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CREATIVE CONFIDENCE IN ORGANIZATIONAL KNOWLEDGE CREATION: A SYNTHESIS OF THE LITERATURE

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Abstract
Creative confidence is a newly rising topic in the innovation study area. In a world where creativity has become a vital source of knowledge creation, not believing in one’s own creative capacity could be a barrier. At the organizational level, many good ideas are disappearing before ever being written down or shared. Organizations may lose talented people who have great creative potential by either not giving them the opportunity to express their creative ideas or due to a lack of confidence from the employee side, in sharing these ideas. This paper will contribute to the research stream on the role of creative confidence in generating organizational knowledge by exploring a synthesis of the current literature on creative confidence.

Keywords
Creativity, Organizational Knowledge, Creative Confidence.

Introduction
Knowledge creation is of the utmost importance for every organization’s innovation. Nonaka, Toyama et al. (2000) stated that “The raison d’etre of a firm is to continuously create knowledge” (p.6). The topic of organizational knowledge is a part of the resource-based theory of the business. It is also seen as an important resource and valuable foundation of capabilities and competencies for innovations and creation of new product development (Grant and Baden-Fuller, 1995; Endres et al., 2007). Rhodes (1961) described creativity in four dimensions namely process (i.e. cognitive process), person (i.e. personality, or behavior), product (i.e. innovation), and place (i.e. press, or environment). Since information or knowledge only gains competitive advantage when integrated with individual experience (Dougherty, 1999; Endres et al., 2007), cognitive processes and personality are central to the understanding of knowledge creation. Creative confidence ties strongly to self-efficacy theory which is explained as people’s beliefs about their capabilities to produce and it is an ideal theory to understand why people choose to take creative risks and the knowledge that the ideas they create have value (Bandura, 1994; Kelley & Kelley, 2013).

Thus, it is important to understand the role of individual’s behavior and personality in the knowledge creation process characterized by social and epistemological challenges. The purpose of this paper is taking a deep look at what is supporting this process and how to improve the process, explicitly at the individual level we focus how creative confidence empowers knowledge creation.

Knowledge Creation Within Organizations
The concept of knowledge is broad as it usually covers interpretations, insights, and information (Schulz, 2001). Today, businesses don’t spend their time and resources just to solve problems, they create and define problems, develop and apply new knowledge to solve the problems, and then gain new knowledge through the process of problem-solving. To survive in the competitive market they must become entities that create knowledge through action and interaction (Nonaka, 2000).

In the context of organizations, knowledge is defined as an outcome and a process for incorporating new experience and information (Tsoukas, 2001) to create value (Liew, 2007), this is called organizational knowledge or digital information (Gates, 1999; Lehner, 1990; Terrett, 1998). Basically knowledge and its creation are related to human activity. Reading information and interpretation of information by expert results in knowledge. According to
the knowledge-based theory of the firm, the interaction between individuals and groups within an organization is essential for creating knowledge (Kogut & Zander, 1996; Nonaka & Takeuchi, 1995; Chung, J. Y., & Yoon, W., 2015). Based on this theory, individuals create knowledge with interaction that helps to share knowledge between them. Knowledge is gained over time with learning and experiencing. Learning can take place in various ways (Simon, 1991) but mostly is related to the continuous activities adding to the existing internal knowledge pool (Fuchs, 2001; Clark and Tracey, 2004). Knowledge can be created in different ways; within a firm, cross-departmental and across firms. Usually, firms invest on obtain knowledge that is learned from practice at the individual level and share this knowledge within the organization (Quinn, Anderson, & Finkelstein, 1996; Bathel, 2004).

