items should correlate more strongly with their own latent construct than with others constructs (Alexander & Honig, 2016). Moreover, if the AVE estimate is higher than the squared interconstruct correlations, then Discriminant Validity is said to be established (Fornell & Larcker, 1981).

Before factor analysis, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity were conducted to evaluate factorability. The KMO value was 0.917 and Bartlett test of sphericity was significant ($\chi^2 (1891) = 12486.799$, $p = .001$), indicating that Exploratory Factor Analysis (EFA) can be applied to the dataset.

EFA was conducted with the obtained data to extract the new factor structure and to examine the Construct Validity. The number of factors to be extracted was decided in consideration of the scree-plot, communalities values and number of factors with eigenvalues greater than one. A total of ten factors were extracted and rotated, and the cumulative total variance explained (TVE) was 70.27%. The Rotated Component Matrix, presented in Table 4.4, showed two items of POS: POS3_R, '*My workplace shows little concern for me*'⁷ and POS6_R, '*If given the opportunity, my workplace would take advantage of me*'⁸ to load with the negatively worded items of AOC while one item of turnover intentions construct, '*TI3_R I intend to remain with this organisation for the near future*', loaded as component 9.

⁷ Item was reverse coded before including in the analyses.

⁸ Item was reverse coded before including in the analyses.

TABLE 4. 4 Rotated Component Matrix^a for all latent variables (n = 733)

Item code in SPSS	Component									
	1	2	3	4	5	6	7	8	9	10
AOC1	.258	.260	.240	.131	.719	.044	-.005	.075	.110	.055
AOC2	.199	.249	.223	.057	.678	.083	.211	.010	.072	.212
AOC3	.049	.355	.119	-.008	.715	-.002	.067	.010	-.077	-.115
AOC4_R	-.068	.156	-.102	.691	-.118	.077	-.043	-.014	-.038	-.074
AOC5_R	.120	.074	.119	.818	-.007	.075	.175	-.007	.088	.116
AOC6_R	.140	-.013	.024	.773	.150	.151	.185	-.002	.119	.015
AOC7	.305	.225	.083	.052	.657	.116	.176	.034	-.020	-.141
AOC8_R	.109	-.008	.119	.802	.064	.060	.101	.016	.077	-.078
E1	.756	-.015	.049	.026	.230	.108	.122	-.013	-.038	.235
E2	.787	.014	.018	.033	.061	.054	.183	.044	.008	.194
E3	.756	-.001	.171	.099	.048	.087	.008	.146	-.080	.335
E4	.792	-.030	.125	.045	.049	.070	.041	-.006	-.024	.253
E5	.750	.158	.119	.099	.071	-.001	.119	.027	-.085	-.057
E6	.775	.131	.067	.031	.228	.048	-.021	.012	.120	-.148
E7	.743	.099	.118	.095	.067	.065	.210	-.096	.125	-.090
E8	.716	.203	.128	.044	.167	.040	.214	-.044	.144	-.155
E9	.642	.264	.237	.071	.259	.115	.053	-.078	-.010	-.294
E10	.831	.105	.178	.024	.058	.061	-.051	.014	.000	-.095
E11	.835	.012	.139	.101	.052	.071	.042	.042	.121	-.048
E12	.816	-.014	.171	.100	-.041	.070	.126	.014	.102	-.041
E13	.801	.135	.088	.007	.034	.039	-.070	.075	-.006	-.104
E14	.763	.043	.120	.014	.171	.013	.192	-.064	.006	.090
LMX1	.135	.117	.653	.114	.257	.163	.127	.179	-.053	.085
LMX2	.272	.172	.712	.081	.212	.218	.182	-.079	.001	.014
LMX3	.191	.200	.739	.041	.169	.116	.191	-.080	.029	.038
LMX4	.204	.220	.704	.148	.063	.072	.304	-.036	-.041	-.084
LMX5	.169	.272	.775	.117	.080	.063	.108	.043	.111	-.138
LMX6	.130	.252	.814	.112	.052	.034	.087	.126	-.001	-.081
LMX7	.238	.260	.713	.033	.102	.006	.133	.043	.092	.190
JS1	.308	.193	.451	.177	.526	.197	.191	.023	.167	.106
JS2	.326	.199	.396	.125	.472	.236	.231	-.109	.193	.029
JS3	.296	.203	.494	.119	.475	.123	.102	.006	.280	.094

Item code in SPSS	Component									
	1	2	3	4	5	6	7	8	9	10
TI1	-.138	-.032	-.162	-.710	-.144	-.181	-.070	.205	-.368	.032
TI2	-.182	.034	-.089	-.670	-.064	-.114	-.014	.071	-.507	.001
<i>TI3_R</i>	-.262	-.233	-.270	-.084	-.399	.043	-.090	-.118	-.568	-.010
PDJ1	.124	.756	.154	.099	.255	.095	.149	-.007	-.029	.281
PDJ2	.114	.770	.142	.038	.180	.137	.094	-.084	.072	.343
PDJ3	.119	.823	.069	.055	.149	.086	.035	-.011	-.001	.269
PDJ4	.125	.813	.138	.071	.101	.090	.089	-.032	.041	.222
PPJ1	.138	.645	.207	-.009	.129	.191	.207	.068	-.076	.117
PPJ2	-.021	.725	.143	-.102	.171	.043	.006	.085	-.162	-.213
PPJ3	.068	.745	.183	.079	.068	.108	.111	.140	.128	-.221
PPJ4	.097	.676	.201	.088	.184	.137	.201	.138	.148	-.160
PPJ5	.119	.687	.272	.106	.043	.063	.233	.060	.139	-.202
PPJ6	-.017	.754	.099	-.089	.152	.066	.037	.081	-.145	-.284
PPJ7	.054	.694	.230	.054	.064	.122	.181	.018	.176	-.121
POS1	.262	.361	.304	.256	.354	.184	.491	.060	-.014	-.004
POS2	.160	.312	.319	.250	.276	.127	.574	.044	.014	-.082
<i>POS3_R</i>	.050	-.006	.195	.740	.002	.033	.032	-.076	-.234	.121
POS4	.203	.231	.300	.028	.048	-.047	.615	.181	.188	.141
POS5	.205	.371	.328	.148	.190	.087	.584	.170	.038	-.096
<i>POS6_R</i>	.006	.026	.092	.751	.139	-.008	-.087	.103	-.201	-.016
POS7	.274	.221	.276	.069	.072	.182	.705	-.026	-.048	-.072
POS8	.192	.301	.274	.092	.186	.047	.668	-.087	-.026	.109
HRP1	.103	.214	.031	.117	.019	.740	.084	.154	.088	-.073
HRP2	.136	.226	.002	-.017	-.059	.699	-.108	.177	.127	-.193
HRP3	.097	.171	.016	-.059	.023	.268	.049	.603	-.054	-.052
HRP4	-.060	.034	.079	-.069	.045	.236	.031	.782	.052	.034
HRP5	.018	.164	.078	.049	.040	.622	.066	.325	.128	.028
HRP6	.141	.005	.142	.141	.164	.754	.039	-.147	-.049	.050
HRP7	.081	.082	.210	.130	.131	.705	.094	.030	-.220	.125
HRP8	.057	.162	.151	.242	.050	.631	.170	.300	-.033	.102

Notes. Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. ^aRotation converged in 8 iterations. JS: job satisfaction. E: engagement. TI: Turnover intentions. Bold items in italics were deleted.

To assess whether an item should be kept or deleted when assessing EFA, Stevens (2002) suggests using a cut-off of 0.4. That is, the standardised factor loading of an item on its construct should be at least .40 for an item to be retained during EFA. However, when there are cross-loadings⁹, Stevens suggests that there should be at least a gap of .20 between the ‘target’ construct standardised factor loadings and each of the cross-loadings for such items to be retained in the analysis. Following these recommendations, I deleted two items used to measure POS construct and one item of turnover intentions construct that loaded separately. However, a decision was made to retain all the items of job satisfaction construct, as they significantly cross-loaded with both LMX and affective organisational commitment constructs. Baglin (2014) argued that to determine the items to be retained, theory must drive judgement rather than statistical analyses. According to Yong and Pearce (2013), an item with cross-loadings ‘can be retained with the assumption that it is the latent nature of the variable’ (p.6). Moreover, previous studies have also found job satisfaction items to load on other variables. For instance, Nishii et al. (2008) found items of job satisfaction to significantly cross-load with items of affective organisational commitment. Following recommendations by several authors (e.g., Costello & Osborne, 2005; Yong & Pearce, 2013), I then proceeded to conduct Confirmatory Factor Analysis (CFA) to validate the factorial validity of the model derived from the results of the EFA before calculating AVE and shared variance, which I compared to assess Discriminant Validity.

Confirmatory Factor Analysis (CFA)

To further assess and refine the measurement scale, I conducted two CFAs: one for PFHRPs and another for POS, LMX, PDJ, PPJ, job satisfaction, affective organisational commitment, job engagement and turnover intentions. Regarding PFHRPs, data with list-wise deletion of missing values were used for the AMOS CFA, resulting in a sample size of $n = 226$. However, for POS, LMX, PDJ, PPJ, job satisfaction, AOC, job engagement and turnover intentions, the CFA was conducted with the complete sample size ($n = 733$). In order to provide a stringent test of the measurement model (Aryee et al., 2002), I examined three alternative models by comparing them with the hypothesised model. Model fit indices were used to determine how well the model fitted the data (Hair et al., 2014; Kline, 2005). According to Arbuckle (2006), the chi-square/degrees of freedom (χ^2/df) values less than 2.5

⁹ Cross-loadings are those items that load at $>.32$ on more than one construct (e.g., Costello & Osborne, 2005; Tabachnick & Fidell, 1996).

indicate a good fit. For the Tucker–Lewis Index (TLI), Incremental Fit Index (IFI) and Comparative Fit Index (CFI), values greater than 0.9 represent a good model fit (Bentler, 1990). Regarding the Standard Root Mean Residual (SRMR) and the Root Mean Square Error of Approximation (RMSEA), values less than 0.08 indicate a good model fit (Cudeck & Browne, 1993; Hu & Bentler, 1998; MacCallum, Browne, & Sugawara, 1996).

The one factor model, PFHRPs, was not a good fit for the data $\chi^2(20) = 65.314, p < .001$, SRMR = .06, IFI = .93, TLI = .90, CFI = .93 and RMSEA = .10. A close inspection of the modification indices (MIs) showed that (1) mentoring and developmental appraisals, and also, (2) autonomy and flexibility, were problematic. Based on the MIs and EFA results, I decided to treat PFHRPs as a second-order factor. Moreover, HR practices have been theorised as ability or skill-enhancing HR practices (i.e. mentoring, developmental appraisals and training), motivation-enhancing HR practices (i.e. bonuses and benefits) and opportunity-enhancing HR practices (i.e. autonomy, flexibility, and participation) (See Appelbaum et al., 2000; Kehoe & Wright, 2013; Marescaux et al., 2013). This yielded a better fit $\chi^2(17) = 40.611, p > .001$, SRMR = .05, IFI = .96, TLI = .94, CFI = .96 and RMSEA = .078. Hence, I concluded that the hypothesised one single factor of PFHRPs¹⁰ adequately represented the data.

Regarding the other latent variables: LMX, POS, PDJ, PPJ, affective organisational commitment, job satisfaction, job engagement, and turnover intentions, the model did not fit the data well, $\chi^2(1197) = 6173.557$, SRMR = .08, IFI = .86, TLI = .85, CFI = .85 and RMSEA = .075. A close inspection of the modification indices (MIs) showed items of PPJ, AOC and engagement as being problematic. With regards to PPJ, two items were problematic: ‘to what extent have you had influence over the pay arrived at by those procedures?’ and ‘to what extent have you been able to appeal the pay arrived at by those procedures?’ Based on the MIs, I was faced with three options:

- i. Co-vary the error terms to better the model since the correlation between the two items was not accounted for by the construct PPJ.

¹⁰ Both standardised and unstandardised measures of PFHRPs yielded similar results; thus, I used unstandardised values of the measure.

- ii. Delete one or both items as measures of PPJ.
- iii. Re-specify the model with two factors rather than one factor, with the two items as indicators of a second factor.

Given that during EFA all the items of PPJ construct loaded on a single factor, I co-varied the error terms to better the model. With regards to affective organisational commitment, I re-specified the construct as a second-order factor, with positively keyed items loading on one factor and the negatively worded items loading on the second factor. This process is consistent with extant research (Cf. Settoon et al., 1996). Moreover, the EFA results found a two-factor solution for affective organisational commitment. Similarly, I re-specified engagement as a second-order factor consisting of physical, emotional and cognitive engagement (Rich et al., 2010). The re-specified model had a better fit; $\chi^2(1190) = 3530.201$, $p < .001$, SRMR = .07, IFI = .93, TLI = .93, CFI = .93 and RMSEA = .05. No further model improvement was deemed necessary. Thereafter, I compared this primary model with several other models. The results of the CFA presented in Table 4.5 suggested that the hypothesised eight factor model was the more satisfactory and acceptable model, providing further evidence of the distinctiveness of each of the measures.

TABLE 4.5 Comparison of measurement models for the main variables in the study

Models	χ^2	Df	SRMR	IFI	TLI	CFI	RMSEA
Primary model (8 factors)	3530.201	1190	.07	.93	.93	.93	.05
Model 1 (Seven factors: POS and LMX merged into one factor)	5093.767	1197	.08	.89	.88	.89	.07
Model 2 (Seven factors: PPJ and PDJ merged into one factor)	4870.738	1197	.08	.89	.89	.89	.07
Model 3 (Seven factors: Job satisfaction and affective organisational commitment merged into one factor)	3565.793	1196	.07	.93	.93	.93	.05
Model 4 (Five factors: job	4265.793	1206	.09	.91	.91	.91	.06

satisfaction, affective
 organisational commitment,
 engagement, and turnover
 intentions merged into one)

All the standardised estimates presented in Table 4.6 indicated very high levels of individual item reliabilities, with Cronbach's α values ranging from .83 to .96. The AVE for most of the constructs were much higher than the squared correlations with all other latent variables (Fornell & Larcker, 1981). Thus, the measurement model was based on reliable and valid measures.

TABLE 4.6 Standardised estimates, reliabilities and validity of latent factors

Scale and items	Standardized estimates
<i>Perceived favourability of HRP</i> ($\alpha = .84$; $CR = .88$; $AVE = .48$)	
Bonuses	.82
Benefits	.72
Mentoring	.47
Development appraisals	.49
Training	.77
Autonomy	.72
Flexibility	.72
Participation	.75
<i>Leader-Member Exchange (LMX)</i> ($\alpha = .94$; $CR = .95$; $AVE = .71$)	
My supervisor would be personally inclined to help me solve problems in my work.	.70
My working relationship with my supervisor is effective.	.87
I have enough confidence in my supervisor that I would defend and justify his/her decisions if he or she were not present to do so.	.85
My supervisor considers my suggestions for change.	.84
My supervisor and I are suited to each other.	.90
My supervisor understands my problems and needs.	.89

Scale and items	Standardized estimates
My supervisor recognizes my potential.	.83
<i>Perceived Procedural Justice (PPJ)</i> ($\alpha = .92$; $CR = .92$; $AVE = .62$)	
To what extent...	
have you been able to express your views and feelings during those procedures?	.70
...have you had influence over the pay arrived at by those procedures?	.61
...have those procedures been applied consistently?	.85
...have those procedures been free of bias?	.90
...have those procedures been based on accurate information?	.89
...have you been able to appeal the pay arrived at by those procedures?	.67
...have those procedures upheld ethical and moral standards?	.84
<i>Perceived Organisational Support (POS)</i> ($\alpha = .92$; $CR = .92$; $AVE = .65$)	
My workplace strongly considers my goals and values.	.88
My workplace really cares about my well-being.	.86
My workplace would forgive an honest mistake on my part.	.67
My workplace cares about my opinions.	.85
Help is available from my workplace when I have a problem.	.86
My workplace is willing to help me when I need a special favour.	.88
<i>Perceived Distributive Justice (PDJ)</i> ($\alpha = .95$; $CR = .95$; $AVE = .84$)	
To what extent do the rewards (e.g., incentives, pay, stock-options, etc) you have received at your current workplace...	
...reflect the effort you have put into your work?	.90
...appropriate for the work you have completed?	.93
...reflect what you have contributed to the organization?	.93
...justified, given your performance?	.90
<i>Job Satisfaction</i> ($\alpha = .94$; $CR = .94$; $AVE = .84$)	
All in all, I am satisfied with my job.	.93
In general, I like working here.	.90
All things considered, I am satisfied with my current job.	.92
<i>Turnover intentions</i> ($\alpha = .86$; $CR = .91$; $AVE = .78$)	

Scale and items	Standardized estimates
I intend to look for a job outside of this organisation within the next year.	.91
I often think about quitting my job at this organisation.	.82
<i>Affective organisational commitment</i> ($\alpha = .83$; $CR = .67$; $AVE = .51$)	
I would be very happy to spend the rest of my career with this organization.	.83
I enjoy discussing my organization with people outside it.	.78
I really feel as if this organization's problems are my own.	.53
I think that I could easily become as attached to another organization as I am to this one (R).	.40
I do not feel like 'part of the family' at my organization (R).	.88
I do not feel 'emotionally attached' to this organization (R).	.82
This organization has a great deal of personal meaning for me.	.76
I do not feel a <i>strong</i> sense of belonging to my organization (R).	.82
<i>Job engagement</i> ($\alpha = .93$; $CR = .91$; $AVE = .78$)	
I am excited about my job.	.84
I feel positive about my job.	.86
I am interested in my job.	.84
I feel energetic at my job.	.85
I am enthusiastic in my job.	.86
I strive as hard as I can to complete my job.	.88
I try my hardest to perform well on my job.	.88
I exert my full effort to my job.	.85
I devote a lot of energy to my job.	.85
At work, I pay a lot of attention to my job.	.93
At work, I focus a great deal of attention on my job.	.91
At work, my mind is focused on my job.	.85
At work, I am absorbed by my job.	.80
At work, I devote a lot of attention to my job.	.85

4.3.4 Data Analytic Strategy

After establishing Discriminant Validity, I examined correlations among studied constructs to predict preliminary support for the proposed hypotheses. Thereafter, I moved to mediation and moderation analyses since the study hypothesises a moderated mediated model. According to Baron and Kenny (1986), mediation is said to occur if:

- i. The independent variable is significantly correlated with the dependent variable.
- ii. The independent variable is significantly correlated with the mediating variable.
- iii. The mediating variable is independently and significantly correlated with the dependent variable.
- iv. The independent variable drops in strength and/or significance when both the mediator and the independent variable are entered into the regression equation.

