A RESEARCH REVIEW ON ENTREPRENEURIAL AND INTRAPRENEURIAL CHARACTERISTICS

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Abstract
The enthusiasm for entrepreneurial management in the past two decades has led to a definition for the boundary and legitimacy. Entrepreneurial research is no longer focused on the individual level of characteristic traits, but extends to multi-level analysis, e.g. prior experience, corporate culture, social relationships, and educational background. The paper intends to review researches on entrepreneurs and intrapreneurs for the purpose of identifying the similarities and differences between the two. We found that entrepreneurs tend to be higher risk taking, and uncertainty bearing, and intrapreneurs are better in communication and leading techniques. This paper tries to review, organize, and analyze the previous research contributions and hopes to provide managers with a practical reference for personnel filtering, training, and policy making as it gives employees an advanced mechanism for self-evaluation as a potential entrepreneur/intrapreneur.

1. Research Background:
With rapid movement of economies, technologies, and competitions in the business world, entrepreneurial management has turned out to be much more complicated than before. About 50% of new ventures were terminated due to the environmental factors (Tsai, et al., 2008). The drop in the survival rate of new businesses, plus the 2008 Global Financial Crisis has highlighted the difficulties of establishing new ventures. As a result, employees are not sanguine about their future and often plan to reserve their entrepreneurial spirit for three years to wait for the investment could be safer. So, global entrepreneurial action is shrinking (GEM, 2008). In Taiwan, under the encouragement of the government, the rate of new venturing is better than European relatively, but most of the entrepreneurs still hold a hesitant attitude and plan to downsize the business for survival (Shieh, 1992). The survival rate for “4-5 years business” changed to 64.99% (2007) from 76.7% (2006) (MOEA, 2007). From 1994, newly registered business in Taiwan had been decreased from total of 55700 to 30201. With the exception of monopolistic, patented technology, and knowledge-oriented entrepreneurship which was less hurt by the 2008 Financial Crisis, the rest of the industries have been seriously influenced because external environments and economic condition are getting worse. They are facing tremendous challenges.

Challenges from the environments discourage entrepreneurs to establish new ventures, and statistics show investment capital dropped as well as the total number of enterprises (GEM, 2007 and 2008). The scale of entrepreneurial firm remains small for risk minimizing. So, this research intends to review the previous and current entrepreneurial studies to identify the direction of entrepreneurship and intrapreneurship. When the entrepreneurial firms were downsized, turn-over rate increased, core competitiveness dropped, pressure increased, and entrepreneurial action is no longer the only option. The complexity of economics, culture, society, competition, finance, technology and the nature has moved rapidly with the times, and entrepreneurship is not favorable for business development. Intrapreneurship, acting as the strategic alternative for organizational revolution and improvement for innovative development or diversification, has played important role as another option for business survival (Chambau and Mackenzie, 1986). Intrapreneurship breaks the managerial bureaucracy and hierarchy and intends to utilize the internal resources efficiently; borrows the wisdom from managers; takes the free ride in the market, and eliminates the ineffectiveness of ossification. It is another choice for employee in career development also.

Intrapreneurship could also face the challenges of resources shortage, opportunities distinction, market uncertainty, weak social networks, inferior entrepreneurial team support, or managerial problems. Still it is a potent tool. When the industrial plight has not been eased by the governmental policies, then, such new economy that transformed from classical economic pattern remains high competitivenes (Wennekers, 2006). So, intrapreneurship acts as a path to pervasive innovation and is a driver to make business diversify and remain aggressive. When uncertainty and risk from the environment are the major threats for entrepreneurs, for intrapreneurs they can be
advantages.