Nonaka and Takeuchi (1995) had done one of the most acceptable studies that describe knowledge creation process. This model shows the continuous learning spiral. They described the socialization (S), externalization (E), combination (C), and internalization (I) model, which explore knowledge creation through passing between tacit and explicit knowledge. In this model, knowledge is created by converting, interacting, practicing and progressing between users. Socialization is a process of anticipation that converts tacit knowledge into explicit knowledge that is documentable and transferable between individuals with networking and interacting. Externalization transfers tacit knowledge into explicit concepts. In this form, organization or individual can create and distribute information. Internalization embodies explicit knowledge into tacit knowledge and it is more related to learning by doing. For example, organizations that keep a journal for their project that record their explicit knowledge and tacit knowledge that they learned during the project life cycle and use it for future projects. Thus, explicit knowledge can be internalized into individuals' tacit knowledge (Choi, & Lee, 2002). Combination is a concept that combines various elements of explicit knowledge into more systematic sets. For instance, individuals or organizations can make their explicit knowledge accessible to others to reuse by creating learning materials. Exhibit 1 below demonstrates these four models of knowledge conversion (Nonaka et al., 2000).

Therefore, to create organizational knowledge firms need two mechanisms: one that exchanges knowledge with organisms outside the organization and another that unites individuals' knowledge within the organization (Blyler & Coff, 2003). This help organization to improve the process of learning and consequently developing new products and new markets.

Researchers categorized knowledge in two type tacit, which is a type of personal knowledge that people gain by experience, and explicit knowledge that can be learned from books or other written sources and it can be codify and transferable (Nonaka & Von Krogh, 2009). The distinction between explicit and tacit knowledge represent a dimension of knowledge creation that is called epistemological dimension. Other one is ontological dimension of knowledge creation, related to the social interaction between individuals that share and develop new knowledge. This dimension is regarding the method individual use to create ideas, such as studying and exploring; also engaging in an interaction with each other plays a critical role in creating new ideas (Nonaka, 1994). In order to share knowledge or experiences, in the knowledge creation process when dealing with tacit knowledge, it is important to have an environment where these can be formed (Botha et al., 2008).
Nowadays individuals work in complex and diverse networks that require interaction with humans and various artifacts (Latour, 1999). In order to support this more sophisticated activity, cognitive artifacts that are more knowledge-laden, intelligent and autonomous has been created and used in both industry and academia. Knowledge and associated concepts, such as capability and intelligence, increasingly define our work and activity in the knowledge-based society (Paavola & Hakkarainen, 2005). Different characteristics have their respective effects on how individuals execute tasks at work (Judge, Bono, & Locke, 2000) and this include people’s readiness in the aspect of knowledge-sharing. This activities and creating new knowledge have proven their importance in the foundation of sustainable and competitive advantage in various sectors (Kang, Kim, & Chang, 2008; Manaf & Marzuki, 2013). In order to answer more effectively and efficiently to the market’s rapidly changing demands, expectations, and following the surge of globalization, organizations in any sector need to select individuals with appropriate personality for creation of new knowledge. Because a considerable deal of tacit knowledge is weaved into social interactions via processes of communication and knowledge-sharing (Rahimi et al., 2012; Manaf & Marzuki, 2013). Cabrera et al. (2006), stated that personality traits are able to explain why some individuals have the motivation to pursue knowledge-sharing, compared to others. One of the most important personality traits that helps individuals to go for their ideas and through process of learning is confidence. One can use others tacit knowledge by communicating with them, also need to be confident, believe in herself, to share her knowledge.

One of the challenges in this fast changing knowledge-based society is that individuals must learn the different types of knowledge and how they are applied, moreover how to use this knowledge to create a new one and use it to develop and progress (Manaf & Marzuki, 2013). This process is only possible by understanding the essence of the activities and works that need to be done which means they either have to experience the work to learn or use other’s knowledge. the other challenge is to use the knowledge to create new ideas. and for this, besides learning capability people need to have characteristics of a person that take actions, interacts and makes ties with others.

