

**Promoting Corporate Entrepreneurship through Human Resource
Management Practices in Globalised Era: A Review of Empirical Research**

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Abstract

Most organizations find that their ability to identify and innovatively exploit opportunities decreases as they move from the entrepreneurial to the growth phase. The key to Success in the highly competitive and dynamic environment that most companies presently operate in is to retain this ability. Therefore, companies need to adopt an entrepreneurial strategy - seeking competitive advantage through continuous innovation to effectively exploit identified opportunities — in order to sustain and grow under such circumstances. As environments become more complex and dynamic, firms must become more entrepreneurial in order to identify new opportunities for sustained superior performance. Corporate entrepreneurship (CE) involves organizational learning, driven by collaboration, creativity and individual commitment. Therefore, it is widely held that human resource management (HRM) practices are an important driver of success. However, there is a pressing need for empirical research that addresses the contributions that HRM makes to a firm's ability to accept risk, be innovative and be proactive. This paper reviews empirical research linking HRM practices with CE in Globalised Scenario. It is found that although there is consensus as to the importance of HRM to CE, the empirical evidence is mixed and tends to lack a clear theoretical explanation. This review identifies two central themes that need to be addressed as we seek a theoretical explanation for this important relationship: individual risk acceptance and the encouragement of discretionary entrepreneurial contributions. It is suggested that these two issues are interdependent. Potential theoretical avenues and future research directions are discussed. From a managerial perspective, the results of the study indicate that the Corporate Entrepreneurship Assessment Instrument can be useful tool in analyzing corporate entrepreneurship environment in the statutory bodies.

Keywords: Corporate Entrepreneurship, Entrepreneurial Leadership, Focused Entrepreneurship, Human Resource Management, Innovation.

“PROMOTING CORPORATE ENTREPRENEURSHIP THROUGH HUMAN RESOURCE MANAGEMENT PRACTICES IN GLOBALISED ERA: A REVIEW OF EMPIRICAL RESEARCH”

“One of the things that is really important for government is to make sure that the environment is such that the entrepreneurial spirit remains strong.”

President George W. Bush (2005)

Corporate entrepreneurship (CE) is becoming increasingly important for the competitiveness of organisations as they face dynamic competition unleashed by globalisation. The diffusion of an entrepreneurial mindset and behaviors through the corporate structure has become an increasingly important concept to private- and public-sector organizations that are trying to remain competitive and efficient in the rapidly changing global marketplace (Kuratko, Montagno, & Hornsby, 1990).

The concept of CE discusses the inside of current organization irrespective of its size, leads to innovative activities, including new product development, process and service improvement (Antonic & Hisrich, 2001). The corporate entrepreneurship includes the study of the organisational process on creating new businesses within existing organizations, through internal innovation or joint ventures/alliances; and changing the organizations through strategic renewal (Brizek & Khan, 2007).

Many business executives concur that the ability to drive business growth and implement new and innovative ideas are several of the top priorities of organisations in the 21st century (Drucker 2002; Rigby 2003; Planting 2006; Morris, Kuratko & Covin 2008). However, the management of innovation and corporate entrepreneurship (CE) is complex, challenging and subject to risk (Ahmed 1998: 30).

Zahra (1986) identifies three factors that may act as catalyst in promoting corporate entrepreneurship within the organization namely, environmental, strategic and organizational factors. The environmental factors are external factor such as dynamism, industry growth customer demands, and external technological development.

Zampetakis and Moustakis (2007) highlight that most of the studies on corporate entrepreneurship focus on assessing the outcome of firm level related factors on entrepreneurial behavior and ignore the connection between individuals.

Defining Corporate Entrepreneurship:

The term “corporate entrepreneurship” can be defined as the process by which teams within an established company conceive, foster, launch and manage a new business that is distinct from the parent company but leverages the parent’s assets, market position, capabilities or other resources. It differs from corporate venture capital, which predominantly pursues financial investments in external companies. Although it often involves external partners and capabilities (including acquisitions), it engages significant resources of the established company, and internal teams typically manage projects.

Corporate entrepreneurship (CE), generally, refers to the development of new business ideas and opportunities within large and established corporations (Birkenshaw 2003).

According to Eesley and Longnecker (2006), corporate entrepreneurship is the practice of producing new business products, services and opportunities in organization through proactive empowerment. The development of corporate entrepreneurship necessitates the combination of effective implementation of organizational conducts such as decentralization of authority, involvement in decision making, collaboration, avoidance of bureaucracy and support of risk taking (Zampetakis & Moustakis, 2007).

According to Morris, Kuratko and Covin (2008), corporate entrepreneurship describes entrepreneurial behaviour inside established mid-sized and large organizations. Four types of corporate entrepreneurship have been identified in the literature namely corporate venturing; intrapreneuring; organisational transformation; and industry rule – breaking

Brizek and Khan (2007) report that corporate entrepreneurship covers two conceptually unique and separate fields. Firstly, it covers the creation of a new business within an existing organization. Secondly, it involves strategic renewal that includes innovation and creativity. They acknowledge that corporate entrepreneurship has been described as “organizational innovation, risk taking, diversification and organizational empowerment” and has been labeled in many ways such as corporate venturing; intrapreneuring; internal corporate entrepreneurship; and strategic renewal.

Barringer and Bluedorn (1999) conclude that an organisation’s entrepreneurial intensity is positively influenced by the nature of its strategic management practices. In contrast, Brizek and Khan (2007) states that advanced plans create rigid administration which may weaken the success of entrepreneurial conduct in an organisation. It can be concluded that an organisation’s capability to increase its corporate entrepreneurship conduct is basically determined by its well match management practices with its entrepreneurial desire (Brizek & Khan, 2007).

Macchitella (2008) argues that the level of entrepreneurship within the firms is critically dependent on the attitude of the individuals within the firms below the ranks of top management. He analyses the human resource management practices that influence different kinds of entrepreneurial activities, which lead to corporate performance.