2. Methodologies

This research searched through ASP Data Base as the major resource and we collected three types of information. First, we collected articles that were listed in leading journal of entrepreneurial management: Journal of Business Venturing, Entrepreneurship Theory & Practice, and Journal of Small Business Management. Second, we gathered related research papers that were published in the managerial journal’s special issues. Third, we searched on the key words, “entrepreneurial”, “entrepreneurial management”, “entrepreneurship”, “new venture”, “new venturing”, “entrepreneur”, “intrapreneurship”, “intrapreneurial management”, “intrapreneur”, “corporate venture”, “small business venturing”, and “internal entrepreneurship.” Fourth, we checked book reviews and comments that are related to entrepreneurial/intrapreneurial characteristics. Fifth, we collected information from published books that are related to entrepreneurial/intrapreneurial characteristics. After collecting the data, we tried to organize the papers by reading the content and dividing them into different categories. Then, we intended to conclude the development direction and doing a comparison between entrepreneurs and intrapreneurs, and provide suggestion for managers, employees, and potential entrepreneurs/intrapreneurs.

3. Literature review

3.1 Entrepreneurial characteristics development

While some scholars of entrepreneurial management have tried to distinguish entrepreneurs and non-entrepreneurs based on characteristics traits (Gartner, 1989; Chell et al, 1991); others have used demographic variables like genders, age, or races to distinguish the difference between different types of entrepreneurs, e.g. female or male (Tienne and Chandler, 2007); minorities or non-minorities (Johnson and Thomas, 2008); entrepreneurs with or without technical background (Corman, Perles, and Vancini, 1988). If we define entrepreneurs from the perspectives of the organization, entrepreneurship represents external individual venture and intrapreneurship represents internal organizational evolution (Pinchot, 1998). If we focus on the methodologies, entrepreneurial management can be divided into qualitative, quantitative, and financial modules research. Until now, entrepreneurial researchers have focused more on the study of external entrepreneurial characteristics, and the reason is because the academic study of entrepreneurship is a relatively new research field that needs to clarify its boundaries (Busenitz et al., 2003).

Despite this, some scholars have concentrated on gender, age, educational background, or other demographic variables as the media for researching entrepreneurial characteristics, and some have focused on behavioral or psychological aspects. Back in the era of S. A. Schumpeter (1934), entrepreneurs were considered as innovators as well as new venture founders. Most of the researchers were studying additive variables, either from personal needs to achieve, motivation, educational background, or prior experience. So, there are studies that emphasized the personal satisfaction through entrepreneurship (Hisrich, 1988), interpolated from self-achievement. Different aspects and interpretations did not lead to mutual ground when demographic, psychological, and behavioral attracted more attention. Entrepreneurial researchers particularly emphasized the psychology and characteristics because they are quite manifest to distinguish non-entrepreneurs from entrepreneurs, the latter believed having these characteristics, behaviors, and attitudes (Tsai, Hsieh, Lee, and Hsu, 2008). Moreover, action is also a practical measurement of evaluating entrepreneurs and non-entrepreneurs, it evokes the attention of the academic scholars that consider an entrepreneur as an innovator (Schumpeter, 1934 : Amo and Kolvereid, 2005); or as an individual who recognizes, discovers, evaluates, and utilizes opportunity (Shane & Venkataraman, 2000); as a person who has vision and intention and, grasps opportunity (Yee, 1991). Acs & Audretsch (2003) analyzed the subject from a psychological perspective, and found out that, entrepreneurs have certain risk preferences, psychological tendencies, and characteristics traits.

3.2 Intrapreneurial Characteristics Development

On the other hand, intrapreneurs are quite distinct showing different character traits from entrepreneurs and non-intrapreneurs (Mueller and Thomas, 2000). Intrapreneurs are dissimilar to entrepreneurs because the organizational structure, power of control, and ownership varies. Moreover, the influential factors of forming characteristics are different since the role-acting, responsibility, and task are not the same. In 1985, Kanter invented the term -Corporate Venture- to distinguish the internal venture from the external one, and thus, corporate venture gained a unique position. So, when Gifford Pichott (1985) indicated intrapreneurship in his research that was defined as "corporate policy to
encourage current employee conducting entrepreneurial activities” (Kuratko & Montagno, 1989). Until now, there are no plenty studies about intrapreneurial characteristics because intrapreneurship is considered as the newly developed research field as well as an organizational strategy.

