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Entrepreneurial Behavior and Innovative Behavior: A Conceptual Clarification

Muhammad Taufiq Amir
Bakrie University, Indonesia

Abstract. *This paper represents one effort to systematize the use of terminology of entrepreneurial behavior and innovative behavior and to clarify how they relate each other. A clearly stated set of relationship and dynamics on these two concepts is necessary for scientific understanding, explanation and prediction. An agreed-upon relationship between entrepreneurial behavior and innovative behavior makes it easier for investigators to build on each other's work, and for practitioners to decide whether research finding are applicable to them. Author first reviews some of the existing definitions on entrepreneurial behavior and innovative behavior and illustrates how they are mutually explaining and overlapping. Various terms used to describe the phenomena of interest are clarified. Endorsing, refining, and shepherding entrepreneurial opportunities are more related to idea generation phase of innovative behavior. While the other behaviors, identifying, acquiring and deploying resources needed to pursue entrepreneurial opportunities are more related to idea implementation phase of innovative behavior. Using the theory of socio-cognitive approach, pattern recognition and regulatory focus, the study details the discussion and concludes the overlap between entrepreneurial behavior and the innovative behavior.*

Keywords: *Corporate entrepreneurship, innovation, innovative behavior; entrepreneurial behavior, socio-cognitive perspective*

1. Introduction

The need to understand corporate entrepreneurship (CE) and innovation at individual level has been gaining in importance (Duane, Covin, & Kuratko, 2009; Kuratko, 2007) and has resulted in a number of framework being presented in the literature (D. F. Kuratko, R. Ireland, J. G. Covin, & J. F. Hornsby, 2005; McFadzean, O'Loughlin, & Shaw, 2005; Wolcott & Lippitz, 2010). It is particularly true as there is a growing need for corporate entrepreneurship and innovation in large established organizations (Thornberry, 2001, 2006).

Most studies show that CE is an important part in doing innovation. Entrepreneurship literature has revealed the relationship between the two (Drucker, 1985; McGrath & McMillan, 2000). To promote innovation in an established organization, managers need to adopt a style of behavior that challenges the bureaucracy and encourage innovation (Barringer & Bluedorn, 1999). Covin and Miles (Covin & Miles, 1999) posit that innovation is common in most conceptualization of CE (Covin & Miles, 1999). This is consistence with Kuratko, Hornsby, Bishop (2005) who suggested CE centers on re-energizing and enhancing the firm's ability to develop the skills through which innovation can be created.

In Zahra's (1993) definition, CE is characterized as a process of organizational renewal with two distinct but related dimensions: (1) innovation and venturing, and (2) strategic renewal. In a meta-analysis, Sharma and Chrisman (1999, p. 18) proposed a similar view in which CE is a process whereby an individual, or group in an organization, creates a new business or instigates renewal within an organization. A

*Corresponding author. Email: taufiq.amir@bakrie.ac.id
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comparative study of innovation and CE of Maes (2003) found many definitions implicitly showing the overlapping. However, there has been little interest in this issue at the level of an individual's behavior. A clear statement of the conceptual relationship at this level is necessary for scientific understanding and prediction. Existing frameworks have viewed on either entrepreneurial behavior or innovative behavior as independent action (Dess, Ireland, Zahara, Floyd, & Lane, 2003) and this may inhibiting their benefit and application. Some questions arise when we pay the attention to literature on these concepts. Are they really two different concepts? Are people who entrepreneurial also do innovative behavior?

To shed light on these questions, the aim of this study is to evaluate entrepreneurial behavior and innovative behavior literature and to clarify how the relationship the two concepts occurred. Hypothetical analysis is provided and current study suggests that entrepreneurial behavior and innovative behavior are overlapped. This clarification is beneficial for scholars and practitioners in managing innovative or entrepreneurial organization. The paper consists of three sections: First, it provide entrepreneurship and innovation definition in general and its interrelationship. Individual level of these two constructs which describes the characteristic of a person are elaborated. Next, the statuses of studies examining the link between corporate entrepreneurship and innovation are explored (see figure 1). In this, CE theories that explaining innovative behavior are discussed. Then, the details of how these theories are presented.