Crommie (2000) asserts that entrepreneurship is not limited to the top management, but must be practised in many sections of organizations. He further mentions that corporate entrepreneurship would increase in the form of team oriented co-operative environment.

The essence of entrepreneurship is innovation (Schumpeter, 1934; Drucker, 1985) leading to wealth creation (Khandwalla, 1987) and sustained growth of corporations (Miller, 1983; Naman and Selvin, 1993; Lumpkin and Dess, 1996; Ray and Ramachandran, 1996). The motive for entrepreneurship lies in the urge to identify the sources of existing and emerging customer dissatisfaction and developing solutions to eliminate them (Ramachandran, 2003).

As noted, a body of literature has emerged that encourages leaders to promote innovativeness, pro-activeness, and risk taking among the members within a larger organizational context (Covin & Slevin,

1989). As this literature has emerged, various concepts, constructs, and definitions used to describe these activities have been introduced and analyzed.

Corporate entrepreneurship, corporate venturing, intrapreneurship and entrepreneurial mindset are all examples of terms that have formed the basis of research describing these activities (Covin & Slevin, 1991; Kuratko, Hornsby, Naffziger & Montagno, 1993; Kuratko, et al., 2001).

In a global sense, Kuratko, Ireland, Covin, and Hornsby (2005) suggest that corporate entrepreneurship represents a set of behaviors “requiring organizational sanctions and resource commitments for the purpose of developing different types of value-creating innovations” (p. 700). Kuratko et al. (2005) compiled this definition by synthesizing definitions presented by various authors.

CE includes activities such as corporate venturing, intreprenuring, organizational transformation and industry rule-bending. Central to all this are the organisation’s ability and willingness to learn or unlearn from new and existing knowledge and to contribute to the organization’s mass of social and human capital and its potential for wealth creation. It is well recognized that HR is strategically positioned in the organization to trigger, facilitate and drive these activities.

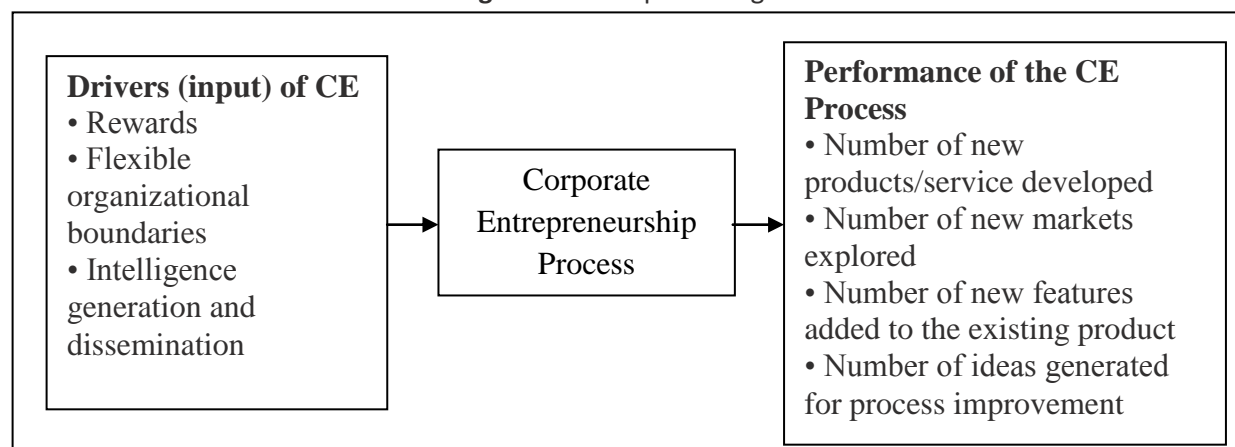
The CE literature views the degree of entrepreneurial behaviour as a critical enterprise capability to create value for the enterprise’s customers and owners (Leibold, Voelpel & Tekie 2004; Goosen, DeConing & Smit 2002, Covin & Slevin 1991; Zahra & Garvis 2000).

Therefore, CE can be regarded as an intangible organisational capability embedded in an enterprise’s culture, which contributes to building and renewing an enterprise’s competitive advantages (Zahra & Covin 1995; Lee, Lee & Pennings 2001; Morrow et al. 2007).

Theoretical Underpinning:

Corporate entrepreneurship success is defined as the number of products, services, and markets developed (Antoncic and Hisrich, 2000; Zahra, 1991). The research diagram is given in Figure 1.

Figure 1: Conceptual Diagram



Corporate Entrepreneurship: How?

In recent times a new brand of corporate entrepreneurs has come to the forefront in large organisations. They are called 'intrapreneurs'. A number of talented persons from the corporate world found that their managements are not receptive to new ideas. So they leave their parent organization and start ventures of their own. Many such intrapreneurs become exceedingly successful in their new fields and cause a threat to the companies they left a few years ago.

The emergence of intrapreneurs is the result of corporate brain-drain which is a worldwide phenomenon. The companies should learn to make use of their entrepreneurial talents within the organization if stagnation and decline were to be avoided. What drives talent within the organization is not monetary gain but a deep desire of personal achievement. Companies should provide such people with adequate financial resources and freedom so that their ideas can be developed. The computer giant IBM was a pioneer in the propagation of this concept.

Corporate entrepreneurship is referred to as **intrapreneurship**. It is concerned with innovations that lead to new corporate divisions or subsidiary ventures in established, large firms. The concept of entrepreneurship does not exclude managers in large organisations from being entrepreneurs if they combine resources in unusual ways to create innovative new products or services.

Most organizations find that their ability to identify and innovatively exploit opportunities decreases as they move from the entrepreneurial to the growth phase. However, the key to success in the highly competitive and dynamic environment that most companies presently operate in is to retain this ability. Therefore, companies need to adopt an entrepreneurial strategy — seeking competitive advantage through continuous innovation to effectively exploit identified opportunities — in order to sustain and grow under such circumstances.

