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Linking HRM and Innovation: Formulating the Research Agenda

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ABSTRACT

The aim of this paper is to explore the extent to which innovation and HRM are interdependent; how effective human resource management can enhance innovation capabilities within the organisation and how innovation culture may drive a need to reshape HRM systems. Its key aim is to investigate the depth and breadth of extant research which analyses the relationships between systems of human resource management and capacity for innovation. With few exceptions, HRM and innovation have emerged as quite separate fields of research and our aim is to draw these closer together. This paper builds a number of research questions from the growing literature and relatively few research findings in this area, to form the basis of future research.

Keywords: innovation, bundles, strategic HRM, HR systems

INTRODUCTION

In the current fast-paced competitive globalized marketplace, innovation has become almost a prerequisite for business success (Hamel, 2006; Jamrog, Vickers, & Bear, 2006). Well-known companies which we associate with sustained innovation often describe their success as due to finding the best people and then 'getting out of their way'. Other companies discuss creating environments and systems which encourage innovation and provide opportunities to convert ideas into successful products or services. Our interest lies in the 'people related' processes which are found in successful innovating firms. In this paper we note the deficit in clear links between HRM practices and innovation performance (Laursen & Foss, 2003) and explore existing research on the human resource management factors which encourage and sustain innovation to identify HR policies, processes and practices related to firm-level innovation success.

The aim of this paper is to contribute to the literature emerging in the space where innovation and human resource management intersect, and identify areas for future research. To this end, we explore the extent to which innovation and HRM are interdependent; how effective human resource management can enhance innovation capabilities within the organisation and how innovation culture may drive a need to reshape HRM systems. The study is focussed on the internal systems of the firm, the importance of the internal actors of the firm and their influence on innovation (Laursen & Foss,

2003). As Scarbrough (2003) highlights, if innovation is the intersection of two flows; the flow of knowledge and the flow of people (Starbuck, 1992), then HRM will play a critical role in shaping and aligning these two flows.

This paper builds a number of research questions from the existing research and literature review that will form the basis of future research. In order to explore the existing literature and research, we first explore the current innovation literature for recognition of human factors. We then turn to the links between innovation and HRM, and the more recent focus on ‘bundles’ of HRM practices that may prove conducive to an innovative environment. Based on this background literature, we then posit eight research questions to guide a future research project with the aim of expanding knowledge in this important area; the juncture between innovation and HRM.

INNOVATION

Innovation is generally considered to be introducing or improving products, processes, defining or re-defining market positioning or altering the dominant paradigm for the firm (Tidd, Bessant, & Pavitt, 2005). In achieving any of these types of innovation, the contribution of the human factors within the organisation are critical. All the systems and processes for innovation are not enough; without people, innovation will not occur. Where innovation occurs, the capabilities of the firm and individuals within it need to be harnessed effectively in order to implement change; whether it is considered radical or incremental innovation. Whilst it might then be thought that the discourses relating to human resource management and innovation management would have a great deal to gain from healthy integration, it is a co-existence that has proved to be more distant than we might first imagine (de Leede & Looise, 2005).

Even within the wider innovation literature, there is a lack of agreement on exactly what constitutes innovation, and a great many definitions exist. At the risk of adding yet another definition, we believe it is critical to identify the definition that underpins this research. We see innovation as the creation of

novelty which when effectively exploited and implemented generates sustainable value. There are some key elements emphasised in this definition:

- The reference to novelty implies something that is new to the organisation; it doesn't necessarily have to be new within the industry or commerce at large, simply that for this organisation at this particular point in time, it is novel
- The implication of novelty however doesn't mean that the difference between the 'old' and the 'new' must be radical; we are not only referring to discontinuous innovation but also to incremental or continuous innovation; in other words, drawing on available talents and capabilities to do things better, or to do things differently (Francis & Bessant, 2005)
- This definition also emphasises the importance of considering the result of innovation; it is not simply the emergence or generation of a new idea, but must create value through commercialisation for the organisation. This could be said to be underpinned by the innovation management process of signal processing, strategy, resourcing and implementation (Tidd et al., 2005), which is widely accepted in the innovation literature.
- Referring to sustainable value does not imply only economic returns; the value may be linked to financial, social, environmental or other outcomes ultimately beneficial to the organisation.

Based on this definition of innovation, we have explored the potential relationship between HRM and innovation success.

INNOVATION AND HRM – POSSIBLE LINKS

Over two decades ago, Kozlowski (1987) called for HRM to be more distinctly embedded in organisational strategy in order to facilitate innovation. Around the same time, Roberts (1988) also argued that all four dimensions of staffing, structure, strategy and system support were central to successful innovation, and that ensuring the organisation had the right kind of people who were effectively managed as the critical staffing issues. Neither of these early calls however attempted to clearly classify the exact HRM practices or processes that might be most helpful for building innovation capabilities; but at least the conversation had begun.

