

**HIGH AND LOW ROAD APPROACHES TO THE
MANAGEMENT OF HUMAN RESOURCES: AN
EXAMINATION OF THE RELATIONSHIP BETWEEN
BUSINESS STRATEGY, HUMAN RESOURCE
MANAGEMENT AND HIGH PERFORMANCE WORK
PRACTICES.**

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The Contingency approach to human resource management leads to the hypothesis that High Performance Work Practices (HPWP) are more compatible with 'High Road' business strategies that emphasize product differentiation through quality and innovation. More traditional human resource management is better suited to 'Low Road' business strategies that emphasise cost control and competition based primarily on price. Using data collected from a sample of 179 large Australian workplaces we tested the contingencies that influence HPWP implementation and impact. Our results support the Contingency approach in that High Road organisations are more likely to adopt HPWP and the Universal approach in that both High and Low Road organisations derive equal benefit from the implementation of HPWP. High Road organisations may be more likely to adopt HPWP because they see more benefit from their introduction or they may find it easier to implement HPWP because they have a less prohibitive union presence, a theory Y management attitude and a longer-term time horizon.

Introduction

The Human Capital approach to Human Resource Management proposes that, unlike traditional sources of competitive advantage, a quality, motivated workforce is a source of competitive advantage that is difficult for competitors to replicate (Luthans and Sommer, 2005). Research has indicated that High Commitment Work Practices (HCWP) rather than high control practices are a vehicle for creating such a workforce. High control practices take the “Low Road” to competitive advantage and are designed to produce reliable but not outstanding performance that cannot match the standards of excellence set by world-class competitors. HCWP take the “High Road” to competitive advantage by providing an environment that facilitates worker commitment, resulting in mutually beneficial outcomes for both employees and organisations (Walton, 1985).

Various terms have been used in research on new work methods that are based on commitment rather than control. These include “High Involvement Work Systems”, “Progressive Work Practices” and “High Performance Work Systems or Practices”. There is no single agreed-upon definition or consensus, although common themes have been identified (Gephardt and Van Buren, 1996; Wright and Snell, 1998). In this research we will use the term High Performance Work Practices (HPWP) which is in most common use. Orlitzky and Frenkel (2005) propose that the wide scope of the HPWP paradigm, that includes widely different model specifications, and the appeal of its underpinning assumptions, has meant that it has persisted despite variable empirical evidence that indicates the need for

theoretical and methodological refinement (Dyer and Reeves, 1995; Becker and Gerhart, 1996; Becker and Huselid, 1998; Gerhart et al., 2000; Guest, 2001; Guest et al., 2003).

Despite methodological problems, research to date points to a positive relationship between HPWP and organisational outcomes, however, our understanding of the way in which HRM is linked to organisation performance is limited. Guest (1997) proposes that there is a growing body of evidence supporting an association between HPWP and organisation performance, but not much on why the association exists. Most work on HPWP has examined only the direct relationship between a set of management practices and performance outcomes and whilst the link between HPWP and organisational performance is accepted, the mechanics of the linkages are considered a 'black box' with empirical and theoretical gaps (Luthans & Sommer, 2005).

In addition to this, given the research supporting the link between HPWP and performance, it is not clear why many organisations have failed to adopt a full suite of these practices. This is even more surprising when there is some evidence that these practices are most effective when they are implemented together as a system or bundle of complementary highly-related and overlapping practices (Pfeffer and Veiga, 1999). Truss (2001) found that there was frequently a discrepancy between intention and practice and that even successful organisations do not always implement best practice human resource management (HRM). There have been varying explanations for this. Skinner (1981:106-14) proposed that

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HRM is ineffectual saying that "human resources management seems to be mostly good intentions and whistling in the dark" and that HRM is "Big Hat, No Cattle", whilst Armstrong (1987) describes HRM as a "wolf in sheep's clothing" that uses rhetoric to facilitate the introduction of HRM practices that advantage organisations at the expense of employees. In this latter paradigm High Road practices that are commonly regarded as enabling, emulate coercive Low Road models unintentionally or because of multiple management goals (Orlitzky and Frenkel, 2005). Managers indicate that the cost of making changes, a focus on the short-term, lack of management support and a culture that does not emphasise human resources, as barriers to adopting HPWP (Lawler et al. 1993). Pfeffer & Veiga (1999) propose that management resist changes that require them to surrender power to employees and have a short-term perspective that prevents effective implementation of HPWP. It has been proposed that research explaining the existence of HPWP in organisations will help address the question of limited adoption (Galang, 1999).

There are also mixed views on whether HPWP are suited to all contexts. The Universal or 'best practice' approach proposes that HPWP work in all contexts because organisations are facing a similar environment (Arthur, 1994; Huselid, 1995; Legge, 1995; MacDuffie, 1995; Delaney and Huselid, 1996). The Contingency or Strategic Human Resource Management (SHRM) approach argues that organisations with 'External' and 'Internal fit' will attain higher performance (Miles and Snow, 1984; Schuler and Jackson, 1987). External fit focuses on the alignment between the organisation's

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business strategy and human resource practices and internal fit focuses on an integrated set or synergistic combination of HRM practices which are implemented in a coherent and consistent manner (Guest, 1987; MacDuffie, 1995; Delery and Doty, 1996).

This research will examine the contingencies that moderate HPWP implementation and impact by conducting exploratory research on the following question:

Do High Road and Low Road organisations have different approaches to the management of Human Resources?

To achieve this aim, we conducted a national survey of human resource managers working in large public companies. The following section incorporates a review of the literature and develops the study's hypotheses. The Methods section outlines the sample and procedures and describes the measures and their validity and reliability. The Results section provides the outcomes of the hypothesis testing. Finally, the Conclusions section outlines the key findings of the study, outlines the limitations of the study and the need for future research and then considers the implications of the results for theory as well as practice.

