



HAL
open science

How to Recognize a Creative SME?

Cynthia Lavoie, Georges Abdounour

► **To cite this version:**

Cynthia Lavoie, Georges Abdounour. How to Recognize a Creative SME?. IFIP International Conference on Advances in Production Management Systems (APMS), Sep 2014, Ajaccio, France. pp.27-33, 10.1007/978-3-662-44739-0_4 . hal-01388203

HAL Id: hal-01388203

<https://inria.hal.science/hal-01388203>

Submitted on 26 Oct 2016

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

How to recognize a creative SME?

Cynthia Lavoie¹, Georges Abdulnour¹

¹Industrial engineering, Université du Québec à Trois-Rivières, Canada

lavoic@uqtr.ca, georges.abdulnour@uqtr.ca

Abstract. In the actual knowledge-based economy, intangible assets are crucial. Those assets cannot be created without the creativity of the employees. Despite the phenomenal amount of works published on creativity, only a few are related to Small and Medium Enterprises (SME). Furthermore, a literature review made evident that a proper definition of what is a creative SME does not exist, even though it is important for practitioners, researchers and professionals in this domain. A definition of a creative SME needs to include external characteristics, ones that are easy to recognize from an observer's point of view. This research is thus trying to answer the following question: "How can we recognize a creative SME?" By using a Delphi with a group of experts, the researchers obtained a list of characteristics to recognize a creative SME. A case-study based research on internal factors that affect creative SME characteristics will follow.

Keywords: Creative enterprise, Creativity, SME, Small and Medium Size enterprise

1 Introduction

The human capital is a transforming driver of enterprises and is an integral part of their competitive advantage to build on. This capital must be created based on the creativity of the members of an organization.

Despite the incredible amount of literature written about creativity¹ by professionals and academics, the researchers in the domain of creativity concentrated their work on large organizations. However, Small and Medium Enterprises (SME), like large organizations, are looking for more assets to be successful in building a competitive advantage based more and more on knowledge and obviously on creativity and innovation (Raymond, Abdul-Nour, & Jacob, 2003).

Some authors have addressed the issue of creativity in SME, but a clear distinction between a creative and a non-creative SME does not exist. Following this statement,

¹ More than 30 000 publications found in Scopus Database, on July 2nd, 2014.

the question that is addressed in the present research is: “What is a creative SME and how can we recognize it?” The answer to this question is important for researchers and practitioners in the field because researchers need dependant variables to study creativity, either in SMEs or in large organizations. For practitioners, it will be useful to know what to aim for as they put in place practices to increase creativity in their enterprises.

A literature review done by the authors on the subject revealed that, even for large organizations, researchers do not agree on a way to distinguish a creative enterprise from a non-creative one. Furthermore, according to what we know, of the few researchers that have tried to define a creative enterprise, none of them addressed the case of the SME. The term, “creative enterprise” is often used to distinguish cultural, high-tech or marketing firms and enterprises, but without presenting a concrete definition or specific characteristics.

The main objective of this paper is to get a list of external characteristics that will be used to recognize a creative SME. To fill up this objective, the collaboration of experts was requested. Following this, the results obtained will serve as an input for the next step, which consists in selecting a sample of creative SME to be included in a case study. The case study will allow to study different factors of the SME creativity.

In the following sections a literature review, the methodology, the results obtained, a discussion and a conclusion will be presented.

2 Literature review

2.1 Definitions of Creativity

Definition of creativity has evolved in many areas: psychology, sociology, education, management, etc. In this particular research, the concept of creativity is studied in the context of organizations. Batey and Furnham (2006) classified the definitions of creativity in four categories (Batey & Furnham, 2006) : 1) New and useful. The definitions in this category include two characteristics: the product must be new and useful or adapted to reality; 2) Observable product. Here, the emphasis is put on the product obtained with creativity, which must be of quality and creative according to the evaluation of external observers; 3) Part of a process. Here, the creativity is seen as a part of a process, a problem resolution, an innovation or a mental process; 4) A set of components. In this last category, creativity is seen as a set of interrelated components. According to Mumford (2003), it seems that it exists a certain agreement around the following definition in the context of organization (Mumford, 2003): Creativity consists of the production of new and useful ideas in a domain. Those ideas has to be qualified as such by observers who are familiar with the domain (T. Amabile, Conti, Coon, Lazenby, & Herron, 1996).

