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Strategic people management of coal mining firms in Central Queensland

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Abstract

Purpose – This paper aims to propose a conceptual framework to explore the link between strategic human resource management (SHRM) and firm performance of the coal mining companies in Central Queensland (CQ), Australia.

Design/methodology/approach – The paper reviews literature relating to the process and issues of transforming human resource practices and industrial relations of the coal industry in Australia for the past decade. Theoretical development and empirical studies on the SHRM-performance linkage are discussed. Based on the literature review, the paper develops an integrated model for testing the relationship between SHRM and firm performance in the context of CQ’s coal mines and proposes a number of research propositions.

Findings – Three perceivable outcomes are likely derived from application of this framework in the field. First, a testing of the linkage between strategic HRM and firm performance in the coal industry, using an integrated approach, would complement the empirical deficiency of treatments on the prior SHRM models. Second, data at firm level could be collected to develop a better understanding of how the adoption of strategic HRM practices in coal companies can affect firm performance. Third, the extent of flexibility practices, use of contractors and associated management practices could be identified.

Originality/value – The coal industry is central to economic development of regional Queensland. The industry contributes substantially to GDP via employment, investment and product export. An exploration of the impact of SHRM on the coal industry will likely result
in identifying some best practices that could be potentially adopted in the wider business community to foster regional economic development in Australia and worldwide.

Erratum

An earlier version of this article was printed in Volume 30 Number 4. This version was printed in error, and should be disregarded. We apologise for this error, and have reprinted the corrected version in this issue.

1. Introduction

The coal industry in the Bowen Basin of Central Queensland is of strategic importance in generating export income and sustaining regional economic development (DNRM, 2006). Human resource management in the industry has been marked by pendulum swings between strong unionism and management control (Waring and Barry, 2001; Wooden, 2002; Waring, 2005). Events during the last decade suggest that management is firmly in control over employment conditions in the industry. The abolition of the Australian Coal Industry Tribunal (CIT) and the introduction of the Workplace Relations Act (WRA) (1996) have led to a marked reduction in union influence and the adoption of flexibility practices by employers in the industry.

In the past, the Coal Mining Industry (production & engineering) Interim Consent Award (1990) was a major piece of legislation that governed the employment relationship. In particular, Clause 22 provided preference for employment of union members, protection of seniority and from redundancy. Normal employment standards were for miners to work a maximum of 35 ordinary hours, take five weeks annual leave plus 15 days sick leave (Waring and Barry, 2001). These conditions were removed in the late 1990s following the cancellation of CIT in response to pressure from lobby groups to change the award system. Submissions to the Productivity Commission highlighted the need for changes in human resource management practices and industrial relations as strategies to ensure the competitiveness of the industry (Wooden et al., 1996; Rio Tinto, 1997). In response, a series of award provisions were made redundant by the employers because these award provisions were linked to low labour productivity, over-staffing of mines, high employee benefits in terms of wages and above average leave entitlements (Rio Tinto, 1997).

The subsequent changes to the industrial relations arrangement resulted in the unions losing significant control over employment conditions. Coal employers were afforded with considerable numerical, functional and temporal flexibility in managing their employees. “Numerical” flexibility describes a workforce of “core and peripheral workers” (Guest, 1987) where the latter could be involved in part-time, casual work or sub-contracting. The peripheral workforce is readily disposable and can be regarded as a lever to adjust the workforce in line with variations in market demand (Legge, 1995). There is ample evidence of the growth in a peripheral workforce in the industry (Waring and Barry 2001; Zheng et al., 2006). Di Milia and Bowden (2007) reported the number of miners in open-cut mines fell from 6,665 in 1996 to 3,954 in 2002. This drop was offset with a significant rise in the number of contract employees. After winning the right to employ contract labour following the introduction of the WRA (1996), approximately half of the largest coal company – BMA’s
(BHP – Billiton Mitsubishi Alliance) workforce now are contractors employed on specific expansion projects (BMA, 2006).