Historically, the HRM literature has not attempted to engage with the innovation literature in any significant way, until more recent attempts to draw these two distinct areas together (de Leede & Looise, 2005; Jorgensen, Hyland, & Koefed, 2008; Jorgensen, Laugen, & Boer, 2007). Laursen and Foss (2003 p. 244) argue that from both perspectives, innovation management and human resource management, “there is a lack of theoretical and empirical treatment of how new HRM practices affect innovation performance”. The argument therefore is that to maximise the likelihood of successful innovation, engagement with HRM in an integrated way is essential.

Previous HRM studies have focussed on innovation *in* HRM rather than innovation *and* HRM. Initiatives such as high performance work practices have been highlighted as innovations within the realm of HRM (McCartney & Teague, 2004; Murphy & Southey, 2003; Richard & Johnson, 2004). Similarly, issues such as flexible benefits plans have been heralded as HRM innovations (Barringer & Milkovich, 1998). However, these have not necessarily translated into those within the HRM discipline seeing their contribution to developing broader innovation capabilities within the organisation.

The HRM literature has not attempted to bridge this divide between innovation and strategic human resource management (SHRM), or to look specifically at how HRM exists as an integral part of innovation. Certainly the literature relating to SHRM makes significant effort to link HRM to organisational performance, and argues strongly for ensuring a fit between HRM strategy and organisational strategy (Wright & Snell, 1998). The argument for ensuring both fit and flexibility in SHRM however implies a great deal of potentially beneficial approaches to foster innovation. Specifically, Wright and Snell (1998) identify that in order to make a strategic contribution, HRM must achieve fit with current strategy whilst enabling the organisation to remain flexible for times of changing environments; this fit and flexibility is required in all three areas of HRM practices, employee skills and employee behaviours.

The development of SHRM and future direction shows an emerging recognition of HRM as more than just a group of separate policy and practice areas. Research by Jimenez-Jimenez & Sanz-Valle (2005) supports a contingent approach and need for fit between an organisation's strategy and its HRM practices. There is growing recognition that the HRM systems of an organisation; increasingly referred to as HR architecture (Becker & Huselid, 2006) can make a substantial contribution to the capability of a firm. HR architecture is defined as the "systems, practices, competencies and employee performance behaviours that reflect the development and management of the firm's strategic human capital" (Becker & Huselid, 2006 p.899).

Becker and Huselid (2006) clearly identify the need for those researching HRM to focus on how to develop workforce management systems that make significant contributions to organisational strategy in a meaningful way. In particular, whether HR practices across a firm may need flexibility but also need to fit within the context of current strategy (Becker & Gerhart, 1996), and perhaps even that particular parts of the organisation require different HR practices to align with different foci; that is, a requirement for differentiation even within the firm (Becker & Huselid, 2006). This approach may prove a challenge to HR practitioners who strive to maintain consistency in practices across an organisation, whilst still attempting to balance fit and flexibility. Nevertheless, this recognition of the importance of fit with strategy offers an opportunity for those organisations focussing on innovation as a key strategic imperative to fully engage with HRM strategies and practices that facilitate innovation.

In more recent times, De Leede and Looise (2005) have made a contribution to this debate by the development of a model that integrates HRM and innovation; a critical step if the links and contributions are to be empirically investigated. This model recognises the potential contribution of HR strategy, practices and outcomes within the framework of innovation management; signal processing, strategy, resourcing and implementation (Tidd et al., 2005). De Leede and Looise (2005) have indicated the need for further research in this area, particularly in relation to the most appropriate HRM practices in the various innovation stages. Laursen and Foss (2003 p.257), also call for more

research into “theorising the links between HRM practices and innovation performance more comprehensively”.

The research question emerging from this discussion relates to the innovative organisation and the extent to which organisational strategies relating to innovation explicitly recognise the role of effective human resource management for ultimate success. The first research question emerging from this literature addresses the interrelationship between HRM and innovation:

RQ1. How are HR strategies represented within the overall business strategies of innovative firms?

‘BUNDLES’ OF HR PRACTICES

Recognition that HR practices cannot be simply viewed in isolation is growing (Becker & Huselid, 2006). The consideration of a HR system as a bundle of practices which may add to more than simply the sum of the parts is emerging as a credible argument in the SHRM literature (Laursen, 2002). In a survey of Australian CEOs in 2003 (AHRI, 2003), critical business success factors for the future included recruiting and retaining skilled employees, increasing customer satisfaction, employing and developing leaders, sustaining a competitive advantage, managing risk, managing change and corporate culture and becoming more innovative. In considering this group of factors, it is clear that it will not be individual HRM functions that will provide a competitive advantage, but a suite of practices that adequately fit with the organisational strategy. Laursen and Foss (2003 p.257) argue that whilst there is a dearth of research to back up this claim they hypothesise that, “while the adoption of individual HRM practices may be expected to influence innovation performance positively, the adoption of a package of complementary HRM practices could be expected to affect innovation performance much more strongly.”