Theory and Hypotheses

Our overall argument is that High Road organisations are more likely to have HRM policies and practices focused on Development Humanism and Low Road organisations are more likely to have HRM policies and practices

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focused on Utilitarian Instrumentalism. This proposition supports the Situational Contingency approach to HPWP.

This proposition was tested using Porter's (1980) competitive strategies to define High and Low Road organisations and Walton's (1985) concept of HCWP to define Developmental Humanism and Utilitarian Instrumentalism. Guest's (1987) concept of Strategic HRM and McGregor's (1960) theory X and Y dichotomy of management attitude were used to explore the antecedents of HPWP adoption and the moderators of HPWP consequents.

We hypothesise that High Road organisations, focusing on Porter's (1980) competitive strategies of quality and innovation, are more likely to have HRM policies and practices focused on Development Humanism because they need employees to use their discretionary effort to deliver innovation and quality. Low Road organisations, focusing on Porter's (1980) competitive strategy of cost, are more likely to have HRM policies and practices focused on Utilitarian Instrumentalism, which saves the cost of investing in human resources and the cost of retaining human resources when there are fluctuations in demand. Low Road organisations use 'Numerical Flexibility' (non standard employment) as a means of containing costs relative to demand by adjusting the quantity of labour employed. This approach assumes that labour is a net cost so that improving pay and conditions fundamentally conflicts with management's profit maximising goal. In contrast, High Road organisations use 'Functional Flexibility' which develops employee capabilities so that workers perform a wider range of

more highly skilled work tasks (Orlitzky and Frenkel, 2005).

Specifically, High Road organisations are more likely to have permanent employees, a long-term perspective, a theory Y management attitude (believing that employees are an important asset and are primarily self-motivated and self-controlled) and to introduce HPWP. If they do introduce HPWP, High Road organisations are more likely to be successful in producing positive human resource outcomes. Low Road organisations are more likely to seek Numerical Flexibility, have a short-term perspective, have theory X management (believing that employees are an expense of doing business and must be controlled by external sanctions) and less likely to introduce HPWP, and if they do introduce them, less likely to have positive outcomes.

In addition to this, High Road organisations are more likely to have an effective Human Resource Management function to facilitate their investment in HRM and less likely to have a union presence because they treat employees well, whilst Low Road organisations are more likely to have a poorly resourced, operational and Machiavellian HRM function and high union presence.

Strategy and HPWP

Schuler and Jackson use Porter's (1980; 1985) three generic strategy types of innovation, quality improvement and cost reduction to argue that different organisation strategies require different HRM responses. The Situational Contingency approach argues that an emphasis on cost requires HRM policies that are

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predominantly utilitarian and instrumental, while an organisation focussed on innovation or quality improvement strategies requires HRM policies that create a committed workforce. This is supported by Legge (1989) who argues that HRM practices can not be consistently applied to all organisations. In particular, she proposes that if all organisations adopt the same practices, they can not deliver competitive advantage and that practices that work in a price sensitive, high volume, commodity market may be inappropriate for a high quality, low volume market. Kinnie et al. (2000) concur and argue that the optimum policy is for organisations to develop an approach closely matched to their specific circumstances. This relationship was tested by Arthur (1992) who found a significant association between business strategy choice based on cost or differentiation business strategies and typed of workplace industrial relations system in U.S. minimills. Huselid (1997) also used Porter's (1985) dichotomy to assess whether returns to investments in a High Performance Work System would be greater for firms adopting a differentiation strategy over a cost strategy finding mixed support for his hypothesis. It is proposed that HPWP, which focus on the soft HRM strategy of Developmental Humanism, are more compatible with 'High Road' business strategies that emphasize quality and product differentiation. More traditional human resource management, which is focussed on Utilitarian Instrumentalism and Numerical Flexibility, is better suited to 'Low Road' business strategies that emphasise cost control and competition based primarily on price (Boxall and Macky, 2007; Legge, 1995; Youndt et al., 1996). Some studies have supported this proposition (Arthur, 1994; Dunlop and Weil, 1996;

MacDuffie, 1995; Datta et al., 2005). However, several authors argue that, despite its theoretical appeal and confirmation in some industry-specific studies, the contingency model has received little empirical support with most research indicating that a Best Practice approach, where HPWP is universally applicable in all organisations regardless of their type or context, is most successful (Delery and Doty, 1996; Purcell, 1999; Orlitzky and Frenkel, 2005). This approach is consistent with the resource based view of business strategy that proposes that sustained competitive advantage is built through value adding resources that are unique, rare, imperfectly imitable and not substitutable with another resource by competing firms (Barney, 1991). Human resources are a resource that meet these criteria and can help build sustained competitive advantage (Wright and McMahan, 1992; Wright et al., 2001). This study considers whether organisation strategy impacts on the adoption and success of HPWP by testing the following hypotheses.

H1a. Organisation strategy will be associated with the adoption of HPWP. High Road organisations that focus on gaining competitive advantage through innovation or quality are more likely to adopt HPWP.

H1b. Organisation strategy will be associated with the success of HPWP. Strategy will moderate the relationship between HPWP and HR outcomes. High Road organisations will get better HR outcomes from HPWP.

Strategy and the role of HRM

Strategic Human Resource Management (SHRM)

It has been proposed that HRM has evolved from administrator and record keeper to strategic partner and value added contributor (Becker et al., 2001; Cascio, 2003; Gelade and Ivery, 2003; Ramlall, 2003). SHRM adds value by ensuring that HRM is aligned with strategic planning (external or vertical integration); that HRM policies are compatible (internal or horizontal integration); and that HRM practices are used by line managers leading to consistent application (coherence) across HR and management (Guest, 1989).

The SHRM approach has theoretical appeal and its positive impact on organisational performance has been confirmed in some industry specific studies (Arthur, 1994; MacDuffie, 1995; Huselid, 1995; Huselid and Becker, 1996; Huselid et al., 1997). More recently, Green, Wu, Whitten and Medlin (2006) found that organisations that vertically align and horizontally integrate HR function and practices perform better. However, other theorists have argued that the SHRM model has received little empirical support, possibly for theoretical and empirical reasons (Becker and Huselid, 1998; Wright and Sherman, 1999; Boxall and Purcell, 2003). We believe SHRM is most likely to be implemented by High Road organisations because their human resources are critical to achieving quality and innovation strategies.