Since the present work tries to study SME and their organizational context, a definition of a creative SME enterprise is required. In this context, definitions of organiza-

tional creativity have to be taken into account. Organizational creativity is defined as the creation of a new, valuable and useful product, service, idea, procedure or process, by individuals who work together in a complex social system (Moneta, Amabile, Schatzel, & Kramer, 2010; Woodman, Sawyer, & Griffin, 1993). Creativity can also refer to the employees that use a diversified spectra of competencies, abilities, knowledge, views and experiments to generate new ideas for decision making, problem resolution and effective execution of tasks (Cheung & Wong, 2011).

Those definitions are clear and useful for some kind of researches, but as the present research seeks to answer the question “How to recognize a creative enterprise?” it is difficult to do so without some precisions on the external characteristics of a creative enterprise.

2.2 Impacts of Creativity

A creative enterprise will be influenced by organizational creativity, even though real impacts of creativity are not well documented. A review of impacts of creativity is therefore useful.

According to Amabile (1982), the creative performance of an enterprise can be measured in an external manner by the products or the accomplishments that can be observed as: “A product or response is creative to the extent that appropriate observers independently agree it is creative. Appropriate observers are those familiar with the domain in which the product was created or the response articulated. Thus, creativity can be regarded as the quality of products or responses judged to be creative by appropriate observers, and it can also be regarded as the process by which something so judged is produced” (T. M. Amabile, 1982).

Furthermore, Pitta (2009) underlines that “The enterprises that cannot bring creativity and innovation in their daily tasks find that their failures are related to their weakness in establishing an appropriate culture and climate which value new ideas and this will decrease profits”(Pitta, 2009). It means that an increase of creativity plays a role in the financial success of enterprises. For Heunks (1998), this financial success is related to creativity only if innovation is present (Heunks, 1998).

Actually, creativity is, for some researchers, considered as a component of innovation (Wright, Lewis, Skaggs, & Howell, 2011) or as part of the innovation process (Westwood & Low, 2003). Innovation comes from creativity and then creativity is considered as “pre-innovation.” Consequently, creativity leads to innovation (Burbiel, 2009). Considering that, a brief review of the impacts and measures of innovation can be taken into account to measure or recognize a creative enterprise.

2.3 Impacts and Measures of Innovation

Aas and Pedersen (2010) suggest that management literature on innovation measures is a heterogeneous set of knowledge. Particularly, they highlight the work of Tidd (2001), who suggests two classes of performance measurements: “(1) accounting and financial performance measures, and (2) market performance measures.” Tidd et al. (2001) suggest that the impact of innovation is threefold, resulting in: (1) financial benefits, (2) increased customer value, and (3) strategic success (Tidd, 2001).

On the other hand, Milway, Azer and al. (2011), propose to measure innovation and the value it creates with the gross domestic product (GDP) per capita (Milway et al., 2011). According to the Organization for Economic Co-operation and Development (OECD), innovation is a permanent process in continuous movement, which makes it difficult to measure. The OECD suggests some measurements that can be used such as: the impacts on the net sales, the impacts of the innovation process on costs and employment and the impacts of innovations on productivity (OCDE, 2005).

It is true that this offers some avenues on how to measure the impacts of creativity, however exploring the measures used in the literature on creativity is crucial in order to build a list of characteristics that allows to recognize a creative organization.

2.4 Creativity organizational measurements

In the literature, the measurement of creativity on the organizational level is conducted by measuring some aspects of the organizational climate that are known to have an impact on creativity. KEYS, a tool conceived by Professor Amabile, is a tool commonly used to measure the stimulants and the obstacles of creativity in a work environment based on empirical researches and theories related to the creativity in organizations. It uses 78 items; 66 describing the work environment and 12 validating the performance at work evaluated according to creativity and productivity (T. Amabile et al., 1996).

The performance criteria presented in the KEYS can be used to measure organizational creativity in an “organization or a creative unit where a high creativity is needed and where people think they produce creative work.” This measurement is a self-evaluation and consists of the following items: 1- My department is innovator; 2- My department is creative; 3- Globally, my actual work environment helps me to develop my own creativity; 4- A lot of creativity is needed in my day-to-day work; 5- Globally, my actual work environment helps me to develop my work group creativity; 6- I think I am really creative in my work. This tool can be used in a department, a division or a small organization, as long as the individuals in the group perceive the same work environment, because the perceived work environment makes a difference on the creativity level of the organization (T. Amabile et al., 1996).