BENEFITS OF CORPORATE ENTREPRENEURSHIP

CE can make a significant difference to a company's ability to compete (Zahra, Kuratko and Jennings, 1999). It can be used to improve competitive positioning and transform corporations, their markets, and industries when opportunities for value-creating innovations are developed and exploited (Miller, 1983; Khandwalla, 1987; Naman and Slevin, 1993; Lumpkin and Dess, 1996).

A key benefit of CE may be to push companies to employ a range of strategies often in unique combinations (Dess, Lumpkin and McGee, 1999). By doing so, companies build layers of advantage by combining distinctive bases for competitive superiority (Hamel and Prahalad, 1989).

CE can improve a company's growth and profitability (Kanter, 1985; Brazeal, 1993; Zahra, 1991). The empirical evidence that CE improves performance by increasing the company's proactiveness and willingness to take risks through development of new products, processes, and services as presented in Kuratko, Montagno and Hornsby (1990), and Lumpkin and Dess (1996) has been termed 'compelling' by Zahra, Nielson and Bogner (1999).

A longitudinal study by Zahra and Covin (1995) provides the best evidence of a strong CE performance relationship. Their study examined the longitudinal impact of CE on a financial performance index

composed of both growth and profitability indicators. Using data from three separate samples and a total of 108 companies, they identified a positive and strengthening linkage between CE and subsequent financial performance. In recent years, academic and practitioner interest has shifted more to the process of nurturing CE since the debate has moved from whether or not CE benefits to the ways and means of maximizing benefits.

FOSTERING ENTREPRENEURSHIP — HOW?

In recent years, the assumptions about strategic and operational environments of the firm have been undergoing rapid changes and the mix of organizational resources necessary to keep pace with them will have to essentially be different. Most organizations, however, do not realize when and what changes are required and how to accomplish them especially when the managers do not feel compelled.

Most organizations lose their entrepreneurial spirit once they cross the start-up phase. The transition from an entrepreneurial growth company to a 'well-managed' business is usually accompanied by a decreasing ability to identify and pursue opportunities. Initiatives and excitement give place to structure and systems. Organizations become blind to opportunities in the process. Some of the practices that contribute to the successful management of resources inhibit the pursuit of opportunity (Stevenson and Jarillo-Mossi, 1986).

An entrepreneurial organization will institutionalize practices that establish an organizational environment in which innovation is considered an accepted and appropriate response to organizational problems (Russell, 1999). These practices build commitment and enthusiasm by creating a shared sense of purpose and meaning in the organization (Roberts, 1984). This ensures that all the firm's technical and business skills are brought to bear to achieve its purpose (Anderson, 1992).

This also helps in developing a culture that encourages creativity and creates a passion for innovation in the firm. Culture is an important determinant influencing individuals' willingness to accept entrepreneurial change (Floyd and Woldridge, 1999) and, as Barney (1986, 1991) emphasizes, organizational culture can be a source of sustained competitive advantage.

The increase in global competition, corporate downsizing and rapid changes in technology has mounted the condition for firms to be more entrepreneurial in order to stay alive and flourish (Brizek & Khan, 2007). These provide greater threat and an even larger opportunity. In tandem with the development and complexities of organisations, there is a continuous need for organizational renewal, innovation and constructive risk-taking (Miller, 1983). Entrepreneurs are the main catalyst in organizational innovation and for economic growth. Organization with more entrepreneurial orientation is generally successful in implementing the procedures of 'innovation conversion' and upgrading competencies. (Lee & Sukoco, 2007).

Organization-wide Entrepreneurship:

At the other end of the spectrum are the organizations that whole-heartedly support entrepreneurial initiatives of any kind such as a small improvement in products or processes to totally unrelated diversification ideas. Most often, such companies start driving entrepreneurial initiatives while the organization is still young without the rigidities of a mature organization. Of course, that does not mean that a mature organization cannot imbibe the spirit of entrepreneurship right across the organization. Depending on the circumstances, even mature organizations can become flexible.

CE is the process by which individuals inside organizations pursue opportunities without regard to the resources they currently control (Stevenson, Roberts and Grousbeck, 1998).

An entrepreneurial manager links up discrete pieces of new technical knowledge that would provide a solution to a customer problem, matches this technical capability with the satisfaction of the market, and garners resources and skills needed to take the venture to the next stage. This process leads to the birth of new businesses and to the transformation of companies through a renewal of their key ideas (Guth and Ginsberg, 1990).

Within the realm of existing firms, CE encompasses three types of phenomena that may or may not be interrelated (Sharma and Chrisman, 1999). These are:

- the birth of new businesses within an existing firm
- the transformation of the existing firms through the renewal or reshaping of the key ideas on which they are built innovation.

Corporate entrepreneurship (CE) rests upon an organization's ability to learn through both exploration of new knowledge and exploitation of existing knowledge (e.g., Floyd & Wooldridge, 1999; McGrath, 2001; Zahra, Nielsen, & Bogner, 1999).

These learning processes are dependent upon an organization's intellectual capital and in particular human and social capital (e.g., Kanter, 1983, 1985; Nahapiet & Ghoshal, 1998; Stevenson & Jarillo, 1990).

In his discussion of Corporate Entrepreneurship, MacMillan (1987) suggests that "We are looking at a situation where [Human Resource Management] intervention is perhaps imperative, for surely there is no other function that has the skills and training to orchestrate the necessary informal processes" (p. 451).

CE is a strategic orientation involving the regeneration of products, processes, services, strategies or even whole organizations (e.g., Covin & Miles, 1999). As such, CE supports sustained competitive advantage through the continuous generation and exploitation of new sources of knowledge. Therefore, CE can have significant impact upon organizational financial and market performance (e.g., Zahra, 1996). In order to help clarify the discussion, this review organizes the empirical literature into a typology based upon its focus in terms of the independent variables (HRM) and dependent variables (CE). This is illustrated in Fig. 1, which also categorizes the studies considered in this review.