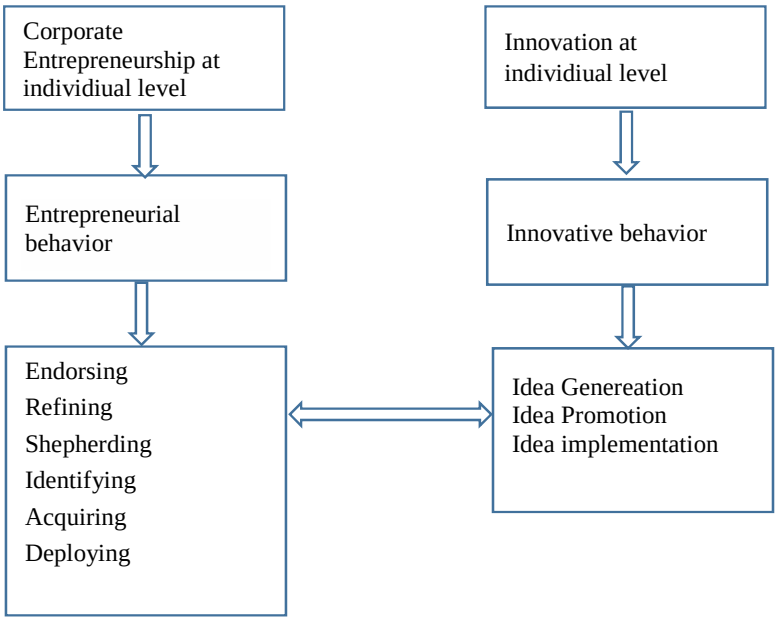

Figure 1. Framework for Reviewing The Literature

2. Corporate Entrepreneurship (CE) and Innovation at Individual Level

2.1. CE at Individual Level

At individual level, study of CE discusses on how employee think, act and behave entrepreneurially at organization. Some literature coin the term intrapreneurship, to describe entrepreneurship inside an established and large organization (Feyzbakhsh, 2008; Pinchot, 1985; Thornberry, 2001, 2006). Intrapreneur, who

performs entrepreneurial tasks in large organization, including creating new units, products, and inventing new process which lead companies to development and profitability (Pinchot, 1985). Other study suggests intrapreneur doing entrepreneurial action, a set of actions through which companies look to exploit entrepreneurial opportunities that competitor overlook (Kuratko, Hornsby, et al., 2005). Innovativeness, risk-taking and proactive, are the key dimensions of the action.

McGrath and McMillan (2000, p. 2) term the person in companies who act like entrepreneur as "habitual" entrepreneur whether they work in independent start-ups company or within existing business. They categorize the characteristics of this kind of habit as: passionately seeking new opportunities particularly that might changes the business model; pursuing only the best opportunities, and focusing on execution but could be adaptive in the progress. Additionally, Pearce et al. (1997) emphasis on how intrapreneurs challenge the bureaucratic formalities, changes oriented, and create an energetic work environment.

Most studies at individual level in CE follow the ideas that employees in organization can be act similar to successful entrepreneur. With comparable properties of cognition and behavior to successful entrepreneur, employees in large established organization could also exhibit entrepreneurial behavior (Thornberry, 2003; Zahra, Kuratko, & Jennings, 1999). Using Sharma and Chrisman's (1999) broad definition of CE, where CE is seen as process of individual and groups create a new business, initiate the renewing within organization, Kuratko et al (2005) created a model that explain what causes middle-level managers to engage in entrepreneurial behavior. They suggest entrepreneurial behavior should be justified by answer the question "what do middle managers do with respect to resources and entrepreneurial opportunities?" propose six dimensions. Three of them relate to the opportunities; *endorsing*, *refining*, *shepherding* entrepreneurial opportunities. The other three are component of the resources in pursuing the opportunities; *identifying*, *acquiring* and *deploying* resources. Next section details these behaviors.

2.2. Entrepreneurial behavior

Endorsing involves employees evaluative position concerning entrepreneurial initiatives emerged from lower organization level. While they may have self-identified opportunities to be endorsed, managers evaluate the opportunities suggested by the level below. Some-time middle level managers endorse ideas coming from top-level managers and "sell" their value creating potential to main implementer, the first-level managers, as indicated by Bartlett and Ghoshal (1997). *Refining* relates to how these managers' attempt to connect the organization's strategy, resources, and political structure with entrepreneurial opportunities the organization has. Employee has to force their synthesis capability to make this connection and it might implicating the adjustment either for the opportunity or for the internal condition.