To conclude, the characteristics provided in the literature are not specific and concrete to recognize creative SMEs among the other SMEs. In the following section, the methodology used to close the gap of the researches regarding SME creativity is presented.

3 Methodology and discussion

Following the literature review, the Delphi Method was used to elaborate a list of external characteristics of a creative SME. Then, the results obtained will serve as an input for the next step, which consists in selecting a sample of creative SME to be included in a case study. The case study will allow to test the effects of some factors on SME creativity.

The Delphi method was invented by Dalkey (1969) of the RAND Corporation, in the 1960s. This method aims at refining the judgment of group members using questionnaires. Three elements are important in the Delphi Method: anonymous responses, iteration and controlled feedbacks, and statistical group responses. “These features are designed to minimize the biasing effects of the dominant individuals, irrelevant communications and of group pressure toward conformity”(Dalkey, 1969). In this study, all three features were respected. To ensure that, open questions were asked to make sure every expert had a chance to express his/her opinion. Two iterations were done in order to obtain a consensus among the experts.

Emails and web-based software (SurveyMonkey.com) were used to collect the data. On the first round, an email, including a brief introduction, a presentation of the researchers and the project and a link to the survey, was sent. On the second round, only a brief introduction and the link to the survey were sent. The details about the survey are presented in a following section, while a description of the respondents is presented in the next section.

3.1 The respondents

Criteria. The experts were chosen according to a list of criteria, developed by the researchers and evaluated in the first part of the survey. The different criteria included: expertise in defining creativity, knowledge on tools, techniques and success factors related to creativity, SME field experience and finally researcher on SME. The expert group had to include at least: 1 researcher in SME, 1 practitioner in SME, 1 researcher in creativity and 1 practitioner in creativity.

Evaluation. Seventeen experts were asked to answer the survey. Ten of them accepted to fill up the survey. Among this group of experts, nine out of ten who answered were kept according to the conformity of the answers. From those nine people, three were creativity experts, three were experts in creativity tools and techniques, two were experts in success factors of creativity, three were field SME practitioners and five were SME researchers. As for the group composition, three were researchers in SME, two were practitioners in SME, one was practitioner in creativity and three were researchers in creativity.

In the second round, ten people answered the revised and updated questionnaire. From those ten respondents, nine were the same that answered in the first round and one was a new respondent.

Experts' qualification. According to their evaluation, eight out of nine people had at least one criteria evaluated as “expert in this domain” or “high knowledge of this domain”. Furthermore, some of them had more than one criteria evaluated as “expert in this domain”. The global results show that, in average, 22% of the participants consider having a high knowledge of the domain, and 34% think they are experts in these domains, for a total of 56%.

3.2 External Characteristics

First round. In the first round of the Delphi, the question asked on the external characteristics to the experts has to be answered on a 6-point scale basis.

Twenty external characteristics, based on the literature review, were given and the experts had to answer whether they believed those characteristics were appropriate to differentiate a creative enterprise from a non-creative one or not. For example, points like the “number of ideas implemented or commercialized in a time period” and the “originality of the ideas, according to a group of experts” were included.

Seven characteristics were chosen by the experts as characteristics being impacted by creativity in a SME:

- Turnover rate of ways to do things
- Impact of the innovations on a targeted market
- Impact of the innovations on the society
- Offer of distinctive products or services (not available at competitors)
- Number of ideas implemented or commercialized by period of time
- Ability to attract and retain key employees
- Percentage (%) of growth by year (net sales) in comparison to the market

Second round. The purpose of the second round was to prioritize the list of external characteristics. The experts were then asked to prioritize the seven external characteristics that obtained the best score in the first iteration. The results show that the top characteristics to consider in recognizing a creative enterprise are: 1) Offer of distinctive products or services (not available at competitors); 2) Turnover rate of ways to do things, 3) Impact of the innovations on the targeted market.

