HUMAN RESOURCE MANAGEMENT PRACTICES AND INNOVATION:
A REVIEW OF LITERATURE

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ABSTRACT
The objective of this review is to explore the theoretical and empirical findings of research work, which link human resource management (HRM) practices with organisational innovation. Innovation models demand innovation oriented and focused bundles of HRM practices to develop and sustain innovation potential and capacity of organisations. Findings of this review reveal that the theoretical and empirical status of HRM practices on development and retention of innovation potential and capacity of organizations, and further enhances the existing body of knowledge and the literature on the relationship between HRM practices and organisational innovation. In addition, this review demonstrates three key roles of HRM practices on organisational innovation.

Keywords: Innovation, Human Resource Management, Human Resource Management Practices, Organisation

INTRODUCTION
According to Opatha (2010), the efficient and effective utilization of human resources (HR) to achieve goals of an organisation can be defined as human resource management (HRM). The efficient and effective deployment of HR requires bundles of HRM practices. HRM practices are the actual HR programs, processes and techniques that actually get implemented in the organisation or business unit (Gerhart et al., 2000; Huselid and Becker, 2000). Innovative organisations continuously seek to manage their HR effectively to create and market new products and services (Gupta and Singhal, 1993). The human capital (resource) and the rate of innovation are interdependent and complimentary to each other (GII, 2010). Organisational innovation is ‘concerned with deliberately designing and implementing incremental or radical changes to an organisation’s products/services or processes’ (Hislop, 2005 as in De Winne and Sels, 2010). Studies like Kossek (1987), Wolfe (1995), and Gooderham et al. (1999) suggest that the innovative capacity or capacity to adopt innovative practices in an organisation is determined by the HRM practices of the organisation.

Organisations where innovation resides exclusively among R & D engineers are often boring, bureaucratic places to work and rarely sustain growth and profit. Like oxygen in atmosphere, the innovation as a process must pervade every single part of the organization’s value chain. According to Maital and Seshadri (2013), it should drive behaviour throughout the organisation, for example: from R & D to the assembly line, through the customer service centre and down to the warehouse and etc. Their views really increase the scope and depth of HRM practices on organisational innovation. In addition, Chen and Huang (2009) indicate that innovation initiatives heavily depend on employees’ human capital and behaviour at work. They also stated that these are the key inputs in the value creation process of the organisations.
Laursen and Foss (2003) demonstrate inadequate literature of investigations on the relationship between new HRM practices and innovation performance of organisations. Although there is a wide recognition for the importance of HRM with respect to innovation, it has been scarcely treated in studies of innovation to date. Only a few research has explicitly examined the relationship between the HRM and innovation (Jimenez and Valle, 2008). The research findings on the relationship between HRM and innovation are inconclusive due to lack of integral conceptual frameworks (De Winne and Sels, 2010). According to Santiago (2013), little attention is paid to the study of the work environment, in which learning and innovation take place; and available evidence remains anecdotal and scattered throughout case studies. Therefore, a comprehensive review on this issue is required in order to expand and enrich the theoretical and empirical knowledge in this area. Hence, the objective of this review is to explore the existing theoretical and empirical findings in the literature and how the HRM practices link to the organisational innovation.

The rest of this paper is organized as: methodology, literature review (includes, theories and empirical works on HRM practices and organisational innovation), discussion (on the emerging role of HRM practices on organisational innovation), and conclusion and directions (for the future research).

METHODOLOGY

This review explores the theoretical and empirical findings, which links HRM practices with organisational innovation. Tranfield et al.(2003) specify how to conduct a systematic review of literature to produce evidence-informed contents in the field of management. In considering the nature and objective of this review, methodology proposed by the Tranfield et al.(2003) is considered as the most appropriate, since they suggest how to conduct a literature review systematically by using an archival method with three stages, which enables the reviewer to structure the review, and build a reliable knowledge base in the respective study area. The three stages are: planning the review, conducting a review, and reporting and dissemination. This review follows these three stages in order to produce evidence-informed management knowledge by exploring the theoretical and empirical findings, which links HRM practices with organisational innovation. This review uses publications from the relevant text books, journal articles, edited works, and other research materials to achieve the objective of this review.