Machiavellian Human Resource Management (MHRM)

The Critical Perspective on HRM has argued that there has only been a rhetorical shift from the old personnel to the new Human Resource Management (HRM). Purcell

and Gray (1986) found that policy was often more rational and optimistic than practice, implying that HRM is ineffective. When HRM is marginalised by management into a tactical role it is not able to perform the 'change maker' role that would elevate its creditability and status (Caldwell, 2003). Consequently HRM may adopt strategic rhetoric rather than reality in its search for occupational legitimacy (Legge, 1995). Because Low Road organisations do not pursue competitive advantage through people we propose they would be less likely to invest in the HRM function, leaving it without the power, time and resources to implement effective HRM.

However, others have proposed that HRM may be a wolf in sheep's clothing that uses soft rhetoric to disguise the hard reality of workplace change that shifts power from the employee to the employer (Armstrong, 1987; Orlitzky and Frenkel, 2005). In this role HRM uses unitary rhetoric to propose that the mutual interests of employees and the organisation will be met. It encourages employees to trust the organisation to take care of their needs through an individual rather than collective workplace relationship facilitated by unions. We propose that Low Road organisations are more likely to adopt MHRM to facilitate the implementation of low cost human resource management practices.

To answer the question of whether organisation strategy impacts on the role of the HRM function in organisations the following hypotheses were formulated.

H2a. Organisation strategy will be associated with Strategic HRM. HRM functions in High Road organisations will be more likely to adopt SHRM.

H2b. Organisation strategy will be associated with Machiavellian HRM. HRM functions in Low Road organisations will be more likely to adopt MHRM.

H2c. Organisation strategy will be associated with resources. HRM functions in Low Road organisations will have less resources than HRM functions in High Road organisations.

Strategy and Unions

It has been proposed that unions have both a positive and negative impact on competitiveness through their impact on productivity. They can have a negative impact by using their monopoly position to drive up wages and introduce restrictive work practices that inhibit management's ability to introduce productive work practices. On the other hand, unions can have a positive impact by encouraging management to introduce more productive work practices. Research supporting the positive impact of unions proposes that unions use the collective voice of employees to: facilitate the implementation of productive work practices by increasing employee trust and commitment; reduce employee withdrawal including absenteeism and quit rates thereby minimising recruitment and training costs; and reduce the cost of negotiations between employers and employees. It is the quality of industrial relations between employers and unions that influences whether the union impact will be positive or negative.

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Cooperative Industrial relations promotes the positive aspects of unionism, while adversarial industrial relations increase the negative aspects of unionism (Freeman and Medoff, 1984).

It has been argued that human resource management practices allow employees to voice their views directly to their employers without the need for unions. However, some research indicates that unionised workplaces provide more opportunities for effective employee voice than non-union workplaces (Millward et al. 1992).

It is proposed that in High Road organisations employees will perceive less need for a union presence. It is proposed that High Road organisations are more likely to have HPWP and a SHRM function that provide opportunities for individual employee voice, negating the need for a union presence. Conversely, Low Road organisations are more likely to have a high union presence, because employees see the need for union membership. Low Road organisations are focused on cost containment through Numerical Flexibility which is a strategy that is likely to result in conflict with employees and unions (Orlitzky and Frenkel, 2005).

This research considers whether organisation strategy impacts on the presence of unions in organisations through the following hypothesis.

H3. Organisation strategy will be associated with Union presence. Low Road organisations will be more likely to have a high union presence than High Road organisations.

Strategy and Organisation Attitude

Walton (1985) discusses the choice that managers have between a strategy based on imposing control and a strategy based on eliciting commitment. McGregor's (1960) model of management assumptions presents a similar dichotomy. In his model, Theory X managers assume that people dislike work and need tight managerial control based on close direction and external sanctions. Theory Y managers assume that people are primarily self-motivated and self-controlled and will exercise self-direction and self-control to achieve objectives they are committed to. This leads to a focus on growth and development to realise the potential of human resources. Subsequently, Guest (1987) argued that the assumptions of theory X and Y can be likened to hard (Utilitarian Instrumentalism) and soft (Developmental Humanism) HRM. More recently, Truss, Hope-Hailey, McGovern and Stiles (1997) argued that different assumptions of human nature underlie hard and soft HRM. To date there has been no demonstrated link between assumptions of human nature and the adoption of HPWP. This dichotomy may also manifest at an organisational policy level, with High Road organisations articulating soft rather than hard public statements.

Nasar, Solow, Dertouzos and Lester (1989) argue that organisations in the United States have a short-term focus driven by environmental changes that have influenced government policy, organisation ownership and organisation executives. They found that most executives felt that the market would penalize them for a long-term view and focused on the short-term against their better judgment. Kane, Crawford and Grant (1999) found that

when top management has a short-term view they are less likely to adopt strategic HRM. In Australia the Government's focus on a market driven economy led to significant organisation restructuring and an organisational imperative for short-term profits (Australian Centre for Industrial Relations Research and Training 1999).

This research considers whether organisation strategy impacts on the organisation's attitude through the following hypotheses.

H4a. Organisation strategy will be associated with management attitude. High Road organisations are more likely to have theory Y managers than Low Road organisations.

H4b. Organisation strategy will be associated with organisation policy. High Road organisations will be more likely to have public statements that stress Developmental Humanism rather than Utilitarian Instrumentalism.

H4c. Organisation strategy will be associated with time horizon. High Road organisations will be more likely to have a long-term time horizon.

Strategy and Workforce Composition

It has been proposed that because the introduction of HPWP requires an investment of time and money in employees it is only worthwhile if employees are important to the organisations strategy and also likely to stay with the organisation. It appears likely that

organisations competing on cost would be more likely to use Numerical Flexibility through employing non-standard employees rather than carrying employee costs when there is a fluctuation in demand.