The first dimension is the conceptualization of HRM practices. HRM research that addresses firm level outcomes tends to take one of two perspectives. Some researchers have focused upon individual HRM

practices, such as compensation (e.g., Balkin & Gomez-Mejia, 1984, 1987), while others have examined the influence of entire HRM systems (e.g., Laursen, 2002). The growing popularity of the systems perspective reflects interest in the impact that the HR function, as a whole, can have upon organizational performance. CE is an important aspect of firm performance that HRM systems are expected to influence.

J.C. Hayton / Human Resource Management Review 15 (2005) 21–41

	Innovation	Venturing	Corporate Entrepreneurship
Individual HR Practices	Balkin & Gomez-Mejia (1984; 1987); Balkin & Bannister (1993); Balkin et al. (2000)	Steele & Baker (1986); Block & Ornati (1987); Sykes (1992)	
HR Systems or Sets of HR Practices	Souitaris (2002); Laursen (2002); Laursen & Foss (forthcoming).	Hill & Hlavacek (1972); von Hippel (1977); Souder (1981)	Twomey & Harris (2000); Hornsby, Naffziger, Kuratko & Montagno (1993); Kuratko, Montagno & Hornsby (1990); Hornsby, Kuratko & Montagno (1999) Hayton (2004).
Organizational Culture	Chandler, Keller & Lyon, (2000)	MacMillan, (1987)	Morris, Davis & Allen (1994); Zahra, Hayton & Salvato (2004)

Fig. 2. Typology of HRM and Corporate Entrepreneurship research

In addition to studies which address HRM practices and systems, we consider empirical studies of the association between organizational culture and CE. The rationale for including these studies is that HRM practices are an important tool for creating and reinforcing an organization's culture and values (e.g., Deal & Kennedy, 1983; Schein, 1992). Therefore, it is useful to consider how HRM may indirectly influence CE through the creation of an innovation supportive culture (Chandler, Keller, & Lyon, 2000). This is reflected in the typology in Fig. 2.

The second dimension of our typology reflects which aspect of CE is the focus for research. Guth and Ginsberg (1990) offer a definition of CE involving the type of entrepreneurial activities engaged in by firms: innovation, venturing, and strategic renewal. Innovation and venturing refer to the birth of new businesses within existing organizations (Guth & Ginsberg, 1990, p. 5).

Innovation may be considered a process by which inventions are transformed to marketable or value adding products, processes, services, or organizational changes. Venturing involves the creation of a business through either a new business unit, the acquisition of a new business, or through partnering with another organization.

Strategic renewal refers to the transformation of organizations through renewal of the key ideas on which they are built (Guth & Ginsberg, 1990, p. 5). Strategic renewal is the least likely to be observed in

practice as it occurs the least frequently (Covin & Miles, 1999). There have been no examinations of the association between HRM and this aspect of CE. Therefore, we do not consider it further in the present review.

Researchers interested in how HRM influences CE either focus on the whole construct or on one of its components such as innovation or venturing. Therefore, in our review we will discuss the literature that addresses each combination of these antecedents and outcomes, as illustrated in Fig. 2. By organizing the literature in this way, we hope to more easily identify important directions for future research.

Research linking HRM practices to firm level outcomes such as innovation and venturing should acknowledge the issue of considering multiple levels of analysis (e.g., Klein & Koslowski, 2000). The empirical research reviewed here discusses the link between HR practices or systems of HR practices and firm level outcomes. Although the unit of analysis is the organization, the underlying assumptions driving these analyses involve the influence of HR practices upon employee behaviors. In this regard, the implicit assumption reflects the behavioral model of HR practices proposed by Schuler and Jackson (e.g., Jackson, Schuler, & Rivero, 1989; Schuler & Jackson, 1987).

Managing Corporate Entrepreneurship:

CE can be understood as the result of the successful search for entrepreneurial opportunities arising from asymmetries of market or technological knowledge. By exploiting these asymmetries, entrepreneurial firms are able to extract entrepreneurial profits (Schumpeter, 1934). Firms with an entrepreneurial orientation are able to continuously identify and exploit such opportunities (Lumpkin & Dess, 1996). In order to do so, firms must be able and willing to take risks, be innovative and proactive (Miller, 1983). The reward for such an orientation is superior financial and market performance (e.g., Antoncic & Hisrich, 2001; Chandler et al., 2000; Loeff & Heshmati, 2002; Zahra & Covin, 1995).

Underlying an entrepreneurial orientation is a tendency to pursue the creation and acquisition of new knowledge and the integration of new knowledge and capabilities with existing resources in the form of new combinations (Quinn, 1979; Schumpeter, 1934). Therefore, corporate entrepreneurship is dependent upon a firm's ability to continuously learn and unlearn (e.g., Floyd & Wooldridge, 1999; McGrath, 2001), by creating and exploiting new combinations of knowledge.

Management of CE is distinct from traditional management because of the conditions of greater uncertainty and knowledge-intensity (Kanter, 1985). There is a constant need to acquire new knowledge and assimilate it, and this is achieved largely through cross functional and extra-organizational relationships. As a result, organizations tend to develop very loose, ever shifting boundaries (e.g., Kanter, 1983). A further challenge for the management of CE is that in entrepreneurial firms, individuals are faced with the need to quickly choose among multiple competing courses of action, frequently when there is insufficient information to decide on purely rational grounds (e.g., Busenitz & Barney, 1997). A result of this dynamism, complexity and uncertainty, is that CE requires coordination through mutual adjustment rather than command and control, and is driven by commitment rather than consensus (Kanter, 1985; MacMillan, 1987).

Fostering CE demands a more enlightened approach to management including decentralization of authority, participation in decision making, cooperation, avoidance of bureaucracy and encouragement

of risk taking and creativity (Luchsinger & Bagby, 1987). It is widely held, therefore, that HRM practices can make a significant difference in the encouragement of CE. However, while the unique challenges of managing CE have been sketched, more specific prescriptions with respect to HRM practice tend to be difficult to find, and are often contradictory.