“Functional” flexibility involves the possession of “flexible” skills by employees, with their willingness to display flexibility by moving freely between tasks (Atkinson and Meager, 1985). This requires the easy crossing of occupational boundaries and that a workforce develops multi-skilling capacity. In the coal industry, there has been a greater degree of loosening job categorization and broadening the classification of jobs. The industry now has overcome the limitations of the former “one person one job” principle (Waring and Barry, 2001).

“Temporal” flexibility allows stakeholders to arrange mutually agreed shiftwork arrangements (DiMilia and Bowden, 2007). A number of studies (Heiler and Pickersgill, 2001; Heiler, Pickersgill and Briggs, 2003; Di Milia and Bowden, 2007) have reported the change in working arrangements from 8 to 12h shifts at many mine sites in the industry. Weekly working hours in the industry have also continued to rise. By 2004, 56 per cent of workers in the industry would work in excess of 49h per week (Di Milia and Bowden, 2007). This is in contrast to the standard 35-38 working hours per week Australia-wide. Furthermore, those who work longer hours are most likely to be contractors (Wooden, 2002).

A useful question is whether these changes in work practices and industrial relations arrangements have enhanced business bottom-line performance? There appears some consensus that flexible work practices has assisted coal companies to better respond to production demands, and that flexible working time arrangements have increased employee satisfaction and job performance (Nils, 1997; Bowden, 2003). Of the few empirical studies with a focus on changes in employment practices, these have concluded no significant productivity yield (Barry et al., 1998; Barry and Waring, 2000). These studies were however, largely conducted immediately after the change and it may be possible that insufficient time had elapsed to assess the impact of these changes. The analysis is also confounded with subsequent increases in mining activity over areas of varying production. Therefore the extent to which the management of new employment practices has contributed to productivity increase and overall business performance in the industry is largely speculative.

A brief overview of coalmine operation in Central Queensland described in the next section will provide readers with perspectives on the phenomenal development of the coal industry in the recent years. This is followed by a discussion on the importance of addressing strategic human resource management (SHRM) in coalmines in section 3. Development of an integrative SHRM-performance model circumvented around the coal industry is explained in section 4. Key variables contained in the model are described and thereafter research propositions developed in section 5. The paper concludes with some discussions on the key development trends in the coal industry and how taking a strategic approach to HRM may result in positive outcomes beneficial to sustainable development of the regional economy.

2. The impact of coal in Central Queensland
Estimates suggest that Queensland has over 30 billion tonnes of Australia’s 74 billion tonnes of identified black coal reserves. Most quality black coal in Queensland (about 85 per cent) is produced from the Bowen Basin of Central Queensland, which covers about 60,000 square kilometres, extending from Collinsville in the north to Theodore in the south. During the year 2004-2005, Queensland produced over 170 million tonnes of saleable coal primarily for the coking (56 per cent) market and the balance for the thermal market (DNRM, 2005; 2006).

Coal is Queensland’s most important commodity export, representing some 30 per cent of Queensland’s total overseas export of goods by value. In 2003-2004, Queensland’s exports of saleable coal to 34 countries worldwide totalled 135 million tonnes, and the total value of coal exports reached A$7.2 billion (DNRM, 2005; ACA, 2006). It is projected that by 2010, coal exports from Queensland will reach 215 million tonnes per annum as a result of increased demand for coking coal from the industrialising countries such as China and India, together with traditional markets in Japan and some European countries (DNRM, 2005).

Central Queensland continues to receive strong benefits through financial returns, increasing employment opportunities and regional development from the future expansion of this sector of the economy. The coal industry generates over 15,000 direct jobs and 50,000 indirect jobs, with tens of thousands more jobs linked closely to industry fortunes through contractors, service providers and support industries in the region (DNRM, 2005; Mining Industry Skill Centre, 2006). The importance of the industry is underlined by the state government commitment to spend some A$2.2 billion on new infrastructure projects (e.g. railway, ports and water expansion projects) to support the development of the coal industry (DNRM, 2005).