Closely related to the behavior of refining is the *shepherding*. In this, managers are not only focus on the content or substance of the initiatives, but also on the organizational context within which the opportunity grows and the relevancy with the internal strength. This function is manifested in the action like championing, protecting, nurturing and guiding the initiative proposed. The political skill of intrapreneurs is imperative here as they involve in convincing other at one hand, and ensure avoiding conflict in other hand (Floyd & Lane, 2000). Initiative that entrepreneur suggested or supported needs resources in various form (skills, financial, networking, material) whether they are obtained internally or externally. Behavior of *identifying* and *acquiring* of resources are essential to ensure the initiative run as expected, even if the resources needed are more than the intrapreneurs have. While the function of identification of resources needed are

important, it is not sufficient as the resources should be acquired and manager need to know how. Intrapreneurs' skill in arranging the procurement are well-known. They are not merely depend on purchasing to acquire the resources, but with their network and relationships they could manage resources through various ways including borrowing or leasing. The next behavior that determines manager entrepreneurial is *resources deployment*. Opportunity's promise become potential only if the resources needed are deployed properly. Deploying resources can be broadly defines as arranging the accumulated resources, mobilizing and using it as leverage to support the initiative (Kuratko, Hornsby, et al., 2005). It is also including timing of resources allocation process and the level as well as type of resources allocated. This study proposes six entrepreneurial behaviors above have a close relationship with innovative behavior. Before come to that point of analysis, the next part will discuss about individual innovation as the basis of innovative behavior.

2.3. Innovation at Individual Level

Innovation has long been recognized as an important strategy in the organization's success, whether it is an established or the new one (e.g. Ireland & Webb, 2007). Innovation research at individual level are also developing significantly (Janssen, Vliert, & West, 2004; Scott & Bruce, 1994). Organization seeks to behaviors suits their attempt competing in a fast-moving and changeable, globalized business environment. Several knowledge, skills, abilities and other factors of individual innovation become driving force of research efforts by scholars over the year.

To explain the antecedent or the process of individual innovation, King (1990) suggests scholars use three approaches; *trait*, *situational influences*, *facilitators or inhibitors*. *Trait* is more relevant to this study, and it involves autonomy, social independence, high tolerance of ambiguity, propensity to take risk as variables. From this perspective, Farr and Ford (1990) suggest a model of individual innovation that entails four factors accounted for individual innovation at work; individuals perceptions that change is needed, perceptions that can be successfully implemented, perception that a positive outcome result from the introduction of change and individual's ability to generate new and useful ideas. Recently, rather than call "trait", the Anderson et al (2004) proposed label "individual personality", "motivation" and "cognitive ability" to categorize. With this labels, issues such as openness to experience (George & Zhou, 2002), proactivity (Seibert, Kraimer, & Crant, 2001), determination to success (Kanter, 1988a) are included. These can be used when we analyze the process of individual innovation that covered in the next section.

2.4. Innovative Behavior

Studies of innovation at individual level mainly refer to the theory of the process of innovation. It suggests that innovation consist of two main phases; initiation and implementation of ideas (Axtell et al., 2000). As a behavior, West and Farr (1990) proposed the term Individual Work Behavior as the intentional creation, introduction and application of new ideas within a work role, group of organization, in order to benefit role performance, the group or the organization. Scholars follow this definition, like De jong & Den Hartog (2007, p. 43) who put more emphasis on the initiation and application of new and *useful* ideas, process, products or procedures. Broadly, innovative behavior is a construct that captures all behaviors through which employees can contribute to the innovation process.

Scott and Bruce (1994) specifically categorized three different behavioral tasks in the process; *idea generation, idea promotion*, and *idea realization* or *implementation*. The idea generation can be produced when individuals face the problems, incongruities, like performance gap in their daily works. It can be also gained when individuals deliberately examines their environment, such as emerging trend or new competitor's move. Then, innovative individuals try to collect and arrange the

information on this opportunity intelligently. Compared to other, innovators considered better in using and gaining all of the information about the opportunity. Walter and Egmon (2005) coins the term "prepared mind" to explain this behavior. Individuals with prepared mind examine competently information about their environment and integrate it with their previous knowledge, in order to choose, categorize and present it as beneficial information. Kleysen and Street (2001) suggest evaluation and experimentation often needed in idea generation stage to ensure the idea in good shape and can be promoted to others

Idea promotion entails the efforts to persuade and convince parties who potentially become backers or sponsors of the ideas. These parties are expected to provide necessary influences so that the people involved accepting the ideas (Kanter, 1988a). The attempt to get these social and political support often seen as "championing" (Kanter, 1988b; Kleysen & Street, 2001). In championing, individuals are mobilizing resources, persuading and influencing, pushing, negotiating, challenging and risk taking as well. The success of promoting the ideas will build legitimacies and supports from both inside and outside of the organization to implement the ideas. However, the more complex of the new proposed ideas, the more vary knowledge, competency and roles of allies are needed to backup and to bring it to the implementation (Damanpour & Wischnevsky, 2006).