LITERATURE REVIEW

HUMAN RESOURCE MANAGEMENT AND INNOVATION

When organisations involve in innovation, they need creative and innovative people, who are flexible, risk taking, and tolerance of uncertainty and ambiguity (Chen and Huang, 2007). It is important for an organisation to adopt supportive HRM practices that can motivate and encourage employees to be creative and innovative (Ling and Nasurdin, 2010). HR have the potential to inspire innovation and creativity in the organisations (Gupta and Singhal, 1993). A study of the World Bank on organisational innovation in 47 emerging economies indicates that the education level of managers and workforce had a significant influence on innovative capabilities (Ayyagari et al., 2007). Knowledge, skills and behaviours of employees can be the sources of innovation performance of an organisation (Jimenez and Valle, 2008). They also pointed out that the innovation capacity of an organisation resides in its employees' competencies and motivation. Employee knowledge is the prime source of innovation or the motivation of innovation. Based on this, one can argue that organisations
that have the employees’ cognitive knowledge gathered through academics act as a drive for innovation (Som, 2007). These ideas support the resource-based theory (Wernerfelt, 1984) of a firm. According to the resource-based theory, innovation permits the development of valuable and scarce resources in the organisation.

There is a general identification about the importance of HRM as a determinant of innovation. HR and HRM practices of an organisation have power to determine the innovation inputs, innovation occurrence and sustainable innovation performance of the organisation. The reason behind this phenomenon is: the innovative capacity of an organisation resides in the intelligence, imagination and creativity of its HR (Mumford, 2000) in terms of innovation inputs. Similarly, for the innovation occurrence and retaining innovation potential in a sustainable manner, organisations require innovation focused HRM practices. Eventually, a set of HRM policies, procedures and practices can provide ‘required inputs for innovation’, can ensure ‘innovation occurrence’ and can retain ‘innovation potential’ in an organisation.

According to the Ability-Motivation-Opportunity (AMO) theory (Appelbaum et al., 2000), performance is a function of ability, motivation and opportunity. From this perspective, one can argue that innovation performance (individual or organisational level) is also a function of innovation related ability, motivation for innovation and opportunity for innovation. AMO theory suggests that HRM practices enhance the organisation’s human capital via increased human capabilities translate into performance outcomes such as innovation, higher productivity, reduced waste, higher quality and profit. In accordance with this theory, innovation-focused staffing and training practices can ensure the required ability and capability for organisational innovation. By enhancing HR’s motivation and commitment through the practices of reward management and innovation embedded performance management, the organisations can ensure real innovation occurrence in the workplace. At the same time, as William (1990) states that innovation does not occur by itself, organisations must provide their employees the opportunities to innovate or must make demand for innovation from their employees. In general terms, to be an innovative organisation, it has to request for innovation. In addition to these practices, organisations must ensure the sustainability of innovation performance via HRM practices. In general, HR practices have power to enhance ability, motivation and opportunity in an organizational environment.

According to the system theory (Katz and Kahn, 1978), a system is with inputs, processing and outputs. By using this theory, one can integrate HRM system and innovation system of an organisation. Innovation system of an organisation should consists of inputs, innovation processing or occurrence, and innovation outputs. HRM system of an organisation can work in an integrated manner with the innovation system of an organisation. Table 1 shows the interconnection and interdependent of both systems.
Table 1 - Link between both systems

<table>
<thead>
<tr>
<th>System</th>
<th>HRM system of an organisation</th>
<th>Innovation system of an organisation</th>
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</thead>
<tbody>
<tr>
<td>Inputs</td>
<td>Employee knowledge, skills, abilities and attitude</td>
<td>HR inputs and other inputs</td>
</tr>
<tr>
<td>Processing</td>
<td>Creating and shaping employee behaviour via HRM functions, processes, procedures and practices</td>
<td>Innovation occurrence or process of innovation taking place/materializing innovation</td>
</tr>
<tr>
<td>Outputs</td>
<td>Efficient and effective HR system, job performance and retaining talented workforce</td>
<td>New products, process and innovation performance and retaining innovation potential</td>
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**EMPIRICAL STUDIES ON THE RELATIONSHIP OF HRM PRACTICES AND INNOVATION**

Carda et al. (2014) reveals that there is a positive relationship between HRM practices and innovation in both the processes and the products. Particularly, certain HRM practices such as autonomy, participation, training, career plans and organized recruitment processes are strongly linked to creativity and innovation.