When intrapreneurship is considered as a strategic plan, a significant portion of intrapreneurial researchers focus on the issues of sponsorship, support for the colleagues, relationships with the parent organization, empowerment, and commercial models of running the established venture. Intrapreneural research not only extends its antenna to the discussion of relationship cross the organization, but also goes into the discussion of supportive system in organization. Intrapreneurship acts as an innovative and revolutionary character that tries to break the status-quo and hierarchy (Pinchot, 1998). It will of course be treated differently because it was created to change the ossification (Simon et al., 1999) and it is quite reasonable to be considered as part of the organizational transformation (Colin, 2000). Therefore, intrapreneural characteristics research is relatively sparse and some of the managers are borrowing the ideas from entrepreneurial characteristics.

Peter & Waterman (1982) indicated that the index for evaluating entrepreneur and intrapreneur is quite similar, so they are the twins (Badiru, 2009)—similar outlooks with different characters. Contrary to this, some scholars argue that the role playing, resources, environmental circumstance, financial risk, power of control of entrepreneurship and intrapreneurship, so the traits of characteristics are different (Luchsinger & Bagby, 1987). There is much more pressure, risk, and responsibility taken for external entrepreneur than intrapreneur. On the other hand, the intrapreneur, a system reformer, usually builds up the business with a consistence direction from the parent organization (Block & MacMillan, 1993), and is not expected to be overly aggressive and ambitious. Intrapreneur has to recognize the innovative ideas than opportunity, maximize financial support and leverage resources (Amo & Kolvereid, 2005), but with moderate risk (Altinay, 2005). Their roles could be very different from entrepreneurs same as their characteristics varied.

4. Comparison of entrepreneurial and intrapreneurial characteristics

As the difficulties of entrepreneurship increased intrapreneurship has became an option for managers to take for reserving employees, maintaining core competitiveness, managing knowledge, technology innovation, and employee screening. Intrapreneurship acts as a mechanism for most of the employees to break the status-quo and to fight bureaucracy; is the dream for workers with entrepreneurship. The embryo of intrapreneurship is the project that runs in cooperation by crossing-departments and enjoys the support and assistance from top-managers and colleagues. As it evolves, intrapreneurs transform from project managers who utilize corporate resources, social networks, industrial experience, and market advantages to establish a new firm under the control of the sponsored corporation and top managers. Practically, the intrapreneurial scenario is different no matter in task-orientation or ownership-orientation. Until now, previous academic studies that focused on entrepreneurial characteristics traits had extended to the traits of intrapreneurial characteristics.

When the industrial environments have changed quickly, intrapreneurial candidates are important since it increases the possibility of success based on the point of resources-based theory (Block and MacMillan, 1993; Green et al., 1999). When the scholars make interpretation from the perspective of environments, a creative atmosphere for intrapreneurs to appreciate and to stimulate innovative ideas is obvious (Kanter, 1984). If intrapreneurship intends to be declared as an independent study field, the researchers have to prove that it has different formation and background compared with entrepreneurship in influential environments, employees, strategies, and organizational transformation. Therefore, this research is designed to exam the following aspects.

4.1 Role playing of entrepreneur and intrapreneur

When the academic literatures on entrepreneurial characteristics are quite extensive (Timmons, 1989; Vand den Flier, 1990; Wong et al, 2005; Nandram and Samson, 2000), relatively the intrapreneurial characteristics studies are insufficient (Simon et al, 1999 ; Luchsinger and Bagby, 1987). In fact, intrapreneurs, sponsored managers, the parent organization, and supervising department are the major decision makers who control the direction of investment and future development decisively. Theoretically, the intrapreneur is a subordinate and the entrepreneur acts as a boss. When the purpose of studying entrepreneurial characteristics is to attribute those characteristics that are relevant to a successful entrepreneurial action (Stormer, Kline, and Goldenberg, 1999), researching intrapreneurial characteristics can help the managers to better understand nascent intrapreneurs.