The Implementation phase involves individuals' attempt to make their ideas adopted in a system that can be used or applied in more units or departments in the organization (Kanter, 1988b). For this purpose, often innovators have to modify and routinize the application (Kleysen & Street, 2001). Strong commitment is needed in this phase to reassure the functions and the benefits of the application. While it will highly depend on the type of innovation, the more original and less practical the ideas, the less likely to be adopted by others and the higher the uncertainty of its effectiveness (Damanpour & Scheider, 2008).

3. The link between Corporate Entrepreneurship (CE) and Innovation

As noted in the introduction, there are rarely studies that focus on the relationship between innovation and CE particularly at individual level. McFadzean et al (2005) highlight the relationship through studying the key features of model, key variables, value added of CE and innovation. Combining the two concepts Shaw, O'Loughlin, & McFadzean (2005, p. 394) define CE as the effort of promoting innovation from an internal organizational perspective, through the assessment of potential new opportunities, alignment of resources, exploitation and commercialization of the opportunities. In this sense, CE is seen as a broader concept than innovation but still as different separated concept. Using the model of entrepreneurial and innovation dynamics of Ireland, Hitt, Camp and Sexton (2001) and the relationship between CE and innovation process, they posit the missing link between the two concepts are entrepreneurial attitudes, vision and actions at these should be considered as a bridge between these two concepts.

Extending McFedzean et al (2005) evaluation, Shaw, O'loughlin, McFadzean (2005) propose there are macro and micro-model of the relationship of CE and innovation. While these models present valuable insight on how an entrepreneurial orientation within an organization can enable its innovation capability, it only show the relationship of CE and innovation at group and organizational level. How it works at individual level has not yet clearly elaborated. Instead of seeing CE and Innovation as a different process, this study posits that both concept are overlapped and connected (see Table 1). Next section shows the connections, particularly through the theory cognitive entrepreneurship.

Table 1. The Connection between Dimensions of Entrepreneurial and Innovative Behavior

	Innovative Behavior dimensions		
Entrepreneurial Behavior Dimensions	Idea Generation	Idea Promotion	Idea Implementation
Endorsing	X		
Refining	X		
Sepherding		X	
Identifying		X	X
Acquiring		X	X
Deploying			X

3.1. Using the corporate entrepreneurship (CE) to explain innovative behavior

The concepts and findings of CE studies may help predict and explain individual innovation. For instance, findings concerning cognitive processes, social behaviors, motives, skills and aptitudes of the successful "intrapreneur" can help us to understand innovative behavior generally. Cognitive approaches to entrepreneurship, such as the concept of opportunity recognition as "pattern recognition" (Baron, 2004), the socio-cognitive perspective (de Koning, 2003), and regulatory focus theory (Brockner, Higgins, & Low, 2004), are relevant to this.

The concept of "opportunity as pattern recognition" explains how the entrepreneur recognizes the connection between apparently independent events by sensing meaningful patterns (Baron & Ensley, 2006). For instance, entrepreneurs may notice a connection between market changes, new technology and altered consumer behavior, and realize an opportunity. In sum, cognitive frameworks assist individuals to detect meaningful patterns and it is including innovator.

The socio-cognitive perspective of "opportunity development" asks "How does an individual use his or her social context to recognize opportunity?" (de Koning, 2003, p. 265). Examining serially successful entrepreneurs, de Koning developed a model of the process turning initial ideas into a business concept (de Koning, 2003, p. 267). This involves four interconnected processes: *information seeking*, *information scanning*, *assessing resources*, and *thinking-through talking*. Three types of social context influence the process of opportunity development: *the inner circle*, *the action set*, and *the network of weak ties*. We could understand the process of individual with these four processes of opportunity development when doing idea generation, idea promotion and idea implementation.

The theory of regulatory focus suggests intrapreneurs regulate their behavior to achieve desired ends according to a certain standard of entrepreneurial success (Brockner et al., 2004). Brockner's framework proposes that individuals use two different perspectives. First, they use *a promotion focus* on the ultimate goal or outcomes. In this kind of self-regulation, people normally choose to present themselves in the best possible light and try to improve the outcomes of their activities. Secondly, they use *prevention focus* to concentrate on safety or to avoid negative outcomes. How intrapreneurs balance both of these perspectives responding to their

situation determines their success in achieving targets. This theory may offer some informed assumptions about how innovators deal with the demands of innovation, including its difficulties.

