STIMULATING THE INNOVATIVE PROPOSALS FROM EMPLOYEES

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Abstract
On continuously evolving markets, organizations have to innovate constantly to maintain their competitive advantage and uniqueness. The aim of this paper is to identify the elements that influence the process of organizational innovation and to propose a mathematical formula that provisions the level of innovative proposals within a company. The analysis developed is both theoretical and practical: it is rooted in a brief literature review concerning organizational innovation and in a survey whose aim is to propose an equation that can reveal to managers the possibility to get innovative proposals from employees. The paper discloses that organizational innovation is significantly dependent by the way it is stimulated through a few organizational attitudes and tactics.

Key words: competitive advantage, employees, innovative proposals, organizational innovation, OLS

JEL Classification: C51, D22, L20, O31

I. INTRODUCTION

Organizations struggle to get and maintain a competitive advantage that can assure their perpetual existence on the market. However, it degrades in time due to competition and to the changes in the marketplace. To face this problem, an organization has to innovate continuously to demonstrate its uniqueness (Berry, 1991).

Innovation is the translation of an idea or invention into a good or service that creates value or for which customers will pay. It enables preservation of the existing advantages and the creation of new advantages (Morris, 2013).

Taylor & McAdam (2004) consider that innovation is stirred by context. It is a long and complex process that depends critically on recognition of new, external information, assimilating it and applying it to commercial areas (Cohen & Levinthal, 1990). Therefore, innovation requires a set of crosscutting practices and processes to structure, organize, and encourage it.

Moreover, while the technological development stands for many organizational transformations, organizational and technological innovation balances one another (Fegerberg, 2012).

Various organizational benefits arise as result of a rapid intra-organization diffusion of innovation and its subsequent new work practices, such as positive effects on an organization's economic performance (McKee, Varadarajan & Pride, 1989), greater efficiency (Kim & Srivastava, 1998), and the overall success of an organization (Frambach, 1993). Also, Levin, Levin & Meisel (1992) found that the rapid adoption of new work processes across an organization produces noticeable cost savings which lead to enhanced profitability.

Innovation is integrating pieces of information from different areas to spark new insights. It has two component parts: creativity and execution. Creativity is necessary to generate an innovative idea. Execution, on the other hand, is required to organize and coordinate the resources necessary to bring that idea to market (Dyer, Gregersen, & Christensen, 2009).

The aim of this paper is to identify the elements that influence the process of organizational innovation and to propose a mathematical formula that provisions the level of innovative proposals within a company.
II. THEORETICAL BACKGROUND

A couple of terms commonly appear in discussions related to innovation: development of new ideas, adoption, implementation, knowledge-sharing networks, aso.

Various definitions have been outlined for innovation. Van de Ven (1986) considers innovation as the development and implementation of new ideas. Damanpour & Schneider (2008) expand the definition and consider innovation adoption at the organizational level as "the development (generation) and/or use ( adoption) of new ideas or behaviors".

Taylor & McAdam (2004) analyze innovation from an organizational perspective and define it as newness or novelty in regard to people, process or products within an organizational setting. They consider that innovation is something that, when implemented, brings more value to an organization.

Dodgson, Gann, & Slater (2006, p. 337) consider that "innovation is all about making new connections. Most breakthrough innovation is about combining knowledge in new ways or bringing an idea from one domain to another". Kallio et al. (2010) claims that innovations are increasingly taking place in networks, in which actors with different backgrounds are involved.

The relationship between firm’s capacity for innovation and the organizational networking behavior has been researched by many authors. Pittaway (2004) concluded that networking activities are important factors in firm’s innovative performance. The networks of social interactions are considered by Garcia (2013) as the foundation for successful innovation. Inter-organizational networks are facilitators of knowledge flow and innovation. The relationships within a network serve as channels to transfer new ideas, knowledge, energy, and personal support. Through the social connections that exist in organizations the new ideas are formed, developed into products, and ultimately brought to market (Huggins et al., 2012). However, Linton (2002) emphasized that the factor behind successful introduction of organization innovation is communication.

The development, adoption, and implementation of innovations are critical determinants of organizational competitiveness and effectiveness (Baregheh, Rowley, & Sambrook, 2009). So, the organizational innovation is the result of strategic decisions taken by management. (OECD/Eurostat, Oslo Manual, 2005) and engender the implementation of an organizational method (in business practices, workplace organization or external relations) that has not been used before in the firm.

Organization size is positively related to the rate of adoption of innovations (Taylor & McAdam, 2004). Size provides a critical mass of users to be reached in shorter period, so the acquisition and use of the innovation become cost effective on a peruser basis. ICT often functions as a catalyst for innovation (Thaens,2006).

The organizational innovation is commonly expressed within the three forms identified by Damanpour (1991): administrative and technical, product and process, and radical versus incremental.

Administrative innovation is about organizational structure and administrative processes. Such innovations are "directly related to the basic work activities of an organization and more directly related to its management" (Damanpour, 1991, pg. 560). Schumpeter define innovation as the “new ways of organizing business” while Pettigrew and Fenton (2000) define administrative innovations as changes in the firm’s nature, structure, arrangement, practices, beliefs, rules or norms. The administrative innovations, when implemented, mediate between organizational inputs and outputs (Abrahamson, 1991).

Innovative proposals arise within organizations from stakeholders, usually employees. The organizational structure and culture have a significant impact on its ability to generate and implement innovations. Various scholars investigated the specific influence of organizational centralization and structure on innovation diffusion (Kim, 1980; Kimberly & Evanisko, 1981; Subramanian & Nilakanta, 1996; Damanpour, 1991; Kim & Srivastava, 1998).