A significant challenge in understanding the role of HRM in CE is that empirical research is limited in quantity, frequently lacks a theoretical underpinning, and is also quite diverse. This diversity is a result of researchers examining a range of HRM practices and different aspects of CE. Therefore, this review is divided according to whether the focus is individual HR practices, the HRM system, or organizational culture, and the outcome of interest—corporate entrepreneurship as a whole, or its sub-dimensions of innovation, venturing, and strategic renewal (Guth & Ginsberg, 1990).

The Role of HRM in promoting Corporate Entrepreneurship:

Studies of HRM systems take a perspective that has become increasingly popular in examinations of HRM and firm level outcomes (e.g., Heneman & Tansky, 2002; Huselid, 1995). It is generally proposed that when HRM practices are internally consistent, they reinforce one another so that their sum is a synergistic influence upon desired employee behaviors (e.g., Delery & Doty, 1996). However, only a few studies have examined the influence of sets of HR practices on firms' overall levels of CE and in most cases, the synergy argument has not been examined directly.

Hornsby, Kuratko, and Montagno (1999) identify five success factors linking HR practices to CE. These include the appropriate use of rewards, the provision of management support for innovation, the availability of resources for innovation, an organizational structure conducive to learning and cooperation, and individual risk taking. Prior studies of US samples have confirmed the empirical significance of these five dimensions of organizational environments for promoting CE (e.g., Hornsby, Naffziger, Kuratko, & Montagno, 1993; Kuratko, Montagno, & Hornsby, 1990). Furthermore, these success factors are considered important for CE in both the US and Canada (Hornsby et al., 1999).

Interestingly, however, these five success factors only predict entrepreneurial behaviors for US managers (Hornsby et al., 1999) suggesting that while an organization's internal environment is important, it is by no means the only antecedent of CE. The contribution of the studies by Hornsby and colleagues is an empirical model of success factors supporting both aspects of CE. A limitation of this research is that it addresses HR issues only in very general terms. The interaction or synergistic influence of these factors is not tested.

In a study of 112 firms from a wide range of industries, Morris and Jones (1993; see also, Jones et al., 1995) identify five sets of HRM practices associated with CE: performance appraisals; compensation; orientation and training; recruitment and career development; and job design.

First, performance appraisals are oriented towards ends rather than means; they measure both individual and group performance; their content includes innovation and risk taking behavior (interestingly the latter are means rather than ends); they reflect a tolerance for failure; and they take a longer time frame into account than for traditional administrative management.

Second, in entrepreneurial firms, compensation emphasizes external equity rather than internal equity; base pay is lower and there is a greater amount of pay at risk. Entrepreneurial firms also balance both long and short-term performance and individual and group performance.

Third, entrepreneurial firms invest more time and effort on orientation and there is more group oriented training.

Fourth, entrepreneurial firms emphasize the external labor market and offer a variety of career paths.

Finally, job designs tend to be less structured, and more complex, offering more discretionary authority and freedom. The synergistic effects among these practices are not evaluated.

Organisations that strive to achieve and maintain competitive advantage and superior performance may turn to their entrepreneurial roots as a source of reinvention, revitalization and growth. In particular, large and mature organizations that may have lost their magic see corporate entrepreneurship as a strategy in trying to compete with the agility and innovation of newer and smaller start-ups.

JC Hayton's review of empirical studies of entrepreneurship in established organisations creates a typology of HRM and CE research, and identifies a convergence of key elements in this important relationship. It addresses how HRM can influence CE primarily through HR practices, HRM systems and organizational culture, at individual and organizational levels, while focusing on the whole construct of CE and its sub-dimensions of innovation, corporate venturing and strategic renewal.

Management of CE presents unique demands and opportunities for HRM in environments of flux, which calls for risk-taking, rapid and inclusive decision-making, and a supportive and creative culture and structure. Such challenges explain in part why the empirical research on the HRM-CE link is limited in quantity, often lacks theoretical rigor and is quite diverse.

The lesson for HR practitioners, at both the formal and informal level, is the need to promote discretionary entrepreneurial behaviours and contributions. These include individual risk acceptance, knowledge exchange and collaboration via intra- and inter-organizational relationship-building among key stakeholders. Success is contingent on adopting appropriate reward and recognition strategies that mirror and nurture the values and culture of the CE-driven organization. Equally relevant is job and organizational design and finding a suitable balance between the "looseness" that underpins the CE spirit and the need to monitor, measure and reward performance in such an environment.

As CE continues to grow in competitive importance, the need for both conceptual and empirical research on the HRM-CE relationship remains paramount. Future research, in particular, is dependent on the development of a more integrated and rigorous theoretical paradigm, which would better accommodate the full complexities of this under-explored and multi-dimensional relationship.

One common thread in these studies of HRM practices and CE is the need for HR systems to support informal employee contributions, to encourage cooperation and to avoid unnecessary bureaucratic constraints on behavior. However, while it is conceptually reasonable to expect that HRM practices will reinforce one another in a synergistic fashion in their influence upon CE, to date the evidence is rather limited. It is true that there seem to be some consistent practices such as the provision of organizational support, careful design of compensation and performance management systems. However, when we

examine details of these practices, important contingencies such as technology, strategy, environment or firm life-cycle are rarely considered. A further limitation in current research on HR systems and overall CE is a general absence of theory. However, before discussing relevant theoretical perspectives and potential future directions for research, we examine one further set of empirical literature: organizational culture and CE.

The role of leadership to foster innovation and entrepreneurship:

The intrapreneurial leader's role is to "map out the stages of innovation and recognize the different processes, skill-sets, and technology support each requires" (Amabile & Khaire 2008). The duty of intrapreneurial leaders is to create safety and draw out the very things that motivate and drive people, that are intrinsically linked to their desires (George et al. 2007). Clawson (2006) would call this leading at level three by trying to understand peoples VABE's through promoting innovation where people can make a difference tapping into employee's "deepest intellectual and professional desires" (Lafley & Charan 2008, p 28). By doing this intrapreneurial leaders create a community with Pinchot and Pellman (1999, p 99) stating, "at the core of community is voluntary contribution to the whole, above and beyond the call of duty." This is where intrinsic motivation and reward resides. The feeling of a job well done or having made a difference can stimulate more than extrinsic carrot and stick motivation (Clawson 2006; Covey 2004).