4 Implications and Conclusion

Furthermore, the external characteristics will be useful for researchers in this research. Following this results, a case-study research will be conducted in order to study the detailed internal success factors or characteristics that will create a creative SME, recognized and measured with the external characteristics obtained in this part of the research. To select those cases to study, those external characteristics have to be detailed in an objective way to concretely qualify the enterprises. The following table show how each external characteristic has been transcribed in concrete measures by the authors to select the SMEs.

Table 1. Objective measures of external characteristics

External characteristic	Objective measure
1) Offer of distinctive products or services (not available at competitors)	The products or processes of the enterprise must include at least one characteristic not available in their competitive market.
2) Turnover rate of ways to do things	The enterprise must have a process to improve its way to do things as a R&D department, suggestion system or continuous improvement system. The enterprise must have review at least a process or product in the last year.
3) Impact of the innovations on the targeted market	The increase of market share related to an innovation has to be positive.

Even if creativity is a subject well studied in the literature, describing the external characteristics is an emerging, if not a new, research area to be investigated. Knowing the external characteristics of a creative enterprise, especially a SME, will lead enterprises to aim for those results as implementing practices to create a creative enterprise and will facilitate the work of researchers as they will know which dependant variables to use for their research.

5 References

Amabile, T., Contti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154-1184.

Amabile, T. M. (1982). Social psychology of creativity: A consensual assessment technique. *Journal of Personality and Social Psychology*, 43(5), 997-1013. doi: 10.1037//0022-3514.43.5.997

Batey, M., & Furnham, A. (2006). Creativity, intelligence, and personality: A critical review of the scattered literature. *Genetic, Social, and General Psychology Monographs*, 132(4), 355-429. doi: 10.3200/mono.132.4.355-430

Burbiel, J. (2009). Creativity in research and development environments: A practical review. *International Journal of Business Science and Applied Management*, 4(2), 35-51.

Cheung, M. F. Y., & Wong, C. S. (2011). Transformational leadership, leader support, and employee creativity. *Leadership and Organization Development Journal*, 32(7), 656-672. doi: 10.1108/01437731111169988

Dalkey, N. C. (1969). The Delphi Method: An Experimental Study of Group Opinion. Retrieved from http://www.rand.org/pubs/research_memoranda/RM5888. website:

Heunks, F. J. (1998). Innovation, Creativity and Success. *Small Business Economics*, 10, 263-272.

Milway, J., Azer, T., Chan, K., Kidwai, A., Martin, L., Meyer, A., & Mohsenzadeh, S. (2011). Canada's innovation imperative: REPORT ON CANADA 2011: Institute for Competitiveness & Prosperity.

Moneta, G. B., Amabile, T. M., Schatzel, E. A., & Kramer, S. J. (2010). Multirater assessment of creative contributions to team projects in organizations. *European Journal of Work and Organizational Psychology*, 19(2), 150-176. doi: 10.1080/13594320902815312

Mumford, M. D. (2003). Where Have We Been, Where Are We Going? Taking Stock in Creativity Research. *Creativity Research Journal*, 15(2-3), 107-120.

OCDE. (2005). *La mesure des activités scientifiques et technologiques; Manuel d'Oslo : PRINCIPES DIRECTEURS POUR LE RECUEIL ET L'INTERPRÉTATION DES DONNÉES SUR L'INNOVATION*. Paris.

Pitta, D. A. (2009). Creating a culture of innovation at Portugal Telecom. *The Journal of Product and Brand Management*, 18(6), 448-451. doi: <http://dx.doi.org/10.1108/10610420910989767>

Raymond, L., Abdul-Nour, G., & Jacob, R. (2003). *L'entreprise-réseau : Dix ans d'expérience de la Chaire Bombardier Produits récréatifs*. Quebec, QC, CAN: Les Presses de l'Université du Québec.

Tidd, J. (2001). Innovation management in context: environment, organization and performance. *International Journal of Management Reviews*, 3(3), 169-183. doi: 10.1111/1468-2370.00062

Westwood, R., & Low, D. R. (2003). The multicultural muse: Culture, creativity and innovation. *International Journal of Cross Cultural Management*, 3(2), 235-259. doi: 10.1177/14705958030032006

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management. The Academy of Management Review*, 18(2), 293.

Wright, G., Lewis, T., Skaggs, P., & Howell, B. (2011). *Creativity and innovation: A comparative analysis of definitions and assessment measures*, Vancouver, BC.