

FACTORS THAT SHAPE THE HUMAN RESOURCE ARCHITECTURE IN THE AUSTRALIAN BUSINESS ENVIRONMENT: THE DELPHI TECHNIQUE

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ABSTRACT

A model of human resource architecture is a framework by which to distinguish employees in order to design human resource support processes. Organizations engaging in multiple sourcing modes are likely to require distinct configurations of human resource practices that facilitate the utilization and deployment of human capital for each separate employment mode. This paper applied the theoretical American human resource architecture model developed by Lepak and Snell (1999) into the Australian business environment. The Lepak and Snell model proposed that within organizations, considerable variance exists with regard to both the uniqueness and value of skills. Juxtaposing these two dimensions, they built a (2 x 2) matrix describing different combinations with their corresponding employment relationships and human resource systems. Using the Delphi Technique, this study was able to identify five key factors in the Australian business environment that were not present in the American model. They included 1) strategic focus of the organization, 2) organizational structure, 3) competitiveness of the industry, 4) type of industry and the type of worker included in the organization.

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KEYWORDS: core employees, contingent workers, human resource architecture, job security, Delphi technique, contractors, tacit knowledge.

INTRODUCTION

Since 1980s, the endless round of restructuring and re-engineering by corporations had transformed the new employment relationship (Kitay and Lansbury 1997; Wright 1995). Continued cost pressures and the need for fast-market responses have forced employers to build work forces that are extremely flexible and cost-effective (Oakland and Oakland 2000). As a result, the evolving model for this employment relationship took several forms. There are several different HR architecture models (Atkinson 1985; Handy 1995; Lepak and Snell 1999) that clearly advocate a differential investment strategy for different categories of employees:

First, the Atkinson labour flexibility model (1985), suggested that organizations can design their workforce proactively to meet their business needs using flexible staff arrangements. Atkinson identified three types of flexibility employment modes: (1) numerical flexibility (2) functional flexibility and (3) financial flexibility. This model recognised “core” and “peripheral” employees. Peripheral employees consist of temporary, part time or contractual workers. Traditionally these workers have been referred to as atypical workers in Europe, while the term contingent labour is often used in the American literature. However, in Australia, these employees would be referred as non permanent or casual staff (Gutherie 2001). This group of the labour force is utilized when organizations adopt numerical flexibility which involves the expansion and contraction of their employees based on market fluctuations and competitive pressures (Hall; Lesperance 2001).

Second, the Shamrock model envisioned by Handy (1995) provided an organization with the flexibility it needed to meet its operational, production and environmental demands. This model consisted of three employment components, each part representing an essential human resource base for the organization.

The first employment sector contained the organization's core professional permanent employees. The second sector consisted of the flexible workforce, or peripheral employees, and this included temporary contract holders and part time workers (Cauldron 1994a). The final component contained individuals or organizations that provided a complete non-essential work that could be done better and more cost effectively than using core and peripheral employees.

Third, in 1999, American researchers, Lepak and Snell developed the foundation of a human resource architecture that aligned different employment modes and employment relationships. This theoretical model segmented employees into four quadrants according to the value and uniqueness of their skills in relation to the "core processes" of the organisation. The four employment modes are (1) internal development (core), (2) acquisition, (3) contracting and (4) alliance. According to Lepak and Snell (1999), the Internal development employment mode represents core employees that a company will invest in, in terms of training and development, remuneration and benefits and other self enhancement HR programs that will protect their investment (Entrekin and Court 2001; Lepak and Snell 1999). The Acquisition employment mode represents to a considerable extent, autonomous professionals such as accountants, lawyers, academics, software engineers. These people have valuable skills that are not unique to a specific organization and are fairly widely distributed in the labour market. These employees have a conditional loyalty at best and are committed to their profession (Entrekin and Court 2001; Lepak and Snell 1999).

The contracting employment mode represents employees whose skills are low in value and uniqueness and essentially represent labour as a commodity which is widely available and can be purchased and disposed of as required. Staffs are usually contractual and out-sourced. Temporary relief staff in clerical and secretarial areas, call centre staff, cleaning and maintenance are jobs that fall into this category (Entrekin and Court 2001; Lepak and Snell 1999). The Alliance employment mode represents low value high uniqueness staff that the company need not directly employ. They are low in value and fail to add value to the core processes or contribute to a competitive advantage. The skills are unique in that a company does not need them often enough to justify their full time employment. An example could be an alliance between a company and a university to provide certain types of research inputs on a continuing basis where the synergistic value of the relationship exceeds the value each institution can generate on its own (Entrekin and Court 2001; Lepak and Snell 1999). Hence, this study applied the theoretical American human resource architecture model developed by Lepak and Snell (1999) into the Australian business environment and this paper presented the literature review, the research method (Delphi technique), the results and discussion of this qualitative research.