Chang et al. (2011) investigate how hospitality companies in China can promote incremental and radical innovation through HRM practices (especially selection and training). They reveal that both the hiring of multi-skilled core customer-contact employees and the training of core customer-contact employees, with respect to their multiple skills, have significant and positive effects on incremental and radical innovation in the hospitality companies.

Ortiz et al. (2009) examine the relationship between the HRM policies and practices from the perspective of total quality management and performance in innovation. The study considers about 106 industrial organisations in Spanish. The study theoretically proposes that there is a direct relationship or possible moderating effect of strategic orientation towards innovation. The study endorses a direct relationship of the strategic orientation to innovation (particularly, the positive effects of teamwork on technological innovation), and also reveal no evidence of the moderating effect proposed.

Through the effective practices and policies in HRM functions, *Diversity Management* can create and maintain sustainable competitive advantage for organisations, as the diversity increases creativity and innovation of the organisations (D’Netto et al., 2014). A significant part of innovations depends on the HR related diversity management in sustainable organisations. The successful performance in managing innovation is influenced by the ability of an organisation to manage the diversity of its HR (Jabbour and Santos, 2008).

Jimenez and Valle’s (2008) survey on 173 Spanish organizations concludes that HRM practices (flexible job design and empowerment, team working, long-term and skill-oriented staffing, extensive-and long-term oriented training, broad career opportunities, behaviour-based appraisal and organic compensation system) enhances organisational innovation.

Lin (2011) confirms two critical cornerstones of e-HRM, such as information technology (IT) adoption and virtual organisation (VO), in consideration of 86 information and electronics companies in Taiwan. These two adoptions positively affect organisational...
innovation and also positively moderate the relationship of employees’ creativity to organisational innovation.

Roche and Teague (2012) investigate in HRM and alternative dispute resolution (ADR) in Ireland. They conclude that organizations that place importance on developing people-centered HRM policies are more likely to be disposed to adopt state-of-the-art conflict management practices designed to solve workplace problems quickly and fairly. The study also indicates that in conflict management practices, innovations are mostly apparent with addressing group conflicts, rather than addressing individual conflicts of employees. Further, study demonstrate how refashioning of HRM along the lines of high-commitment principles and practices has been associated with innovation in the literature of conflict management practices.

With the manufacturing industry in Malaysia, Cheng and Mohd (2010) examine the relationship of five (5) HRM practices (recruitment, performance appraisal, training, reward system and career management) to three forms of organisational innovations (product, process and administrative innovation). The study reveals that training alone has a positive and significant effect on three forms of organisational innovation. Moreover, performance appraisal positively and significantly affects administrative innovation.

In the industrial city of Kocaeli in Turkey, Ozbag et al. (2013) examine the role of HRM in fostering the knowledge capability, which leads more innovation in organisations. The results indicate that HRM capabilities are positively related to knowledge management capability, which turn into innovation. In addition, the HRM capabilities, as mediated by knowledge management capabilities, have both direct and indirect effect on innovation.

Ordaz et al.’s (2008) study among the sample of 97 Spanish companies belonging to the three most innovative sectors (on the basis of number of patents registered) reveals that the top management’s strategic vision alone does not explain organizational innovation performance. The study also indicates that innovation performance also requires the existence of compensation or reward management practices based on the ideas generated and developed by project teams. These findings provide relevant implications for HRM functions about the way and how teams should be rewarded and supported in order to improve the organisation’s innovation efforts.

DISCUSSION

There are adequate literature to prove the existence of positive association between HRM practices and organisational innovations (e.g. Laursen and Foss, 2003). Apart from this, the effects and impacts of HRM practices on organisational innovation are the focal points in this study area. As far as the empirical studies are concerned, a very few studies indirectly provide little evidences (e.g. De Winne and Sels, 2010; Ozbag et al., 2013) regarding the direct and indirect effects of HRM practices on organisational innovation. With respect to the scope (HRM functional dimensions), there are significant evidences to show the potential contribution of the functional dimensions of HRM practices on organisational innovation, in general. Apart from these, there are gaps in the literature (contextually and empirically) regarding the role of HRM practices towards organisational innovation. This can be termed as ‘innovative role of HRM practices’ in organisational innovation.