OLS regression analysis was conducted to assess the proposed moderated mediated model. This process is used because it allows for the use of the complete data set of 733 observations. Specifically, I used Preacher and Hayes (2008) asymptotic and re-sampling strategy where the sampling distribution of the indirect effect was estimated through bootstrapping. This technique is said to be superior to Baron and Kenny (1986) causal steps for mediation as it does not require the relationship between the independent and dependent variables to be significant to test for mediation. Moreover, it does not make any symmetry assumptions about the sampling distribution. I used bias corrected (BC) method and selected a sample size of 5,000 bootstraps so as to generate more accurate results on the calculation of asymmetric confidence limits of the mediated effects (MacKinnon, Fritz, Williams, & Lockwood, 2007; MacKinnon, Lockwood, & Williams, 2004). Put differently, re-sampling strategy with BC method generates more power and reduces type 1 error because the confidence interval (CI) generated is often in accordance with the skewness of the sampling distribution (MacKinnon et al., 2004; Preacher, Rucker, & Hayes, 2007).

Similarly, moderation was also assessed using Preacher and Hayes (2008) asymptotic and re-sampling strategy. This procedure complements Aiken and West (1991) suggestions as it allows for the identification of conditional effects, represented by mean, one standard deviation (SD) above the mean (high-level) and one SD below the mean (low-level). I further verified the interaction effects by conducting simple slope and slope differences for

significance tests. Following recommendations by Aiken and West (1991), I plotted two-way interactions to depict interactions among variables for clearer interpretation.

4.4 Results

Descriptive statistics

Table 4.7 presents the means, standard deviations, reliability coefficients and zero order correlations among all constructs in the study. Respondents rated their levels of engagement as relatively higher (mean = 4.09) than turnover intentions (mean = 2.71). The correlations between PFHRPs and PDJ, PPJ, POS and LMX were all positive and significant, with the highest being between PFHRPs and POS ($r = .35^{**}$, $p < 0.01$). Similarly, PFHRPs was positively related to job satisfaction ($r = .34^{**}$, $p < 0.01$), affective organisational commitment ($r = .32^{**}$, $p < 0.01$), job engagement ($r = .23^{**}$, $p < 0.01$) and negatively related to turnover intentions ($r = -.26^{**}$, $p < 0.01$). The results show preliminary support for the hypotheses.

TABLE 4.7 Descriptive statistics and intercorrelations (n = 733)

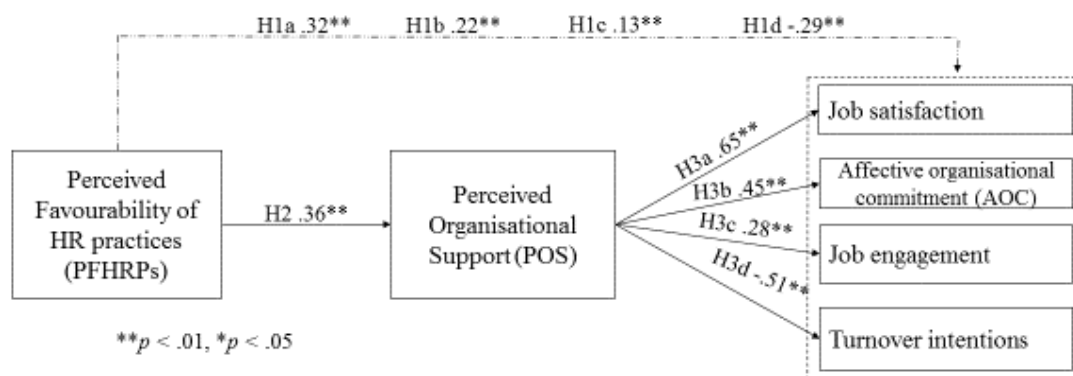
	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 Age	44.32	15.38	-																			
2 Gender	0.49	0.50	-.27**	-																		
3 Em' contract ^a	2.68	0.69	-.09*	-.11**	-																	
4 Industry: Sec ^b	0.12	0.33	-0.01	-.08*	0.06	-																
5 Industry: Ter. ^c	0.83	0.37	0.06	.12**	-0.05	-.84**	-															
6 Education	4.01	1.44	-.10**	-0.03	0.05	0.00	0.04	-														
7 Position years	7.71	8.29	.49**	-.14**	0.06	0.03	0.02	-0.05	-													
8 Org. years	12.73	12.85	.57**	-.20**	0.04	-0.01	0.05	-0.04	.64**	-												
9 Supervisor	0.52	0.50	-0.02	-.17**	.15**	0.07	-.08*	.21**	.09*	0.05	-											
10 Union member	0.26	0.44	-0.03	-0.02	.09*	-0.05	0.03	0.06	.16**	.13**	.17**	-										
11 Org. size ^d	2.98	1.53	.10**	-0.04	.08*	-.11**	.12**	0.07	0.06	.10**	-.13**	.14**	-									
12 PFHRPs	2.83	0.58	.14**	-.11**	0.07	0.04	0.00	.11**	.16**	.14**	.22**	-0.03	-0.06	(.84)								
13 LMX	3.86	0.88	.10**	0.00	-0.02	0.00	0.00	-0.03	0.02	0.05	.08*	-0.04	-0.04	.29**	(.94)							
14 POS	3.62	0.87	.08*	0.00	-0.06	0.00	0.00	-0.03	0.03	0.04	0.04	-.09*	-.08*	.35**	.67**	(.92)						
15 PPJ	2.97	0.91	-0.01	-.08*	-0.04	0.00	-0.03	0.07	0.04	0.03	.18**	0.04	-.12**	.30**	.48**	.63**	(.92)					
16 PDJ	3.18	1.00	-0.01	-.09*	-0.02	0.05	-.09*	.08*	0.04	0.06	.14**	0.02	-.11**	.28**	.45**	.59**	.71**	(.95)				
17 Satisfaction	3.90	0.98	.19**	-.08*	-0.06	-0.01	0.01	0.00	.12**	.15**	.07*	0.01	-0.02	.34**	.65**	.71**	.49**	.49**	(.94)			
18 AOC	3.21	0.76	.19**	-0.01	-0.02	-0.02	0.01	0.00	.17**	.20**	.11**	-0.03	-0.06	.32**	.52**	.63**	.47**	.47**	.69**	(.83)		
19 Engagement	4.09	0.71	.23**	0.02	-0.04	0.02	0.01	0.00	.15**	.17**	.12**	0.03	-0.07	.23**	.40**	.44**	.25**	.27**	.55**	.44**	(.96)	
20 Turnover	2.71	1.26	-.32**	0.03	0.06	.09*	-.09*	.08*	-.21**	-.24**	-0.03	0.02	-0.02	-.26**	-.40**	-.46**	-.26**	-.28**	-.60**	-.65**	-.36**	(.86)

Notes. **Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed). Bold values in brackets on the diagonal show the Cronbach's α of the latent constructs. ^aEm' contract refers to employment contract (1 = Casual, 2 = Fixed employment contract, and 3 = Permanent or ongoing employment contract). ^bReference category: Primary industry sector. 'Sec' refers to secondary industry sector. ^cTer. is the secondary industry sector. ^dOrganisational size (1 = 20-49, 2 = 50-199, 3 = 200-499, 4 = 500-999, and 5 = 1000+ employees).

Tests of main effects of PFHRPs and mediating effects of POS (Hypotheses 1a, 1b, 1c, 1d, 2, 3a, 3b, 3c and 3d)

Following Preacher and Hayes (2008) procedure on indirect tests, I tested the mediation models using OLS regression analysis and controlled for demographic variables. However, before the analysis, I standardised all the study's independent variables to minimise the potential effects of multicollinearity (Aiken & West, 1991). The results are presented in summary form in Figure 4.2.

FIGURE 4. 2 Results on Mediating Effects of POS



First, I sought to test the relationship between PFHRPs and job satisfaction (i.e., Hypothesis 1a) and the relationship between PFHRPs and job satisfaction, as mediated by POS (i.e., Hypothesis 2 and 3a), shown in column 1 Table 4.8. The results showed support for Hypothesis 1a, indicated by the significant regression coefficient of the path (c') from PFHRPs to job satisfaction ($\beta = .32$, $t(717) = 7.73$, $p < .01$). In the mediation model, the study found statistically significant and positive coefficients for the paths from PFHRPs to POS ($\beta = .36$, $t(717) = 8.59$, $p < .01$), showing support for hypothesis 2 and the path from POS to job satisfaction ($\beta = .65$, $t(716) = 19.52$, $p < .01$). These two conditions, in which the path between PFHRPs and POS (a path) and the path between POS and job satisfaction (b path) were statistically significant, are sufficient for testing indirect (or mediation) effects (See MacKinnon, Fairchild, & Fritz, 2007; Preacher & Hayes, 2008). When POS was included in the mediation model, the path between PFHRPs and job satisfaction still remained significant ($\beta = .09$, $t(716) = 2.97$, $p < .01$) but its magnitude had reduced, showing support for partial mediation.

With regard to affective organisational commitment, column 2 of Table 4.8 reveals that PFHRPs was also significantly related to affective organisational commitment ($\beta = .22$, $t(717) = 7.08$, $p < .01$). This shows support to hypothesis 1b. Since the path between PFHRPs and POS (i.e. *a* path) had been established, I proceeded to establish the second condition for mediation (i.e., *b* path). The results showed that POS was significantly related to affective organisational commitment ($\beta = .45$, $t(716) = 18.13$, $p < .01$), meeting the second condition for mediation. When PFHRPs and POS variables are put into the model, both remained significant, indicating partial mediation. PFHRPs remained significant at $p < .05$.

Similarly, PFHRPs was found to be significantly related to job engagement ($\beta = .13$, $t(717) = 5.20$, $p < .01$), showing support for hypothesis 1c. Results also showed that POS was significantly related to job engagement ($\beta = .28$, $t(716) = 180.14$, $p < .01$), meeting the second condition for mediation. When PFHRPs and POS variables were put into the model, only POS remained significant, indicating full mediation.

Regarding turnover intentions, column 4 of Table 4.8 reveals that PFHRPs was significantly and negatively related to turnover intentions ($\beta = -.29$, $t(717) = -6.52$, $p < .01$). This shows support for hypothesis 1d. The results also showed that POS was negatively related to turnover intentions ($\beta = -.51$, $t(716) = -12.11$, $p < .01$), meeting the second condition for mediation. When PFHRPs and POS variables were put into the model, PFHRPs remained significant but its magnitude had decreased, indicating partial mediation.

The 95% degree confidence interval (CI) of the indirect effect was obtained with 5,000 bootstrap samples and they did not contain zero (Preacher & Hayes, 2008). These results of the mediation analysis further confirmed the mediating role of POS in the relationship between PFHRPs and job satisfaction ($\beta = .23$; CI = .18 to .29), PFHRPs and AOC ($\beta = .16$; CI = .12 to .20), PFHRPs and engagement ($\beta = .14$; CI = .10 to .18) and in the relationship between PFHRPs and turnover intentions ($\beta = -.15$; CI = -.19 to -.11). In addition, results of the Sobel (1982) test were significant ($p < .01$), showing support for the intervening effects of POS on the relationship between PFHRPs and job satisfaction (hypotheses 3a), affective organisational commitment (hypotheses 3b), job engagement (hypotheses 3c) and turnover intentions (hypotheses 3d).

TABLE 4.8 Regression results for testing the mediating effects of POS

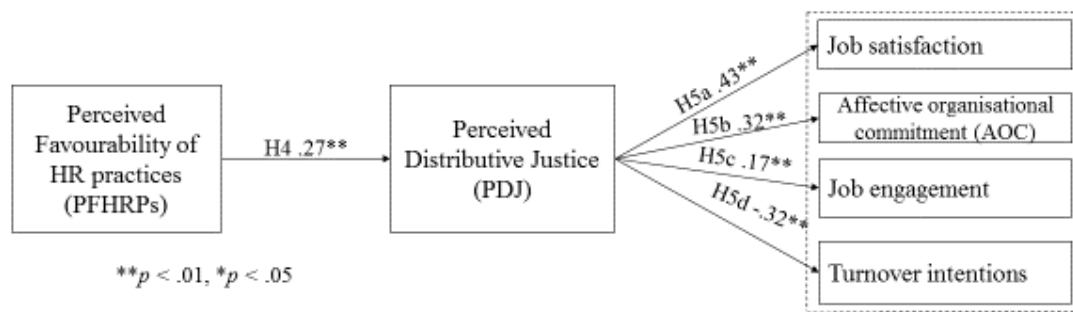
Variables	Job satisfaction				Affective organisational commitment				Job engagement				Turnover intentions			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Age	.22	.01**	.01**	.01**	.22	.10	.04*	.10	.21	.00**	.00**	.00**	.21	.00**	.00**	.00**
Gender	.17	.26	.92	.26	.17	.08	.02*	.08	.18	.00**	.00**	.00**	.18	.09	.04*	.09
Emp. Contract	.10	.25	.05	.25	.10	.84	.44	.84	.14	.84	.45	.84	.14	.64	.30	.64
Education level	.16	.52	.68	.52	.16	.75	.59	.75	.16	.63	.92	.63	.16	.07	.03*	.07
Org. size	.13	.43	.64	.43	.13	.57	.17	.57	.12	.12	.04*	.12	.12	.29	.74	.29
Position years	.43	.98	.62	.98	.43	.39	.81	.39	.43	.96	.73	.96	.43	.27	.50	.27
Org. years	.92	.27	.37	.27	.92	.00**	.02	.00**	.92	.30	.32	.30	.92	.27	.29	.27
Supervisory	.75	.65	.90	.65	.75	.02*	.11	.02*	.74	.01**	.02*	.01**	.74	.39	.52	.39
Union member	.14	.04*	.55	.04*	.14	.85	.28	.85	.11	.10	.36	.10	.11	.89	.60	.89
Industry: Sec	.29	.62	.26	.62	.29	.30	.11	.30	.29	.54	.87	.54	.29	.20	.11	.20
Industry: Tert.	.28	.74	.32	.74	.28	.43	.15	.43	.27	.76	.88	.76	.27	.93	.71	.93
PFHRPs	.00**		.00**	.00**	.00**		.00**	.04*	.00**		.00**	<i>n.s.</i>	.00**		.00**	.01*
POS		.00**		.00**		.00**		.00**		.00**		.00**		.00**		.00**
F	8.12	48.96	8.75	48.96	8.12	39.87	9.65	39.87	10.01	19.03	8.60	19.03	10.01	25.24	12.57	25.24
R ² (Adj. R ²)	.38(.14) **	.73(.53) **	.38(.14) **	.73(.53) **	.38(.14) **	.67(.45) **	.38(.15) **	.67(.45) **	.38(.14) **	.51(.26) **	.35(.13) **	.51(.26) **	.38(.14) **	.56(.31) **	.42(.17) **	.56(.31) **

Notes. ** $p < 0.01$, * $p < 0.05$; Control variables include age, gender, employment (emp.) contract, education level, organisational (Org.) size, position years, organisation (org.) years, supervision status, union member, secondary industry and tertiary industry, whereby the primary industry sector is the comparison group; significance testing of R² is compared with the control model. Model 1 is the *a* path—path from the independent variable (IV) to the mediator (M); Model 2 is the *b* path—path from M to the dependent variable (DV); Model 3 is the *c'* path—the direct path from IV to DV and Model 4 is the indirect effect—the intervening effect of M on the relationship between IV and DV.

Test of the mediating effect of PDJ (Hypothesis 4 and Hypotheses 5a, 5b, 5c and 5d)

Similarly, I tested for the mediating effect of PDJ following Preacher and Hayes (2008) procedure on indirect effects. Hypothesis 4 postulated that there is a positive relationship between PFHRPs and PDJ (*a* path). The results were significant ($\beta = .27, t(717) = 6.03, p < .01$). Thus, hypothesis 4 was supported. The results also supported the *b* path in that there was a positive significant relationship between PDJ and job satisfaction ($\beta = .43, t(716)=11.97, p < .01$), PDJ and affective organisational commitment ($\beta = .32, t(716) = 11.87, p < .01$), PDJ and job engagement ($\beta = .17, t(716) = 6.57, p < .01$) and a negative relationship between PDJ and turnover intentions ($\beta = -.32, t(716) = -7.31, p < .01$). Since these two conditions were satisfied, as summarised in Figure 4.3, I proceeded to test for mediation (see MacKinnon, et al., 2007; Preacher & Hayes, 2008).

FIGURE 4. 3 Results on Mediating Effects of PDJ



When PDJ was added into the regression equation, the results presented in Table 4.9 showed that the path between PFHRPs and job satisfaction (*c'*) reduced but still remained significant ($\beta = .20, t(716) = 5.18, p < .01$). Similarly, the *c'* paths with affective organisational commitment ($\beta = .13, t(716) = 4.64, p < .01$), job engagement ($\beta = .09, t(716) = 3.44, p < .01$) and turnover intentions ($\beta = -.21, t(716) = -4.61, p < .01$) reduced but still remained significant. This result showed support for hypotheses 5a, 5b, 5c and 5d, respectively. The BC method results of the mediation analysis further supported the mediating role of PDJ in the relationship between PFHRPs and job satisfaction ($\beta = .12; CI = .08$ to $.16$), affective organisational commitment ($\beta = .09; CI = .06$ to $.12$), job engagement ($\beta = .06; CI = .04$ to $.10$) and turnover intentions ($\beta = -.07; CI = -.10$ to $-.04$).