During 2004-2005, a total of 43 mines were fully operational in Queensland (35 located in Central Queensland area): 33 opencut and 10 underground. These mines were largely controlled by a few major mining companies, such as Anglo Coal, BMA, Rio Tinto, Xstrata Coal, Macarthur Coal and New Hope. BMA is the largest coal producer, with a global market share of over 30 per cent (DNRM, 2005). In Central Queensland, BMA controls a total of eight coalmines, and is still expanding to develop new mines (three under construction in late 2006). Most coal companies are headquartered in Brisbane (capital city of the state of Queensland), with main functions of corporate support, HR, finance, sales and marketing located in head office. However, from interviews with a few personnel from operation and production on sites in the Bowen Basin area, it is found that subsidiaries of those major mining companies sometimes also have their separate HR support personnel, operation management team and various technical and on-site administrative staff located in the mine sites.

It is likely that since the abolition of the CIT in 1997, the coal companies operating in the Bowen Basin have adjusted their various HRM practices and industrial relations arrangements. Progressive HRM strategies should have been adopted by the companies to enhance the synergy between headquarter and site operation, facilitate new job and shiftwork design to drive cost efficiencies, and attract and retain quality skilled labour to maintain a sufficient level of production to meet the market demand. Yet, the literature on the development of a range of strategic HRM and new industrial relations approaches in the
coal industry is rather limited. It is important to identify some of the best HRM practices that could be leveraged for further sustainable development of the industry.

3. Importance of addressing SHRM in coalmines

SHRM is a collection of tools for linking HRM practice to organizational business strategy (Guest, 1997; Wood, 1999; Paauwe, 2004). Fundamental to SHRM is a concern that organization, strategy and culture are aligned. Beer et al. (1984) suggest SHRM is about developing and implementing HR strategies that enable and support the delivery of four key goals: competence, commitment, congruence and cost. Fombrun et al. (1984) argue that SHRM must deliver superior performance, otherwise it is irrelevant. Becker et al. (2001) contend that SHRM must offer deliverables in terms of administrative efficiency, employee contribution, business strategy execution and organizational capacity for change.

SHRM is defined as “the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals” (De Cieri and Kramar, 2003, p. 49). An implication of SHRM is that the pattern of HRM strategies should be developed on a long-term basis (Nankervis et al., 2005). It should take into account the complex influences of organizational and socio-economic contexts (Martin-Alcazar et al., 2005). Regarding the coal industry in Australia, the influencing contexts through which organizations manage their human resources are likely to be changes in society, industrial relations systems, economic conditions, legislation, global and technological issues, as well as new directions in business operation (Nankervis et al., 2005, p. 14). It is important for companies to develop a strategic approach to managing their valuable human resources while responding to the recent workplace reforms, technological advancement and market competitiveness in the globalised village.

SHRM is likely to contribute to further sustainable development of the coal industry in a number of ways. First, increasing production and export demand for coal lead to an increase in demand for labour. This requires coal mining firms to address the issues such as short-term labour shortages and long-term HR planning for sustainable development (Featherstone, 2006; Ferguson, 2006). A number of researchers (Rolfe et al., 2003; Miles et al., 2004; Rolfe, 2005) have evaluated the extent of labour shortages in the CQ region. For example, Rolfe (2005, p. 32) evaluates the demographic impact of the proposed Central Queensland Coking Plant and Power Station Project and concluded that “it is very unlikely that the full construction workforce could be supplied from the local region”, because only 40 per cent of required construction labour are available locally. The feasibility study also found that about 15 per cent of tradespersons and other labourers could be sourced from the region, but the rest have to be recruited outside (Rolfe, 2005). The shortages of skilled labour have been creating a “bottleneck” effect on the development of local industries, including the coal industry. It is important for coal companies to take a strategic position to effectively deploy all resources, including human resources to meet short-term demand and plan for long-term growth.