The concept of entrepreneurial behavior and the theories of opportunity recognition, opportunity development, and regulatory focus may add to our knowledge about individual innovation. The elements of *endorsing*, *refining* and *shepherding* may improve understanding of *idea generation* and *idea promotion* phase, and *identifying*, *acquiring* and *deploying* resources in pursuing opportunities are closely linked to the *ideas implementation* phase. The notion of opportunity recognition may have an important role in all three stages. When people develop new ideas, they must identify the opportunity for the organization and its members. Regulatory focus helps innovators continue their attempts to have ideas accepted in ideas promotion, and successfully implemented.

CE theory, particularly the cognitive perspective of entrepreneurship, is consulted to interpret how innovative behavior occurred. The concepts of opportunity recognition particularly the socio-cognitive and the pattern recognition, and the regulatory focus are used for this purpose. The socio-cognitive and the pattern recognition are relevant to understand the process of Ideas Generation, the regulatory focus is used to understand Ideas Promotion/Implementation. Below this study takes a closer look at how CE theories explain innovative behavior.

3.2. The socio-cognitive approach in explaining ideas generation

The socio-cognitive theory explains how intrapreneurs take advantage of their social context in the pursuit of attractive opportunities (de Koning, 2003). In their information-seeking, scanning and resource-assessing attempts, entrepreneurs are influenced by the people surrounding them. The entrepreneur's social context, for instance social networks, may directly or indirectly impact on their efforts to identify or create opportunities.

In similar ways, innovators also draw support from their networks during the ideas generation process (Binnewies, Ohly, & Sonnentag, 2007). Innovators do not merely rely on their own thinking when pursuing new ideas as on opportunity but also need others' opinions to validate their ideas. Beside ideas, innovators' networks may also provide access to other important networks or resources that are noteworthy for recognizing opportunities (Nijstad, De Drea, Rietzschel, & Baas, 2010). For instance, using their relationship with other professionals in the same industry, they may have access to new potential customers (Gerbing & Zhou, 2001).

Dyer, Gregersen & Christensen (2011) propose several skills for innovator in taking advantageous of their social networks for the purpose obtaining new useful ideas. Certain emotions, such as positive emotion may involve hand-in-hand with the socio-cognitive perspective, where innovators' social context or networks influence how they could gain new ideas (Amir & Standen, 2012). Positive emotion works by paving the way to explore these social contexts and by providing alternatives so that innovators can choose the most relevant context to be explored—even, sometimes, in a very limited time (Amabile et al., 2002).

3.3. Pattern recognition approach in explaining ideas generation and promotion

Pattern recognition may involve in helping innovators in ideas generation and implementation. In the entrepreneurship process, pattern recognition delineates the practice where entrepreneurs identify meaningful patterns in events they experience, or trends they see related to business opportunities (Baron & Ensley, 2006). Intrapreneurs recognizes opportunities to create new business, for example by perceiving the interrelations between apparent events in their surroundings and sensing the meaningful patterns relevant for their business ideas.

Understanding the patterns of connection between technological development, market behavior or competition may supply intrapreneurs with new business ideas.

Pattern recognition may also take a role in filtering ideas. Receiving the flow of ideas, innovators must filter them to find which are more suitable. Their understanding of their situation helps them come up with choices of unique and useful ideas. Perhaps, pattern recognition enables innovator to see the consequential connection between the organization's resource strength, their internal needs for organizational improvement, and the need to reap the market demand.

A similar progression may also occur in interpreting the process of ideas promotion. Creating new ideas is also required in the process of Ideas Promotion, although it is less intense than in the Ideas Generation stage. In Ideas Promotion, new ideas and ways are still needed because the process is perhaps full of unknown situations and problems—every time innovators must arrive at new solutions. Pattern recognition serves innovators in the Ideas Promotion stage after the innovator identified alternatives of ideas. Through pattern recognition, innovators may also recognize connections between events, such as the reasons behind a colleague's response or a supervisor's aspirations for the work methods, and so on. Using the "template of pattern recognition" (Baron & Ensley, 2006, p. 1332), innovators may find the most relevant meaningful pattern to inform the opportunities they are pursuing. For instance, an innovator may learn the best way to persuade certain colleagues or supervisors.