Since intrapreneurship is a possible alternative
for the top manager to choose, it is an important mechanism for managers to cite while designing the training program, recruiting employees, and setting promotional policies. Therefor, intrapreneur without absolute power of control, turns out to have a unique mindset. Regarding roles, Singh (2006) believed that the intrapreneur is a saviour for a declining organization, while Teltumbde (2006) considered entrepreneur has no consultant, and the other has. Marcus and Zimmerer (2003) believed that the intrapreneur is a reformer and the entrepreneur is an initiator even though both of them are seeking opportunities to make dream come true. But Intrapreneurs are recognizing innovative ideas better than opportunities distinction.

Table 1: Comparison of role playing between entrepreneurs and intrapreneurs

<table>
<thead>
<tr>
<th>Comparative roles</th>
<th>entrepreneurs</th>
<th>intrapreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk and uncertainty accepter</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Decision maker</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Industrial leader</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Innovator</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Organizer /coordinator</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Contractor</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Arbitrager</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Resource allocator</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Financial capital supplier</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Manager/ superintendent</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Proprietor</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Employer</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Organized by this research

Table 1 indicates that intrapreneurs differ since the comparative roles were developed from the entrepreneurial point of view. It shows that their roles are similar in four out of the twelve criteria. It could be necessary to study intrapreneurial roles in an organization since they are different.

4.2 Comparison of Research Issues

“Who is the entrepreneur?” is key statement to help us understand entrepreneurship better (Shane & Venkatraman, 2000), therefore, it also acts as the major issue. Gartner (1985) believe that there are four categories regarding research issues: entrepreneur, environment, organization, and process. Ucbasaran, et al (2001) indicated that entrepreneurial theory, types of entrepreneurs, process, organization, external environment, and performance are the most important aspects. Timmons’ (1999) list was: entrepreneur, opportunity, team, and resources are the key factors that will determine whether the venture is going to be successful or not. Liu and Hsieh (2003) took five aspects as the essential aspects: entrepreneur/team, opportunity, resources, environment, and performance. Busenitz et al, (2003) indicated the utilization of favorable environmental condition to survive new business while Elfring & Hulsink (2003) emphasized social network theory. The entrepreneurial action can also be studied through the entrepreneur who will determine to take action or not based on the evaluation of risk and uncertainty (Miller, 1983), proactive people seek the opportunity and overcome the challenges. There are some differences, but overall, the entrepreneur is always in the central position in terms of entrepreneurial research.

Although there are a few papers that discussed intrapreneurship, we believe that there will be supportive researches in the future. Intrapreneurship is a newly emerged topic, and still has room in framework building and boundary clarification. Carrier (1996) indicated that there are four influential factors which will determine the intrapreneurial success: external environment, intrapreneur, organizational objectives, and internal environment. Hayton and Kelley (2006) focused on different issues: intrapreneurs, opportunity, social network, and process. When businesses choose intrapreneurship as an option to reserve core knowledge that is embedded in employees, the analysis of intrapreneurial characteristics will help to predict the performance of intrapreneurship (Sykes, 1992). The other essential element will be appropriate corporate strategy (Teltumbde, 2006).

4.3 Research Aspects Comparison

Until now, intrapreneurial has limited researches just as table 2 showed. From the comparison from research aspects, we intended to explain that their research focal points are different in some aspects. Especially, those aspects are inter-reacted with each other. Since they are different type of entrepreneurs, they acted differently and worked in different organizational structures with different believes and job codes. Since the dissimilar organizational structures, they face different degree of risk and uncertainty. Intrapreneurs are not actually identifying the opportunity, but the innovative ideas that they consider might have a
future (Hewison and Badger, 2006). Therefore, the whole entrepreneurial process will be discrepancy as well as the outcome.