The reviewed literature suggests that HRM practices can contribute substantially to organisational innovation. However, the existing literature fails to highlight specific role of HRM and its practices in three key domains of organisational innovations. Firstly,
organisational innovation requires certain forms of inputs (e.g. creative and committed workforce and knowledge workers, and development of knowledge and skills). Though an organization satisfies the required inputs for innovation, it does not mean innovation will take place voluntarily within the organisation. Secondly, to materialize the real performance of innovation, some additional mechanisms are needed to trigger innovation in the organisations (e.g. culture and climate for innovation, motivation, innovation oriented behaviours etc.). Finally, an organisation needs to sustain its innovation potential for a long period of time (e.g. retaining creative workforce and experts). These three aspects can be considered as the key roles of HRM practices on organisational innovation.

**INPUT ROLE**

This role is to supply required HR (human capital) inputs for organisational innovation. Organisational innovation requires certain forms of inputs such as creative and committed workforce and knowledge workers, and development of skills, knowledge and strategic competencies. Building innovation capabilities of an organisation is especially an important aspect under this role. Carefully analyzing and estimating the HR input needs for innovation, selecting and hiring creative people (Gupta and Singhal, 1993), and testing creative thinking of applicants during the selection process (e.g. through the assessment centre), recruiting highly educated and qualified people for job vacancies (Ayyagari et al., 2007), hiring strategically, ensuring diversity in recruitment and selection (Jabbour and Santos, 2008; D’Netto et al., 2014), and training and retraining for innovation are, for example, some of the important practices come under this role. By implementing these practices for a prolong time period, an organisation can become an ‘innovative employer’ or ‘innovative organisation’.

To attract creative people for the job vacancies, some organisations communicate their priority and expectation about candidate’s innovative capacity in their job advertisements. For example, Hemas Holdings PLC, a leading public quoted conglomerates in Sri Lanka had stated in its job advertisement for the post of Head of Finance as “freedom to innovate, opportunity to prosper” in bold and red color capital letters (Sunday Observer, 11th May 2014, p.83). The same advertisement, under the expectation of candidate behavioural traits, had stated that the candidate should display, “Drive to convert new ideas into a successful innovation”. Similarly, some companies indicate their stand on innovation, even in their advertisements for the internship programs. For instance, “MAS Holdings, Deutsche Bank, Dialog Axiata and 3M joins together in inspiring innovation and creativity by opening doors for a group of accomplished interns, for the ultimate corporate exposure” (Sunday Observer, 11th May 2014, p.67). These are some of the good examples and practices to show the extent to which some organisations are very keen to provide priority to attract creative and innovative people to their organisations.

Creating a diverse workforce through recruitment and selection practices of HRM can promote innovation, since the potential benefits of workforce diversity include better decision-making, higher creativity and innovation, greater success in handling diverse customer bases, etc. (Cox, 2001 as in Bhopal and Rowley, 2005). Similarly, ‘global staffing’ can also play a key position in organisational innovation, organisational learning and corporate integration (Collings et al., 2009).
MATERIALIZING ROLE

Once the major inputs of organisational innovations are in place, a self-sustaining and self-governing teams or other team mechanism (e.g. network and cross-functional teams, innovation project teams) are needed to work towards real innovation outputs across the organisational departments and among the various levels in the organisations. These mechanisms and supportive (suitable) HRM practices for these mechanisms can facilitate the transfer of complex and diverse knowledge into the innovation process and can promote innovation as a focal point in the organisation.

To materialize innovation in the organisation, certain additional mechanisms are also needed. They establish continuous and active learning culture among the workforce, and promote appropriate culture and climate for innovation, motivation, innovation oriented behaviours, etc. According to Gupta and Singhal (1993), certain HRM practices such as freedom to do research, freedom to fail, freedom to form teams, and freedom to run business, empowering people are needed. Laursen (2002) also emphasizes the deployment of teamwork to improve innovation. Similarly, Schuler and Jackson (1987) indicate that via job design, organisations should allow employees to have spare or additional time for thinking about new ideas, developing new ideas and working with ambiguity and tolerance.