Secondly, it seems that many coal companies have already, in one way or another, adopted flexibility practices as discussed earlier. The key is managing strategic “flexibility”. Flexibility in all aspects of work practices has become the driving force for changing the organizational
structures of many coal companies in order to enhance productivity, increase organizational efficiency and effectiveness, and maintain market competitiveness (Rio Tinto, 1997). The industry has increasingly used “flexibility” to adopt new technology and production systems, to reorganise jobs, and to make increased use of outsourcing, shiftwork and contract-out work (Nils, 1997). The determination of the extent to which the industry can effectively adopt various flexibility practices to achieve organizational objectives is a strategic issue.

Thirdly, strategic HRM is aimed at managing new labour relationships, with unions having a lesser influence. The Australian mining industry used to be labour-intensive with a high union density. With changing work and industrial relations systems, coal firms may face different challenges in managing their labour relations. According to Nils (1997, p. 338), industrial relations strategy is often diffused, shaped and reshaped by a number of contextual factors, such as the strength and attitudes of unions and employees, firm size, profitability, foreign verses domestic ownership, dominant forms of production, skill levels, labour force characteristics and the strength of labour market institutions. It is strategically important to consider a “broader set of stakeholders” (Schuler and Jackson, 2000) in the formulation and implementation of human resources strategies (Martin-Alcazar et al., 2005). This broader set of stakeholders in the context of the CQ’s coal mines may cover subcontractors, regional community developers and environmentalists who are not usually included in the traditional labour relations management framework.

The instruments to be used to evaluate the impact of strategic HRM on firm performance of the coal industry are discussed next.

4. Development of an integrative SHRM-performance model

There are many theoretical models (e.g. Beer et al., 1984; Devanna et al., 1984; Guest, 1997; Wood, 1999; Paauwe, 2004) that have been developed to discuss the relationship between HRM and firm performance. A growing interest in the strategic dimension of HRM has led to the development of more models that explain SHRM. A recent comprehensive review conducted by Martin-Alcazar et al. (2005) provides four key models which attempt to explain the contribution of SHRM to firm success. These models cover the universalistic point of view, the contingent perspective, the configurational approach and the contextual outlook (Martin-Alcazar et al., 2005, pp. 634-9).

The universalistic model suggests the existence of a linear relationship between HR and performance (Devanna et al., 1984; Pfeffer, 1994) and argues that certain single or set of HR policies and practices are linked to high performance. However,

... the universalistic perspective does not study either the synergetic interdependence or the integration of practices, and the contribution of these practices to performance is analysed only from an additive point of view (Martin-Alcazar et al., 2005, p. 634)

The configurational approach overcomes this lack of synergetic integration by defining the HRM system inside organizations as “a multidimensional set of elements that can be combined in different ways to obtain an infinite number of possible configurations” (Martin-Alcazar et al., 2005, p. 637). A combined effect of various HR practices on performance is
empirically analysed (Huselid, 1995; Huselid et al., 1997; Guthrie, 2001; Guest et al., 2003; Bartel, 2004; Stavrou and Brewster, 2005; Zheng et al., 2006). The configurational approach suggests that the same business goals are likely to be achieved with different combination of HR policies and practices that are essentially coherent with internal and external organization’s environmental conditions (Delery and Doty, 1996). This approach is quite promising in evaluating the effect of strategic HRM on the overall firm performance. However, the problem of configurational approaches is that they tend to include different selections of HR practices in the analysis, causing methodological inconsistencies, and therefore are unlikely to sufficiently evaluate the complex synergic relationships among all HR variables (Gerhart et al., 2000; Martin-Alcazar et al., 2005).

The justification for selecting different HR practices led to the development of the contingency model, which has attracted much more attention in the debate of various SHRM models (Martin-Alcazar et al., 2005). It is argued that firms are unlikely to emphasise all HR practice variables because of their strategic positioning (Barney, 1991; Hamel and Prahalad, 1994). SHRM in this stream of modelling is built upon two very solid theoretical frameworks: behavioural theory and the resource-based view of the firm. The behaviour theory emphasises the change in organizational behaviour (outcomes per se) as a result of adoption of certain HR practices (Guest, 1997), whilst the resource-based view focuses on developing rare, valuable and inimitable capabilities and core competencies within the firm to gain a competitive advantage (Barney, 1991; Hamel and Prahalad, 1994; Barney and Wright, 1998; Bartlett and Ghoshal, 2002). Both frameworks emphasise the analysis of strategic “fit” between organizational business strategy and HRM strategy (Miles and Snow, 1978; Barney and Wright, 1998; Bartlett and Ghoshal, 2002).