The focus on this notion of bundles of HRM practices has further developed with research into the configurations of HRM practices (Verburg, Hartog, & Koopman, 2007). Verburg et al (2007) have developed a model representing a typology of bundles of human resource management. On two

continuums of compliance versus commitment, and individual versus company responsibility for employability, four bundles of HRM practice emerge: the bureaucratic bundle, the market bundle, the professional bundle and the flexibility bundle, all exhibiting different characteristics as shown in Figure 1.

[Insert Figure 1 here]

The model developed by Verburg et al (2007) offers a lens through which to view HR policy and practice within an organisation. Whilst this model does not make any link to innovation, some potential alignments could be anticipated. For example, where an organisation exhibits a flexibility bundle, innovation is more likely to be a natural process; few rules creating boundaries to inhibit innovation, many opportunities for development and line managers that take a hands-on role in managing the human resources. At the other end of the scale, those organisations with a bureaucratic bundle may find that innovation is more of a challenge. Where rules abound and HR is seen as the responsibility of a Personnel or HR Department, individuals and teams may be less likely to pursue creative or innovative pursuits, and often rigid systems such as performance management may actually discourage risk-taking behaviour in favour of a more rule-driven approach.

Developing the idea of HRM orientation further, Panayotopoulou and Papalexandris (2004), also focussed on HRM orientation, and found evidence of HRM having significant influence on indices of growth or innovation; even more significant impact than on financial performance. Their model is based upon the Competing Values Framework (Cameron & Quinn, 1999) and is shown as Figure 2.

[Insert Figure 2 here]

The findings from this study provide some challenges to what might generally be expected relating to HRM orientation and innovation. In particular, “flexibility alone is not significantly related to growth/innovation” (Panayotopoulou & Papalexandris, 2004 p.508). One of the key findings from

this study however has significant implications for further research into the link between HRM and innovation. The researchers highlight that no single model of HRM orientation (human relations model, open systems model, internal process model or rational goal model) offers an answer to innovation performance; however combinations of three or more of the models, one of which should be the open systems model, were positively related to innovation (Panayotopoulou & Papalexandris, 2004). This provides weight to the argument about best fit HRM, indicating that depending on context, varying approaches to HRM may still facilitate an innovative culture.

KEY HRM FUNCTIONS WITHIN BUNDLES

Whilst many authors and researchers acknowledge the role of human resources or human capital in innovation (for example see Freel, 2005; Narvekar & Jain, 2006), a much smaller number of researchers have focussed on the contribution of specific functions of HRM to building innovation capacity. Research conducted by Shipton, Fay, West, Patterson, & Birdi, (2005) and Shipton, West, Dawson, Birdi, & Malcolm (2006), highlights the contribution of effective human resource management practices to innovation success. Shipton et al (2006) examine the use of HRM at two stages of the innovation process; the first stage of involving the generation of a creative idea and secondly its implementation. In particular, this research shows that training, appraisal and induction, and a focus on exploratory learning can make the difference between companies in terms of product and technological innovation. It could then be anticipated that innovative firms may be more likely to have HR systems that emphasise these practices.

A number of other researchers have also provided direction in terms of the most influential HRM functions for effective innovation and these are summarised in Table 1.

[Insert Table 1 here]

In comparing these studies, it is clear that there is much overlap in the HR functions seen as important to innovation. These include:

- HR planning (including job design, organisational structure and use of teams)
- Attraction and selection
- Performance management
- Recognition and reward systems
- Learning and development (including career development)

Underlying this list however, is the assumption that appropriate approaches to these should establish and reinforce an organisational culture that supports and facilitates innovation. Our proposed research will further explore the human factors involved in innovative organisations, and in particular, the functions listed above. Therefore, the next group of research questions have been developed around these functions and around the potential influence of organisational culture:

RQ2. What is the role of HR planning in facilitating innovation success?

RQ3. What is the role of attraction and selection in facilitating innovation success?

RQ4. What is the role of performance management in innovation success?

RQ5. What recognition and reward systems reinforce the capabilities and behaviours required for innovation success?

RQ6. What is the role of learning and development in building the innovation capabilities of employees?

RQ7. What is the impact of organisational culture on HRM practices and successful innovation within an organisation?