LITERATURE REVIEW

A model of human resource architecture is a framework by which to distinguish employees in order to design human resource support processes. The human resource architecture discloses two view points: the first view is that each employment mode carries with it an inherently different form of employment relationship (Allan 2002). Rousseau (1995) describes employment relationships as the "psychological contract of individual beliefs, shaped by the organisation, regarding terms of an exchange agreement between individuals and their organizations" (see p.9). As employment modes differ, so too does the nature of the psychological contracts.

The second view of the human resource architecture considers the patterns of HR practices or HR configurations to help define the employment mode maintain the employment relationship and ultimately support the strategic characteristics of human capital. Organizations engaging in multiple sourcing modes are likely to require distinct configurations of human resource practices that facilitate the utilization and deployment of human capital for each separate employment mode. Essentially, these different human

resource models indicate that certain forms of human capital are more valuable to organizations and more available in the open labor market than others (Wright & Snell 1998).

Other researchers such as McLean, Kidder, and Gallagher (1998) provided a theoretical framework for understanding how perceptions of the psychological contract may differ according to employment relationships. They suggested that part-time employees who have a more tenuous relationship with the organization will focus less on relational elements than their permanent counterparts. These researchers also posit that part-time employees plan on working for a given organization for a shorter, more finite time frame, whereas, full-time core employees expect to have a longer, more indefinite relationship with the organization (Barner 1994). The formalization of employment practices is another way employers guarantee core employees a secure job future (Osterman 1999).

The extent of formalization can thus affect an employer's attitude toward employees: the higher the level of formalization, the stronger the employer's intention to protect core employees. Therefore, the attainment of employees' commitment and cooperation can be linked to the implementation of internalisation practices which usually represent the employers' intention to guarantee job security and to train core employees (Abraham 1990; Kochan and Osterman 1994; Morishima 1998; Osterman 1999). Generally, core employees are regarded as permanent workers (Segal and Sullivan 1997). As the primary labour market, core employees become the glue that holds an organization together, and their knowledge, experience and commitment become critical to its success. However, a review of prior literature revealed that a number of researchers (Allan and Sienko 1997; Gramm and Schnell 2001; Segal and Sullivan 1997) have defined core employees abstractedly.

American researchers, Lepak and Snell (1999) describe core employees of today's organizations as high value, high uniqueness employees whose skills and knowledge are a source of competitive value to the organization. Their value and uniqueness may be based on 'tacit knowledge' that would be valuable to the competitor and these skills and knowledge are related to core processes developed internally and built up overtime (Entrekin and Court 2001; Lepak and Snell 1999). These researchers advocate the theoretical model of HR architecture that segmented employees into four quadrants according to the value and uniqueness of their skills in relation to the "core processes" of the organization. Lepak and Snell (1999) proposed that within organizations, considerable variance exists with regard to both the uniqueness and value of skills. Juxtaposing these two dimensions, they built a (2 x 2) matrix describing different combinations with their corresponding employment relationships and HR systems. As this model is only applicable in United States, this researcher decided to explore this issue further by applying it in the Australian business environment using the Delphi Technique to pose the research question

What are the factors that impact on the theoretical Human Resource Architecture in an Australian business environment?

METHOD

A Delphi technique was applied to determine factors in the Australian business environment that was not present in the American model. The objective of most Delphi applications is the reliable and creative exploration of ideas or the production of suitable information for decision making. This method has been shown to be an effective way to conduct research when the responses being sought are valued judgments rather than factual information (Dalkey and Rourke 1972). It is particularly useful for studies that call for subjective judgement rather than precise statistical analysis (Linstone and Turoff 1975; Rowe and Wright 1999).