TABLE 4.9 Regression results for testing the mediating effects of PDJ

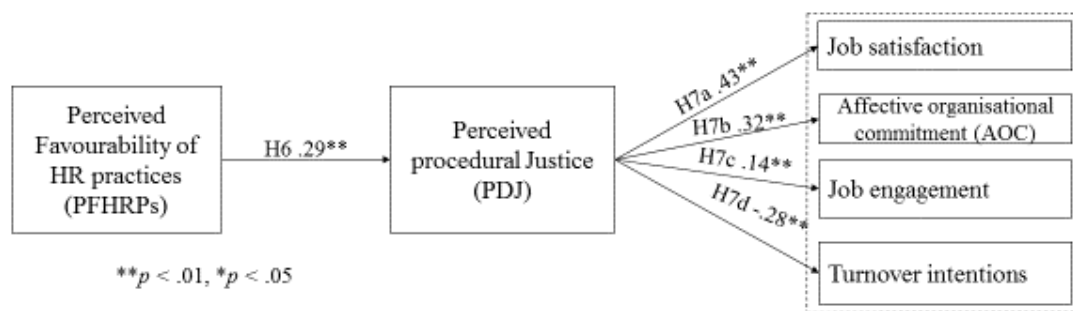
Variables	Job satisfaction				Affective organisational commitment				Job engagement				Turnover intentions			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Age	.10	.00**	.01**	.00**	.10	.00**	.04*	.00**	.10	.00**	.00**	.00**	.10	.00**	.00**	.00**
Gender	.17	.40	.92	.40	.17	.00**	.02*	.00**	.17	.00**	.00**	.00**	.17	.01**	.03*	.01**
Emp. Contract	.05	.22	.05	.22	.05	.98	.44	.98	.08	.73	.45	.73	.08	.55	.30	.55
Educ	.23	.30	.68	.30	.23	.24	.59	.24	.22	.68	.92	.68	.22	.01**	.03*	.01**
Size	.04*	.57	.64	.57	.04*	.62	.17	.62	.03*	.12	.04*	.12	.03*	.35	.74	.35
Position years	.90	.62	.62	.62	.90	.73	.81	.73	.88	.75	.73	.75	.88	.46	.50	.46
Org. years	.17	.81	.37	.81	.17	.05*	.02*	.05	.15	.50	.32	.50	.15	.49	.29	.49
Supervisory	.18	.61	.90	.61	.18	.24	.11	.24	.18	.04*	.02*	.04*	.18	.76	.52	.76
Union member	.64	.66	.55	.66	.64	.15	.28	.15	.62	.42	.36	.42	.62	.50	.60	.50
Industry: Sec	.04*	.87	.26	.87	.04*	.45	.11	.45	.04*	.49	.87	.49	.04*	.28	.11	.28
Industry: Tert.	.00**	.69	.32	.69	.00**	.94	.15	.94	.00**	.57	.88	.57	.00**	.69	.71	.69
PFHRPs	.00**		.00**	.00**	.00**		.00**	.00**	.00**		.00**	.00**	.00**		.00**	.00**
PDJ		.00**		.00**		.00**		.00**		.00**		.00**		.00**		.00**
F	6.25	25.93	8.75	25.93	6.25	23.66	9.65	23.66	7.92	11.73	8.60	11.73	7.92	16.56	12.57	16.56
R ² (Adj. R ²)	.34(.12)**	.56(.32)**	.38(.14)**	.56(.32)**	.34(.12)**	.55(.30)**	.38(.15)**	.55(.30)**	.34(.12)**	.48(.18)**	.35(.13)**	.48(.18)**	.34(.12)**	.48(.23)**	.42(.17)**	.48(.23)**

Notes. ** $p < 0.01$, * $p < 0.05$; Control variables include age, gender, employment (emp.) contract, education level, organisational (Org.) size, position years, organisation (org.) years, supervision status, union member, secondary industry and tertiary industry, whereby the primary industry sector is the comparison group; significance testing of R² is compared with the control model.

Test of the mediating effect of PPJ (Hypothesis 6 and Hypotheses 7a and 7b)

First and foremost, I sought to examine whether the path between PFHRPs and PPJ (hypothesis 6) and the path between PPJ and job satisfaction, affective organisational commitment, job engagement and turnover intentions were statistically significant since they are the necessary conditions for testing indirect (or mediation) effects (See MacKinnon, Fairchild, et al., 2007; Preacher & Hayes, 2008). The results showed that PFHRPs was positively related to PPJ ($\beta = .29$, $t(717) = 6.79$, $p < .01$). Hence, hypothesis 6 was supported. Results, presented in Figure 4.4, also revealed that PPJ was positively and significantly related to job satisfaction ($\beta = .43$, $t(716) = 12.37$, $p < .01$), affective organisational commitment ($\beta = .32$, $t(716) = 11.22$, $p < .01$), job engagement ($\beta = .14$, $t(716) = 5.60$, $p < .01$) and negatively related to turnover intentions ($\beta = -.28$, $t(716) = -6.29$, $p < .01$).

FIGURE 4. 4 Results on Mediating Effects of PPJ



Thereafter, I tested for the mediating role of PPJ (i.e. hypothesis 7a, 7b, 7c and 7d, respectively) because the two conditions for mediation had been established (See Preacher et al., 2007). Results of the BC mediation analysis, presented in Table 4.10, supported the mediating role of PPJ on the relationship between PFHRPs and job satisfaction ($\beta = .12$; CI = .09 to .17), affective organisational commitment ($\beta = .09$; CI = .06 to .12), job engagement ($\beta = .06$; CI = .04 to .09) and turnover intentions ($\beta = -.07$; CI = -.10 to -.04).

TABLE 4. 10 Regression results for testing the mediating effects of PPJ

Variables	Job satisfaction				Affective organisational commitment				Engagement				Turnover intentions			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Age	.18	.00**	.01**	.00**	.18	.00**	.04*	.00**	.17	.00**	.00**	.00**	.17	.00**	.01**	.00**
Gender	.19	.41	.92	.41	.19	.00**	.02*	.00**	.18	.00**	.00**	.00**	.18	.01*	.04*	.01*
Emp. Contract	.01**	.34	.05*	.34	.01**	.80	.44	.80	.03	.76	.45	.76	.03*	.58	.30	.58
Educational level	.53	.44	.68	.44	.53	.36	.59	.36	.51	.80	.92	.80	.51	.01**	.03*	.01**
Size	.02*	.49	.64	.49	.02*	.70	.17	.70	.02*	.12	.04*	.12	.02*	.36	.74	.36
Position years	.93	.56	.62	.56	.93	.82	.81	.82	.93	.71	.73	.71	.93	.50	.50	.50
Org. years	.68	.43	.37	.43	.68	.02*	.02	.02*	.69	.35	.32	.35	.69	.33	.29	.33
Supervisory	.02*	.34	.90	.34	.02*	.47	.11	.47	.02*	.05*	.02*	.05*	.02*	.90	.52	.90
Union member	.28	.88	.55	.88	.28	.10	.28	.10	.27	.49	.36	.49	.27	.42	.60	.42
Industry: Sec	.06	.81	.26	.81	.06	.40	.11	.40	.05*	.56	.87	.56	.05*	.24	.11	.24
Industry: Tert.	.08	.87	.32	.87	.08	.51	.15	.51	.06	.81	.88	.81	.06	.96	.71	.96
PFHRPs	.00**		.00**	.00**	.00**		.00**	.00**	.00**		.00**	.00**	.00**		.00**	.00**
PPJ		.00**		.00**		.00**		.00**		.00**		.00**		.00**		.00**
F	8.47	26.69	8.75	26.69	8.47	21.41	9.65	21.41	8.91	10.69	8.60	10.69	8.91	15.27	12.57	15.27
R ² (Adj. R ²)	.36(.13) **	.56(.32) **	.38(.14) **	.56(.32) **	.36(.13) **	.55(.30) **	.38(.15) **	.55(.30) **	.36(.13) **	.40(.16) **	.35(.13) **	.40(.16) **	.36(.13) **	.47(.22) **	.42(.17) **	.47(.22) **

Notes. ** $p < 0.01$, * $p < 0.05$; Control variables include age, gender, employment (emp.) contract, education level, organisational (Org.) size, position years, organisation (org.) years, supervision status, union member, secondary industry and tertiary industry, whereby the primary industry sector is the comparison group; significance testing of R² is compared with the control model.

Tests of the moderating effects of LMX on POS, PDJ and PPJ (hypotheses 8a, b & c)

Since the conditions for mediated moderation were met, I checked for the moderating effects of LMX, as hypothesised by hypotheses 8a, b and c. The moderated mediated results showed that LMX did not influence the mediating role of POS ($\beta = .03, t(715) = 1.24, n.s.$). Therefore, hypothesis 8 was not supported. However, LMX interacted with PDJ ($\beta = .08, t(715) = 2.70, p < .01$) and PPJ ($\beta = .09, t(715) = 2.87, p < .01$), offering support for hypotheses 9 and 10, respectively. I then examined whether the magnitude of the conditional indirect effect of PFHRPs through PDJ and PPJ were different at high versus low levels of LMX. I operationalised high and low levels of the moderator as 1 SD above and below the mean score. The results are displayed in Figures 4.5 - 4.6 and Tables 4.11 – 4.12.

FIGURE 4.5 PFHRPs and PDJ by LMX

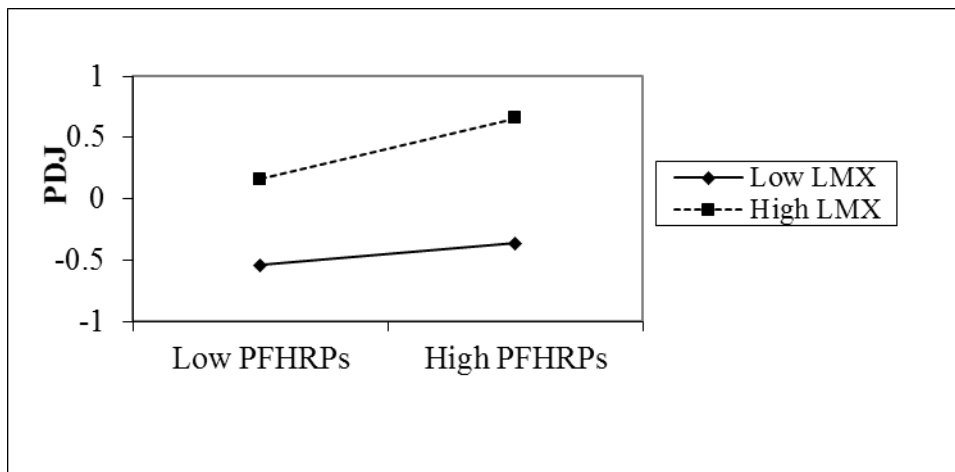


FIGURE 4.6 PFHRPs and PPJ by LMX

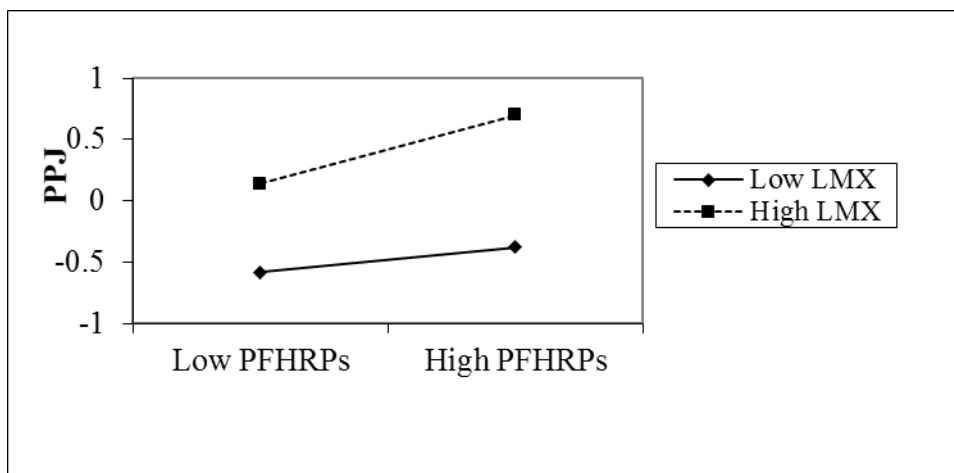


TABLE 4. 11 Regression results for testing the simultaneous moderating effects of LMX on POS, PDJ and PPJ

Predictor	POS								PDJ								PPJ								
	Job satisfaction				Affective organisational commitment				Job satisfaction				Affective organisational commitment				Job satisfaction				Affective organisational commitment				
	B	SE	t	P	β	SE	t	p	β	SE	t	P	β	SE	t	p	β	SE	t	p	B	SE	t	p	
Age	-.01	.04	-.24	.81	-.01	.04	-.24	.81	-.12	.04	-2.89	.00**	-.12	.04	-2.89	.00**	-.11	.04	-2.65	.01**	-.11	.04	-2.65	.01**	
Gender	.01	.03	.50	.62	.01	.03	.50	.62	-.08	.03	-2.29	.02*	-.08	.03	-2.29	.02*	-.08	.03	-2.24	.03*	-.08	.03	-2.24	.03*	
Emp. Contract	-.04	.02	-1.78	.08	-.04	.02	-1.78	.08	-.06	.03	-1.92	.05*	-.06	.03	-1.92	.05	-.08	.03	-2.62	.01**	-.08	.03	-2.62	.01**	
Educ	-.01	.03	-.45	.65	-.01	.03	-.45	.65	.07	.03	2.14	.03*	.07	.03	2.14	.03*	.05	.03	1.59	.11	.05	.03	1.59	.11	
Size	-.05	.03	-1.66	.10	-.05	.03	-1.66	.10	-.07	.03	-2.09	.04*	-.07	.03	-2.09	.04*	-.08	.03	-2.45	.01**	-.08	.03	-2.45	.01**	
Position years	.01	.04	.35	.72	.01	.04	.35	.72	.03	.05	.51	.61	.03	.05	.51	.61	.04	.04	.91	.37	.04	.04	.91	.37	
Org. years	.00	.04	-.06	.95	.00	.04	-.06	.95	.06	.05	1.26	.21	.06	.05	1.26	.21	.01	.04	.20	.84	.01	.04	.20	.84	
Supervisory	-.04	.03	-1.43	.15	-.04	.03	-1.43	.15	.03	.04	.81	.42	.03	.04	.81	.42	.06	.03	1.82	.07	.06	.03	1.82	.07	
Union member	-.04	.03	-1.52	.13	-.04	.03	-1.52	.13	.03	.03	.87	.39	.03	.03	.87	.39	.05	.03	1.60	.11	.05	.03	1.60	.11	
Industry: Sec	-.04	.05	-.82	.41	-.04	.05	-.82	.41	-.12	.06	-2.09	.04*	-.12	.06	-2.09	.04*	-.11	.06	-1.83	.07	-.11	.06	-1.83	.07	
Industry: Tert.	-.04	.05	-.87	.38	-.04	.05	-.87	.38	-.17	.06	-2.96	.00**	-.17	.06	-2.96	.00**	-.10	.06	-1.59	.11	-.10	.06	-1.59	.11	
PFHRPs	.19	.03	5.70	.00**	.19	.03	5.70	.00**	.17	.04	3.84	.00**	.17	.04	3.84	.00**	.19	.04	4.60	.00**	.19	.04	4.60	.00**	
LMX	.62	.03	20.18	.00**	.62	.03	20.18	.00**	.43	.04	11.57	.00**	.43	.04	11.57	.00**	.45	.04	12.42	.00**	.45	.04	12.42	.00**	
PFHRPs x LMX	.03	.02	1.24	<i>n.s.</i>	.03	.02	1.24	<i>n.s.</i>	.08	.03	2.25	.02*	.08	.03	2.25	.02*	.09	.03	2.87	.00**	.09	.03	2.87	.00**	
Conditional indirect effect	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	
-1SD	.09	.02	.05	.13	.06	.01	.03	.09	.01	.01	.00	.02	.01	.00	.00	.02	.00	.00	.00	-.01	.01	.00	.00	.00	.01
Mean	.11	.02	.07	.15	.07	.01	.05	.10	.02	.01	.00	.03	.01	.01	.00	.03	.00	.01	-.01	.02	.01	.01	-.01	.02	
+1SD	.13	.03	.08	.18	.08	.02	.05	.12	.02	.01	.00	.05	.02	.01	.01	.05	.00	.01	-.02	.03	.01	.01	-.01	.03	

Notes. ** $p < 0.01$, * $p < 0.05$; Control variables include age, gender, employment (emp.) contract, education level, organisational (Org.) size, position years, organisation (org.) years, supervision status, union member, secondary industry and tertiary industry, whereby the primary industry sector is the comparison group; significance testing of R^2 is compared with the control model. IE is the indirect effect; SE is the standard error; ULCI is the upper limit confidence level and LLCI is the lower limit confidence interval.