By employing non standard workers, such as casual employees, management lowers costs through avoiding maternity leave, annual leave, public holiday pay, sick leave and redundancy pay. Management can also increase its flexibility by dismissing employees without regard to unfair dismissal laws. They also can use the threat of unemployment and limited union protection to intensify work (Orlitzky and Frenkel, 2005). Non standard workers have more tenuous and temporary ties with their employers, consequently, organisations with a high proportion of non standard or peripheral workers (part-time, casual, contract, out/agency workers or volunteer) are less likely to introduce HPWP, because they are costly to implement and do not deliver immediate returns.

This study considers whether organisation strategy impacts on the organisation's workforce composition through the following hypotheses.

H5a. Low Road organisations will be more likely to have Numerical Flexibility and have a higher proportion of casuals and contractors than High Road organisations

Methodology

Sample and Survey Procedure

One-hundred-and seventy nine Human Resource Managers from large Australian organisations (500+

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employees) in multiple industries participated in a paper survey conducted in 2000. This sample of workplaces was obtained by sending a survey addressing the Human Resource (HR) Manager in a population of 896 large organisations identified in the Dun and Bradstreet 1999 Business Who's Who online data base. The respondents selected themselves into the sample by returning the anonymous and confidential survey. The accompanying letter assured anonymity and offered an executive summary to respondents.

The data collection focused on large organisations because they were most likely to have well-established HR functions managed by experienced professionals. Senior HR professionals are knowledgeable about HR policies and practices and we believe they are also sufficiently knowledgeable of organisational performance because they are closely involved in workforce budgeting and compensation management that depend on the overall success of the organisation.

There was a 26% response rate delivering a sample of respondents from most industry groups. Most of the respondents (84.8%) were the most senior HRM manager or a senior member of HRM. The majority of respondents (53%) had HR qualifications while 40% had a business qualification. Only 11% of respondents had no formal qualification.

A wide range of industries was represented in the sample with the largest numbers for manufacturing (28%), services (11%), transport and communication (10%) and construction (9%). A high union presence was reported by

31% of respondents while 50% of respondents reported some union presence. Only 24% of companies focused on a quality improvement strategy while 30% of companies focused on an innovation strategy and 40% focused on a "Low Road" cost reduction strategy. A further 6% of companies identified a mixed focus strategy for their companies. In all this meant 60% "High Road" companies and 40% "Low Road" companies.

Measures

The testing of the hypotheses required the construction of scales based on the theory outlined in the preceding section. In particular the HPWP scale was based on the work of Walton (1987) and the SHRM scale was based on the work of Guest (1987). All survey items were rated on a 7-point Likert scale anchored from 'strongly disagree' (1) to 'strongly agree' (7). Confirmatory factor measurement models were used to test for validity in AMOS version 7, with adequate fit associated with the following goodness of fit statistics; CMIN/DF (<3), RMSEA (<.10), GFI (>90) and CFI (>90) (Byrne, 2001). The reliability of scales was tested using Cronbach's alpha in SPSS v15 with values of below 0.6 considered to be too low by Hair et al. (2006).

The testing of the first hypothesis required the construction of an HPWP scale. The survey covered 19 questions about the presence of HPWP in an organisation.

Various authors including Green et al. (2006) have questioned the unidimensionality of HPWP. An exploratory factor analysis was performed with principal axis factoring and an oblimin rotation in order to identify

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the latent constructs underlying HPWP. After removing four items in order to ensure discriminant validity the output shown in Table 1 was produced.

Table 1: Exploratory Factor Analysis for HPWP: Pattern matrix

Factor	1	2	3	4
In this work place coordination and control are based more on shared goals, values and traditions than monitoring and sanctions	.653	-.041	-.225	.064
Supervisors facilitate rather than direct the workforce through their interpersonal and conceptual ability	.611	-.036	-.286	.042
Training focuses on the overall development of the employee and is not confined to the current job role	.572	.092	-.140	-.031
Jobs are designed to empower employees	.505	-.090	-.103	.373
This work place uses amicable planning and problem solving rather than adversarial employee relations	.438	.213	-.098	.130
This work place puts greater emphasis on hiring employees based on cultural fit than on hiring for specific job-relevant skills	.383	.031	.096	-.026
This workplace reduces status distinctions to de-emphasise hierarchy	.352	.030	-.123	.081
Retraining, redeployment and employability take precedence over downsizing	.017	.967	.089	.202
This work place is committed to avoiding downsizing where possible	.063	.608	-.136	-.114
In this work place information is shared widely at all levels	-.009	.063	-.896	-.061
In this work place employee participation is encouraged on a wide range of issues	.061	.099	-.785	.087

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Employee views are actively sought through processes such as attitude surveys	.179	-.036	-.390	.218
Decision making is decentralised	.049	-.009	.055	.630
This work place has a principle of equality of salary sacrifice in hard times	-.063	.065	-.032	.488
It is common for employees to look beyond their individual jobs to address system problems/improvements	.319	-.108	-.150	.408

This analysis explained 63% of the response variation and suggests four factors which can be linked to Walton's (1985: 81) conceptualisation of HCWS (see Table 2). The validity of this second order model for HPWP was confirmed using confirmatory factor analysis (CMIN/DF = 1.769, GFI = 0.90, RMSEA = .066) and a scale was constructed using all 15 items in order to measure the overall impact of HPWP. The Cronbach alpha was 0.867 suggesting good reliability for this scale.

Table 2. HPWP factors

Factor	Interpretation	Walton's (1985:81) Theoretical Constructs*
1	management style	management organisation: structure, systems and style
2	job security	employment assurances
3	communication	employee voice policies
4	work design	job design principles

(*Note: Walton's (1985) constructs of labor-management relations and compensation policies did not form distinct factors)

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The outcome variables required for the testing of hypothesis 1 were created in a similar fashion. Confirmatory factor analyses for the seven outcome variables suggested that a 2-factor model (refer Table 3) described this data significantly better than a one factor model ($\chi^2 = 5.080$, $df = 1$, $p = .024$) with reasonable goodness of fit statistics ($CMIN/DF = 2.77$, $GFI = .96$, $RMSEA = .100$), the values for Cronbach alpha showing good reliability.