Required Leadership Capabilities:

Innovation and entrepreneurship requires energy (Tidd et al. 2005) and leadership requires the management of energy (Clawson 2006) by building a shared vision of a better future, fostering genuine commitment (Senge 2010) to overcome change resistant obstacles of the status quo. This seems perfect, although it's often more difficult than the previous statement suggests. Not everyone is aggressively focused like Maccoby's (2004) 'productive narcissists' or driven to sate their extrinsic desires (George et al. 2007).

Collins (2001, p 35) outlines individuals who were paradoxical in nature demonstrating humility plus will, of which there was only 11 from a sample of 1,435 companies, not even 1%! This is why the idea of servant leadership (Banutu-Gomez 2004 ; Hannay 2009 ; Quist 2008) can be applied particularly when latent creativity (Csikszentmihaly 1996) and talent exists throughout the organisation that if channeled provides value (Goffee & Jones 2009). If there are people who are entrepreneurial or innovative help them by enabling and guiding them. Extrinsic satisfaction will come but is no substitute for intrinsic desires.

The intrapreneurial leaders' particular foundational capability begins with self-knowledge and authenticity (George et al. 2007). Through having self-awareness, self-regulation, motivation and empathy (Goleman 2004) they clarify their centre (Clawson 2006) through developing an open stance making it possible to be objective, whilst being aware of alternative possibilities (Csikszentmihaly 2008, p 205).

If intrapreneurial leaders develop the requisite 'self' skills then it's possible that their "emotions and actions prompt followers to mirror those feelings and deeds" (Goleman & Boyatzis 2008).

This becomes the Gandhian (1957) self fulfilling philosophy of, 'be the change you wish to see.' If this happens and a focus on understanding the individual's strengths and weaknesses occurs, the reality of distributing leadership throughout the organisation through complimentary skills could be realised (Ancona et al. 2007) releasing creativity to feed innovation and entrepreneurship.

Learning from Indian Corporate Leaders:

Dr APJ Abdul Kalam

He is the man whose efforts are largely responsible for shaping the defence programme of India.

Fondly called "the missile man", Dr Kalam was among India's leading scientists before he became the President of India. He worked with Indian Space Research Organisation (ISRO) and helped in making India self-sufficient in satellite and space technology. Later, Kalam worked for developing sophisticated missiles and other defence technology and acquired the status of a national hero for leading India's nuclear weapons test in 1998.

In 2002, he was elected as the President of the country and graced the post until 2007. Kalam's leadership style and vision are not just valued in India but the man commands respect everywhere he goes. People soon fall for his charismatic way of talking and get endeared to him. He is known to give a leadership mantra as a tip-off everywhere he goes for a public event.

On Creativity

Dr Kalam has always emphasized on the importance of creativity and innovation in anything we do. He says that India needs creative leaders rather than managers or commanders. "If you really want to be a leader, then you have to be a coach rather than a commander, or an advisor rather than a manager and a representative of your colleagues instead of becoming a director," he once told the students of IIM Indore.

On Vision

According to Dr Kalam, the most important quality a leader must possess is to have a vision. A person lacking a vision cannot be leader. Dr Kalam has always been known for his impeccable vision which can be seen in his breakthrough work India 2020. In this book, he has suggested a visionary action plan to develop India into a superpower and a developed nation by 2020. The book has been a bestseller in many parts of the world and has been translated into a number of languages.

Dr Kalam's Poem on Vision

*I climbed and climbed
Where is the peak, my Lord?
I ploughed and ploughed,
Where is the knowledge treasure, my Lord?
I sailed and sailed,*

*Where is the island of peace, my Lord?
Almighty, bless my nation
With vision and sweat resulting into happiness.*

On Integrity and Transparency

Everything a leader does should be transparent and high on integrity. There should be a degree of nobility in management. This creates congenial work environment and generates employee loyalty, which in turn leads to higher efficiency and dedication.

On Exploring New Avenues

Dr Kalam says that a leader must have the inclination and then the grit to travel on unexplored paths. He says that people find it hard to exit their comfort zones and prefer travelling on a well-laid out path. But there is no alternative to hard work and success doesn't come this easy. Unless and until, a leader is willing to try out new things and take at least some amount of risk, things are likely to remain mundane.

On Success and Failure

Dr Kalam has a very idealistic view on success and failure. He says that when failure occurs, a leader should humbly own it and acknowledge it. When success comes, the leader should again have the humility to give credit to all the people who worked for it.

N.R. Narayana Murthy

IT in India would have never been the way it is without one man: **N.R. Narayana Murthy**.

A chief founder of India's largest (and most respected) IT Company Infosys, he is one of prominent architect of information technology in India. Not many people would know that Mr Murthy borrowed Rs 10,000 from his wife to start Infosys. But we all know the success story Infy (as it is fondly called) now is and it's largely owing to the astute leadership and vision of one man.

After serving as the CEO of the company for more than two decades (1981-2002), he retired to the post of Chairman Emeritus in 2011. A recipient of numerous prestigious awards like the 'Padma Vibhushan', 'Legion of Honour' (awarded by the French government), Mr Murthy continues to serve on the board of HSBC, Ford Foundation and the UN Foundation.

He has been constantly ranked high among top business leaders/influential personalities by renowned media organisations like The Economist, Time, CNN etc. Not only is he an IT wizard, he has successfully led key corporate governance initiatives in India. He is an IT advisor to several Asian countries. His leadership lessons are most sought-after, not only by Indians but even by managers in other countries.

We bring you his insightful and thought-provoking advice on some core concerns which confront almost every manager. However, if one reads between the lines, his lessons can be relevant for not just entrepreneurs and managers but almost everybody: students, army men, artists, and even housewives, that is anyone who aspires to make it big in his/her respective field.