TABLE 4. 12 Regression results for testing the simultaneous moderating effects of LMX on POS, PDJ and PPJ

	POS								PDJ								PPJ							
	Job engagement				Turnover intentions				Job engagement				Turnover intentions				Job engagement				Turnover intentions			
Predictor	B	SE	t	p	β	SE	t	p	β	SE	t	P	β	SE	t	p	β	SE	t	p	B	SE	t	p
Age	-.01	.04	-.25	.81	-.01	.04	-.25	.81	-.12	.04	-2.94	.00**	-.12	.04	-2.94	.00**	-.11	.04	-2.77	.01**	-.11	.04	-2.77	.01**
Gender	.01	.03	.49	.63	.01	.03	.49	.63	-.08	.03	-2.27	.02*	-.08	.03	-2.27	.02*	-.08	.03	-2.31	.02*	-.08	.03	-2.31	.02*
Emp. Contract	-.04	.03	-1.51	.13	-.04	.03	-1.51	.13	-.06	.03	-1.78	.07	-.06	.03	-1.78	.07	-.08	.03	-2.35	.02*	-.08	.03	-2.35	.02*
Educ	-.01	.03	-.41	.68	-.01	.03	-.41	.68	.07	.03	2.16	.03*	.07	.03	2.16	.03*	.05	.03	1.61	.11	.05	.03	1.61	.11
Size	-.05	.03	-1.63	.10	-.05	.03	-1.63	.10	-.07	.03	-2.15	.03*	-.07	.03	-2.15	.03*	-.08	.03	-2.45	.01**	-.08	.03	-2.45	.01**
Position years	.01	.04	.34	.73	.01	.04	.34	.73	.03	.04	.59	.56	.03	.04	.59	.56	.04	.04	.89	.37	.04	.04	.89	.37
Org. years	.00	.04	-.06	.96	.00	.04	-.06	.96	.06	.05	1.36	.17	.06	.05	1.36	.17	.01	.04	.20	.84	.01	.04	.20	.84
Supervisory	-.04	.03	-1.44	.15	-.04	.03	-1.44	.15	.03	.04	.81	.42	.03	.04	.81	.42	.06	.03	1.84	.07	.06	.03	1.84	.07
Union member	-.04	.03	-1.58	.11	-.04	.03	-1.58	.11	.03	.03	.88	.38	.03	.03	.88	.38	.05	.03	1.61	.11	.05	.03	1.61	.11
Industry: Sec	-.04	.05	-.78	.43	-.04	.05	-.78	.43	-.12	.06	-2.06	.04*	-.12	.06	-2.06	.04*	-.11	.06	-1.94	.05*	-.11	.06	-1.94	.05*
Industry: Tert.	-.04	.05	-.79	.43	-.04	.05	-.79	.43	-.17	.06	-2.87	.00**	-.17	.06	-2.87	.00**	-.10	.06	-1.73	.08	-.10	.06	-1.73	.08
PFHRPs	.19	.03	6.17	.00**	.19	.03	6.17	.00**	.17	.04	4.66	.00**	.17	.04	4.66	.00**	.19	.03	5.31	.00**	.19	.03	5.31	.00**
LMX	.62	.03	21.40	.00**	.62	.03	21.40	.00**	.43	.03	12.51	.00**	.43	.03	12.51	.00**	.45	.03	13.40	.00**	.45	.03	13.40	.00**
PFHRPs x LMX	.03	.02	1.25	n.s.	.03	.02	1.25	n.s.	.08	.03	2.70	.01**	.08	.03	2.70	.01**	.09	.03	3.32	.00**	.09	.03	3.32	.00**
Conditional indirect effect	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI	IE	SE	LLCI	ULCI
-1SD	.04	.01	.03	.07	-.08	.02	-.12	-.05	.00	.00	.00	.02	-.01	.01	-.03	.00	-.01	.00	-.02	.00	.01	.01	.00	.03
Mean	.05	.01	.03	.08	-.10	.02	-.14	-.06	.01	.01	.00	.02	-.02	.01	-.04	.00	-.01	.01	-.03	.00	.02	.01	.00	.05
+1SD	.06	.01	.04	.09	-.11	.03	-.17	-.07	.01	.01	.00	.03	-.02	.02	-.06	.00	-.02	.01	-.04	.00	.03	.02	-.01	.07

Notes. ** $p < 0.01$, * $p < 0.05$; Control variables include age, gender, employment (emp.) contract, education level, organisational (Org.) size, position years, organisation (org.) years, supervision status, union member, secondary industry and tertiary industry whereby the primary industry sector is the comparison group; significance testing of R^2 is compared to the control model. IE is the indirect effect; SE is the standard error; ULCI is the upper limit confidence level and LLCI is the lower limit confidence interval.

Robustness Checks: Additional tests and alternative models

Simultaneous mediating effects of POS, PDJ and PPJ

Following recommendations by Preacher and Hayes (2008), I tested for the simultaneous mediating effects of POS, PDJ and PPJ. These results are presented in Table 4.13. Using job satisfaction as an outcome variable, PFHRPs was found to be significantly related to job satisfaction ($\beta = .32$, $t(717) = 7.73$, $p < .01$), showing further support for hypothesis 1a. Also, PFHRPs was found to be positively related to POS ($\beta = .36$, $t(717) = 8.59$, $p < .01$), PDJ ($\beta = .27$, $t(717) = 6.03$, $p < .01$) and PPJ ($\beta = .29$, $t(717) = 6.79$, $p < .01$), providing further support for hypotheses 2, 4 and 6, respectively. When POS, PDJ and PPJ were entered into the regression equation, the results showed significant relationships between POS and job satisfaction ($\beta = .59$, $t(714) = 14.87$, $p < .01$) and between PDJ and job satisfaction ($\beta = .09$, $t(714) = 2.19$, $p < .05$), but there was no significant relationship between PPJ and job satisfaction ($\beta = .01$, $t(714) = .36$, *n.s.*), while the magnitude of the relationship between PFHRPs and job satisfaction decreased ($\beta = .08$, $t(714) = 2.69$, $p < .01$). This result shows that only POS and PDJ partially mediate the relationship between PFHRPs and job satisfaction.

Regarding the relationship between PFHRPs and affective organisational commitment as mediated by POS, PDJ, and PPJ, the results showed that PFHRPs was positively related to AOC ($\beta = .22$, $t(717) = 7.08$, $p < .01$), which provides further support to hypothesis 1b. Similarly, mediation results revealed that POS was significantly related to affective organisational commitment ($\beta = .38$, $t(714) = 12.34$, $p < .01$) and that PDJ was also significantly related to affective organisational commitment ($\beta = .09$, $t(714) = 2.56$, $p < .01$). However, PPJ was not significantly related to affective organisational commitment ($\beta = .03$, $t(714) = .77$, *n.s.*) and the relationship between PFHRPs and affective organisational commitment ($\beta = .05$, $t(714) = 1.84$, $p < .10$) was only supported at $^+p < .10$. This result shows that POS and PDJ fully mediate the relationship between PFHRPs and AOC.

Offering further support to hypothesis 1c, I found that PFHRPs was positively related to job engagement ($\beta = .13$, $t(717) = 5.20$, $p < .01$). However, the mediation results showed that only POS was significantly related to engagement ($\beta = .29$, $t(714) = 8.87$, $p < .01$). No significant relationships were found with PDJ ($\beta = .05$, $t(714) = 1.38$, *n.s.*), PPJ ($\beta = -.06$, $t(714) = -1.70$,

n.s.), or even PFHRPs ($\beta = .04$, $t(714) = 1.44$, *n.s.*). This result shows that POS fully mediates the relationship between PFHRPs and job engagement.

For the relationship between PFHRPs and turnover intentions, as simultaneously mediated by POS, PDJ, and PPJ, the results showed that PFHRPs was negatively related to turnover intentions ($\beta = -.29$, $t(717) = -6.52$, $p < .01$), further providing support for hypothesis 1d. Since the *b* path had already been established, I proceeded to test for the indirect effects. Mediation results revealed that POS was significantly related to turnover intentions ($\beta = -.51$, $t(714) = -9.22$, $p < .01$). Neither PDJ ($\beta = -.10$, $t(714) = -1.66$, *n.s.*) nor PPJ ($\beta = .10$, $t(714) = 1.54$, *n.s.*) was significantly related to turnover intentions. However, PFHRPs remained negatively related to turnover intentions, although the magnitude of the relationship had reduced ($\beta = -.11$, $t(714) = -2.26$, $p < .05$). This result shows that POS partially mediates the negative relationship between PFHRPs and turnover intentions (hypothesis 3d).

Simultaneous mediating effects of PDJ and PPJ

To ascertain the robustness of the results, I further tested the model using only the simultaneous mediating effects of justice dimensions. Results of the mediation analysis, presented in Table 4.14, supported the partial mediating role of PDJ on the relationship between PFHRPs and job satisfaction ($\beta = .26$, $t(715) = 6.19$, $p < .01$), affective organisational commitment ($\beta = .20$, $t(715) = 5.91$, $p < .01$), job engagement ($\beta = .13$, $t(715) = 3.75$, $p < .01$) and turnover intentions ($\beta = -.24$, $t(715) = -4.11$, $p < .01$). Similarly, the partial mediating role of PPJ on the relationship between PFHRPs and job satisfaction ($\beta = .26$, $t(715) = 6.04$, $p < .01$) and affective organisational commitment ($\beta = .19$, $t(715) = 4.23$, $p < .01$) was supported. However, the mediating role of PPJ on the relationship between PFHRPs and job engagement ($\beta = .06$, $t(715) = 1.66$, *n.s.*) and turnover intentions ($\beta = -.24$, $t(715) = -1.94$, *n.s.*) was not supported. This means that PDJ and PPJ simultaneously partially mediate the relationship between PFHRPs and employee attitudes, job satisfaction and affective organisational commitment, while only PDJ partially mediates the relationship between PFHRPs and job engagement and turnover intentions.

4.5 Discussion

The purpose of the study was to examine the link between PFHRPs and employee attitudes. The study also explored processes of mediation and moderation that link PFHRPs to job satisfaction, affective organisational commitment, job engagement and turnover intentions.

As predicted, the study found PFHRPs to be positively associated with work-related attitudes, including job satisfaction, affective organisational commitment, job engagement and lower turnover intentions. This finding is consistent with Marescaux et al. (2013) who found PFHRPs to be linked with affective organisational commitment. That is, if people perceive 'favourable' HRPs, such as higher pay and autonomy, they are more likely to respond with positive attitudes, including job satisfaction, affective organisational commitment, job engagement and lower turnover intentions.

Results of mediation analysis confirmed the partial mediating role of POS in the relationship between PFHRPs and job satisfaction, affective organisational commitment and turnover intentions. This means that POS is essential in creating a felt obligation by meeting socioemotional needs that generate affective reactions towards work, such as job satisfaction (e.g., Latorre, Guest, Ramos, & Gracia, 2016; Masterson et al., 2000) and also a strong sense of belonging to the organisation, denoted by affective organisational commitment AOC (e.g., Gelens et al., 2015; Rhoades & Eisenberger, 2002) and lower turnover intentions (Allen, Shore, & Griffeth, 2003; Loi et al., 2006). However, the findings showed that POS fully mediated the relationship between PFHRPs and job engagement. A possible explanation is that engagement and POS are conceptually related, such that POS should contribute to job engagement (Kahn, 1990). This finding is consistent with previous work linking various forms of organisational support with job engagement (e.g., Bakker & Demerouti, 2007; Llorens, Schaufeli, Bakker, & Salanova, 2007; Rich et al., 2010). Consequently, the causality of the relationship between POS and engagement could be reciprocal in that when employees perceive organisational support, they are likely to be engaged in their roles, but also engaged employees demonstrate POS. However, the cross-sectional nature of this study does not allow us to test the direction of causality.

The study also revealed that perceived distributive justice (PDJ) partially mediates the relationship between PFHRPs and job satisfaction, affective organisational commitment, job engagement and turnover intentions. Similarly, perceived procedural justice (PPJ) was found to partially mediate the relationship between PFHRPs and employee attitudes: job satisfaction, affective organisational commitment, job engagement and turnover intentions. This finding has implications for HR differentiation because it highlights the importance of both distributive and procedural justice in shaping employee attitudes and intentions.

Interestingly, only POS mediated the relationship between PFHRPs and all the employee attitudes assessed in this study (i.e. job satisfaction, affective organisational commitment, job engagement and turnover intentions) when the three mediators were simultaneously regressed. It may be that the use of fair procedures is merely one of the factors that employees consider when evaluating whether the organisation supports and cares for their well-being (Meyer & Smith, 2000). In that sense, PPJ and PDJ can be considered as antecedents of POS (e.g., Fasolo, 1995; Rhoades et al., 2001; Tremblay & Landreville, 2015; Wayne et al., 2002). Consistent with Organisation Support Theory (Eisenberger et al., 1986), which is also a theory within social exchange, Shore and Shore (1995) argued that POS ‘is more likely than distributive or procedural justice perceptions to impact employee attitudes and behaviors’ (p. 160). This is because organisational support encompasses a whole history of decisions garnered over a long period of time, including fairness perceptions. Justice perceptions, therefore, may be considered as acts of fairness that enhance the quality of the ongoing relationship between an employee and his/her organisation (i.e. POS); albeit, they ‘in turn obligate the employees to reciprocate in ways that preserve the social exchange relationships’ (Masterson et al., 2000, p. 740).

The findings also revealed that LMX moderated the mediating influence of fairness dimensions (PDJ and PPJ). That is, the mediating effects of PDJ and PPJ were stronger when there is a high quality LMX. This finding is consistent with LMX literature (e.g., Graen & Scandura, 1987; Manogran, Stauffer, & Conlon, 1994; Piccolo et al., 2008; Scandura, 1999). Vecchio (1997) for instance, found fairness perceptions to be contingent on LMX.

Contrary to what I had predicted, LMX did not moderate the mediating influence of POS. A possible explanation for this result is that since supervisors are organisational representatives who make decisions on behalf of the organisational entity, a high quality LMX would necessarily imply POS. Wayne et al. (1997) found a reciprocal relationship between LMX and POS. To further validate this claim, I simultaneously regressed POS and LMX in the relationship between PFHRPs and employee attitudes. Results showed that both POS and LMX were mediators for all the employee attitudes examined in the study. Therefore, consistent with Skarlicki and Folger (1997), it is likely that employees identify their supervisors with the organisation.

Overall, the results provide further support for the Social Exchange Theory (Blau, 1964; Gouldner, 1960), suggesting that since HR practices are provided by the organisation, 'favourable' HR practices are considered 'well intentioned' and are reciprocated through positive work attitudes. The findings also show support for Social Comparison Theory (Festinger, 1954; Wood, 1989) by providing support for the mediating mechanisms of PDJ and PPJ in the relationship between PFHRPs and employee attitudes examined in this study.

4.5.1 Theoretical implications

My study has three important theoretical implications, detailed below.

Contribution to general HR literature

First, I specifically contribute to HR differentiation by assessing within job/group variations in HR practices. While the idea of differentiation revolves around employee categories (e.g., Lepak & Snell, 2002), it could also be assessed within jobs. Building on the social comparison research (Goodman, 1977; Wood, 1989), I argue that people have a larger tendency to compare with colleagues who do more or less the same job as opposed to people performing different jobs. Therefore, I theorised PFHRPs as a key indicator of employee perceptions of HR differentiation and extended the range of employee attitudes associated with this construct. As such, I provide theoretical and empirical evidence to suggest that subjective assessments of one's HR practices

compared with those of others in a work group, is a meaningful construct that has several implications for an individual's work-related attitudes and intentions.

Second, I contribute to the general HR literature by bringing fairness to understanding how HR differentiation might influence employee attitudes and intentions. Existing literature on HR differentiation has focused on the HR - performance link and has largely ignored employee perceptions of differentiated HR practices. Building on Social Comparison Theory, I argue that differential treatments elicit psychological processes that make people respond/react based on the perceived fairness of the reward *outcomes* that they receive (i.e. PDJ), as well as the fairness of the formal organisational processes used for decision-making (i.e. PPJ). These two forms of fairness (i.e. PDJ and PPJ) have generally been viewed as referring to the whole organisational entity to which fairness perceptions are attributable (Folger & Konovsky, 1989; Greenberg, 1990; Lind & Tyler, 1988). That is, employees usually interpret organisational practices in terms of PDJ and PPJ. Results show support for the simultaneous partial mediating effects of PDJ and PPJ in the relationship between PFHRPs and employee attitudes: job satisfaction and AOC, while multi-faceted employee attitudes, such as job engagement and turnover intentions, are only partially mediated by PDJ. In other words, PDJ dominates PPJ in the relationship between PFHRPs and job engagement and turnover intentions. Previous research has shown that PDJ is a better predictor of personal-related attitudes, such as job satisfaction, while PPJ is a better predictor of organisational-related attitudes, such as affective organisational commitment (e.g., Aryee et al., 2002; Cohen-Charash & Spector, 2001; Folger & Konovsky, 1989; Lind & Tyler, 1988; Masterson, 2001; McFarlin & Sweeney, 1992). The findings of this study challenge previous work by suggesting that in the context of HR differentiation, PDJ is the more important psychological process through which multi-faceted work-related attitudes, such as job engagement and turnover intentions, are elicited.

Contribution to Organisational Support Theory

I contribute to Organisational Support Theory by identifying an additional way through which POS may influence work attitudes. Previous literature has mainly relied on Social Exchange Theory to explain how POS influences employee attitudes (e.g., Björkman et al., 2013; Clinton

& Guest, 2013; Gelens et al., 2015). Consistent with the *norm of reciprocity*, research indicates that employees view HR investments as personalised commitment to them by the organisation, which obligates them to respond with positive attitudes, such as job satisfaction (e.g., Eisenberger et al., 1997; Eisenberger et al., 2001; Masterson et al., 2000; Randall, Cropanzano, Bormann, & Birjulin, 1999; Shore & Tetrick, 1991) and affective organisational commitment (e.g., Eisenberger, Fasolo, & Davis-LaMastro, 1990; Gelens et al., 2015; Marescaux et al., 2013; O'Driscoll & Randall, 1999; Rhoades et al., 2001; Settoon et al., 1996). For most of this work, however, the focus has been on social exchanges: what an employee gets from the organisation in relation to what s/he gives. While this is important, this approach fails to adequately account for ways in which HR differentiation might also influence employee attitudes.

I argued that in the context of HR differentiation, we need to consider both what an *individual receives* and what his/her *co-workers receive*. This is because employees are not merely concerned with absolute outcomes, but also with fairness of these outcomes, which arises from social comparison processes. As such, by integrating Social Comparison Theory and Social Exchange Theory, I show that an employee's POS is a result of both her/his assessment of what s/he receives and what his/her co-workers receive. The findings support my propositions by linking PFHRPs with POS.

Contribution to leader-member exchange literature

I contribute to LMX literature by leveraging my new, integrated model to theorise how LMX might reinforce perceptions of fairness. I argued that although LMX relates to an employee's relationship with their supervisor/leader, it still plays an important role in shaping employees' fairness perceptions. According to Scandura (1999) 'the integration of organizational justice and LMX moves LMX theory in the direction of normative theory, which provides clearer guidelines for leaders in the management of work groups' (p. 37). Scandura argued that social comparisons operate at the unit or team level and discussed how employees in various work groups might differ in their perceptions of LMX relationships. I extend this work to by showing that even within work groups, some employees might still view their supervisor or leader as treating them unfairly. The results of the study show that a high quality LMX accentuates PDJ and PPJ.