In the contingency model, the relationship between HRM and performance is no longer linear and stable. It varies according to contingency variables, such as strategic, organizational and environmental variables. The strategic variables explain the extent to which HR practices fit organizational business strategy. The organizational variables cover size, establishment years, technology application, internal organizational culture and structure, which would influence the choice and complexity of HR policies and practices, and selection of different business strategies. A broader set of environmental factors, such as market competitiveness, economic and social and labour context, though external to the organization, also affect the choice and selection of HR strategy and business strategy (for further explanation of these contingency variables, see Martin-Alcazar et al., 2005, pp. 635-6).

In contrast to the contingency model, which primarily takes the environmental factors as contingency variables in evaluating the relationship between SHRM and performance, the contextual model regards these as important organizational contexts, which govern and are governed by the HR strategy and business strategy (Brewster, 1999). Martin-Alcazar et al. (2005) consider that HR and business strategies not only contribute to organizational performance, but also influence the organizational dynamic environment. That is, the change of HR and business strategy within organizations causes the changes in internal aspects of the organization, as well as changing the external environment that serves to enhance performance. This point is particularly relevant to the analysis of the impact of strategic HRM on coal company performance in Central Queensland.
As discussed previously, SHRM might have been adopted in the coal industry because of the resultant changes in human resource management practices and industrial relations arrangement (internal changes). But it is uncertain how these shifts impact on the external environment. There have seen many “actors” or “a broader range of stakeholders” (Brewster, 1999; Schuler and Jackson, 2000) involved in the coal industry (such as industry bodies, trade unions and social and community groups). These stakeholders have influenced government policy implementation and changes in Australian industrial relations framework in recent years. However, they tend to be “traditionally underestimated” in other models (Martin-Alcazar et al., 2005, p. 638). The contextual model emphasises the strategic importance of considering the roles played by various stakeholders, the impact of social and institutional changes on the formulation and implementation of business and HR strategy, and vice versa. The empirical studies are no longer satisfied by “the deductive logic of research” with a quantitative focus (Martin-Alcazar et al., 2005, p. 636), but an inductive approach to describe and explain the interrelationships among different environmental contexts, roles played by various actors, strategic HRM and firm performance.

**Need for developing an integrative model**

The above-discussed four perspectives of SHRM have made significant contributions to theoretical discussions and empirical studies in the areas of evaluating HRM impact on firm performance, however, limitations exist. For example, the universalists first opened up the door to examine the importance of HRM to organizational performance, but failed to consider the synergy of combined HR practices. The configurational approach overcomes the simplicity presented in the universalistic model but encounters a methodological fraud in evaluating a unified set of HR practice variables. The contingency theory is comparatively more enriching as it encompasses strategic, organizational and environmental variables in the analysis of strategic HRM, but fails to evaluate the confluence of the interests of multiple stakeholders under different organizational contexts. The contextual perspective signifies an important shift in the analysis of strategic HRM, and is most closely relevant to the current study. Yet, it has relatively “deficient empirical treatment” (Martin-Alcazar et al., 2005, p. 644). The current study is largely aimed at addressing this empirical void.

To overcome the shortcomings of each SHRM-performance linkage model discussed above, it is necessary to develop an integrative framework to enable sufficient explanation of contributions made by each of these models, while at the same time, ensuring the possibility of empirical testing. The model of Martin-Alcazar et al. (2005) is useful in assisting the development of an integrative model for this study. However, the treatment of SHRM as only “an integrated set of practices, policies and strategies” (Martin-Alcazar et al., 2005, p. 651) rather than “the pattern” of deliberately designed HR activities as defined by De Cieri and Kramar (2003, p. 49) is somewhat problematic in their model.