Definitions: Organizational Knowledge, Creativity, and Creative Confidence

According to the 1992 American Heritage Dictionary, knowledge is what has been acquired from education or experience (Schulz, 2001). It is an outcome and a process for incorporating new experience and information (Tsoukas, 2001). For some practitioners and researchers, digital information and organizational knowledge are synonyms (Gates, 1999; Lehner, 1990; Terrett, 1998). Kay (1993) suggests organizational knowledge becomes the essence and characteristic of the firm. He argued that organizational knowledge is not only the sum of the mastery and expertise of those who work in the company, and is not available to other firms. Here knowledge is considered more than separate pieces of information people can process and as extremely collective; it is a pattern from within and extracts upon a firm, over time (Tsoukas & Vladimirou, 2001). The term knowledge management has been used in business for a long time. Term management expresses control of processes that may be uncontrollable in its nature, and the difference between knowledge management and knowledge creation is that managers, instead of controlling process should support process (Krogh, Ichiyo, Nonaka, 2000).

Researchers describe creativity as the production of unpredictable novelty and useful ideas (Amabile, 1996; Runco & Albert, 2010; Sternberg & Lubart, 1999); in science, creativity focuses is on the originality and usefulness of knowledge (Hollingsworth, 2012; Simonton, 2004; Ulibarri et al., 2014).

There is a creative process in every creative production that involves personality, cognitive and affective processes. It starts with a contribution of a creative activity with a transformation phase that progress to a consequent phase (Tsai, 2012). One needs to have creative confidence in order to walk through all these phases. It has commonly been believed that creative self-efficacy or creative confidence is the confidence individuals have about their creative ability, which determines whether they are willing to express their creativity when given the opportunity (Baer & Eds, 2013; Bandura, 1997; Beghetto & Kaufman, 2010; Sweet & Blythe, 2015). Creative confidence is more related to everyday creative people and their creative activities. This type of creative people’s image also known as little –C (Beghetto & Kaufman, 2010).

Creative confidence can be defined as“a development of trust in one’s own creative skills” (Rauth, Köppen, Jobst, & Meinel, 2010, P.6). Furthermore, Creative Confidence is about believing in yourself and your capability of making a change in things around you, the ability to finish what you started. In the other words, creative confidence is a combination of thoughts and action (Kelley & Kelley, 2012). Here support of manager’s at work is important to boost subordinates creative performance. For instance, supporting a relationship between people that come in a friendship form helps and includes sharing knowledge during conversations inside an organization. This can help and give chance to managers to encourage subordinates creativity. Kelley (2013) also suggested, ”that combination of thought and action defines creative confidence: the ability to come up with new ideas and the courage to try them.
out” (P.18). Accordingly, the reason that confidence is related to and important in creativity is that without confidence people are not able to act on their ideas and take further steps. The belief that everyone has creative potential is the key to notice and work on problems that people may face in their everyday life. Having knowledge and experience cannot make difference in the world by itself, but it is confidence that takes individual’s idea and imagination to the next level, encourage them to take action and create knowledge.

**Developing Creative Confidence**

The latest publications about creative confidence were done by Tom and David Kelley (2013), and Kevin Noble (2014). Both provided suggestions that help individuals express their creativity with confidence. These studies mostly give a definition of creative confidence. Previous researchers such as Kelley & Kelley (2013) and Sweet & Blythe (2015), suggested that creative confidence can be built with choosing to be creative, seeking inspiration in unfamiliar environment, being empathic to people, setting a creative goal, breaking tasks into small steps, developing a new image of own self and working with a positive mindset.