Here is some amazing leadership-oriented advice from N.R. Narayana Murthy:

On Adversities and Challenges

Mr Murthy espouses that one of the leader's core jobs is to raise the confidence of the followers. Tough time and challenges are essential parts of the life and they will come out better at the end of it. According to him, a leader has to sustain followers' hopes and their energy levels to handle the difficult days.

Mr Murthy often quotes the example of Winston Churchill to stress on this point. Churchill's gutsy leadership as prime minister for Great Britain successfully led the British people away from the brink of defeat during World War II. He raised his people's hopes with the words, 'These are not dark days; these are great days -- the greatest days our country has ever lived.' Mr Murthy says that during a time of crisis a strong leadership is needed more than ever.

On Being a Successful Entrepreneur

1. Mr Murthy suggests these four essential qualities for entrepreneur to make it big:
2. Passion and will to persevere
3. Giving more priority to the long-term interests
4. High levels of optimism and high aspirations
5. Being a team player

On Starting a New Venture

According to Mr Murthy, these four things can be instrumental in launching a venture:

1. The Idea: One should have a clear, well-defined idea of the product/service he wants to sell.
2. Market value of the idea: One must have a basic level of confidence in the fact that the market values your product and is willing to pay for it.
3. Team: One must have a team of "complementary skillsets". A team may be composed of people with varied skillsets but they must complement a common cause.
4. High Aspirations: Aim high and work hard for that.

On Building Trust

Mr Murthy is of the view that trust and confidence can only come when there is a premium on transparency. "The leader has to create an environment where each person feels secure enough to be able to disclose his or her mistakes, and resolves to improve," he emphasizes. He further adds that even

investors respect the organisations which are transparent and have high degree of credibility. He says, "At Infosys, our philosophy has always been, 'When in doubt, disclose.'"

On Values

Mr Murthy has always highlighted importance of a value system in an organisation. And, compliance to a value system creates the environment for people to have high aspirations, self-esteem, belief in fundamental values, confidence in the future and the enthusiasm necessary to take up apparently difficult tasks. What he's really stressing here is that having a value system is not all. Leaders have to follow it themselves and thus lead by example. As they say, "they have to walk the talk."

On Work Life Balance

Mr Murthy doesn't really identify with the concept of work life balance. He had once said, "First let's make a life, then think about work-life balance. I don't understand the concept of a work-life balance."

On Success

Mr Murthy's definition of a successful person is "one who when he/she walks into a room, people's eyes light up. If he/she brings a smile to people's faces, then irrespective of whether that person is educated, not educated, self-employed, employed, I would still consider that person to be successful."

On People He Looked up to

"When we started our business, there were already well-established business leaders who had founded and expanded their companies while sticking to sound ethical principles," says Mr Murthy. People like JRD Tata, Ghanshyam Das Birla (Birla Group), Laxmanrao Kirloskar (Kirloskar Group), T. V. Sundaram Iyengar (TVS Group) were his role models at that time. He also admired Bill Gates, and trio of Intel founders Gordon E. Moore, Robert Noyce and Arthur Rock.

Corporate Entrepreneurship Assessment Instrument (CEAI):

Kuratko, Hornsby, and Zahra (2002) developed CEAI, a sound psychometric instrument that measures entrepreneurial intensity according to five internal organisational factors. The following factors were identified to have influence middle managers to adopt entrepreneurial activity within established companies.

The Corporate Entrepreneurship Assessment Instrument (CEAI) is an instrument that attempts to measure the effectiveness of the key internal organizational factors, or climate, that influence innovative activities and behaviors.

The organizational factors comprise of organizational structure, culture and managerial systems. Hornsby et al. (2002) identified five key internal organizational factors that influence corporate entrepreneurship namely, management support, work discretion and autonomy, rewards and reinforcement, time availability, and organizational boundaries. Based on this, Hornsby et al. developed

the Corporate Entrepreneurship Assessment Instrument (CEAI), a survey designed to assist managers and leaders to measure each of these internal environmental factors.

Intelligence generation is defined as the ability to recognize the value of new information (intelligence management), assimilate (process and store and disseminate), and use it strategically for innovation. The firms engage in greater level of Information-scanning activities (process). Intelligence generation has been measured by free flow of information, feedback (polling end users), independence (independent information generation about competitors being generated by several departments), periodical review, evaluation (macroeconomic information), and contacts (with officials of government and regulatory bodies in order to collect and evaluate pertinent information) (Nonaka and Toyama, 2002).

From this, Hornsby et al. presented the Corporate Entrepreneurship Assessment Instrument (CEAI)—a survey instrument designed to help managers and leaders measure each of these internal environmental factors. The CEAI is promising for several reasons. First, the CEAI measures antecedents in a way that provides those that use it with a guide to improve corporate entrepreneurship activities. Second, the CEAI measures entrepreneurship at the individual level. As noted, this is important because corporate entrepreneurship requires individual innovative behaviors. Third, the CEAI is relatively brief, which may encourage more managers and leaders to use it.

The significant reasons why corporate entrepreneurship is needed now:

- 1) **Inadequate Growth:** The current reality is that most organizations have spent the last decade investing in existing or mature products that are not providing adequate growth.
- 2) **Failure Rate:** The failure rate for new business initiatives remains high for new products and services, more than ninety percent for transformational efforts.
- 3) **Lack of Capabilities:** A majority of CEOs do not feel like they have the skills or capabilities inside their organization to achieve their growth agenda, they are probably right.
- 4) **Few Role Models:** Only four percent of executives in large organizations are entrepreneurs or entrepreneurial, most executives have achieved their success by managing the core business not building new ones.
- 5) **Major Barriers:** After a decade of cost cutting and streamlining operations, organizations have created rigid and inflexible systems that have created roadblocks and barriers to growth.
- 6) **Inability to Change:** Risk adverse cultures, resistance to change and fear of the unknown are impeding an organizations ability to respond to a rapidly changing world.
- 7) **Reliance on the Past:** Increasing uncertainty, complexity and ambiguity are putting pressure on organizations to rely on practices that worked well for them in the past, but may not now.
- 8) **Poor Execution:** Three out of five organizations say they are weak when it comes to execution and they see corporate entrepreneurship as a way to close the gap between idea generation and execution.