Further, innovation oriented performance evaluation and feedback, attractive reward packages, innovation specified profit sharing, and encouraging and facilitating open communication are also important practices related with this role. A study concludes that HRM practices that encouraged innovation takes place mainly in the area of reward management and open recognition for achieved performance (Cano and Cano, 2006). HR department should take a more active role in informing employees about the association between pay system and innovation system of the organisation. In other words, HRM should ensure that employees really understand how the pay system works towards, or aligns with, the innovation performance of employees.

Work autonomy is very much important to develop creative and innovative culture in the organizations, since autonomy increases employees control over their work environment and enhances the opportunities to assign employee tasks in accordance with organisational needs (including innovation needs of the organisation) and respond the challenges, when they occur (Wang et al., 2007).

According to Mazzanti et al. (2006), set of industrial relations variables (e.g. ‘good quality atmosphere’ and ‘involvement of worker representatives and employees’) does emerge as a significant factor to explain organisation innovation intensity. Oldham (2003) uncovers that supervisory and peer support to be critical for sharing of new ideas and thinking among employees. This kind of work climate can positively influence innovation activities of the organisations.

RETAINING ROLE

Organisations need to sustain its innovation potential for a longer period of time by retaining creative workforce, experts and individual innovators. This can also be possible through the HRM practices. The sustainable performance in innovation not only depends on the ability to generate innovation potential and make innovation taking place, but also protects or retains generated innovation potential. ‘Organisations must work hard to maintain the interest and energy level of their most talented employees. Otherwise, they will simply disappear’ (Campbell- Allen et al., 2008).
Eriksson et al. (2014) found that innovative organisations have higher technical employee turnover rate than non-innovative organizations. This is also consistent for the organisations that are implementing research and development projects and are producing new commercial products. Further, the increase in employee turnover rate discourages the organisation’s research and development efforts and activities and lowers its innovation performance.

During the downsizing, organisations must carefully handle their research and development staff by distinguishing them from others without affecting their organizational innovative abilities and capacities (Mellahi and Wilkinson, 2010).

An organisation’s accumulated innovation potential and capabilities can erode due to inadequate or poor people management practices (Santiago, 2013). Using training and development practices is vital to upgrade employee skills and retain creative employees, while adopting new job design to split creative (core) employees from others. Retaining creative employees cannot be ignored, since they are the source of organisational innovation (Bae and Rowley, 2004 as in Zhu et al., 2007). For example, transparent conflict management practices (Roche and Teague, 2012), opportunities for continuous education and learning, sabbaticals, stock ownership options for innovative employees, good employee relations are some of the essentials for retaining creative employees in organisations.

Realizing these roles of HRM practices on organisational innovation may create a significant impact on sustainable organisational innovation. Approaching HRM practices with these lens, ultimately lead to two outcomes: (1) HRM innovation and (2) organisational innovation and productivity. As there is no a constructive definition for HRM innovation, this review has adapted ‘management innovation’ definition of Birkinshaw and Mol (2006): ‘HRM innovation- that is the implementation of new HRM practices, processes and structures that represent a significant departure from current norms- has over time dramatically transformed the way many functions and activities work in the organisations’. This kind of HRM innovation definitely pave the way for creating and sustaining the organisational innovation.

CONCLUSION

This review concludes that innovative HRM practices (HRM innovation) are important to foster organisational innovation. Integrating organisational innovation processes with HRM functions and respective practices have significant and positive effects (directly and indirectly) on innovation performance of the organisations. In this process, HRM practices have to play three major roles. In this context, HRM practices should provide: firstly, required inputs for the organisational innovations (input role); secondly, required mechanism to bring innovations in the organisations (materializing role); and thirdly, required mechanism to retain the innovation potential of the organisations (retaining role). This review strongly suggests that future studies in this line are needed further to explore these identified roles (input role, materializing role and retaining role) of HRM practices on organisational creativity and innovation.
REFERENCES