In regard to creativity, self-efficacy is the moderator between accomplishments and creative potential. Creative potential refers to individuals' psychological and environmental characteristics, also mental operation during the creative process of a product (Tavani, Caroff, Storme, & Collange, 2014). People with creative potential have the fundamental source of qualities that outline the limits of one's capabilities (Berikhanova, Zhussupova, & Berikhanova, 2015). Besides having creative potential, to achieve creative outcome individuals are required to express a new thought, product or direction (Keller-mathers, 2004). Therefore, people need to have creative confidence in order to manifest their creative potential. Also, it is important to understand the role of belief about abilities playing a great role in people's success. Likewise, creative confidence is described as person's confidence about overcoming problems that need creative thinking and creative functioning (Karwowski, Lebuda, Wisniewska, & Gralewski, 2013). A confident person is generally described as a person being certain about their ability to do things they try to accomplish (Horne, Lincoln, Preston, & Logan, 2014). So, without confidence, it can't be expected from individuals to take a risk because they already think they can't accomplish something good.

Individuals evaluate their own abilities in different situations of their daily life. They assess their skill and capability such as physical, cognitive or social abilities of everyday work. However, this type of self-assessment may not always be correct. In the case of having overconfidence or low confidence, misjudgment, overestimation or underestimation about one's own abilities, a person may face unseen result, positive or negative. While people may not be aware of it, they may consider their own mental and physical foundation when they face challenges or everyday tasks (Freund & Kasten, 2012). Creative confidence is a core belief that people must have in order to go through steps of creativity and innovation process. People have a belief concerning their creative ability, which can be overestimated by people with high confidence or underestimated with low confidence. Organizations can use different ways to motivate employees based on their resources, but must not forget that right investment on employees will pay back. If people believe that they have the tools and skills to creatively solve problems and view failure as an experience and a source of new skills while sustaining their efficacious attitude, they are eventually more likely to both succeed in solving problems and in creating more innovative ideas. Therefore, if we could instill creative confidence in individuals, they would be more likely to succeed as employees throughout their career (Ulibarri et al., 2014).

**Creative Confidence Background**

Creativity involves openness, the courage to follow ideas or self-confidence to act on ideas that one considers valuable, and an internal locus of evaluation, regardless of external difficulties or discouragements. When acting creatively, individuals attend to their “inner voices” (Treffinger, Young, Selby & Shepardson, 2002; Edwin C. Selby, Emily J. Shaw, and John C. Houtz, 2005). While creativity is a valuable skill for organizations and productive, innovative researchers, learning how to become an innovative person is challenging (Ulibarri et al., 2014).

Creative confidence was first defined by Bandura’s (1977) self-efficacy definition as “Perceived self-efficacy is concerned with people’s beliefs in their capabilities to produce given attainments” (p. 307). In 1977, with the publication of "Self-efficacy: Toward a Unifying Theory of Behavioral Change," he recognized the importance of self-beliefs that was missing from social learning theory (Pajares, 2002). Bandura (1977) also defined creative behavior, as “Creativity constitutes one of the highest forms of human expression Innovativeness largely involves restructuring and synthesizing knowledge into new ways of thinking and of doing things. It requires a good deal of cognitive facility to override established ways of thinking that impede exploration of novel ideas and search for new knowledge. But above all, innovativeness requires an unshakeable sense of efficacy to persist in creative endeavor”.
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(p. 239). Bandura (1994) defined perceived self-efficacy or self-belief as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p.71). This type of beliefs affects how individuals think, behave, feel and how they motivate themselves. People with greater confidence in their capabilities take a different approach to challenges to overcome them rather than avoid them. They commit to their goals and are not afraid of facing challenges and they don't give up and lose their enthusiasm in the face of failure (Bandura, 1994). Pajares described self-efficacy as beliefs that individuals create and develop about themselves regarding their ability to do or accomplish something (Bembenutty, 2007). Creative confidence is formed on the base of creative self-efficacy. Thus, creative confidence can be positively associated with achievement, and be related to positive or negative belief one has about his or her ability to create something (Miscevic-kadivevic, 2015). Tierney and Farmer (2002), described creativity as the creation of the novel and the useful idea in a domain and suggested that creativity in a domain should be predicted both by self-efficacy for that domain and self-efficacy for creativity. They examined their hypothesis in a study of 585 employees and proposed that job self-efficacy positively predict creative self-efficacy. Further, Choi (2004) studied creative self-efficacy as the mediator of creativity and to test this with 430 surveys that collected from students at a business school. Choi's confirmatory analysis showed that creative self-efficacy has a significant mediator impact on creative performance. Beghetto (2006) defined creative self-efficacy as "self-judgments of creative ability" (p.447) and examined correlates of creative self-efficacy in middle and secondary students. The study's result showed that students' mastery and performance-approach beliefs about their creative ability affect their creative confidence. The further study was described by Mathisen and Bronnick (2009), They examined the effects of creativity training on creative self-efficacy. For their study, they developed a creativity course based on social cognitive theory. They measured creative self-efficacy before and after the course, and test result showed self-efficacy improved significantly for both students and municipality employees of the course. Different from previous studies, Spardello (2012) focused on creativity beliefs of elementary students. The study examined students in the visual art class and it suggested that nurturing and improving creativity in students can lead to career interests, and the rationale behind the inclusion of creativity in the curriculum is for the promotion of creative careers. Survey and interview methodology used to collect data and concluded that factors of racial group, gender, and age reveal differences in the beliefs of the students, however, the study did not analyze specifically how those factors might influence the beliefs. the result also showed that most students included in the research study hold positive creative self-efficacy. This literature review shows that creative confidence is an important part of the creative process which involves people. These studies all supports that to create a new idea individuals need to have both the right environment, motivation and also training to strength their creative confidence. Since tacit knowledge is the major part of an individuals asset, organizations should motivate their employees to freely share this knowledge and believe in their ability to produce useful ideas.