3.4. Regulatory focus in ideas promotion and ideas implementation.

Regulatory focus theory in the entrepreneurial process (Brockner et al., 2004), which describes the self-regulation of entrepreneurs, may explain innovators in ideas promotion and ideas implementation tasks. Intrapreneurs are involved in two distinct regulatory foci: being promotion-focused, where they experience growth and advancement needs that spur them on to perform as their "ideal selves"; and being prevention-focused, where intrapreneurs have safety needs that lead them into their "ought selves" (Brockner et al., 2004). Being promotion-focused also makes intrapreneurs more concerned with the salience of the potential benefits to be achieved from their work. At the same time, it also helps intrapreneurs consider new possibilities, be open to changes and generate alternative ideas. In a prevention-focused mode, intrapreneurs' respond to their situations with vigilance and put their concentration into the avoidance of losses.

The regulatory focus in responding situations can probably be applied when innovators perform the process of ideas promotion and ideas implementation. Innovators who are promotion-focused when facing such challenges tend to aspire to achieve their best. They may face cynical responses or negative comments, or even rejections from colleagues and supervisors; however, their promotion-focus would support them to not give up with certain strategies. Innovators intention to gain the best possible achievement drives them and makes them more vigilant for alternatives strategies. They remain open to changing their initial strategies if needed, and are ready to generate multiple alternative strategies more relevant to their ideal goals and aspirations.

The exemplar of being both promotion-focused and prevention-focused may be obvious in the procurement of resources as part of the entrepreneurial process and can be equally applied to the innovation process. Innovators must ensure the availability of resources for idea application. They should convincingly present the best possible future outcome, their ideal aspirations and a distinguished concept, so that others (leaders, colleagues and would-be inventors involved) will accept their ideas and be supportive by providing the necessary resources. However, although being promotion-focused is significantly needed, innovators have to be aware of what might make these potential

supporters lose their appetites. Therefore, innovators must cultivate being prevention-focused.

The prevention-focused approach complements the promotion-focused to ensure innovators do not take actions risk their attempts to obtain resources. When persuading others, everything must be conducted properly. Unconvincing presentations (Brockner *et al.,* 2004) or insincerity when promising delivery risks the trust of the initiative's supporters. Strategies for avoiding such risks become more apparent when one is prevention-focused.

The combination of regulatory foci above helps innovators choose the best strategies in their attempts to obtain resources. Whenever difficulties occurred, their promotion-focused approach generates alternative ways to maintain their efforts. At the same time, being prevention-focused helps them screening the alternatives, paying attention to the possibility that certain strategies may fail, and minimizing risks of making bad choices. Instead of looking at the "quantity" aspects, the prevention-focus approach helps innovators see the "quality" aspects of their strategies (Brockner et al., 2004).

4. Conclusion

Understanding the CE and innovation in organization is important but scholars only explore the relationship at organizational level. This study presents the connection at individual level between entrepreneurial behavior and innovative behavior and shows major overlap between the two concepts. Using socio-cognitive approach and pattern recognition lens, the overlap is clearly elaborated. Innovators, as their counterpart intrapreneurs, taking advantage of other people in idea generation. While using pattern recognition theory, this study explains how innovators apprehend the pattern of ideas and events in idea generation and idea promotion. Additionally, through regulatory focus theory, the overlapped is also explained, particularly on how innovators persevere and do their best effort in achieving the goals, open to changes and alternative ideas, but at the same time prudent and full of caution in anticipating failure. These findings can be applied both for academics and managers. However, further empirical examination to clarify these connections, such details evaluation on intrapreneurs and innovators, or the measurement used by scholars for the two concepts is needed in the future.

References

Amabile, T. M., Muller, J. S., Simpson, W. B., Hadley, C. N., Kramer, J. S., and Fleming, L. (2002). *Time pressure and creativity in organization: A longitudinal study*. Working Paper. Boston. Harvard University. Boston, MA.

Amir, M. T., and Standen, P. (2012). *Employee resilience in organizations: Development of a new scale*. Paper presented at the 26th Australian New Zealand Academy of Management Conference, Perth, Western Australia.

Anderson, N., De Drea, C. K. W., and Nijstad, B. A. (2004). The routinization of innovation research: A constructively critical review of the state-of-the-science. *Journal of Organizational Behavior, 25*(2): 147–173.

Axtell, C. M., Holman, D. J., Unsworth, K. L., Wall, T. D., Waterson, P. E., and Harrington, E. (2000). Shopfloor innovation: Facilitating the suggestion and implementation of ideas. *Journal of Occupational & Organizational Psychology, 73*(June): 265-285.