**Table 2: The different aspects of entrepreneurship and intrapreneurship**

<table>
<thead>
<tr>
<th>Aspects</th>
<th>entrepreneur type</th>
<th>intrapreneurship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneur type</td>
<td>Independent external entrepreneur</td>
<td>Transformed from Employee to intrapreneur</td>
</tr>
<tr>
<td>Theory</td>
<td>Cognitive theory</td>
<td>Resources-base theory/Reinforcement Theory</td>
</tr>
<tr>
<td>Organization</td>
<td>Register under the independent owner</td>
<td>Attach to the current business</td>
</tr>
<tr>
<td>External environments</td>
<td>Technological, financial, economics, social-cultural political-legal, human-resource, competitive environments</td>
<td>Technological and competitive environments get more attention. Internal environments are much more important.</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Recognize, identify, utilize by the entrepreneurs with prior knowledge</td>
<td>Recognize and identity ideas and intend to persuade the top manager to utilize</td>
</tr>
<tr>
<td>Process</td>
<td>Complicated and needs more evaluation before start up More risk and uncertainty</td>
<td>Persuasion and communication with parent corporation are the first priority, resistance and pressure from the colleagues could be high Autonomy and control are low</td>
</tr>
<tr>
<td>Performance/Outcome</td>
<td>Monopolistic profit and achievement</td>
<td>Sharing the glory</td>
</tr>
</tbody>
</table>

Organized by this research

However, contemporary study of intrapreneurial characteristics is established on the existed entrepreneurial researches and extending to different perspective, e.g. experiences, educational background, or gender even. Although intrapreneur are still having the traits of risk-taking, needs to achieve, internal-locus-of-control, and high autonomy; but still the degree of those characteristics are differently interworked. The major reason for employees to choose internal venture instead of starting up an external enterprise reveals some constraints either in environmental consideration or personal preference. Even previous researcher had considered intrapreneurs as employees who are not trained intentionally, or recruited differently at the first beginning (Altiny, 2005). In other words, nascent intrapreneur is formed under the corporate culture and self-identification, not nature born. Current research found out that organizational and policies are two important factors which will determone the success of intrapreneurship, so training program and employee eduction are crucial. (Marcus and Zimmerer, 2003)

### 4.4 Characteristics comparison

Practically, we found intrapreneurs are quite in between in terms of risk-taking and motivation. Intrapreneurial candidate has the option to choose while entrepreneur has no room to surrender if the new business is defeated. Entrepreneur has more responsibility while intrapreneur was protected under the umbrella of the parent organization. They are different type of leaders who are supposed to have different talents. Table 3 provides the explanation for researchers to take entrepreneurs as external venture founders only since intrapreneur is not viewed as a new enterprise establisher, but an employee who was given order to diversify a new business. It could be a project, not a new venture at the start-up period. There is no doubt; entrepreneurs are facing more challenges from the external environments while intrapreneurs are dealing with more sophisticated tasks and responsibilities under different influential factors. Even they both have needs to achieve, but entrepreneur has to success by no means. On the contrary, intrapreneurs are trained to be more professional in managerial techniques with the attitude of compromised patience. They are not the same.

**Table 3: Characteristics Comparison of Entrepreneur and Intrapreneur**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Entrepreneur</th>
<th>Intrapreneur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Free minded, goal-orientation, arbitrary, self-motivated</td>
<td>Free minded, utilize corporate resources, self-motivated, reactive to promotional award</td>
</tr>
<tr>
<td>Needs to</td>
<td>Drive to achieve and succeed</td>
<td>Needs to achieve</td>
</tr>
</tbody>
</table>
Referring to intrapreneural research, according to Pinchot (1985), we can see the characteristics traits, no matter in the tendency, attitude, and backgrounds; we could find the different traits inherited with the non-intrapreneurs. Take upbringing background as an example, Pinchot’s research has some different interpretation with current researches, so we believe that the research of characteristics has the same expectation. Simon et al (1999) found out that intrapreneurs have to balance between autonomy and desire of control because those characteristics conflict in the process of intrapreneurial action since the power of control usually falls into the hand of the parent organization or sponsor, not intrapreneurs. Even Luchsinger and Bagby (1987) indicated that the quality of internal locus of control and needs to achieve are not the same in both of the parties. Intrapreneurs used to be defined as innovators, not revolutionists (Chambeau and Machenzie, 1986). They are the challengers to status quo. Except Pinchot, most of the intrapreneurial papers focus on certain issues, not overall examination about intrapreneurial characteristics.