More importantly, research has predominantly used Social Exchange Theory (Blau, 1964) to explain the effects of LMX on employee outcomes. Nevertheless, as shown in the present work, LMX also predicts fairness perceptions. Therefore, in organisations that use highly differentiated HRPs, supervisors may act as conduits for reinforcing fairness perceptions. Finally, investigating both LMX and POS offers further evidence of the relationship between LMX and POS: That is, although distinct, they are reciprocal. In other words, consistent with Wayne et al. (1997), the results of the study suggest that LMX and POS are distinct and reciprocal. This finding suggests that a high quality LMX may also be interpreted as POS. As such, it is possible that employees who are in a high-quality LMX may still give the organisation ‘the benefit of doubt’, even when they perceive ‘unfavourable’ HR practices (e.g., pay).

4.5.2 Practical implications

The study also offers several practical implications. First, employees draw meaning based on their subjective assessments of their relative standing within given work groups and not only across different work groups. As such, it is important for HR professionals and managers to establish employees’ relative perceptions towards work and organisational support given that employees may sometimes feel that their colleagues are being ‘favoured’ due to cognitive biases or perceptual limitations. Moreover, in situations where some employees are indeed favoured, it might be helpful to restore equity to minimise the potential negative backdrop from disadvantaged workers.

Second, the findings of this study complement previous efforts which suggest people give greater weight to the favourability of their own individual HR practices when comparing themselves with their co-workers (Chambers & Windschitl, 2004). Therefore, organisations and HR professionals may do well to pay more attention to employees’ internal standards about how they should be treated in addition to how they are treated in comparison to referent others (Kim, Wang, Chen, Zhu, & Sun, 2018). Building clear communication channels and involving employees in decision-making processes are some of the ways through which employees might feel catered and appreciated by the organisation.

Third, employee perceptions of a high-quality LMX helps strengthen fairness perceptions. However, since employee values and preferences differ, supervisors should aim to find out what employee common interests to effectively communicate to their employees and generate higher levels of procedural and distribute justice. In other words, supervisors should put effort to understand their employees' common values and preferences to generate a high-quality LMX necessary to accentuate perceptions of distributive and procedural justice, which in turn shape employee attitudes such as job satisfaction, job engagement, affective organisational commitment and turnover intentions.

4.5.3 Managerial implications

The study has managerial implications as well. Although there are firm-level benefits to HR differentiation, such as increased firm performance (e.g., Chow, Huang, & Liu, 2008), managers should also consider employee attitudes and behaviours, which are often quite difficult to quantify yet they are also important (Schmidt, Pohler, & Willness, 2018). In line with Schmidt et al. (2018), I argue that since aspects of a differentiated HR system are often quite visible to employees, HR professional and managers need to be just and equitable in their dealings and/or management practices thereby boosting employee socio-emotional attitudes such as job satisfaction, job engagement, as well as reinforce their desire to remain with the same organisation, depicted by affective organisational commitment and lower turnover intentions.

Finally, as much as 'effectively filling a job requires managers to assess whether a candidate has the skills and abilities necessary to succeed in that job' (Bidwell & Keller, 2014, p. 1039), an employee's immediate supervisor could still make the difference between success and failure. For instance, if the supervisor is abusive, it is likely to create a negative impression about the organisation, which in turn could lead to negative work outcomes. Thus, managers should aim to build high-quality LMX with their employees by being respectful, understanding and honest with their workers to improve their fairness perceptions as well as work-related outcomes (Graen & Uhl-Bien, 1995).

4.5.4 Study Limitations

While my research contributes to theory and practice, naturally there are limitations. First, the study is based on employees' subjective assessments. While they are important, we must be cautious about assuming that these subjective assessments reflect objective reality. Future research could improve on this by collecting objective data from various organisations and comparing it with employee perceptions.

Second, with the exception of the interaction effects (Podsakoff et al., 2012), I can't categorically rule out CMV. This is because data was collected via self-reports. Future research could improve on this study by conducting a longitudinal study.

Third, the study only focused on within-group variations in HR practices; future research could examine both within-group and between group variations in HR practices to offer further insights into how employees might respond to HR differentiation.

Fourth, given the cross-sectional nature of the study, a causal link between PFHRPs and employee attitudes cannot be established. It may also be possible that job satisfaction, affective organisational commitment, job engagement and turnover intentions provide the platform on which employees assess the favourability of the HR practices that they receive.

The study also assumes that differentiating all HR practices has similar effects. That might not always be the case. It is possible that HR practices may also have varying effects depending on the value an individual employee attaches to a HR practice. For instance, some employees may value job autonomy more than bonuses. In that way, only those employees who feel that they have received less of the HR practice that they really value, are likely to show negative employee outcomes, while employees who don't value that HR practice wouldn't care whether they received less or more.

4.6 Conclusion

My study argues that employees are likely to respond to HR differentiation based on their subjective assessments of HR practices. Therefore, using PFHRPs as a key indicator of employee perceptions of differential treatment, I found that employee perceptions of organisational support and fairness perceptions (i.e. distributive and procedural justice) are some of the mediating mechanisms through which PFHRPs influences job satisfaction, affective organisational commitment, job engagement and turnover intentions. Further, the study also found that the mediating effects of distributive and procedural justice are contingent on the quality of LMX. Overall, I hope that this current work will contribute to the important conversation about how employees may respond to HR differentiation.

The next chapter serves to review the findings and overall implications of the study in relation to the two broad research questions and hypotheses. Thereafter, in the light of the study's strengths and limitations, a future research agenda is proposed.

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

5.1 Introduction

As highlighted in the previous chapters, HR differentiation has mainly been examined from the organisational perspective. One well-established line of inquiry suggests that firms deploy different employment arrangements to reflect job characteristics (Lepak & Snell, 1999, 2002). However, despite significant progress in HR differentiation literature concerning the usefulness of the HR Architecture Framework as a way of understanding firm performance, recent discussions have highlighted two unresolved tensions in this line of argument. First, when/under what conditions are firms likely to differentiate their workforce (**Study 1**)? Second, and perhaps more importantly, what does HR differentiation mean for employees and their experience of work (**Study 2**)? These two broad questions formed the basis for this dissertation and framed a series of specific hypotheses for **Study 1** and **Study 2** in Chapters 3 and 4, respectively.

Therefore, this chapter serves to summarise the key findings of the study. Next, I offer a revised statement of the HR architecture model based on these findings and from there, highlight the overall contributions and implications of the research for the development of knowledge and practice in the field. Finally, I highlight the overall strengths and limitations of the study and set future directions for research.

5.2 Summary of Key Findings

Study 1 sought to investigate the conditions under which firms use differentiated HR systems. To do so, I first sought to test the core assumptions of the HR Architecture framework - that is, how job characteristics differ across various employment arrangements. This process was necessary because the literature on HR differentiation has mainly identified the strategic value and uniqueness of human capital associated with jobs as the key determinants of workforce segmentation. However, since firms operate within institutional, bureaucratic and dynamic market pressures, the factors generated by these pressures are also likely to shape a firm's HR

architecture. Therefore, integrating job characteristics with contextual factors, such as a firm's competitive strategy, union density, management-employee cooperation, environmental dynamism and technological opportunities, may be a critical path towards the achievement of competitive advantage.

The findings of **Study 1** show some support for the HR architecture framework: that is, job characteristics differ in some employment arrangements, with knowledge-based employment arrangements having jobs with the highest levels of strategic value and uniqueness in comparison with other employment arrangements, such as job-based and contractual work arrangements. This result suggests that job characteristics are indeed critical in the adoption of employment/HR systems. I found a firm's competitive strategy to influence intraorganisational variability in job characteristics and found that union density positively moderated the relationship between the strategic value of jobs and job-based employment arrangements. This suggests that contextual factors are integral to a firm's architecture.

Study 2 sought to complement **Study 1** by investigating employee responses to HR differentiation. Conceptualising PFHRPs as an important indicator of employee perceptions of differential employee treatments, I argued that PFHRPs is likely to augment POS, PDJ and PPJ as well as positive work-related attitudes, such as job satisfaction, job engagements, affective organisational commitment and lower turnover intentions. More importantly, I proposed that leader-member exchange (LMX) might positively moderate the relationship between PFHRPs and POS, PDJ and PPJ. The empirical results of the study postulated a positive and significant relationship between PFHRPs and job satisfaction, affective organisational commitment and job engagement, while there was a negative relationship between PFHRPs and turnover intentions. Second, results of mediation analysis confirmed the mediating roles of POS, PDJ and PPJ in the relationship between PFHRPs and job satisfaction, job engagement, affective organisational commitment and turnover intentions. Finally, the findings also revealed that LMX positively moderated the mediating influence of distributive and procedural justice. Taken together, the findings of the study call for the re-formulation of the HR architecture framework, which I attempt to do in the next sub-subsection.

5.3 Re-formulation of the HR Architecture Framework

The HR architecture framework suggests that firms make significant distinctions in employment arrangements based on job characteristics. Results of the study showed that jobs associated with high levels of human capital strategic value and uniqueness were allocated to knowledge-based employment arrangement. This finding suggests that firms make a distinction between strategic (i.e. roles high in strategic value and uniqueness, such as knowledge-based roles) and non-strategic or peripheral roles, e.g., contractual work arrangements.

Proposition 1: *Job characteristics are positively related to employment arrangements. In particular, jobs associated with high human capital strategic value and uniqueness will be allocated to knowledge-based employment arrangements.*

Indeed, while the results of the study reinforce the significance of job characteristics in shaping employment arrangements, they simultaneously suggest shifting research on HR/employment systems from a static view to a process view, where the creation of competitive advantage is not only pegged on job characteristics (as earlier espoused by Lepak and Snell (2002)), but also on contextual factors. The study's results are in line with those of Unger, Rauch, Frese, and Rosenbusch (2011) and Shane and Venkataraman (2000), who argued that successful exploitation of resources, and indeed creation of competitive advantage, is dependent on both job/human capital resources as well as contextual factors. This finding suggests that effective employment arrangements are those that are designed in accordance with job characteristics, but at the same time, are aligned with contextual factors, such as union density. For instance, union density may lead to the adoption of job-based employment arrangement. As such, a firm's architecture should not be static but dynamic to reflect such changing contextual factors.

Proposition 2: *Union density will moderate the relationship between job characteristics and employment arrangements, such that the relationship between the strategic value of jobs and job-based employment arrangement will be stronger for high than low levels of union density.*

Relatedly, the findings also suggest that there is no single best employment arrangement by highlighting that multiple employment arrangements can exist within the same establishment (Liao et al., 2009). That means that various employment arrangements may be deployed to increase firm performance. Consistent with this argument, Lepak et al. (2003) found that both knowledge-based and contractual work arrangements can lead to an increase in firm performance. Hence, I propose:

Proposition 3: *Employment arrangements are positively related to firm performance.*

In Chapter Two of this thesis, it was highlighted that HR differentiation (i.e. differential employee treatments) has emerged as one of the most popular approaches within strategic HRM literature. The assumption is that to gain competitive advantage, firms need to invest a lot more in those jobs in which employee investments have the biggest impact (e.g., Boudreau & Ramstad, 2005; Collings, 2014; Collings & Mellahi, 2009). Consistent with these theoretical assumptions, empirical research indicates that employees occupying jobs higher in strategic value and uniqueness tend to receive higher HR practices in comparison with employees in lower level jobs (e.g., Clinton & Guest, 2013; Schmidt et al., 2018). Taken together, these theoretical and empirical studies highlight the crucial role of HR differentiation in achieving firm-level outcomes. That is, organisations provide HR practices to employees ‘based on the extent to which employees within a job group are critical to implementing the organization’s strategy and creating value’ (McClean & Collins, 2011, pp. 346-347). This finding suggests that job characteristics (i.e. strategic value and uniqueness of human capital associated with jobs) influence the nature of HR practices implemented by the firm. Building on this study’s findings that suggest that differential employee treatments leads employees to compare the HR practices they receive with their co-workers, I propose that the more differences in job characteristics, the greater the variations in HRPs implemented, and ultimately, the greater the variations in employees’ PFHRPs. As such, I propose:

Proposition 4: *Job characteristics are positively related to PFHRPs.*

The findings of this study also challenge the *mechanistic* view of employment relationships, whereby firms determine the tasks or jobs to be done, and thereafter, fit employees to the different jobs in accordance with their increasing levels of skills, knowledge, abilities and other competencies (SKAOs). In fact, the findings of this study call for employee agency, where employees form their own individual opinions and perceptions about the HR practices to which they are subjected (e.g., Farndale et al., 2011; Hannah & Iverson, 2004). At the same time, while my study assessed within job variations, I do not refute that between job variations in employee perceptions also happen, as theorised by the HR architecture framework (Lepak & Snell, 2002). For instance, while contract employees (Quadrant 3 workers) receive compliance-based HR investments centred on control and compliance to policies, rules and regulations, knowledge-based workers receive extensive HR investments (referred to as commitment-based HR investments), which consist of extensive HR training and development opportunities, flexibility and job autonomy (Lepak & Snell, 1999, 2002). This approach may still raise negative perceptions from some contract employees who may feel that they too deserve better. Cooper (2008) concluded that differential treatment of workers constitutes differences in employee perceptions and inequality because it engenders losers and winners.

Although I do not test it in my study, I would expect employees occupying jobs with higher levels of strategic value and uniqueness (knowledge-based workers) to portray more favourable perceptions of HR practices for two reasons. First, while contract employees' inputs may indeed be lower than those of knowledge workers, people generally tend to rate themselves higher than their actual contributions. As such, due to the compliance HR practices that they receive, contract employees, on average, may feel less favourably treated in comparison with other employee groups, such as knowledge workers. Nilsen and Campbell (1993) argued that workers generally tend to overestimate their individual inputs. As such, it is likely that contract workers might feel less favourably treated in comparison to knowledge-based workers. Second, theories of social exchange maintain that reciprocal exchange is more likely to be accentuated within employee groups who receive higher HR practices (Guest & Conway, 2002; Tsui et al., 1997). Liao et al. (2009) found that higher status employees exhibited the most favourable perceptions of HR practices in comparison with lower and least status employees. Similarly, Schmidt et al.

(2018) found employees in higher-level occupation jobs to have more favourable fairness perceptions in comparison with lower-level employees. This finding suggests that employee category might influence employee perceptions of HRPs. Consequently, I propose:

Proposition 5: *The relationship between job characteristics and PFHRPs is moderated by worker category, such that it is stronger for knowledge-based employees than contract employees.*

Indeed, while the HR architecture suggests differential employee treatments across various work groups depending on their job characteristics, the findings of this study show that employees within the same work group may compare their inputs-outputs ratio relative to their referent others. In this study, it was found that employees make subjective assessments of the HR practices they are subject to via forming their own opinions about them, which in turn, shapes their work-related attitudes and intentions. Therefore, in accordance with theories of social exchange, such as the *Inducement Contributions Theory* (March & Simon, 1958) and the *norm of reciprocity* (Gouldner, 1960), I theorised that positive assessment of HR practices is critical to elicit positive work-related attitudes and intentions. Results of the study found that PFHRPs was positively related to job satisfaction, job engagement, affective organisational commitment, and negatively related to turnover intentions.

Proposition 6: *PFHRPs is positively related to positive work-related attitudes.*

Building on Organisational Support Theory (Eisenberger et al., 1986), I also theorised PFHRPs is positively related to POS, which in turn is associated with work-related attitudes. The study's results showed that POS is one of the mechanisms through which FPHRPs influences work attitudes. Accordingly:

Proposition 7: *PFHRPs is positively related to (a) POS, (b) PDJ and (c) PPJ.*

Proposition 8: *POS partially mediates the relationship between PFHRPs and work-related attitudes.*

It is important to note that since HR differentiation concerns differential treatment of employees, I argued that theories of social exchange alone are insufficient to explain how employees might respond to HR differentiation. As such, I borrowed further insights from Social Comparison Theory, which I assessed using perceived organisational justice (POJ). In other words, given that ‘the evidence appears to suggest that virtually everyone engages in social comparison from time to time’ (Gibbons & Buunk, 1999, p. 129), situations that foster differential employee treatments, such as HR differentiation, are likely to trigger social comparisons. This argument is consistent with Greenberg et al. (2007), who argued that social comparisons influence fairness perceptions.

While there are four forms of PDJ (Colquitt, 2001; Colquitt et al., 2001), I only focused on PDJ and PPJ since they refer to the whole organisational entity to which differential treatment arises. My conjecture was that ‘favourable’ HRPs are likely to be considered as fair due to egocentric bias (Greenberg et al., 2007). As such, PFHRPs is positively related to PDJ and PPJ. Integrating further insights from the norm of reciprocity (Gouldner, 1960), I theorised that fair rewards outcomes (PDJ) and organisational decision-making processes (PPJ) are likely to be reciprocated through positive work-related attitudes. In other words, PDJ and PPJ partially mediate the relationship between PFHRPS and employee attitudes and intentions. Results of the study found support for my hypotheses.

Proposition 7: *PFHRPs is positively related to (b) PDJ and (c) PPJ.*

Proposition 9: *PDJ partially mediates the relationship between PFHRPs and work-related attitudes.*

Proposition 10: *PPJ partially mediates the relationship between PFHRPs and work-related attitudes.*

While HR differentiation refers to the differential treatment that employees receive from their organisation, the study's results also highlight the importance of managers/supervisors in an organisation. That is, since supervisors are organisational representatives, their actions can also influence fairness perceptions. Scholars have argued that a high-quality LMX relationship that goes beyond economic resources to include socioeconomic resources, such as respect, trust and mutual obligations, can potentially buffer negative perceptions of unfavourable organisational treatment (Johnson et al., 2009). Consistent with this contention, the results show that a high-quality LMX reinforces fairness perceptions.

Proposition 11: *LMX positively moderates (a) PDJ and (b) PPJ.*

Given that firm performance depends on positive responses from employees (e.g., Fan et al., 2014; Godard, 2004), assessing employee subjective assessments of HR practices cannot be overemphasised. Indeed, by examining employee perceptions of HR practices to which they are subjected, this study's framework builds on the seminal work of Wright and Boswell (2002), who argued that 'because employees can only respond to actual practices, any research attempting to demonstrate a relationship between HRM and firm performance stands on firmer ground when assessing the actual practices rather than the intended policies' (p. 264). Becker and Huselid (1998) found that HR practices directly impact employee skills, attitudes and behaviours, which in turn, lead to better firm performance, including profitability and market growth.