Baron, R. A. (2004). Potential benefits of the cognitive perspective: Expanding entrepreneurship's array of conceptual tools. *Journal of Business Venturing, 19*(2): 169-172.

Baron, R. A., and Ensley, M. D. (2006). Opportunity recognition as the detection of meaningful patterns: Evidence from comparisons of novice and experienced entrepreneurs. *Management Science, 52*(9): 1331-1344.

Barringer, B. R., and Bluedorn, A. C. (1999). The relationship between corporate entrepreneurship and strategic management. *Strategic Management Journal, 20*(5): 421- 444.

Bartlett, C., and Ghoshals, S. (1997). The myth of the generic manager: New personal competencies for new management roles. *California Management Review, 40*(1): 92-116.

Binnewies, C., Ohly, S., and Sonnentag, S. (2007). Taking personal initiative and communicating about ideas: What is important for the creative process and for idea creativity? *European Journal of Work and Organizational Psychology, 16*(4): 432-455.

Brockner, J., Higgins, T. E., and Low, M. B. (2004). Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing, 19*(2), 203-220.

Covin, J. G., and Miles, M. P. (1999). Corporate entrepreneurship and the pursuit of competitive advantage. *Entrepreneurship: Theory and Practice, 23*(3): 47-64.

Damanpour, F., and Scheider, M. (2008). Characteristics of innovation and innovation adoption: Assessing the role of managers. *Journal of Public Administration Research, 19*(3): 495 - 522.

Damanpour, F., and Wischnevsky, J. D. (2006). Research on innovation in organizations: Distinguishing innovation-generating from innovation-adopting organizations. *Journal of engineering and technology management, 23*(4): 269-291.

de Jong, J. P. J., and den Hartog, D. N. (2007). How leaders influence employees' innovative bevavior. *European Journal of Innovation Management, 10*(1): 141-146.

de Koning, A. (2003). Opportunity development: A socio-cognitive perspective. In J. A. Katz & D. A. Shepherd (Eds.), *Cognitive approach to entrepreneurship research. Advances in entrepreneurship, firm emergence and growth* (Vol. 6, pp. 265-314). Bingley: Emerald Group Publishing Limited.

Dess, G., Ireland, R., Zahara, S., Floyd, S. W., and Lane, P. J. (2003). Emerging issues in corporate entrepreneurship. *Journal of management, 29*(3): 351 - 378.

Drucker, P. F. (1985). *Innovation and entrepreneurship: Practice and principles*. New York: Harper & Row Publication.

Duane, I. R., Covin, J. G., and Kuratko, D. F. (2009). Conceptualizing corporate entrepreneurship strategy. *Entrepreneurship: Theory and Practice, 33*(1): 2.

Dyer, J., Gregersen, H., and Christensen, C. M. (2011). *The innovator DNA: Mastering the five skills of disruptive innovators*. Boston, Massachusetts: Harvard Business Review Press.

Farr, J. L., and Ford, C. M. (1990). Individual innovation. In J. L. Farr & M. West (Eds.), *Innovation and creativity at work*. New York: John Wiley & Sons.

Feyzbakhsh, S. A. (2008). A Case Study of Intrapreneurship Obstacles: The RAJA Passenger Train Company. *Journal of Small Business and Entrepreneurship, 21*(2): 171-180.

Floyd, S. W., and Lane, P. J. (2000). Strategizing throughout the organization: Managing role conflict in strategic renewal. *Academy of management review, 25*(1): 154-177.

George, J. M., and Zhou, J. (2002). Understanding when bad moods foster creativity and good ones don't: The role of context and clarity of feelings. *Journal of Applied Psychology, 87*(4): 687-697.

Gerbing, D. W., and Zhou, J. (2001). When openness to experience and conscientiousness are related to creative behavior: An interactional approach. *Journal of Applied Psychology, 86*(3): 513-524.

Ireland, R. D., Hitt, M. A., Camp, S. M., and Sexton, D. L. (2001). Integrating entrepreneurship and strategic management actions to create firm wealth. *The Academy of Management Executive, 15*(1): 49-63.

Ireland, R. D., and Webb, J. W. (2007). Strategic entrepreneurship: creating

competitive advantage through streams of innovation. *Business Horizons, 50*: 49-59.

Janssen, O., Vliert, E. V., and West, M. (2004). The bright and dark sides of individual and group innovation: A special issue introduction. *Journal of Organizational Behavior, 25*(2): 129-145.

Kanter, R. M. (1988a). The middle manager as innovator. *Harvard Business Review, July-August*, 95-105.