The Impact of Creative Confidence on Organizational Knowledge
All humans have some amount of creative potential, nevertheless, as individuals grow up and start to get school education they become more social, they start to be more cautious, analytical and consider other people's judgment about their behavior and ideas (Kelley, 2013). Therefore, people have some level of belief about their creative ability more than children. This type of thinking about one's own creative ability either help them to move on forward and achieve a breakthrough innovation or hold them back from suggesting their creative solution. Unfortunately, in the literature, there are a limited number of studies on developing adult's creative confidence and nurturing creative confidence, especially in higher education. Students need to learn about their creative abilities and use it to create knowledge in school and further in organizations to produce new technology and methodologies. Another aspect of the problem in creating knowledge is that how organizations relate their members through the different steps of knowledge creation process (Krogh, Ichijo, Nonaka, 2000). Usually, firms try to hire creative people, but it is important to look and find if stimulating creativity can be more beneficial for the whole organization since even creative people can feel less confident about their abilities by time. Therefore, additional research is required in this field to examine the hidden creativity in individuals and how to stimulate this creative potential.

Conclusion
Creativity is a skill every person has and can be developed and improved with practice. It has been suggested that in order to improve imagination, courage, and curiosity, individuals need to believe that everyone has some sort of creative traits (Kelley & Kelley, 2013). It requires strong self-beliefs to guide actions, and beliefs about what one
can do. It also has been found that self-beliefs influence casual attributions and it affect the motivation of pursuing attractive options because of misjudgment about one's own capabilities for them (Bandura, 1994). Further, studies showed that certain personality characteristics have an important influence on creative functioning. Creative personality has been a concentrate of many types of researchers but they were mostly focused on creative character and creative person (Barron, 1969).

Recently, instead of aiming to identify who is creative, studies shifted to identify the ways to develop creativity in people under the belief that everyone is creative. Creative confidence is a newly emerging topic that focused on the idea that everyone is creative but it needs practice and for a creative outcome it requires action to get things done. The main idea of this focus is that one can achieve audacious goals if one has the courage and determination to pursue them, which is important in knowledge creation and as a result in innovation.

References


Spardello, Mollie E., (2012). Creativity Beliefs of Elementary Students: Self-efficacy, Self-esteem and Beliefs in Between. Thesis, Georgia State University, Retrieved from


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