Proposition 12: *Employee work-related attitudes influence firm performance.*

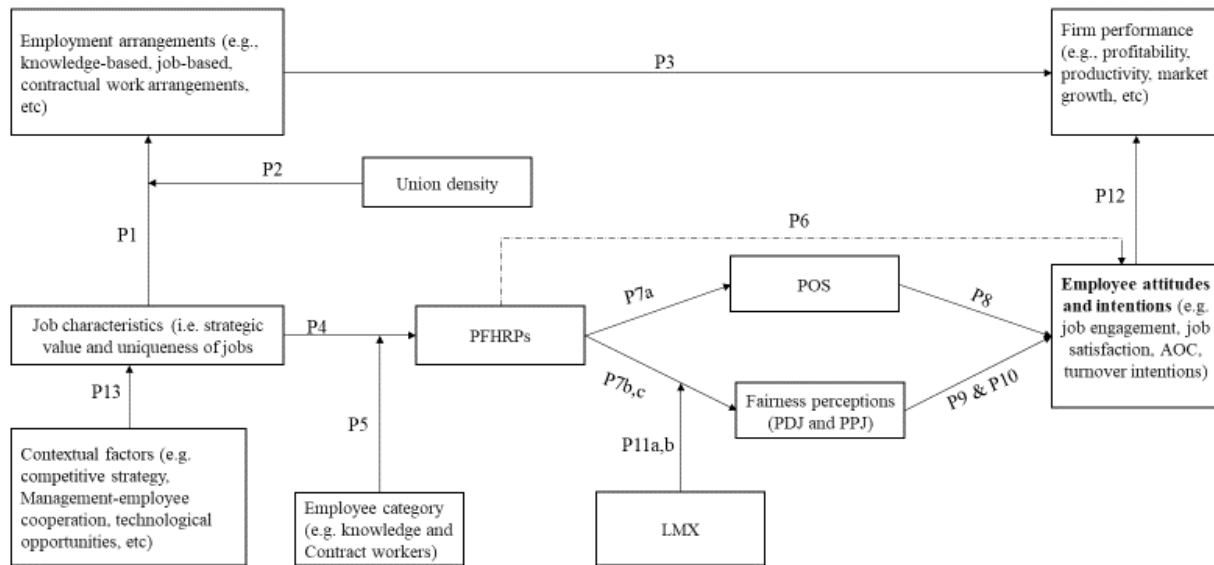
Consistent with the Job-Based model (Becker & Huselid, 2006), the results of the study also revealed that firm strategy influences intraorganisational variability in the strategic value and uniqueness of human capital associated with jobs. Though not the focus of this study, the results also provided some interesting implications regarding management-employee cooperation and technological opportunities; that is, these contextual factors impact the nature of the roles designed within the Australian manufacturing industry-sector. This finding suggests that beyond

moderating the nature of HR/employment systems adopted in a firm, contextual factors can also influence variability in job characteristics. Accordingly, I propose:

Proposition 13: *Contextual factors (e.g., technological opportunities, management-employee cooperation and competitive strategy) predict variability in job characteristics (i.e. the strategic value and uniqueness of human capital associated with jobs).*

In summary, while this study investigated a few contextual factors, strategic HRM scholars generally maintain contextual factors can influence the extent to which firms adopt and/or implement differentiated HR systems. For instance, Schmidt et al. (2018) argued that that contextual factors, such as management philosophy and organisation, might influence the extent to which firms adopt differentiated HR systems. Similarly, Eyamu (2016) and Jackson and Schuler (1995) theorised that organisational culture might influence the extent to which firms adopt differentiated HR systems. Overall, the findings of this study, as depicted in Figure 5.1, suggest that to fully understand the effect of HR differentiation of firm performance, it is important to consider job characteristics, contextual factors, as well as employee responses to HR differentiation to ascertain the actual economic value of HR differentiation. My approach is consistent with a recent call by Schmidt et al. (2018) for a nuanced approach to understanding HR differentiation—one that examines how organisations balance the economic benefits of HR differentiation with contextual factors and employee outcomes. With this in mind, I then highlight the study's contribution and implications for theory, practice and future research.

FIGURE 5. 1 Revised HR Architecture Framework



5.4 Contributions to Theory

As scholars in strategic HRM increasingly look for ways to create competitive advantage, it is widely acknowledged that organisations allocate jobs to employees depending on the human capital characteristics needed to do those jobs. At the same time, scholars have appreciated the importance of contextual factors in understanding HR/employment systems (Jackson & Schuler, 1995; Jackson et al., 2014). Strategic HRM scholars argue that when competitive situations change, such as changes in customer demands, HR/employment systems are also likely to change to reflect those changes (Batt, 2000; Lepak & Snell, 1999). Nevertheless, there has been very little effort, to date, to identify how contextual factors might influence intraorganisational variability in HR/employment systems. Consequently, the quest to validate the HR architecture in a situational context has become an important scientific inquiry for strategic HRM scholars and practitioners. More importantly, little research has examined how HR differentiation might influence employees' perceptions of HRPs as well as their experience of work. Therefore, at the macro-level, this thesis provides compelling evidence of the need to understand contextual factors in a bid to deploy effective HR/employment systems, while at the micro-level, it underscores the significance of understanding what HR differentiation means to employees and how it might shape their attitudes towards work and management. The contributions to specific

streams of literature are detailed in the concluding sections of each study. Therefore, this subsection provides the overall theoretical contributions of the revised HR architecture framework.

First, the current study offers some support for the HR architecture in a single industry sector, namely, manufacturing. The findings are congruent with previous work, suggesting that some aspects of the HR architecture are generalisable to broader contexts (e.g., González & Tacorante, 2004; Lepak & Snell, 2002). Specifically, this study found that job characteristics play a crucial role in the determination of an organisation's HR/employment systems. While this finding does not imply causation, it lends further support to the cross-contextual etic of the HR architecture. Hence, organisations may be wise to build their own capabilities by synchronising the different characteristics of their jobs with appropriate HR/employment systems.

Second, this study responded to the call by Bacharach (1989) to amalgamate different theoretical frameworks in the field of management and organisational theory to further guide development in theory and practice. I attempted to do so by integrating several theories relevant to understanding employment systems, including the Internal Labour Market theory, the Flexible-Firm model, Job-Based model, and HR architecture framework. The results showed that some contextual factors, such as union density, interact with job characteristics to predict employment arrangements. This result suggests that a firm's HR architecture needs to also account for bureaucratic and institutional pressures, such as those imposed by unions. The role of contextual factors in shaping HR/employment systems has been frequently studied (e.g., Jackson & Schuler, 1995; Lepak et al., 2007), but the complexity of their interaction with job characteristics has been underestimated. The outcomes of this study provide support for the idea that institutional or contextual factors matter; hence, effective employment arrangements are those that are aligned with specific institutional or bureaucratic pressures.

Consistent with the Job-Based framework (Becker and Huselid (2006), the study's results show that a firm's competitive strategy has an influence on the nature of roles/jobs, such that firms attempting to create competitive advantage by using a cost-reduction firm strategy should place

more emphasis on the design of nonstrategic roles, such as contractual work arrangements, while those firms that use an innovation strategy should place more emphasis on strategic roles, such as knowledge-based roles, which are associated with higher levels of strategic value and uniqueness. Extrapolating from these findings, it is possible that in certain cases, firms might even need to use a variety of employment arrangements simultaneously to gain competitive advantage (e.g., Davis-Blake & Uzzi, 1993; Matusik & Hill, 1998; Snow, Miles, & Coleman, 1992). Therefore, the HR architecture's assumption that some jobs are superior to others, is challenged. Organisations can create competitive advantage by integrating contextual factors during the design of jobs.

Third, at the micro level, this study responds to calls in HR differentiation literature to examine how employees might respond to HR differentiation. I extend the HR architecture framework, which has mainly understood differentiation as revolving around different employee categories by examining within job variability in employee perceptions of HR practices. Building on Social Comparison Theory and Social Exchange Theory, I articulate an integrative framework that investigates what HR differentiation means to individual employees' experience of work and management. The resulting framework enhances the scope of both frameworks by connecting the different facets of literature from which they separately evolved. For instance, this work enhances Organisational Support Theory (Eisenberger et al., 1986; Wayne et al., 1997), which is one of the theories within social exchange, by connecting it with Social Comparison Theory (Wood, 1989). The study's results show that an employee's POS is a result of her/his assessment of what s/he receives relative to what their co-workers give and receive.

Fourth, at the micro level, the study also contributes to HR literature, and indeed to Social Comparison Theory, by articulating how (1) HR differentiation leads employees to compare their HRPs to assess favourability of HRPs and (2) fairness concerns generated from HR differentiation might shape employee attitudes and intentions. While Kim et al. (2015) sought to examine the effect of social comparisons on PDJ, I extend this work by incorporating PPJ. I proposed that differential employee treatment (indicated by PFHRPs) is likely to lead employees to compare their output-input ratio with those of their co-workers. Therefore, employees are

likely to react based on the fairness of the reward outcomes that they receive (i.e. PDJ) as well as the fairness of organisational processes used for decision-making (i.e. PPJ). The results provide support for the mediating mechanisms of distributive and procedural justice in the relationship PFHRPs and employee attitudes: job satisfaction, affective organisational commitment, job engagement, and turnover intentions. By so doing, this study underscores the underlying psychological processes by which differential employee treatment shapes work-related attitudes and intentions. Relatedly, contrary to previous research that showed that the mediating effect of PDJ might be more salient in regard to person-related outcomes (such as job satisfaction), the mediating effect of PPJ might be more salient for organisation related outcomes (such as affective organisational commitment) (e.g., Masterson, 2001; McFarlin & Sweeney, 1992). Consequently, the findings of this study suggest that in the context of HR differentiation, PDJ is the more critical path through which multi-faceted work-related attitudes, such as job engagement and turnover intentions, are elicited.

Finally, by broadening the conceptualisation of HR differentiation to connect many diverse theories and bodies of literature, this study serves as basis for future research that allows for comparing POS, LMX and justice perceptions. Whereas prevailing work suggests that fairness perceptions predict social exchanges, that is, POS and LMX (e.g., Masterson et al., 2000; Rupp & Cropanzano, 2002; Wayne et al., 2002), I argue that social exchanges, such as LMX, might also predict fairness perceptions. By so doing, this study takes a conscious step towards articulating the unique nature of the relationship between social comparison and social exchange relationships. For instance, Piccolo et al. (2008) argued that justice perceptions may also depend on certain aspects of the work environment, such as LMX. The authors concluded that employees who have a high-quality LMX are likely to exhibit positive justice perceptions. Consistent with this contention, I found that LMX moderated PDJ and PPJ. That is, employees vary their perceptions of distributive and procedural justice depending on the quality of their relationship with their supervisors. For the most part, both distributive and procedural justice are stronger when there is a high-quality LMX. However, causal inferences await a longitudinal study.

In summary, the overall theoretical contribution of this thesis is that by broadening the conceptualisation of HR differentiation to include both organisational and employee perspectives, firms might be able to *situate* their own unique HR and employment systems in ways that can generate positive employee reactions/perceptions, and consequently, reap superior economic gains. Therefore, the next sub-section highlights the overall practical and managerial implications of the study.

5.5 Implications for Practice and Policy

This thesis has several important implications for HR policy and management, particularly in the design of effective HR and employment systems that are beneficial for organisations and employees. The practical and managerial implications are detailed in the discussion sections of each study. Therefore, this sub-section provides a general summary of those contributions.

Conditions for HR differentiation

The study demonstrated that job characteristics are important determinants of HR/employment arrangements. From a managerial perspective, HR practitioners can now have the confidence to apply the HR architecture because research supports that firms differentiate between jobs and employees depending on job characteristics. Therefore, rather than imitate other firms, the starting point would be for managers to ascertain their own job characteristics before implementing HR employment systems. Consistent with the Resource Based View (RBV) theory (Barney, 1991), this approach would ensure that organisations have their unique resources and capabilities, which in themselves are a source of competitive advantage.

Second, the study's results show that integrating institutional factors, such as trade unions, is crucial in the adoption of employment arrangements. More importantly, beyond aligning job characteristics and institutional pressures, results of the study also suggest that managers can review their jobs and adjust them to what would be most beneficial given their business strategies. As such, in line with Koene and Riemsdijk (2005), I argue that managers need to develop their organisational architectures based on their job characteristics and contextual factors. This suggestion is made because some pre-existing strategic roles could become

nonstrategic, and likewise, some pre-existing nonstrategic roles could become more strategic due to the dynamic nature of organisational architectures.

Strategies to build positive work attitudes

This study underscores the importance of maintaining management-employee cooperation due to mutual gains for employees and organisations (Deery & Iverson, 2005). The findings of the study complement earlier work on social exchange (Blau, 1964), internal labour markets (e.g., Bélanger & Edwards, 2007) as well as work around organisational climate (e.g., Neal et al., 2005). MacDuffie (1995), for instance, argued that employees are more likely to contribute physical and mental effort ‘if they believe that their individual interests are aligned with those of the company, and that the company will make a reciprocal investment in their well-being’ (p. 201). Management-employee cooperation is likely to reinforce employees’ belief in the organisation, resulting in the creation of a reciprocal and beneficial employment relationship. Moreover, by ensuring management-employee cooperation, employees are likely to perceive that the organisation values and cares for them, leading to positive employee attitudes and intentions. Therefore, consistent with Jackson et al. (2014) and Guest (1999), the findings of this study suggest that employees are not only important stakeholders, but also active agents whose individual experiences shape work-related attitudes that are critical for the realisation of business success such as job satisfaction, job engagement, affective organisational commitment and turnover intentions. Thus, it may be necessary to integrate approaches that quantify the costs of differentiation on employee attitudes with an assessment of potential firm benefits of HR differentiation (Schmidt et al., 2018).

HR investments as salient aspects for social comparisons

First and foremost, as much as a differentiated HR strategy is strategically important (Huselid et al., 2005), the findings of this study suggest that it is still important for organisations and managers to consider what differentiation means to employees’ experience of work. Given that HR differentiation may generate mixed employee outcomes, positive messages that reiterate employees’ status within the organisation may help mitigate some of the negative outcomes of differential employee treatments (Schmidt et al., 2018).

Second, although there is a widely acknowledged sense that the different employee groups that exist within firms are managed with differentiated HR practices, these differentiated HR practices may not only create group variations in the perceptions of HR practices (e.g., Clinton & Guest, 2013; Gelens et al., 2014) but also within group variations in employee perceptions of HR practices. The results of this study reveal that HR practices that are perceived as favourable are likely to make employees believe that they are supported and fairly treated by the organisation, leading employees to reciprocate by exhibiting job satisfaction, organisation commitment, job engagement and willingness to remain in the same organisation. Therefore, research that focuses only on employee groups may produce misleading results. As such, it is important for managers to consider employees' idiosyncratic experience of HR practices (Liao et al., 2009).

Third, while favourable HR practices translate into improved organisational support and higher levels of perceived distributive and procedural justice, and consequently, more positive employee reactions; the utility of maintaining a high quality LMX is also noteworthy. Therefore, organisational representatives, such as managers/supervisors, should aim to build rapport with their employees to reinforce employee fairness perceptions.

In summary, while this study contributes to HR differentiation literature by, first, extending the original model of differentiation proposed by Lepak and Snell (2002) and, second, exploring employee responses to HR differentiation, I do not claim that it is the ultimate panacea for creating successful organisations. There are several limitations that should be considered when interpreting the results, and which extensions can address.

5.6 Overall Limitations and Strengths of the Study

Despite the apparent strengths, the study also has several limitations that extensions can address. The study recognises three important limitations: Sample, method and conceptual clarity.

5.6.1 Sample

The study sample was generated from medium and large workplaces and enterprises in Australia. This process helped to ensure that small firms that might not have formal HR practices were excluded from the study (Huselid & Becker, 1996; Lepak et al., 2003). Given that the study sought to examine HR differentiation, focusing only on firms with formal HR practices was reasonable. Moreover, the study also obtained appropriate sample sizes for both antecedents of differentiation ($n = 200$) and also for the link between PFHRPs and employee attitudes ($n = 733$), which were large enough sample sizes for ANCOVA (Borm et al., 2007) and asymptotic and resampling techniques (Preacher & Hayes, 2008), respectively.

The sample for investigating the antecedents of differentiation was collected from only manufacturing industries. While this method had the merit of ensuring that several unobservable factors were controlled, it hindered the generalisability of findings. As such, the findings of this study can only be said to be relevant within manufacturing industry sectors. Moreover, data was only obtained for knowledge-based employment ($n = 50$), job-based employment ($n = 144$) and contractual work arrangements ($n = 6$). Data was not obtained regarding alliances/partnerships. Also, the sample size for contractual work arrangements was too small to detect any significant difference with other employment arrangements. Future studies may also address alliances and contractual work arrangements within the manufacturing sector to ascertain whether they significantly differ from knowledge and job-based work arrangements. Thus, the replication of the study in several industry sectors, including all employment arrangements and via using several raters, would be fundamental for confirming/disconfirming the generalisability of the HR architecture framework.

The sample for examining the link between PFHRPs and employee attitudes included several industry sectors, which allows for generalisability of findings. Moreover, considering that the study sought to examine perceptions and attitudes, obtaining data from employees was the most appropriate. This is because perceptions, attitudes and/or evaluations 'are most accurately self-reported' (Rodell & Lynch, 2016, p. 629). However, data for HR differentiation could also have been obtained at the job-level. For instance, Kehoe and Wright in their examination of the impact

of high-performance HRPs on employees' attitudes and behaviours argued that although HR practices are experienced at the individual level, employee perceptions of these practices 'are likely to vary at the job group level as a result of job group-level variance' in the various job positions occupied by employees (Kehoe & Wright, 2013, p. 370). Therefore, further research could improve on the sample design by collecting data across job groups to reflect knowledge-based, job-based, alliances and contract workers.