Table 3: Confirmatory Factor analysis for outcomes: Standardised (beta) weights

	Employer outcomes	Employee outcomes
Employees are very committed to this workplace	.767	
Employees are highly productive	.673	
This work place has the type of work-force it needs to ensure a competitive advantage in five years time	.681	
Employees are not resistant to change	.414	
The overall workplace relationship between managers and employees is excellent		.807
This workplace has a satisfied workforce		.888
Cronbach's alpha	.714	.835

The testing of the second set of hypotheses required the construction of scales for Strategic and Machiavellian HRM as well as HRM resources. The following exploratory factor analysis explained 67% of the HRM

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Resources

Table 4: Exploratory Factor Analysis for HR Function: Pattern matrix

HR Function	Strategy (SHRM)	Resources Available	Machiavellian (MHRM)
There is a strong link between HRM strategy and Business strategy	.864	-.137	.017
In respect of HRM this work place says what it means and means what it says	.784	-.002	.008
HRM policies and practices are integrated	.711	.126	-.053
Management and the HRM function agree on the way employees should be managed	.492	-.119	.028
If HRM had more power there would be better HRM outcomes	-.032	.822	-.092
There is not enough time and resources to implement effective HRM	-.017	.506	.105
HRM aims to reduce employee power and increase organisation power	.158	.057	.788
Part of HRM's role is to "sell" unpopular policies and practices to employees	-.125	-.012	.357
Cronbach's alpha	.81	.60	.42

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function. As shown in Table 4 there was a clear split between Strategic, Resource and Machiavellian HRM functions with insignificant correlations between the Machiavellian HRM function and the other HRM functions. This result was confirmed with a confirmatory factor analysis (CMIN/DF = 1.908, GFI = .958, RMSEA = .071), the values for Cronbach alpha showing weaker reliability for Machiavellian HRM and Resources available to HRM, due to the small number of items available to measure these constructs.

The third hypothesis used a single item for union presence measured at three levels (high, some and none).

The fourth hypothesis considers the effect of High and Low Road organisational strategy on public statements, management attitudes and organisational attitudes to time horizons. An exploratory factor analysis explained 60% of the variation in responses to the management and organisational attitude items in terms of the three factors shown in Table 5. Scales were constructed for these factors with acceptable Cronbach alpha values, according to Hair et al. (2006). The Soft Policy factor represents Developmental Humanism while the Hard Policy Factor represents Utilitarian Instrumentalism. The Theory Y versus X factor measures the prevalence of Theory Y management attitudes as opposed to Theory X management attitudes. The organisational attitude to time horizon was measured using a single 7 point item "HRM is less effective because there is a short-term perspective".

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Table 5: Exploratory factor analysis for Management and Organisational Attitude

Factors	Soft Policy	Hard Policy	Theory YvX
Public Statement - getting employee commitment is important	.811	.040	-.047
Public Statement - communication with employees is important	.764	.162	.032
Public Statement - employees are our most important asset and a source of competitive advantage	.617	-.095	.057
Public Statement - getting the right number of employees at the right price is a high priority	-.146	.847	.085
Public Statement - employees are an expense of doing business	.042	.505	-.272
Public Statement - increasing employee productivity is a primary objective	.214	.494	.080
Attitude - management does not treat employees as an expense of doing business (rev)	-.021	-.032	.756
Attitude - management treats employees as its most important asset and a source of competitive advantage	.262	.092	.562
Attitude - management does not believe that employees must be controlled by external sanctions (rev)	-.085	-.049	.476
Attitude - management believes that employees are primarily self-motivated and self-controlled	.078	.050	.368
Cronbach's alpha	0.771	0.634	.642

The fifth hypothesis required a measure for Numerical Flexibility. The proportion of employees who were permanent (full-time or part-time) was used for this purpose.

Finally throughout the analysis “High Road” organisations were identified as organisations with a strategic focus on innovation and/or quality improvement and “Low Road” organisations were identified as organisations with a cost reduction focus.

Descriptive statistics for all the measurement scales are summarised in Table 6.

Limitations of Data Collection

Several criticisms could be levelled at this research method. Firstly, data was collected from the single source of the Human Resource Manager or Professional. However, Klassen and Whybark (1999) propose that surveys filled out by a single well-informed informant are a common procedure when sample size and costs may become prohibitive. Secondly, perceptual measures are used to assess HPWP and their antecedents and consequents. To date research has assessed organisational performance through a diffuse set of profitability measures such as market value and shareholder return and, where objective data could not be obtained, through perceptual measures. Both of these methods have been heavily criticized (Delaney and Huselid, 1996; Fey et al. 2000).

Finally, this research examines workplaces across multiple industries. Whilst single industry research can provide greater validity by controlling for industry conditions, it can eliminate environmental and technological sources of variation which have been cited as key antecedents of the adoption of HPWP (Pfeiffer 1998). Becker and Huselid (1998) propose that both

Table 6: Descriptive Statistics and Correlations (* p<.001)