A strategic HRM-performance model developed by Nankervis et al. (2005, p. 22) complements this issue by addressing SHRM as a process of developing a series of HR strategies for assisting organizations’ achieving short- and long-term goals. But Nankervis et al. (2005) neglect the strategic fit between organizational business strategy and HR strategy in their model, and do not examine how this fit leads to better organizational performance. Whilst the model of Martin-Alcazar et al. (2005) place more emphasis on such a fit, it does
not sufficiently explain variations of business strategy and how they could affect the fit and subsequently impact on firm performance.

The integrative conceptual framework depicted in Figure 1 intends to combine the two models with modification of business strategy, using Porter’s (1985) generic business strategy framework, and with modification of business performance indicators that are in line with the performance measurement of the coal industry. This integrative model captures the strengths of Martin-Alcazar et al. and Nankervis et al.’s models whilst minimising their weaknesses.

5. Variables and research propositions

It is generally believed that firm performance is largely determined by its business strategies, and that business strategy drives HRM (Miles and Snow, 1978; Porter, 1985; Stace and Dunphy, 2001; Bird and Beechler, 2002). Here, Porter’s (1985) framework of generic business strategies of “differentiation” and “cost leadership” are drawn upon to develop a pattern of strategic HRM activities within the coal mining industry. Porter’s generic business strategies have been applied extensively in the strategic HR literature to discuss and test the link between HRM strategies and firms’ business strategies (e.g. Arthur, 1992; Jackson and Schuler, 1995; Gratton et al., 1999; Bae and Lawler, 2000; Becker et al., 2001; Bird and Beechler, 2002). They are applicable also to coal firms, as many companies focused on cost reduction strategies to improve profits in the lower price period prior to 2004. In addition, many changes in work practices, especially in the forms of flexibility, would have allowed the coal companies to readily implement cost-cutting business strategies. However, other companies may have been more inclined to adopt differentiation strategies to keep their competitive market positioning. In the coal industry, “differentiation” can take two major forms: “innovation” through developing cutting-edge mining and clean coal technology, and “improved quality” through reduced incidents and injuries and better production of quality coal. These three strategies are not necessarily exhaustive. There may be other business strategies applicable to the coal industry that are yet to be identified. However, these basic concepts provide a starting point from which to explore a broader set of business strategies that may exist in the industry.

HRM strategies incorporate HR policies and practices which cover the areas of job/work design, attraction and retention, learning and development, performance management, compensation, occupational health and safety, new labour management and HRM evaluation strategies (Martin-Alcazar et al., 2005; Nankervis et al., 2005). The key difference between the model adopted in this study and prior models discussed above is to include the importance of attraction and retention strategies as a way to address the persistent issue of skill shortage in the CQ region (Miles et al., 2004; Rolfe, 2005). In addition, addressing the issue of occupational health and safety in the coalmines is paramount as the industry represents the most hazardous workplace in the sector. The improvement of health and safety means improvement in the quality of human resources as well as products and services, which is a strategic issue for the industry. Furthermore, continuing evaluation of HRM policies and practices is also strategically important as it acts as a compass to see whether various HR strategies are in alignment with organizational business strategy, which in turn can effectively assist in achieving organizational bottom-line results.
The integrative model developed for the current study no longer represents just unidirectional relationships between HR strategies, business strategies, organizational dynamic environment and business performance. Multi-directional arrows are drawn in the model to represent the confluence of interests generated from the internal and external organization’s economic, social and institutional settings (Schuler and Jackson, 2000). Therefore, both organizational business strategies and HR strategies can be treated as either independent variables to determine business performance outcomes (dependent variables) and influence dynamic organizational environment, or as dependent variables that are influenced by various organizational environment factors.