Panelist

The 4panelists used for this study were all experts from the Australian business environment (HR practitioners, industrial psychologists and academics). All were associated with human resources management, researching, teaching or policy development. Many had contributed to the existing literature on management. The panellists' knowledge of the subject matter at hand is the most significant assurance of a quality outcome, and so participants were chosen because of their expertise related to the subject (Stone Fish & Busby, 1996). A total of 20 nominees consisting of senior academics, HR practitioners and industrial psychologists were contacted through postal mail. The nature of the study was explained and they were invited to participate. Thirteen experts accepted. The panel size of thirteen fits within the guidelines recommended for Delphi studies (Helmer 1983; Turoff 1975). The demographic data of the panel were reported in Table 1.

Table 1: Demographic Characteristics of the Delphi Panel Members

Characteristic	Number	Percentage
Invited Participants	20	100
Accepted Participants	13	66
Age		
30-40	2	15.38
41-50	4	30.77
51-60	4	30.77
61-70	3	23.08
Gender		
Male	10	76.92
Female	3	23.08
Highest Qualifications		
PhD	9	69.23
DBA	1	7.69
MBA	1	7.69
MHRM	1	7.69
M.Psych.	1	7.69
Occupation		
Senior Academics	6	46.15
HR Practitioners	4	30.77
Industrial Psychologists	3	23.08

This table provides the age, gender, qualification and occupation of the Delphi panel members.

Application of the Delphi Technique

Three rounds of questionnaires were mailed to the panel of experts. The first round provided detailed information of the Lepak and Snell Model (1999) and a set of relatively open-ended set of questions posed to identify the different factors that impact on the Human Resource Architecture in the Australian environment. Responses to the open-ended question in the first round were analysed qualitatively and categorised or grouped by frequency or similarity of response in order to reduce the number to a manageable level but yet keeping the essential meaning of the responses. The results were then grouped together under a limited number of headings and statements (eg. definitions of core employees; needs of core employees) and this was then drafted for circulation to all participants in a second questionnaire. The second round used questions developed from responses to the first questionnaire.

The participants were asked to rank each statement on a 1 to 5 scale (1 being the most important) and to optionally comment on each question. Responses to second round were analysed to determine the ranking of the items. Ranking votes (1-5) assigned to items by participants in questionnaires 2 were tallied. In the final round, participants re-ranked their agreement with each statement in the questionnaire, with the opportunity to change their scores in view of the group's responses. The re-ranking's were summarized and assessed for the degree of consensus. This resulted in the selection of five major factors (in order of importance) that impact on the Australian human resource architecture.

RESULTS

Factors Affecting the Australian Human Resource Architecture Model

Table 2 outlines the main factors affecting the Australian Human Resource Architecture model. The five key factors selected by the panel in order of its importance included 1) strategic focus of the organization, 2) organizational structure, 3) competitiveness of the industry, 4) type of industry and the type of worker included in the organization.

Table 2: Factors Affecting the Australian Human Resource Architecture Model

<i>Rank</i>	<i>Factors of the Australian HR Architecture</i>
1	Strategic focus of the organization (e.g. Project, Growth and Maintenance).
2	Organizational Structure (e.g. international, local franchisee).
3	Competitiveness of the industry.
4	Type of industry (e.g. mining, manufacturing, and service).
5	Types of worker included in the organization (e.g. managerial, technical, trade).

This table provides the ranked factors of the Australian HR architecture not considered in the American HR architecture model (Lepak and Snell 1999).

Majority of the panel members considered strategic focus, organizational structure, the competitiveness and type of the industry as critical in shaping the human resource architecture in the Australian business environment. However, the levels of work (worker to CEO), type of worker (managerial, technical, trade), functional expertise of worker (eg marketing, finance, computing, HR, production) have lesser impact but still relevant to the structure of the model. Moreover, the respondents noted that the human resource architecture model is only applicable for large organizations. They considered that the limitation of the model is its assumption that innovation and development can be engineered as opposed to grown. One of the respondents pointed out that people should be linked to environment with a business model that is systematic, holistic and developmental with the dominant discipline being organizational ecology (Panelist 13).

The general theme derived from the experts' comments indicated support for the Lepak and Snell (1999) Human Resource Architecture Model but it was suggested that for the model to fit into the Australian environment several factors should be considered. These factors included strategic focus, organizational structure, competitiveness and type of industry, the levels of work, type of worker and functional expertise of work.