5.6.2 Method

As with many single source and cross-sectional studies, such as this one, there may be concerns regarding CMV (Podsakoff et al., 2003; Podsakoff & Organ, 1986; Rodell & Lynch, 2016). More importantly, the study cannot draw a causal relationship or rule out the possibility of reverse causality (Kuvaas, 2008). The study conclusions are also drawn from perceptual-based responses rather than actual observations. Given that perceptual-based responses are largely subjective, they are prone to rater bias and might not have any bearing on objective reality. For these reason(s), several scholars (Podsakoff et al., 2003) encourage researchers to collect longitudinal data and also use multi-raters. Also, comparing results based on self and other-reported evaluations could be taken into consideration to fully capture the antecedents and the effects of HR differentiation for employee attitudes.

5.6.3 Conceptual Clarity

The current study acknowledges that there remains a possibility that some concepts are not completely equivalent, since it uses North America (U.S)-originated constructs in another context (i.e., Australia). For instance, Lepak and Snell (2002) defined job-based employment as 'relationships in which employees are hired on a full-time basis to contribute immediately to the firm by performing a specific set of tasks...' (p. 525). To ensure clarity, job-based employment in my survey was referred to as 'task-based roles' and it was explained as roles where employees are hired to contribute immediately to the firm by performing a specific set of tasks or duties related to producing goods or services. Employees are accountable for meeting relatively short-term performance objectives (e.g., assembly workers, fabricators, plant

operators). I cannot rule out the possibility that misunderstanding of concepts might have influenced some raters.

HR differentiation was measured using PFHRPs, which assesses within job differences in HR perceptions. Consistent with Marescaux et al. (2013), I provided eight HRPs for employees to rate and a ‘not applicable’ option for employees to tick if a particular HR practice was not in their organisation. While this is plausible, it is important to note that these are merely subjective assessments and they do not fully capture HR differentiation. Similarly, my approach discounted between job differences in HR practices, which arise due to HR differentiation. Therefore, future research could improve on this design by, for instance, collecting objective data from HR managers concerning HR differentiation.

Overall, it is important to note that the aforementioned limitations may have some implications on the findings of this study. More importantly, given the limitations of current practices in HR differentiation that I highlighted through my review of earlier studies, I therefore propose a future research agenda to act as a guide for future research.

5.7 Proposed Future Research

The study sought to examine the conditions under which firms use differentiated HR systems and employee reactions to HR differentiation. However, given the practical limitations of the study design—especially due to time and financial constraints, a framework for cross-level relationships seems a worthwhile research inquiry for the future. In other words, a multi-level analysis to account for contextual factors would enrich our understanding of the antecedents and effects of HR differentiation for employee attitudes. This approach is consistent with Wright and Nishii (2007) who asserted that in order to provide a deeper understanding of the HR-performance link, scholars need to come up with comprehensive theories that integrate across various levels of analysis within a single study. For this suggested multi-level study, data for the antecedents of differentiation, such as firm strategy, management-employee cooperation, union density, environmental dynamism and technological opportunities would be sought from several senior executives, including CEOs, unit heads and HR director/managers because it requires

higher levels of abstraction. By senior executives, I refer to those decision-makers who proactively analyse internal and external environments and determine the required set of HR practices within organisations (Wright & Nishii, 2007). Data for employee reactions to HR differentiation could be sought from individual employees, teams and various employee categories, including knowledge-based, job-based and contract employees. Such a multi-level approach would offer clearer insights regarding the antecedents and consequences of HR differentiation.

Second, to examine the antecedents of differentiation, I would also encourage researchers to incorporate other factors beyond those highlighted by the ILM theory, the Flexible Firm model, and Job-Based model. Contingency Theory, for instance, calls for organisations to find the right 'fit' by identifying a host of contingencies likely to influence HRPs, including strategy firm size, technological intensity and industry sector (e.g., Baird & Meshoulam, 1988; Delery, 1998; Delery & Doty, 1996; Jackson et al., 1989; G. Morgan, 1986; Venkatraman, 1989). Put differently, while the factors I identified are grounded in extant research, including the Internal Labour Market theory, the Flexible Firm model and Job-Based framework, there are a wide array of other contextual factors that may exert a unique influence on intraorganisational variability in HR/employment systems.

Third, my approach has been to assume that contextual factors interact with human capital strategic value and uniqueness associated with jobs to predict employment arrangements. It is possible that some contextual factors may interact with each other to predict employment arrangements. Thus, future research may consider contextual interactions.

Fourth, to investigate the effect of HR differentiation for employee attitudes, I would encourage researchers to examine both within and between job variations in HR practices. In other words, since differentiation involves differential employee treatment depending on the job category they occupy, the job group is the appropriate HR practices referent. Scholars could then group data to four job categories representing knowledge-based, job-based, and contract workers, and partnerships or alliance workers. Such an approach could offer further insights regarding the

effect of HR differentiation for employee attitudes. Moreover, several employee attitudes and behaviours could be considered, including employee creativity and organisational citizenship behaviours (OCBs), given their strong implications for firm performance.

Fifth, I encourage further research into HR differentiation, and identify which bundles of HR practices should be differentiated. Kang et al. (2007) argued that HR practices can be clustered into three bundles: (1) Development HR systems (such as training, job rotation, and skill development); (2) employee relations HR systems, including giving employees job autonomy, discretion and the opportunity to perform and participate; and (3) performance HR systems, which include performance appraisals, benefits and incentives. Similarly, the ability, motivation and opportunity (AMO) framework (Appelbaum et al., 2000) identifies three components of HRPs: ability-, motivation-, and opportunity enhancing HRPs (See also Jiang et al., 2012b; Jiang et al., 2012a; Subramony, 2009). Which of these bundles of HR practices should be differentiated and which ones should not? It may be that it is beneficial for organisations to differentiate some but not all their HR practices.

Sixth, consistent with Eyamu (2016), further research may test the proposed model in both developed (i.e. western) and developing (e.g. African) countries to determine the extent to which firms in the respective countries might differ regarding the use of differentiated HR systems. The reason for this recommendation is that national culture also influences socio-cultural, legal and political environments within countries, which in turn, may also influence the extent to which variations in HR systems might be applied (Jackson & Schuler, 1995). Therefore, the development of management scholarship, capable of harnessing and building on the expanding workforce towards developing effective enterprises in several institutional contexts, is paramount given the presence of multi-national corporations (MNCs) whose operations need to be shaped by such empirical approaches. In other words, replication of this study is critical to further cross-validate the findings of this study.

Sixth, future research could build on this work by conducting a longitudinal study. This recommendation is made because a longitudinal study may facilitate the establishment of causal

relationships that are essential in understanding the antecedents and consequences of differentiation. For instance, data for the antecedents of differentiation could be collected in time (T1), HR practices and human capital strategic value and uniqueness in T2, and employee attitudes and behaviours in T3. Such a study would provide a comprehensive and robust dataset that is needed to fully capture the complex nature of HR differentiation. Overall, it is my hope that this thesis will contribute to the important conversation on the antecedents and consequences of HR differentiation.

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APPENDICES

Appendix 1: Management Survey

SECTION A: INTRODUCTION & SETUP

Good morning/afternoon/evening. I'm (name) calling on behalf of the University of Melbourne. We'd like to speak with <Named Contact / the most senior manager responsible for staff>

IF NECESSARY: We're following up on a letter that was recently sent on behalf of the University of Melbourne, Faculty of Business and Economics to ask you to take part in a confidential national study into the work of manufacturing businesses.

We got your contact details from Dun and Bradstreet. This survey is entirely voluntary, and you may withdraw from the project at any stage. Your consent to participate is indicated simply by completing the survey. Any information you provide will remain completely confidential and will not identify you in any way. The survey takes 15-20 minutes on average.

This project has received clearance from the Human Research Ethics Committee, HREC no: 1545154.1. If you have any concerns about the conduct of this project, please contact the Executive Officer, Human Research Ethics, The University of Melbourne, ph (03) 8344 2073, fax: (03) 9347 6739.

SECTION B: EMPLOYMENT ARRANGEMENTS

MS1 The following questions are about jobs in your workplace.

MS1a Approximately, what is the total number of employees in this workplace?_____

MS1b Previous research into the manufacturing sector has identified three different modes of employment:

Knowledge-based roles are where firms develop and cultivate the knowledge, skills and abilities of their workers over time. These employees' development is important for contributing to the longer-term needs of the firm (e.g. HR Managers, Chief Financial Officers, designers, apprentices).

Task-based roles are where employees are hired to contribute immediately to the firm by performing a specific set of tasks or duties relating to producing goods or services. Employees are accountable for meeting relatively short-term performance objectives (e.g. assembly workers, fabricators, plant operators).

Support staff roles are those where employees are engaged to perform limited and routine jobs that are not directly related to the production of goods or services (e.g. cleaners, clerks).

So, thinking about these categories, approximately, what proportion of your workforce is employed under each of the following employment arrangements?

Please note, some workers may fall into multiple categories

- A **Knowledge-based employment**
- B **Task-based employment**
- C **Support staff**

RESPONSE SET

PROMPT IF NECESSARY

- 01 None
- 02 1-20%
- 03 21-40%
- 04 41-60%
- 05 61-80%
- 06 81-100%

IF HIGHEST RESULT FROM MS1B(A-C) IS TIED, CONTINUE, ELSE SKIP TO EMPLOYMENT ARRANGEMENT ASSIGNMENT.

MS1bx Which of the following categories has the highest number of employees?

ONLY REPRODUCE THE TIED CODES + "04", "99"

- 01 Knowledge-based employment
- 02 Task-based employment
- 03 Support staff
- 04 (DO NOT READ) They are equal

99 (DO NOT READ) Don't know

IF MS1BX=04 OR 99, CONTINUE, ELSE SKIP TO EMPLOYMENT ARRANGEMENT ASSIGNMENT.

MS1by In that case, which of those employment arrangements are you most familiar with?

ONLY REPRODUCE THE TIED CODES

PROMPT IF NECESSARY

- 01 Knowledge-based employment
- 02 Task-based employment
- 03 Support staff

ANALYST: ASSIGN SELECTED EMPLOYMENT ARRANGEMENT AS THE HIGHEST NUMERICAL SCORE FROM QUESTIONS MS1B(A-C) OR RESPONSE FROM MS1BX OR MS1BY.

MS1c Please indicate up to (3) specific job titles which fall under the [SELECTED EMPLOYMENT ARRANGEMENT] in your workplace.

- 1. (ENTER TITLES) _____
- 2. _____
- 3. _____

Job Characteristics

MS2 The following statements are about the skills, expertise, and knowledge levels of employees under the [SELECTED EMPLOYMENT ARRANGEMENT].

[“SELECTED EMPLOYMENT ARRANGEMENT”: **ANALYST: REPRODUCE DEFINITION FROM ORIGINAL QUESTION**]

MS2a Please indicate whether you agree or disagree with the following statements about how important those employee skills are.

Employees in the [SELECTED EMPLOYMENT ARRANGEMENT] have skills that...

HCV1 are instrumental for creating innovations.

HCV2 create customer value.

HCV3 enable our firm to provide exceptional customer service.

HCV4 contribute to the development of new markets or products or service opportunities.

HCV5 are needed to maintain high quality products/services.

RESPONSE SET

READ OUT

- 01 Strongly disagree
- 02 Disagree
- 03 Neither agree nor disagree
- 04 Agree
- 05 Strongly agree
- 99 (DO NOT READ) Don't know

MS2b Please indicate whether you agree or disagree with the following statements about how specialized those employee skills are.

Employees in the [SELECTED EMPLOYMENT ARRANGEMENT] have skills that...

- U1 are not available to our competitors.
- U2 are developed through on-the-job experiences.
- U3 are difficult for our competitors to buy away from us.
- U4 are difficult for our competitors to imitate or duplicate.

RESPONSE SET

READ OUT

- 01 Strongly disagree
- 02 Disagree
- 03 Neither agree nor disagree
- 04 Agree
- 05 Strongly agree
- 99 (DO NOT READ) Don't know

Alliances

MS3 The following questions are about alliances. **READ OUT:** we define 'alliances' as mutual partnerships with independent or external parties or subcontractors to jointly perform projects or tasks, for example temporary help agencies.

MS3a Does your workplace use alliances?

PROMPT IF NECESSARY

- 01 Yes
- 02 No
- 99 (DO NOT READ) Don't know

Union Density

MS4 What proportion of employees in your workplace are members of a union?

PROMPT IF NECESSARY

- 01 20% or less
- 02 21-40%
- 03 41-60%
- 04 61-80%
- 05 81-100%
- 99 (DO NOT READ) Don't know

Management- Employee Cooperation

MS5 The following statements are about the levels of collaboration between management and employees at this workplace.

MS5a Please indicate whether you agree or disagree with the following statements.

EMC1 Management and employees work together to make this workplace a better place in which to work.

EMC2 Management and employees have respect for each other's goals.

EMC3 The parties in this workplace keep their word.

EMC4 There is a great deal of concern for the other party's point of view in the management-employee relationship.

EMC5 In this workplace negotiations take place in an atmosphere of good faith.

EMC6 The outcome of negotiations is regarded as fair by employees in this workplace.

EMC7 Employees generally view the conditions of their employment here as fair.

EMC8 A sense of fairness is associated with management-employee dealings in this place.

EMC9 In this workplace, joint management-employee committees achieve definite results.

EMC10 Employees have a positive view on joint management-employee committees here.

RESPONSE SET

READ OUT

- 01 Strongly disagree
- 02 Disagree
- 03 Neither agree nor disagree
- 04 Agree
- 05 Strongly agree
- 99 (DO NOT READ) Don't know

Strategic Orientation

MS6 The following statements are about the long-term action plan(s) of your workplace.

MS6a Please rate the following factors with respect to their relative importance in your workplace's general business plans.

So, how important is [*items IS1-IS4*]? Would you say...

IS1 Undertaking research and development.

IS2 Developing new products/services.

IS3 Developing new production/operating techniques

IS4 Being "first to the market" with new products/services.

RESPONSE SET

READ OUT

01 Not important

02 Slightly important

03 Important

04 Very important

05 Crucial

99 (DO NOT READ) Don't know

MS6b Please rate the following factors with respect to their relative importance in your workplace's general business plans.

So, how important is [*items A-D*]? Would you say...

CR1 Reducing labour costs.

CR2 Minimising production and service delivery costs.

CR3 Using part-time, temporary, or contract workers.

RESPONSE SET

READ OUT

01 Not important

02 Slightly important

03 Important

04 Very important

05 Crucial

99 (DO NOT READ) Don't know

Market Conditions

MS7 The following statements are about the market in which your workplace operates. Please indicate whether you agree or disagree

ED1 Business changes in your local market are intense.

- ED2 Your clients regularly ask for new products and services.
ED3 In your local market, changes are taking place continuously.
ED4 In a year, nothing has changed in your market (R).
ED5 In your market, the volumes of products and services to be delivered change fast and often.

RESPONSE SET

READ OUT

- 01 Strongly disagree
02 Disagree
03 Neither agree nor disagree
04 Agree
05 Strongly agree
99 (DO NOT READ) Don't know

Technological Opportunities

MS8 The following statements are about the technological opportunities of your workplace's environment.

Please indicate whether you agree or disagree with the following statements.

- TO1 Opportunities for product innovation are abundant in your major industry.
TO2 Opportunities for technological innovation are abundant in your industry.
TO3 Opportunities for major technological breakthroughs are abundant in your major industry.
TO4 Spending on research and development is higher in your major industry than in most industries.

RESPONSE SET

READ OUT

- 01 Strongly disagree
02 Disagree
03 Neither agree nor disagree
04 Agree
05 Strongly agree
99 (DO NOT READ) Don't know

SECTION C: ESTABLISHMENT AND MANAGERS' INFORMATION

MS10 What is your job title? _____

MS11 For how many years has this organization been in operation?

PROMPT IF NECESSARY

- 01 Less than 1 year
- 02 1 to less than 5 years
- 03 5 to less than 10 years
- 04 10 to less than 15 years
- 05 15 to less than 20 years
- 06 20 to less than 25 years
- 07 25 years or more
- 99 (DO NOT READ) Don't know

MS12 Would you classify your organization as a private or public sector?

PROMPT IF NECESSARY

- 01 Private sector
- 02 Public sector
- 99 (DO NOT READ) Don't know

MS13 Is this organization predominantly Australian or foreign owned?

PROBE FULLY

- 01 Australian Owned / Controlled
- 02 Majority Australian Owned (51% or more)
- 03 Australian and Foreign Owned
- 04 Majority Foreign Owned (51% or more)
- 05 Foreign Owned / Controlled
- 99 (DO NOT READ) Don't know

MS14 Would your workplace like to have a copy of the summarised research findings?

PROMPT IF NECESSARY

- 01 Yes
- 02 No

MS15 Could you please supply the best email address so that the summary of the research findings can be sent to the appropriate person? _____

SECTION D: CLOSE

Thank you, that was my last question. Once again my name is <INT_NAME>. The survey has been conducted on behalf of the University of Melbourne.

Appendix 2: Employee Survey

SECTION A: INTRODUCTION & SETUP

Welcome to the Study on Working Australians

Thank you for taking part in this important study. The study is being conducted by The University of Melbourne, Faculty of Business and Economics. [Name of contracting company] has been contracted to collect information for this study on behalf of the University.

The aim of this study is to collect your insights on your work and employment arrangements. This questionnaire asks questions about things including your job, your supervisors, and management practices that operate within your workplace. This information is collected so that we can develop a picture of what work is like for Australians. A summary report of this study will be distributed to participating employees. If you would like a copy sent to you, please indicate this at the end of the survey.

This survey is entirely voluntary, and you may withdraw from the project at any stage. Your consent to participate is indicated simply by completing the survey. Any information you provide will remain completely confidential and will not identify you in any way.

If you experience any difficulty completing the survey, please call [Name of contracting company] on [Name of contracting company's phone number, and calling hours] and they will be able to assist you.

This project has received clearance from the Human Research Ethics Committee, HREC no: 1545154.1. If you have any concerns about the conduct of this project, please contact the Executive Officer, Human Research Ethics, The University of Melbourne, ph (03) 8344 2073, fax: (03) 9347 6739.