Kanter, R. M. (1988b). When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations. In B. M. Staw & L. L. Cummings (Eds.), *Research in Organizational Behavior* (Vol. 10, pp. 169-211). Greenwich: CT: JAI Press.

King, N. (1990). Innovation at work: The research literature. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work*. New York: John Wiley & Sons.

Kleysen, R. F., and Street, C. T. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital, 2*(3): 284-296.

Kuratko, D. F. (2007). Entrepreneurial leadership for 21st century. *Journal of Leadership and Organizational Studies, 13*(4): 1-13.

Kuratko, D. F., Hornsby, J. S., and Bishop, J. W. (2005). Managers' corporate entrepreneurial actions and job satisfaction. *International Entrepreneurship and Management Journal, 1*(3): 275-291.

Kuratko, D. F., Ireland, R., Covin, J. G., and Hornsby, J. F. (2005). A model of middle-level managers' entrepreneurial behavior. *Entrepreneurship: Theory and Practice, 29*(6): 699-716.

Kuratko, D. F., Ireland, R. D., Covin, J. G., and Hornsby, J. F. (2005). A Model of middle-level manager's entrepreneurial behavior. *Entrepreneurship: Theory and Practice, 29*(6).

Maes, J. P. (2003). *The search for corporate entrepreneurship: A clarification of the concept and its measures*. Working Paper. Policy Research Center on Enterprises, Entrepreneurship and Innovation Naamsestraat. Katholieke Universiteit Leuven.

McFadzean, E., O'Loughlin, A., and Shaw, E. (2005). Corporate entrepreneurship and innovation Part 1: The missing link. *European Journal of Innovation Management, 8*(3): 350-372.

McGrath, R. G., and McMillan, I. C. (2000). *The entrepreneurial mindset: Strategies for continuously creating opportunity in an age of uncertainty*. Boston: Harvard Business School Press.

Nijstad, B. A., De Drea, C. K. W., Rietzschel, E. F., and Baas, M. (2010). The dual pathway to creativity model: Creative ideation as a function of flexibility and persistence. *European Journal of Social Psychology, 21*(1): 34-77.

Pearce, J. A., Kramer, T. R., and Robbins, D. (1997). Effects of managers' entrepreneurial behavior on subordinates. *Journal of Business Venturing,* 12: 147-160.

Pinchot, G. (1985). *Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur*. New York: Harper & Row.

Scott, S. G., and Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal, 37*(3): 580-607.

Seibert, S. E., Kraimer, M. L., and Crant, J. M. (2001). What do proactive people do? A longitudinal model linking proactive personality and career success. *Personnel Psychology, 54*: 845–874.

Sharma, P., and Chrisman, J. J. (1999). Toward a reconciliation of the definition issues in the field of corporate entrepreneurship. *Entrepreneurship: Theory and Practice, 23*(1): 11-28.

Shaw, E., O'Loughlin, A., and McFadzean, E. (2005). Corporate entrepreneurship and innovation part 2: a role-and process-based approach. *European Journal of Innovation Management, 8*(4): 393-408.

Thornberry, N. E. (2001). Corporate Entrepreneurship: Antidote or Oxymoron? *European Management Journal, 19*(5): 526-533.

Thornberry, N. E. (2003). Corporate entrepreneurship: Teaching managers to be entrepreneurs. *Journal of Management Development, 22*(4): 329-344.

Thornberry, N. E. (2006). *Lead like an entrepreneur: Keeping the entrepreneurial spirit alive within the corporation*. New York: McGraw Hill Companies

Welter, B., and Egmon, J. (2005). *The prepared mind of a Leader: Eight skills leaders use to to innovate, and make decision and and solve the problem* Jossey-Bass.

West, M. A., and Farr, J. L. (1990). Innovation at work. In M. A. West & J. L. Farr (Eds.), *Innovation and creativity at work*. New York: John Wiley & Sons.

Wolcott, R. C., and Lippitz, M. J. (2010). *Grow from within: Mastering entrepreneurship and innovation*. New York: McGraw-Hill.

Zahra, S. A. (1993). A conceptual model of entrepreneurship as firm behavior: A critique and extension. *Entrepreneurship: Theory and Practice, 17*(4): 5-22.

Zahra, S. A., Kuratko, D. F., and Jennings, D. F. (1999). Entrepreneurship and the acquisition of dynamics organizational capabilities. *Entrepreneurship: Theory and Practice, 23*(3): 5-10.