	1	2	3	4	5	6	7	8	9	10	11
Mean	4.29	4.37	4.46	5.06	2.82	4.34	3.92	5.66	4.80	3.46	80.4
Standard Deviation	0.96	1.05	1.27	1.18	1.29	1.54	1.36	1.22	1.04	1.92	20.8
Correlations											
1.HPWP	1.00	.57*	.69*	.65*	-.14	-.28*	.12	.37*	.72*	-.30*	.04
2.Employer Outcomes	.57*	1.00	.71*	.35*	-.18	-.14	.02	.28*	.62*	-.26	.09
3.Employee Outcomes	.69*	.71*	1.00	.47*	-.15	-.22	.07	.26*	.67*	-.29*	.08
4.Strategic HRM (SHRM)	.65*	.35*	.47*	1.00	-.12	-.29*	.15	.25*	.55*	-.43*	-.08
5.Machiavellian (MHRM)	-.14	-.18	-.15	-.12	1.00	.11	.08	-.1	-.25	.25	.02
6.Resources for HRM	-.28*	-.14	-.22	-.29*	.11	1.00	.13	-.03	-.25	.30*	-.13
7.Hard Policy	.12	.02	.07	.15	.08	.13	1.00	.24	-.06	.01	.05
8.Soft Policy	.37*	.28*	.26*	.25*	-.13	-.03	.24	1.00	.31*	-.04	.12
9.Theory Y versus X	.72*	.62*	.67*	.55	-.25	-.25	-.06	.31*	1.00	-.04	.04
10. Short-term perspective	-.30*	-.26*	-.29*	-.43*	.25	.30*	.01	-.04	-.41*	1.00	-.12
11. % permanent employees	.04	.09	.08	-.08	.02	-.13	.05	.12	.04	-.12	1.00

industry specific and multiple industry research are important to the development of empirical research in this area. To address the issue of data collection from a single source Harman's one-factor test was used post hoc to examine if there was any common method bias due to the collection of data for the independent and dependent variables from the same informants. This bias may lead to inflated estimates of the relationships between the variables (Podsakoff and Organ, 1986). All 13 scales shown in Table 6 were entered into a principal components factor analysis which signals substantial common method variance if either a single factor or one general factor that explains a majority of the total variance emerges. Results of the factor analysis revealed four factors with eigenvalues greater than one, accounting for 70% of the total variance. The first factor accounted for only 43% of the total variance, so, based on the results of this analysis, problems associated with common method bias are not considered significant.

Analytic Procedure

Instead of using t-tests and ANOVA tests nonparametric tests have been used in this study. This was necessary due to skewness in the scales considered, making an assumption of normality unreasonable. The hypotheses are all directional, making the use of one-sided tests appropriate.

In order to address the first hypothesis concerning the relationship between High/Low Road organisational strategy and HPWP adoption, a directional Mann-Whitney test was performed using the HPWP scale. The relationship between HPWP and outcomes was modelled

using a structural model and then tested for invariance in terms of High/Low Road organisational strategy.

The second hypothesis, concerning the relationship between High/Low Road organisational strategy and HRM function, was also tested using a non-parametric Mann-Whitney test.

The third hypothesis, concerning the relationship between organisational strategy and union presence was tested using a chi-square (crosstab) test of association and Mann-Whitney tests, while the relationship between HRM function and union presence was tested using a Mann-Whitney test.

The fourth hypothesis concerning the relationship between organisational strategy and Theory Y versus X management attitude, organisational policy and time horizon was tested using Mann-Whitney tests. The fifth hypothesis concerning the relationship between organisational strategy and Numerical Flexibility was tested similarly.

Finally, using the appropriate scales, regression and structural models were built to predict outcomes and HPWP from organisational and management attitude, HRM role and union presence. This model was tested for invariance in terms of organisational strategy in order to determine whether different model coefficients were required for High Road and Low Road organisations.

Table 7: Mann-Whitney U-test comparisons of High Road and Low Road organisations

Hypothesis	Dependent Variable	High Road Mean	Low Road Mean	z-value	p-value (1-sided)
H1a	HPWP scale	4.43	4.08	2.31	.021
H2a	SHRM	5.13	4.96	.49	.310
H2b	MHRM	2.57	3.19	2.92	.002
H2c	Resources	4.20	4.55	1.458	.072
H4a	Y versus X	5.09	4.38	4.65	<.001
H4b	Soft Policy	5.76	5.52	1.26	.103
H4b	Hard Policy	3.73	4.19	2.37	.009
H4c	Short horizon	3.07	4.06	3.31	<.001
H5a	%casuals/ contract	18.57	21.11	.82	.206
H5b	% permanent	81.43	78.89	.82	.206

Results

Table 7 shows the results when a nonparametric test is used to compare High and Low Road companies in terms of HPWP adoption using a directional test. This table provides support for hypothesis H1a by showing that the HPWP scale is significantly higher for High Road than Low Road companies, suggesting that organisations that focus on gaining competitive advantage through innovation or quality are more likely to adopt HPWP.

The hypothesis H1b was addressed by combining the measurement models for HPWP and employer/employee outcomes in a structural model (CMIN/DF = 1.790, GFI = .86, RMSEA = .067) and then testing whether the impact of HPWP on success was stronger in the case of High Road organisations. The combined model shown in Figure 1 shows a strong link ($\beta = .85$) between HPWP and outcomes, with 71% of the variation in outcomes explained by the model when High Road and Low Road organisations are considered together. When High Road organisations are considered on their own the link between HPWP and outcomes becomes stronger ($\beta = .86$) with 74% of the variation in outcomes explained by the model. When Low Road organisations are considered on their own the link between HPWP and outcomes becomes weaker ($\beta = .76$) with only 58% of the variation in outcomes explained by the model.