SECTION B: EMPLOYEE PERCEPTIONS

ES1: Perceived differentiation of HR practices

The following statements are about HR practices which apply to your job. Please indicate whether you received less, the same amount or higher than your co-workers.

Co-workers in your direct working environment are those employees you have frequent contact with and who perform more or less the same job.

Compared to co-workers in your direct working environment

HRP1. Which of the following statements best describes your access to bonuses in addition to your wage in your current job?

- 1 = I receive much lower bonuses.
- 2 = I receive somewhat lower bonuses.
- 3 = I receive equal bonuses.
- 4 = I receive somewhat higher bonuses.
- 5 = I receive much higher bonuses.
- 6 = Not applicable: no one in my direct working environment receives bonuses.

HRP2. Which of the following statements best describes your access to benefits. We define benefits as all additional benefits on top of your wage, such as a company car, phone, laptop, health insurance, etc.

- 1 = I receive much lower benefits.
- 2 = I receive somewhat lower benefits.
- 3 = I receive equal benefits.
- 4 = I receive somewhat higher benefits.
- 5 = I receive much higher benefits.
- 6 = Not applicable: no one in my direct working environment receives benefits.

HRP3. Which of the following statements best describes your access to a coach or mentor. A coach or mentor is an experienced co-worker formally appointed to give you advice on how to improve your job performance and career advice.

- 1 = I don't have access to a coach or mentor, but some co-workers in my direct working environment do
- 2 = I have access to a coach or mentor, just like all co-workers in my direct working environment
- 3 = I have access to a coach or mentor, but not every co-worker in my direct working environment does
- 4 = Not applicable: no one in my direct working environment has access to a coach or mentor

HRP4. Which of the following statement best describes your access to development appraisals. Development appraisals are formal conversations in which your functioning, strengths and weaknesses are discussed as well as actions to improve your functioning in the future.

- 1 = I don't receive development appraisals, but some co-workers in my direct working environment do
- 2 = I receive development appraisals, just like all co-workers in my direct working environment
- 3 = I receive development appraisals, but not every co-worker in my direct working environment does
- 4 = Not applicable: no one in my direct working environment receives development appraisals

HRP5. Which of the following statements best describes your access to training? By training we mean the provision of employees with the knowledge and skills needed to do their jobs, tasks or duties. It could be on-the-job and/or off-the-job training.

- 1 = I receive much lower training.
- 2 = I receive somewhat lower training.
- 3 = I receive equal training.
- 4 = I receive somewhat higher training.
- 5 = I receive much higher training.
- 6 = Not applicable: no one in my direct working environment receives training.

HRP6. Which of the following statement best describes your autonomy? Autonomy means the degree to which you can independently decide how to perform your job.

- 1 = I receive much lower autonomy.
- 2 = I receive somewhat lower autonomy.
- 3 = I receive equal autonomy.
- 4 = I receive somewhat higher autonomy.
- 5 = I receive much higher autonomy.
- 6= Not applicable: no one in my direct working environment receives autonomy.

HRP7. Which of the following statement best describes your flexibility in your job? With flexibility, we mean the degree of freedom you have in choosing your working hours and work location.

- 1 = I receive much lower flexibility.
- 2 = I receive somewhat lower flexibility.
- 3 = I receive equal flexibility.
- 4 = I receive somewhat higher flexibility.
- 5 = I receive much higher flexibility.
- 6= Not applicable: no one in my direct working environment has flexibility.

HRP8. Which of the following statement best describes your opportunities for participation? With participation, we mean that you are asked to voice your opinion on matters and decisions that influence you and your working environment.

- 1 = I have much less opportunities for participation.
- 2 = I have somewhat less opportunities for participation.
- 3 = I have equal opportunities for participation.
- 4 = I have somewhat more opportunities for participation.
- 5 = I have much more opportunities for participation.
- 6= Not applicable: No one in my direct working environment has opportunities for participation.

How you interact with your Supervisor

ES2. The following statements are about the quality of the relationship between you and your supervisor. Please indicate whether you agree or disagree with the following statements.

<i>Items</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neither agree nor disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
LMX1. My supervisor would be personally inclined to help me solve problems in my work.	1	2	3	4	5
LMX2. My working relationship with my supervisor is effective.	1	2	3	4	5
LMX3. I have enough confidence in my supervisor that I would defend and justify his/her decisions if he or she were not present to do so.	1	2	3	4	5
LMX4. My supervisor considers my suggestions for change.	1	2	3	4	5
LMX5. My supervisor and I are suited to each other.	1	2	3	4	5
LMX6. My supervisor understands my problems and needs.	1	2	3	4	5
LMX7. My supervisor recognizes my potential.	1	2	3	4	5

How content you are with your job

ES3. The following statements are about how satisfied or dissatisfied you are about your job. Please indicate whether you agree or disagree with the following statements.

<i>Items</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neither agree nor disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
JS1. All in all, I am satisfied with my job.	1	2	3	4	5
JS2. In general, I like working here.	1	2	3	4	5
JS3. All things considered, I am satisfied	1	2	3	4	5

with my current job.					
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Plan to leave your position

ES4. The following statements ask you to indicate whether you intend to stay or leave this workplace in the next 12 months.

<i>Items</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neither agree nor disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
TI1. I intend to look for a job outside of this organisation within the next year.	1	2	3	4	5
TI2. I often think about quitting my job at this organisation.	1	2	3	4	5
TI3_R. I intend to remain with this organisation for the near future.	1	2	3	4	5

Fairness at Work

ES5. The following statements are about your perceptions of the fairness in your workplace. To what extent do the rewards (e.g., incentives, pay, stock-options, etc) you have received at your current workplace...

	<i>Not at all</i>	<i>To a low extent</i>	<i>To a moderate extent</i>	<i>To a large extent</i>	<i>To a very large extent</i>
PDJ1. reflect the effort you have put into your work?	1	2	3	4	5
PDJ2. appropriate for the work you have completed?	1	2	3	4	5
PDJ3. reflect what you have contributed to the organization?	1	2	3	4	5
PDJ4. justified, given your performance?	1	2	3	4	5

ES6. The following statements refer to the formal procedures used to make decisions to allocate rewards in your workplace. To what extent...

	<i>Not at all</i>	<i>To a low extent</i>	<i>To a moderate extent</i>	<i>To a large extent</i>	<i>To a very large extent</i>
PPJ1. have you been able to express your views and feelings during those procedures?	1	2	3	4	5
PPJ2. have you had influence over the pay arrived at by those procedures?	1	2	3	4	5
PPJ3. have those procedures been applied consistently?	1	2	3	4	5
PPJ4. have those procedures been free of bias?	1	2	3	4	5
PPJ5. have those procedures been based on accurate information?	1	2	3	4	5

PPJ6. have you been able to appeal the pay arrived at by those procedures?	1	2	3	4	5
PPJ7. have those procedures upheld ethical and moral standards?	1	2	3	4	5

Support at Work

ES7. The following statements are about the support you receive at work. Please indicate whether you agree or disagree with the following statements.

<i>Items</i>	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Neither agree nor disagree</i>	<i>Agree</i>	<i>Strongly agree</i>
POS1. My workplace strongly considers my goals and values.	1	2	3	4	5
POS2. My workplace really cares about my well-being.	1	2	3	4	5
POS3_R. My workplace shows little concern for me.	1	2	3	4	5
POS4. My workplace would forgive an honest mistake on my part.	1	2	3	4	5
POS5. My workplace cares about my opinions.	1	2	3	4	5
POS6_R. If given the opportunity, my workplace would take advantage of me.	1	2	3	4	5
POS7. Help is available from my workplace when I have a problem.	1	2	3	4	5
POS8. My workplace is willing to help me when I need a special favour.	1	2	3	4	5

SECTION C: ABOUT YOU

ES8. What is the approximate range of employees on this workplace's payroll?

1. 1-19
2. 20-49
3. 50-199
4. 200-499
5. 500-999
6. 1000 or more

ES9. How old are you? _____ years

ES10. What is your gender?

1. Male
2. Female

ES11. Where do you live?

1. New South Wales
2. Victoria
3. Queensland
4. South Australia

5. Western Australia
6. Northern Territory
7. Tasmania
8. Australian Capital Territory

ES12. Which of the following best describes your contract of employment?

1. Employed on a permanent or ongoing basis.
2. Employed on a fixed term contract.
3. Employed on a casual basis.
4. Other (please specify) _____

ES13. To what industry does this company belong?

1. Agriculture, forestry, and fishing
2. Mining
3. Manufacturing
4. Construction
5. Wholesale trade
6. Retail trade
7. Accommodation, cafes, and restaurants
8. Transport, Postal and Warehousing
9. Electricity, Gas and Water
10. Information, Media and Telecommunication services
11. Finance and Insurance
12. Rental, Hiring and Real Estate services
13. Education and Training
14. Health Care and Social Assistance services
15. Arts and Recreational services
16. Public Administration and Safety
17. Administrative and Support Services
18. Professional, Scientific and Technological Services
19. Other Services (e.g., Religious and Personal Services)

ES14. How long have you worked in your **current position?** _____years_____months.

ES15. Now, concerning your **work place.** how many years have you been employed so far?
 _____years_____months.

ES16. Are you currently a member of a trade union?

1. Yes
2. No

ES17. Do you supervise other staff?

1. Yes
2. No

ES18. What is the highest educational qualification you have completed?

1. Did not complete High School

2. Completed high school
3. TAFE/Technical course
4. Diploma
5. Bachelor's degree or equivalent
6. Master's degree or equivalent
7. PhD or equivalent

SECTION D: CLOSE

ESC. That's the end of the survey. Thank you very much for your time today.

Appendix 3: Study 2 Sample Demographics

Sample Demographic Characteristics (n = 733)

	Frequency	Percent (%)	Standard Deviation (SD)
Gender			.50
Male	373	50.9	
Female	360	49.1	
Union membership			.44
Yes	194	26.5	
No	539	73.5	
Educational level			1.44
Did not complete High School	27	3.7	
Completed high school	106	14.5	
TAFE/Technical course	149	20.3	
Diploma	121	16.5	
Bachelor's degree or equivalent	226	30.8	
Master's degree or equivalent	91	12.4	
PhD or equivalent	13	1.8	
Staff Supervision			.50
Yes	383	52.3	
No	350	47.7	
Location			1.59
New South Wales	233	31.8	
Victoria	185	25.2	
Queensland	149	20.3	
South Australia	64	8.7	
Western Australia	72	9.8	
Northern Territory	5	0.7	

Tasmania	17	2.3	
Australian Capital Territory	08	1.1	
<hr/>			
Industry			
<i>Primary industry sectors</i>			
Agriculture, forestry, and fishing	13	1.8	.13
Mining	19	2.6	.16
<i>Secondary industry sectors</i>			
Manufacturing	53	7.2	.26
Construction	37	5.0	.22
<i>Tertiary industry sectors</i>			
Wholesale trade	22	3.0	.17
Retail trade	83	11.3	.31
Accommodation, cafes, and restaurants	23	3.1	.17
Transport, Postal and Warehousing	49	6.7	.25
Electricity, Gas and Water	13	1.8	.13
Information, Media and Telecommunication services	48	6.5	.25
Finance and Insurance	51	7.0	.26
Rental, Hiring and Real Estate services	9	1.2	.11
Education and Training	96	13.1	.34
Health Care and Social Assistance services	96	13.1	.34
Arts and Recreational services	15	2.0	.14
Public Administration and Safety	62	8.5	.28
Administrative and Support Services	10	1.4	.12
Professional, Scientific, and Technological Services	20	2.7	.16
Other Services (e.g. Religious and Personal Services)	14	1.9	.14
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Organisational size			1.53
20-49	151	20.6	
50-199	204	27.8	
200-499	97	13.2	
500-999	72	9.8	

1000 or more	209	28.5	
Contract of employment			.69
Employed on a permanent or ongoing basis.	588	80.2	
Employed on a fixed term contract.	53	7.2	
Employed on a casual basis.	92	12.6	

Appendix 4: Summary of selected empirical data on HR differentiation

Author/year	Title	Research question (aim)	Method	Key research findings	Future research agenda
Lepak and Snell (2002)	Examining the Human Resource Architecture: The relationships among human capital, employment and HR configuration	To investigate the relationship between human capital, employment arrangements and HR configurations	-Data obtained from 148 US based firms across various industries -Employment arrangement unit of analysis -ANOVA & ANCOVA.	-Human capital value and uniqueness is embodied differently across knowledge work, job based employment, contract work and alliances/partnerships -Firms use different HR configurations for the various employment arrangements	-Investigate additional factors influencing employment decisions -Longitudinal study to address reciprocal causality and endogeneity
Lepak et al. (2003)	Employment flexibility and firm performance: Examining the interaction effects of employment mode, environmental dynamism, and technological intensity	-To examine how the differentiated HR systems impact firm performance -Examine contextual factors likely to moderate the relationship between employment arrangements and firm performance	-Data obtained from 148 US based firms across various industries - Employment arrangement unit of analysis -Moderated hierarchical regression analysis	-Employment arrangements influence firm performance. -Technological intensity moderates the relationship between employment arrangements and firm performance.	-Further test the arguments in a different sample of firms. -Assess the benefits associated with differentiated HR systems over a long period of time.
González and Tacorante (2004)	A new approach to the best practices debate: are best practices applied to all employees in the same way?	To determine whether there are differences in HR systems based on the specific characteristics of jobs.	-Data obtained from 375 Spanish companies. -Firm level unit of analysis. -ANOVA and Scheffe's test.	- Employees high in value and uniqueness are most likely to have rigorous personnel section, extensive training, better compensation packages, and better working conditions than other employee groups.	-Need to focus on external contingencies likely to influence the use of differentiated HR systems.

Author/year	Title	Research question (aim)	Method	Key research findings	Future research agenda
Lepak et al. (2007)	An examination of the use of high-investment human resource (HIHR) systems for core and support employees	-To investigate whether establishments provide greater levels of HIHR systems for core employees than for support employees -Examine the factors likely to moderate the use of HIHR systems for core and support employees	-Data obtained from 420 (351 manufacturing and 69 nonmanufacturing) US establishments -Establishment level unit of analysis. -ANCOVA and paired t-tests	- Core employees in nonmanufacturing establishments received higher HIHR investments than support employees. - Industry membership influences the relative use of HIHR systems for core and support employees	-Investigate additional factors such as social and institutional factors, likely to influence variability in the HIHR systems use. -Research assessing whether there is an optimal level of within-establishment variability in HIHR system use for core and support workers.
Björkman et al. (2013)	Talent or not talent? Employee reactions to talent identification	To analyse the association between employee perception about whether or not they have been identified as “talent” and employee attitudes related with positive firm outcomes	-Data obtained from 769 managers and professionals from 90 multinational enterprise (MNE) in 9 Nordic corporations. -Unit of analysis: firm level -Data analysis was through MANCOVA	- Employees who were identified as talent accepted increased performance demands, were committed to building competencies, supported the firm’s strategic priorities, easily identified themselves with the organization and/or business unit, and showed less turnover intentions.	-Possibility of reverse causality; hence, need for longitudinal research. -Need to investigate the potential long term effects of talent identification for employees as those not considered as talent might sabotage firm performance.
Marescaux et al.	HR practices and	-Investigate how	-Data obtained from	-Perceived favourability of	-Assess other

Author/year	Title	Research question (aim)	Method	Key research findings	Future research agenda
(2013)	affective organisational commitment: (when) does HR differentiation pay off	HR differentiation influences AOC	13,639 employees from the Belgian public sector. -Individual level unit of analysis. - SEM by M-plus	HR practices is positively related to affective organizational commitment -The relationship between perceived favourability of HR practices and AOC is moderated by HR practices involving socio-emotional resources than economic ones.	factors likely to moderate the use of differentiated HR systems including organisational pressures, management-employee relations, among others.
Stirpe et al. (2014)	Differentiating the workforce: The performance effects of using contingent labor in a context of high-performance work systems (HPWS)	To find out if HPWS are more effective when used in contexts where a contingent workforce is also deployed, or in contexts of a uniform culture where the entire workforce consists of standard employees.	-Data obtained from the Workplace Employment Relations survey comprising of all sectors of the UK economy -Firm level unit of analysis. -OLS regression	-Contingent employment moderates the relationship between HPWS and firm performance such that the higher the incidence of contingent employees, the lower the performance payoff of HPWS.	-Need for further research to deal with potential simultaneity and reverse causality between HPWS and workplace performance. -Investigate ways in which firms may utilize HPWS effectively for both contingent and standard workers.
Bidwell and Keller (2014)	Within or without? How firms combine internal and external labour markets to fill jobs	-Investigate the conditions under which firms combine internal and external labour markets to fill jobs	-Data obtained from a large US investment bank for the period 2003-2009. -Firm level unit of analysis. -Multinomial logit model	- Job characteristics influence how they are filled: jobs with higher performance variability and a large grade ratio of junior to senior workers are more likely to be filled internally. -The development of firm	-Research on the factors that shape employee mobility within jobs is needed. -Investigate other factors likely to influence staffing

Author/year	Title	Research question (aim)	Method	Key research findings	Future research agenda
				specific skills is likely to be more common when jobs require high levels of performance variability.	decisions.
Schmidt et al. (2008)	Strategic HR system differentiation between jobs: The effects on firm performance and employee outcomes	To examine whether firm apply human resource management occupations within the same organisation (HR differentiation) and how the extent to which they do so may influence firm and employee outcomes	Two studies were conducted: For study 1, data was collected from Amazon Mechanical Turk website from 163 occupation groups nested within 203 organisations. For study 2, which was linked to study 1, data was collected from 531 occupation groups provided by 197 employees.	<ul style="list-style-type: none"> -Firms differentiate employees based on the strategic value associated with jobs. -Human capital strategic value is positively associated with firm performance -Employees who were recipients of 'lower-road' HRPs had lower fairness perceptions, which in turn were associated with higher turnover intentions and lower organisational citizenship behaviours. 	<ul style="list-style-type: none"> - Investigate whether the financial benefits of differentiation offset the possible negative effects on the well-being of some employees. -Examine the extent to which management philosophy and organisation culture might influence the adoption of differentiated HR systems. -Collect 'objective' data information concerning actual differentiation.