Importantly however, much of the literature relating to bundles of HR practices also leads to the need to investigate the interaction between HRM functions. In order to improve innovation in a firm, the consideration of a bundle of HRM practices may be more beneficial than any single, particular HRM practice. In particular, Delery (1998) emphasises the importance of ‘horizontal fit’; existence of internal consistency between practices of HRM. Therefore, the final research question relates to the possibility of this synergy:

RQ8. What combinations of HRM functions facilitate successful innovation?

Based upon the research questions outlined, a research project has been planned to gather data from case organisations across countries and industries that are recognised as innovation leaders. The challenge for organisations will be to identify particular combinations of HRM processes and practices which lead to improved performance in a range of contexts. While some clear findings will identify important HRM practices and their combinations, acceptance and appropriate application of these practices will still require an organisational culture which values review and renewal of systems and practices (Drucker, 1985), and openness and experimentation.

CONCLUSION AND RESEARCH IMPLICATIONS

Research into the relationships between HRM and innovation has grown in the last decade as firms seek ways to sustain innovation across a range of products, processes and services and as the war for talent increases competition to attract and retain excellent staff. Most firms can potentially benefit from the upgrading of their core technologies but firms which maintain a competitive edge, from Toyota to Proctor and Gamble, do so by the superior management of their staff (Hamel, 2006). The major benefits from detailed research across a number of firms may lead to identification of a range of HRM practices and particular combinations of HRM practices for firms' innovation performance at different stages of their lifecycles or growth.

The substantive findings of the literature review indicate that no single HRM approach may be sufficient to promote innovation but rather bundles of strategies and these bundles need to be studied empirically. This review of relevant HRM and innovation literature and our initial research propositions about the relationships between HRM and innovation aim to map existing research methods and findings to form a sound basis for future research. Our intention is to contribute to the management of a firm's intellectual capital and maximise innovative performance with appropriate HRM systems and practices.

Figure 1. Differences Between the Four Bundles of HRM (Verburg et al., 2007 p.191)

Goal of the HR policy	Employability	
	Corporate responsibility	Individual responsibility
Compliance	Bureaucratic bundle <ul style="list-style-type: none"> • Many rules and procedures • Few opportunities for development • Personnel Department 	Market bundle <ul style="list-style-type: none"> • Few rules and procedures • Few opportunities for development • Founder/owner (MD)
Commitment	Professional bundle <ul style="list-style-type: none"> • Many rules and procedures • Many opportunities for development • Department (in accordance with the Personnel Department) 	Flexibility bundle <ul style="list-style-type: none"> • Few rules and procedures • Many opportunities for development • Line managers

Figure 2: HRM Orientation (Panayotopoulou & Papalexandris, 2004 adapted from Cameron and Quinn, 1999)

		FLEXIBILITY				
		HUMAN RELATIONS MODEL		OPEN SYSTEM MODEL		
		HR Role: employee champion Means: responding to employee needs Ends: cohesion, commitment, capability Competencies: morale assessment, management development, systems improvement		HR Role: change agent Means: facilitating transformation Ends: organisational renewal Competencies: systems analysis, organisational change skills, consultation and facilitation		
INTERNAL						EXTERNAL
FOCUS		HR Role: administrative specialist Means: reengineering processes Ends: efficient infrastructure Competencies: process improvement, customer relations, service needs assessment		HR Role: strategic business partner Means: aligning HR with business strategy Ends: bottom line impacts Competencies: general business skills, strategic analysis, strategic leadership		FOCUS
		INTERNAL PROCESS MODEL		RATIONAL GOAL MODEL		
		CONTROL				

Table 1. Studies Relating to HRM Functions Linked to Innovation

Roberts (1988)	Recruitment Job assignment Personnel development and training Performance measurement Rewards
Gupta & Singhal (1993)	Human resource planning Performance appraisal Reward systems Career management
Delery & Doty (1996)	Internal career opportunities Training Results-oriented appraisals Employment security Participation Job descriptions Profit sharing
Laursen (2002) and Laursen & Foss (2003)	‘New’ HRM practices: <ul style="list-style-type: none">▪ Interdisciplinary work groups▪ Quality circles▪ Systems for employee proposals▪ Planned job rotations▪ Delegation of responsibility▪ Integration of functions▪ Performance-related pay
Scarborough (2003)	Selection methods Compensation strategies Career systems
Shipton et al (2005)	Sophisticated HR activities <ul style="list-style-type: none">▪ Performance management▪ Recruitment and selection▪ Training▪ HR strategy Learning climate Appraisal linked to reward
Shipton et al (2006)	A. Practices promoting exploratory learning: <ul style="list-style-type: none">▪ Project work▪ Job rotation▪ Visits to external parties B. Practices to develop knowledge, skills and attitudes <ul style="list-style-type: none">▪ Induction▪ Appraisal▪ Training▪ Contingent reward▪ Team working C. Synergy between A&B

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