Overall, the panel assessment of the Lepak and Snell HR architecture model highlighted several missing factors. These factors were recognised as critical for the model to be successful in the Australian business environment. The identified factors included level of work, type of worker, the occupation and type of industry. Interestingly, some panel members commented that HRM in Australia is still regarded as fragmented functional processes and struggling to be a strategic contributor. Consequently, the desire to create a more strategic and sophisticated model would be problematical (see Table 3)

DISCUSSION

A number of researchers have assessed the many changes to organizations both in terms of organisation structure and employer and employee relationships (Allan and Sienko 1997; Fierman 1994; Kitay and Lansbury 1997; Kraut and Korman 1999). The changes in the organizational structure and the decline in job security have changed the psychological contract between employer and employee (Schmidt 1999). The essence of attachment between employer and employee has changed. Nowadays employers emphasise "employability" rather than long-term loyalty in a specific job (Cappelli 1999).

Table 3: Expert Comments On Factors Affecting the Australian Business Architecture in the Lepak and Snell Model 1999

Expert comments
The Human Resource Architecture Model is only applicable for large organizations and not small businesses. In smaller businesses one person may take on several of this role (Panellists 3, 5).
The Human Resource Architecture Model is only applicable for large organizations and not small businesses. In smaller businesses one person may take on several of this role (Panellists 3, 5).
I am cautious of a model which places so much emphasis on competitiveness and exclusivity in an increasingly networked environment. The limitation of the model is its assumption that innovation and development can be engineered as opposed to grown (Panellist 12).
This model has some validity in Australia however it is a US model developed in the US industrial context (Panellists 7, 9).
Yes, it very much reflects the Atkinson's Flexibility Model and a practice of lot of Australian organizations, especially government organizations. It is an emerging trend in Europe and UK" (Panellists 1, 2, 10, 13). However, one of the respondents acknowledged that "this model has limitation; it is grafted on to industrial era structures and practices. The employment modes are not linked to anything- not to performance, not to customers, not to building human and intellectual capital and not to vision (Panellist 11).
It is a rational model of organization and in this sense perhaps appropriate to the Australian business mindset (Panellist 8).
People should be linked to environment with a business model that is systematic, holistic and developmental with the dominant discipline being organizational ecology (Panellist 13).
I think organizations tend to see HR as a number of processes or systems, not as a strategic contributor. Therefore they are unlikely to be as sophisticated in their thinking as required by the model (Panellist 9).
Other models could use different criteria and still provide conceptual insights into the HR Architecture. For example, levels of work (worker to CEO), type of worker (managerial, technical, trade) and functional expertise of worker (marketing, finance, computing, HR) (Panellists 4, 6, 8).

This table highlights the expert comments on factors affecting the Australian business architecture in the Lepak and Snell Model 1999.

This new form of psychological contract is more evident because businesses are increasingly using non-core and part-time workers to gain flexibility at lower cost. The increased use of non-core employees and lack of commitment to a firm is cited as a reason for decreased levels of employee loyalty and lower levels of employee productivity (even though costs may decrease in the short run) (Allan 2002). Other concerns related to the use of non-core labour and decreased employee attachment include the social costs due to lack of job security and pension, health, and other non-wage benefits (Belous 1989; Gordon 1996; Ferber and Waldfogel 1998). The decline in job security is perhaps the most radical change accompanying the restructuring of employment relationships (Cappelli 1999b; Jacoby 1998).

With the emergence of the new organizational structure of employment, it raises the questions of Australian organizations HRM systems? What are the factors that impact on the theoretical Human Resource Architecture in Australia? Do they apply "Best practices fit all "or differential HR practices for different types of employees? (eg. core, contractors, alliance, and acquisitions). How do these practitioners perceive their effectiveness? Although it may be the case that some firms manage all employees the same way, regardless of their value and uniqueness, we anticipate that most firms make significant distinctions in the methods they use for different skill sets and that these are important determinants of firm performance.

The HR architecture model (Lepak & Snell 1999) examined in this research advocated a differential investment strategy for different categories of employees. The findings of this study indicate that the shaping of these employment modes is dependent on the influence of several factors in the Australian business environment. These factors include the strategic focus of the organization, organizational structure, competitiveness of the industry, type of industry and the type of worker included in the organization.

It is relevant to note that the Delphi panel suggested that these factors were not considered in the theoretical model developed by Lepak and Snell in 1999. It is suggested that the impact of these factors may be the determinants of the type of HRM systems adopted by various Australian organizations

(holistic or differential). These identified factors may therefore form the framework for the Australian HR architecture model.

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