5. Conclusion and Discussion
There are different characteristics development process and determinants between entrepreneur and intrapreneur because of the following factors 1) role playing 2) organizational structure 3) goal and mission 4) start up process 5) opportunity and 6) resources/support. Especially, when the corporate venture is a choice, then, the organizational policy and program will enhance the success of intrapreneurship as well as the supportive system and corporate culture (Hewison and Badger, 2006). Intrapreneurship is an option for top managers to collect and transform knowledge across boundaries of the organization. Although it is unique, there are not too much researchers that focus on the discussion of intrapreneurial characteristics aspects yet.

From the perspective of entrepreneurial characteristics measurement, entrepreneurs get higher score in self-esteem, needs to achieve, willing of identity, and leadership (Hornaday & Abound, 1971). Some of the traits are inherited with the family and upbringing background (Shavinina, 2006) while some characteristics are trainable (Luchsinger & Bagby, 1987). Personality and characteristics are formed in childhood with

<table>
<thead>
<tr>
<th>Achieve</th>
<th>Self-disciplined</th>
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</thead>
<tbody>
<tr>
<td>Risk Taking</td>
<td>High risk taker; direct economic risk with successful expectation</td>
</tr>
<tr>
<td>Action / Enthusiastic</td>
<td>Prefer micro-managing with interference of the subordinates</td>
</tr>
<tr>
<td>Talented / Innovative</td>
<td>Good perspective and acquainted to business market</td>
</tr>
<tr>
<td>Courage and Fate</td>
<td>Confident, optimistic, Fearless, self-believe</td>
</tr>
<tr>
<td>Decision</td>
<td>Determinate with activism</td>
</tr>
<tr>
<td>Position</td>
<td>Hard working process but bearable</td>
</tr>
<tr>
<td>Mistakes and Failure</td>
<td>Take mistakes and failure as learning experience</td>
</tr>
<tr>
<td>Attitude to System</td>
<td>Promote and adjust the system rapidly with strong “customer” orientation attitude</td>
</tr>
<tr>
<td>Style of Problem-solving</td>
<td>Quit for building up a new venture</td>
</tr>
<tr>
<td>Social Networks</td>
<td>Transactional relationship</td>
</tr>
</tbody>
</table>

environmental influence, changed, reformed, adjusted, or even evolved with the process of socialization or other influential factors. Nascent entrepreneurs and intrapreneurs have the habit to identify opportunity/ideas because they were used to such characteristics that embedded internally and expressed through behavior externally.

This research intended not to screen those non-entrepreneurs/non-intrapreneurs from entrepreneurs/intrapreneurs, but provide the managers and investors a better view about characteristics traits when they are making decision. Some of the characteristics can be trained, e.g. responsibility (Bamubeck & Mancuso, 1987) and innovative talent, some can be enhanced through projects or programs, e.g. social network and problem-solving style. Even some of the characteristics has same track between entrepreneurs and intrapreneurs, their intention and motivation are different. When entrepreneurial and intrapreneurial characteristics varied, the future research could be developed to measure and evaluate intrapreneurial characteristics traits and intended to screen those trainable from non-trainable for managerial purpose. It will be much more adequate for intrapreneurship having its own measurement and index in terms of characteristics traits.

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