9) **Business Benefits:** Corporate entrepreneurship is linked to higher levels of productivity, engagement, growth, innovation and financial returns. It is also linked to intangible outcomes like knowledge, skill development and job satisfaction.

10) **Accelerate Growth:** Sixty five percent of the top one hundred innovative companies are instituting corporate entrepreneurship as a way to increase their ability to accelerate new business growth.

Conclusion:

In a world of ever increasing global economy, the idea of corporate entrepreneurship has become a topic that leaders and managers must not only be aware of conceptually but also understand in order to be able to strategize and position for organizational viability. As a growing competitive advantage for organizations, succeeding in corporate entrepreneurship is a necessity in today's market place. In order to succeed, the organization must set a vision that encourages growth, rewards risk taking and leverage innovation by adapting to the very changing global economy.

This paper makes three contributions to the literature on HRM and CE.

First, in reviewing the empirical literature we highlight points of agreement and disagreement and identify gaps in our current understanding and potential directions for future study. Understanding where we have been and what we now know will help plan future research directions.

Second, this paper identifies some key areas for synthesis of findings in research across the aspects of CE. Synthesis of prior results will contribute to the development of a theoretical account of the processes underlying CE.

Finally, we identify several possible theoretical bases that may contribute to an understanding of how HRM influences CE. Significant limitation in the literature concerning HR and CE is a lack of consensus concerning the appropriate theoretical perspective. Therefore, we believe that future research will be enhanced by the adoption of a clear theoretical paradigm

Over the past three decades, a small but growing literature has emerged which empirically examines the association between human resource management (HRM) practices and CE. However, a significant challenge exists for researchers seeking to draw conclusions from this research, in that CE are not a one dimensional construct. In fact, CE includes innovation, venturing and strategic renewal activities (e.g., Guth & Ginsberg, 1990). Furthermore, CE may be internally or externally oriented (e.g., Zahra, Jennings, & Kuratko, 1999) and has both formal and informal aspects (e.g., Burgelman, 1983). As a result, research that examines the contribution of HRM practice to CE varies widely in focus and specificity with respect to the dependent variable. Therefore, the purpose of this paper is to summarize and organize this literature with the aim of identifying what we know and areas where future research can enhance our understanding. This summary will also make a contribution from the perspective of practice. As organizations increasingly employ strategies relying upon entrepreneurship and innovation (e.g., Meyer & Heppard, 2000) they need to identify the key HR drivers of these strategies (e.g., Becker, Huselid, & Ulrich, 2001). This review summarizes what we know with respect to these HR drivers of entrepreneurship.

The focus of this review is on empirical studies of entrepreneurship in established organizations rather than the process of new venture creation. The literature was identified using the electronic databases ABI-Inform and Business Source Premier. These databases include collections of journals that typically publish research on either HRM practices or corporate entrepreneurship (e.g., Academy of Management Journal, Strategic Management Journal, Personnel Psychology, Journal of Applied Psychology, Entrepreneurship Theory and Practice, Human Resource Management Review, Journal of Business Venturing). The search terms used were corporate entrepreneurship, entrepreneurship, intrapreneurship, innovation and venturing. These were cross referenced with the search terms HRM and human resources, human capital and human resource management. We also examined the reference sections of both empirical and conceptual articles for studies that were not revealed through an electronic search.

CE is a rapidly spreading idea that organizations can actively encourage the innovative tendencies of their employees. Research has highlighted both tangible and intangible outcomes from corporate entrepreneurship activities. For these reasons and more, it has become important for leaders, managers, researchers, and consultants to understand and measure the antecedents of corporate entrepreneurship, so that they can diffuse these behaviors throughout their organizations and reap the benefits that have been linked to such activities. To fill this need, Hornsby et al. (2002) identified five internal environmental factors that influenced corporate entrepreneurship and developed the Corporate Entrepreneurship Assessment Instrument (CEAI) to measure each of these factors.

Hornsby et al. offered some initial evidence of the instrument's reliability and validity. While the CEAI has been used in subsequent studies (e.g., a study to determine the innovativeness of DoD agencies; Wood, Holt, Reed, Hudgens, & Coombes, 2005), the CEAI's validity and reliability have not been extensively addressed. The purpose of this study is to further evaluate the psychometric properties of the CEAI and refine the instrument. The CEAI takes into account factors such as rewards, reinforcement and resource availability.

As organizational environments become increasingly complex and dynamic, CE is expected to become more and more important for achieving and sustaining competitive advantage. The importance of HRM in encouraging CE has long been argued. The strength of assertions has not been reflected by empirical or conceptual research however. This review has highlighted several areas in which a consensus is emerging regarding which aspects of HRM are influential upon CE.

Leaders recognise that entrepreneurial behaviour within their companies can produce growth and profits. In fact, such behaviour is essential for long-term survival. Thus corporate entrepreneurship, once considered a contradiction in terms, has become widely accepted in successful companies.

The highly competitive and dynamic environment prevalent in most industries is forcing many companies to adopt an entrepreneurial strategy which is seeking competitive advantage through innovation on a sustained basis. The current debate is more on 'how' of entrepreneurship and we have seen that there are many possible routes to follow. Essentially, this requires the top management team to create an organizational setting that focuses the attention of individual participants on innovation as an important and expected activity and enables and directs group and firm behaviours towards entrepreneurial ends. The team will also need to use appropriate processes to capture knowledge created in the innovation process and operate in a manner that enables integration of knowledge to

create rents. Institutionalizing elements of entrepreneurship is crucial for sustaining competitive organizations.

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