However, when a test for invariance was performed, comparing Figure 1 for High Road and Low Road companies, an insignificant difference in the weights was obtained (Chi-square = 16.681, df = 20, p = .673), suggesting that the support for H1b is not significant. This

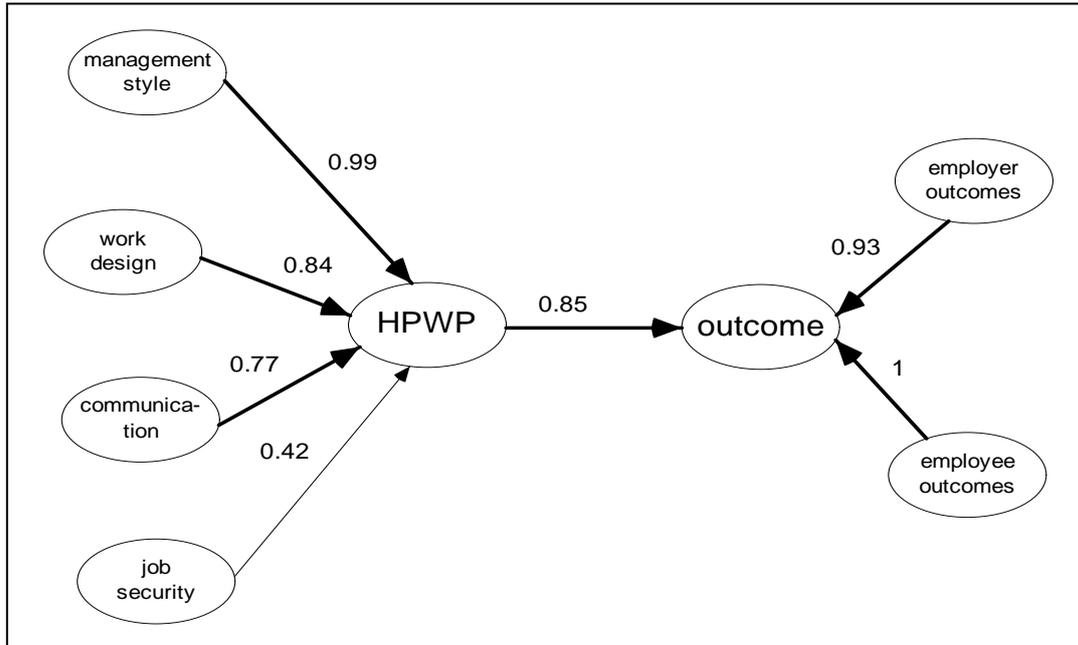
result was confirmed with a separate regression analysis for employer and employee outcomes using the scales referred to in Table 6. It appears that HPWP has a strong positive link with outcomes for *both* High Road and Low Road companies. This does not support the Situational Contingency approach. Instead it seems that both Low and High Road organisations can derive employer and employee value from the implementation of HPWP.

Only partial support was therefore obtained for the first hypothesis. Although High Road organisations do seem more likely to adopt HPWP, the link between HPWP and outcomes was not significantly stronger for High Road organisations than for Low Road organisations.

The second hypothesis concerns the relationship between organisational strategy and the role of HRM strategy. Table 7 provides no support for H2a suggesting that High Road organisations are not more likely to adopt Strategic HRM than Low Road organisations. However, there is a significant difference in the case of Machiavellian HRM. This provides support for the hypothesis (H2b), suggesting that Low Road organisations are more likely to adopt Machiavellian HRM than High Road organisations. Similarly there is no support for H2c, suggesting that HRM resource availability in terms of power and time are similar for High and Low Road Organisations. The results therefore provide only partial support for the second hypothesis.

The third hypothesis concerns the relationship between organisational strategy and the variable 'union presence'.

Figure 1: Structural model for the relationship between HPWP and outcomes with standardized (beta) weights for all organisations



Cross tabulation for organisational strategy and union presence confirms a significant relationship between organisational strategy and union presence (Chi-square = 7.435, df = 2, p = .024). Of the 32 organisations without a union presence 81 percent were High Road organisations while only 55 percent of the 145 organisations with a union presence were High Road organisations.

The fourth hypothesis concerns the relationship between organisational strategy and organisational attitudes. As expected by H4a and H4b, Table 7 shows that High Road organisations are more likely to favor Theory Y than Theory X management attitudes while Low Road organisations are more likely to have an organisational policy that promotes Utilitarian Instrumentalism. However, contrary to expectation, Low Road and High Road organisations have similar high levels for public statements that stress Developmental Humanism. As expected High Road organisations were less likely to have hard policy statements and there was also strong support for H4c in that High Road organisations are less likely to have a short-term time horizon than Low Road organisations.

Finally, Table 7 shows no support for the fifth hypothesis in that Low Road and High Road organisations have similar levels in terms of Numerical Flexibility. Table 8 summarizes all the above results.

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Table 8: Hypothesis testing results

Hypothesis	Conclusion for High Road as opposed to Low Road organisations
H1: Strategy and HPWP	High Road organisations were more likely to adopt HPWP but derived similar outcomes from the implementation of HPWP.
H2: Strategy and the role of HRM	High Road organisations had similar high levels of SHRM, less MHRM and there was no significant difference in HRM resources.
H3: Strategy and unions	High Road organisations were more likely to have no union presence.
H4: Strategy and organisation attitude	High Road organisations had higher Theory Y, less Hard Policy and a longer term time horizon. They had similar high levels of Soft Policy
H5: Strategy and workforce composition	There was no difference between High and Low Road organisations regarding workforce composition.

In confirmation of the above results regression models were used to predict HPWP adoption, employer and employee outcomes using Numerical Flexibility, Strategic HRM, Union presence and organisational attitude. We used the previously created measurement scales and the union presence was coded using two binary variables, one for high union presence and the other for some union presence. These models were initially built using both High Road and Low Road organisations. A forward regression was used in order to remove redundancies in the models, producing relatively simple prediction models.