The current model also incorporates the ideas of Huselid (1994; 1995), who argued that a set of either HRM strategies or business strategies will not have a direct impact on business performance unless they change organizational behaviour and create organizational competencies and capabilities. This is also the argument essential to the behaviour theory and resource-based view of the firm (Barney, 1991; Hamel and Prahalad, 1994; Guest, 1997; Barney and Wright, 1998; Bartlett and Ghoshal, 2002). The implementation of organizational business and HRM strategies that result in better organizational outcomes in terms of employee commitment, flexible and quality staff, and administrative efficiency and cost effectiveness can lead to achieving organizational bottom-line results (Becker et al., 2001). So the strategic organizational outcomes are essentially the dependent variables determined by business and HR strategies, but are also independent variables related to achieving organizational performance.

Dynamic environmental factors that influence the current operation and future development of the coal industry include the geographic location of the coalmines, management either on-site or at headquarters; organizational internal characteristics such as size, years of establishment, technology application, structure and culture; external environmental influences from the political, social, and economic contexts under which the coalmines are operating; and the potential impacts of multiple stakeholders such as industry bodies, trade unions, community developers and environmentalists. These environmental variables can be both dependent and independent variables, subject to the level and direction of analysis.

**Research propositions**

As a result of explaining a number of dependent, independent and inter-dependent variables included in the integrative framework (Figure 1), eight research propositions are outlined below. It has been widely discussed that it is crucial to integrate patterns of SHRM practices to business strategy (e.g. Becker et al., 2001; Boxall and Purcell, 2003). This is to ensure that HRM practices deliver the results in improving efficiency, enhancing employee commitment and contribution, supporting business strategy execution and facilitating organizational change (Becker et al., 2001). Therefore, it is suggested that:

Companies that have a better “fit” between business strategy and HRM strategies will be better able to achieve organizational bottom-line results in terms of performance, productivity and profitability. (Research Proposition 1)
As discussed previously, a set of HRM strategies will not necessarily have a direct impact on business performance. But the implementation of HRM strategies that result in better organizational outcomes in terms of employee commitment, flexible and quality staff, and administrative efficiency and cost effectiveness will assist in achieving organizational bottom-line results. Thus, two more assumptions embedded in the integrative model (Figure 1) would be:

Companies that have implemented a set of HRM strategies are more able to gain strategic organizational outcomes in terms of flexibility, quality, administrative efficiency, and cost effectiveness. (Research Proposition 2) Companies that have successful implementation of HRM strategies and achieved strategic organizational outcomes will be more likely to achieve organizational bottom-line results in terms of performance, productivity and profitability. (Research Proposition 3)

Organizational business strategy determines how an organization competes in a given business. Companies select business strategies in accordance with the evaluation they make of the dynamic environment in which they wish to compete and the resources available within the organization. As suggested by Bird and Beechler (2002), it is necessary to match business strategy with dynamic environment, and HRM strategy with environment in order to achieve organizational outcomes and organizational bottom-line performance. Hence, it is assumed that:

If an organization’s business strategy were fit in the dynamic environment, business performance would be stronger than if its strategy does not match the environment. (Research Proposition 4)

And:

If an organization’s HRM strategies were fit in the dynamic environment, organizational outcomes would be higher than if its HRM strategies do not match the environment. (Research Proposition 5)

It seems that the biggest challenge many coal companies face at the moment is to deal with the issue of “duality”, that is, attracting and retaining skilled labour, whilst managing a flexible workforce that contains core and peripheral labour. Since 1997, many merger and acquisition activities occurring in the mining industry (Waring, 2005) have intensified this problem of managing the duality. HRM strategies must be developed to address different needs of core skilled employees as well as non-standard peripheral labour in the industry.

Another issue the coal companies are currently facing and will continue to encounter in the future is that of market competitiveness. With many larger mining companies competing for exploration land, technology, market and human resources, in expectation of more international companies joining the competition, the coal industry may not only focus on cost leadership, but also on innovation and quality. These variations in emphasis on business strategies would have a direct impact on the choice of HRM strategies.
According to Bird and Beechler (2002), HRM strategies that are in line with the cost leadership strategy tend to deploy the human resources of the organization as efficiently as possible through the acquisition and dismissal of personnel in accordance with the short-term needs of the organization, and also focus on matching employee skills to specific task requirements. A larger proportion of the peripheral workforce may well be disposed of at one time or another under this set of HRM strategies. In the coal industry, this is quite likely as there are uncertainties about the market movements and prices tend to be volatile because of international competition, hence employers are likely to adopt flexible work arrangement to adjust workforce numbers to suit their production needs according to the changing market demands.

In contrast, HRM strategies that fit with a differentiation strategy via innovation and improved quality are more likely to develop the human resources of the organization through the acquisition of personnel with large, latent potential and development of employees’ potential over a long period of time to meet organizational long-term developmental needs (Bird and Beechler, 2002). It is likely that under this approach, an organization would possess a larger proportion of core employees. The coal industry is a very specialised industry, which requires specific skills for managerial, professional and even ground-level technical employees (such as heavy equipment operators). Specialised training and development programs for the industry’s human resources may be required to sustain the growth of the industry in the longer term. In particular, the industry currently is the engine to drive the regional economic development in Central Queensland. However, it has experienced a serious “bottleneck” effect in its growth and expansion because of the skilled labour shortage. Development of specific skills and core competencies might be the key to keep the industry viable. Therefore, it is proposed that:

If an organization has a “cost leadership” business strategy, there will be a higher proportion of peripheral workforce (e.g. contractors) in the organization, and HRM strategies are reflected in serving more of this group of labour needs. (Research Proposition 6)

And:

If an organization has an “innovative” business strategy, there will be a higher proportion of core workforce (e.g. fixed term employees) in the organization, and HRM strategies are reflected in serving more of the core employees’ needs, (Research Proposition 7)

And lastly:

If an organization has an “improved quality” business strategy, there will also be a higher proportion of core workforce in the organization, and HRM strategies are reflected in serving more of the core employees’ needs, (Research Proposition 8)

6. Discussion and conclusion

The coal industry is an important sector that has contributed significantly to regional, state and national economic development in Australia. However, it seems that further development of the industry will be restricted by skill shortages in the regional areas where coalmines are located, as well as the complexity in managing flexibility, especially managing...
new forms of the workforce with an increasing proportion of contract and shift workers. The research outlined in this paper suggests that taking a strategic approach to HRM to address these recurring issues in the industry may identify some best practices, which could be applicable to improving business performance of other regional industries.

Literature on SHRM practices and how they affect on coal companies performance is rather limited. An integrated SHRM-performance model and eight research propositions reported in this paper serves as a starting point to gather important information about strategic human resource management practices adopted by the coal companies. These practices might have contributed significantly to the performance of coal firms in recent years.

Notwithstanding, developing a pattern of HRM strategies has both short and long-term vested interests for coal companies. On one hand, managing strategic flexibility in the areas of numerical, functional and temporal labour deployment may help driving organizational efficiency and effectiveness to meet the short-term demand for production and export, and maintain market competitiveness. On the other hand, developing a range of strategies addressing employees’ work-life balance, learning and development needs, workplace health and safety issues, and new labour management approaches may help enhance organizations’ reputation, enable them to attract and retain quality staff (including contractors), and establish themselves as “employer of choice” for the long-term sustainable growth.

Three perceivable outcomes are likely derived from application of this framework in the field. First, a testing of the linkage between strategic HRM and firm performance in the coal industry, using an integrated approach, would complement the empirical deficiency of treatments on the prior SHRM models as mentioned by Matin-Alcazar et al. (2005). Second, data at firm level could be collected to develop a better understanding of how the adoption of strategic HRM practices in coal companies can affect firm performance. Third, the extent of flexibility practices, use of contractors and associated management practices could be identified. Various business strategies implemented by the coal companies, and how these strategies are embedded within the organizations’ dynamic environment and drive the development of HRM strategies need to be explored. Further research and data collection will help to develop the theory of SHRM-performance linkage in contemporary organizations worldwide.
**Figure 1.** An integrative strategic human resource management and business performance model as in relation to the Coal Mining Industry

**References**


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