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The suggested regression models were incorporated into the structural model shown in Figure 2. This model explains 63 percent of the variation in HPWP adoption, 43 percent of the variation in employer outcomes and 54 percent of the variation in employee outcomes. HPWP and Theory Y management has a positive impact on both outcomes, while a high union presence has a negative impact on both outcomes. However, Theory Y management, Soft Policy and Strategic HRM all impacted positively on HPWP adoption, thereby acting positively on outcomes. This model described the data well (Chisq = 9.91, df = 8, p = .271)

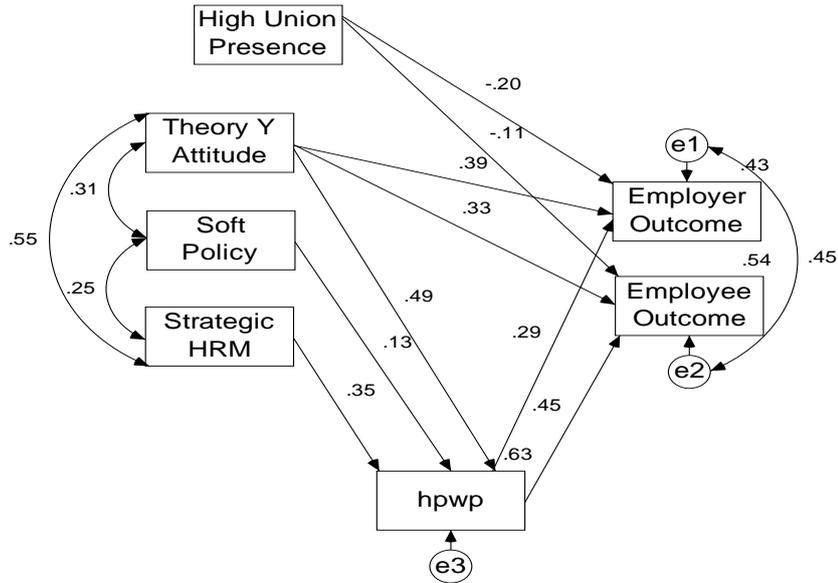
A test of invariance shows that the same model weights can be used for both High and Low Road organisations in Figure 2 (chi-square = 13.62, df = 9, p = .136). This confirms the result found for hypothesis H1b indicating that the effect of HPWP on outcomes is strong for both High and Low Road organisations even when we control for HRM role, organisational attitudes and union presence. However, Theory Y management also has a strong impact on outcomes.

Conclusions

In this section we interpret some of the more important and unexpected findings, mention the limitations of our study, make recommendations for future research and consider the practical implications of our findings.

We proposed that High Road organisations would be more likely to have HRM policies and practices focused on Development Humanism and Low Road organisations more likely to have HRM policies and practices focused

Figure 2: Model for prediction of outcome scales (standardised weights and correlations at midpoints of links)



on Utilitarian Instrumentalism, which is consistent with the Situational Contingency approach to HPWP. We found that High Road organisations are definitely more likely to adopt HPWP, supporting the Situational Contingency approach. Whilst both High and Low Road organisations make “soft” public statements, it seems that only High Road organisations match their rhetoric with reality. This could imply that Low Road organisations are more manipulative, using soft rhetoric to manipulate employees into accepting ‘hard’ practices.

We also proposed that if High Road organisations introduce HPWP they would be more successful in producing positive human resource outcomes because these work methods are better suited to their strategy. No support was found for this view, with both High and Low Road organisations deriving value from the implementation of HPWP. This supports the Best Practice or Universal approach to HPWP. However, it appears that High Road organisations see benefits in investing in HPWP not seen by Low Road organisations, explaining the higher adoption rates of HPWP by High Road organisations. It could also be argued that High Road organisations find it easier to implement HPWP because they have a less prohibitive union presence, a theory Y management attitude and a longer-term time horizon.

We also found that High Road organisations were not more likely to have superior HRM functions to manage their competitive advantage through people. Both High and Low Road organisations have similar levels of Strategic HRM and their HRM functions had similar resources of power and time. This could explain why HPWP are more likely to be adopted by High Road organisations as their HR functions determine that an investment in human resources is warranted by their business strategy. However, Strategic HRM did not appear to impact on organisation decision making regarding workforce composition. Surprisingly, we found that there is no difference in terms of workforce composition between High and Low Road organisations even though it is logical that organisations competing on cost would be more likely to use numerical rather than functional flexibility. Low Road organisations are not more likely to have non-standard employees and High Road organisations are no more likely to have permanent employees. This could indicate a failure to align human resource strategies and practices with business strategy. It could also be that there has been a universal labour market trend in Australia towards non-standard employment in all organisations.

We also found that organisation and management attitude could impact on the implementation and impact of HPWP. Low Road organisations are more likely to have a short-term attitude which may deter them from investing time and resources in the implementation of HPWP and High Road organisations are more likely to have managers that believed that employees are an important asset and are primarily self-motivated and self-controlled.

We also proposed that High Road organisations would be less likely to have a union presence because they treat employees well whilst Low Road organisations would be likely to have a high union presence. This was supported by our results. It may be that High Road organisations provide an individual relationship with employees through HPWP that negate the need for a collective relationship. These organisations are also more likely to use soft policy or rhetoric that may help employees to identify with the organisation rather than the union.

There are several key theoretical implications of these findings. Firstly, this study makes a contribution to the Situation Contingency versus Universal debate in Human Resource Management. Significantly, we found that organisation strategy influences the decision to adopt HPWP. However, we also found that HPWP impact positively on outcomes in all contexts supporting the view that HPWP are best practice interventions that work for all businesses regardless of their business strategy. This study also has implications for the black box of how HPWP work to deliver outcomes in organisations. It appears that organisation policy and management attitude have a significant

impact on HPWP adoption with management attitude having a direct and positive impact on employer and employee outcomes. Finally, this research has implications for the complex role that unions play in facilitating or hindering the implementation and outcomes of new work practices, finding that a high union presence has a direct and negative impact on employer and employee outcomes.

This study has identified some interesting results that require further investigation. Our positive research findings regarding the role of organisation policy and management attitude in the implementation and outcomes of HPWP raises some interesting avenues worthy of further investigation. We also had some research constraints that presented some methodological issues that future research could address. Despite satisfactorily testing for common source bias, the single source and subjective nature of some of our research data is of some concern and means that our findings must be interpreted with caution.

There are several practical implications from this research for managers of organisations. Firstly, this research has confirmed the value that organisations derive from the implementation of HPWP regardless of business strategy. However, it appears that Low Road organisations may not be aware of this and fail to maximize outcomes for themselves and their employees. It has also shown the importance of organisation and management attitude to both the implementation and outcomes of HPWP. Organisations and their managers need to believe that people are an important asset and are worthy of investment to successfully implement and derive benefit from these practices.

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