The adoption of innovation is a two-step process (Arakji & Lang, 2010): first, key decision makers and leaders adopt an innovation and then communicate this decision to the rest of the organization. Jaakkola & Renko (2007) observed that initial adoption among leadership is essential, but it does not guarantee the adoption of innovations at a lower level. Therefore, for a quick adoption process, leaders should promote the innovation to the organization’s members before making the adoption decision.

Type of organization and scope of innovation are important determinants of innovation. Damanpour and Wischnevsky (2006: 286) found that there are positive and negative statistically significant associations between the mean correlations of the three-paired types for specialization, functional differentiation, professionalism, managerial attitude toward change, and technical knowledge.

However, before innovation adoption to be decided, there is necessary to exist innovative proposals. They arise from employees who are willing to involve themselves in the organizational growth and to solve the problems that exist. Organization has an important role to create the framework that stimulates new proposals through support and various incentives for innovation.
III. RESEARCH METHODOLOGY

The purpose of this paper is to highlight a few drivers of innovation proposals from employees within Romanian companies. A mathematical formula can provision the level of innovative proposals within a company and can reveal to managers the possibility to get innovative proposals from employees. In Figure 1 we present a graphic form of the relations being tested.

Our proposal is based on the usual linear model with $k$ independent variables:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \epsilon.$$

We assume that there is a direct relationship between the level of innovative proposals from employees and some individual or organizational specific characteristics.

Therefore, we have surmised a set of relationships, as follows:

1. Employees come up with innovative proposals when their proposals are implemented by organization.
2. There is a positive relationship between the employees’ innovative proposals and their activity focused on solving the problems that appear.
3. There is also a positive relationship between the employees’ innovative proposals and their willingness to take risks.
4. When employees seek for development at the work place, they come up with innovative proposals.
5. Employees come up with innovative proposals when organizations provide incentives for innovation.

Data and statistics

The questionnaire used was developed and pre-tested on a number of fifteen respondents. After adjustments, participants were informed through an e-mail message about the study goal and were requested to fill-up the on-line questionnaire. The respondents were mainly executives, managers and consultants that had extensive knowledge about the (processes and results of) organizational change initiative within Romanian organizations.

The survey was designed to accept only full-completed answers so all responses collected were useable for further analysis.

Our research tried to capture the diversity of fields of activity. Thus, there were investigated a number of 97 private company owned (mostly by) Romanian investors, 49 private company owned (mostly by) foreign investors, 53 public institution, 52 cross-border (multinational) enterprise, 15 social partners (NGO).

A total number of 266 usable responses were obtained as result of various messages sent through e-mail. Non-response bias was prevented through questionnaire that accepted only full-completed responses. All variables are based on Likert-type scales with four intervals (see Table 1). The data analysis was carried out with help of descriptive and inferential statistics using SPSS version 20 as support for processing the regression.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>2</th>
<th>3</th>
<th>Max</th>
</tr>
</thead>
</table>

Table 3. Definition of variables
Employees come up with innovative proposals.

<table>
<thead>
<tr>
<th></th>
<th>To a very small degree</th>
<th>To a small extent</th>
<th>Largely</th>
<th>To a great extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees proposals are implemented.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees are active in solving the problems that appear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees are willing to take risks.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees seek development and innovation at the work place</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Organization provide incentives for innovation to employees</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

IV. RESULTS

Table 2 presents the descriptive statistics for the variables used. The extreme value outliers do not exist, but variables display variance so we have no reason to exclude any of them based on skewness. There is no potentially problematic kurtosis and therefore, lack of sufficient variance, as long as kurtosis has no greater values than or less than +/- 1.00.

Table 4. Descriptives statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Kurtosis</th>
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</thead>
<tbody>
<tr>
<td>DV</td>
<td>1</td>
<td>4</td>
<td>2.59</td>
<td>.763</td>
<td>.582</td>
<td>.013</td>
<td>-.378</td>
</tr>
<tr>
<td>IV 1</td>
<td>1</td>
<td>4</td>
<td>2.48</td>
<td>.763</td>
<td>.583</td>
<td>-.193</td>
<td>-.367</td>
</tr>
<tr>
<td>IV 2</td>
<td>1</td>
<td>4</td>
<td>2.66</td>
<td>.711</td>
<td>.505</td>
<td>-.413</td>
<td>.082</td>
</tr>
<tr>
<td>IV 3</td>
<td>1</td>
<td>4</td>
<td>2.29</td>
<td>.755</td>
<td>.570</td>
<td>.144</td>
<td>-.294</td>
</tr>
<tr>
<td>IV 4</td>
<td>1</td>
<td>4</td>
<td>2.53</td>
<td>.773</td>
<td>.597</td>
<td>-.163</td>
<td>-.346</td>
</tr>
<tr>
<td>IV 5</td>
<td>1</td>
<td>4</td>
<td>2.11</td>
<td>.896</td>
<td>.802</td>
<td>.189</td>
<td>-.998</td>
</tr>
</tbody>
</table>

Table 3 presents the results of ordinary least squares (OLS) regression.

Table 5. OLS regression coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandard Coefficient</th>
<th>Standardized Coefficients</th>
<th>P</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Beta</td>
<td></td>
<td></td>
<td>Zero-order</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.578</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV 1</td>
<td>.192</td>
<td>.193</td>
<td>.002</td>
<td>.564</td>
<td>.135</td>
</tr>
<tr>
<td>IV 2</td>
<td>.099</td>
<td>.092</td>
<td>.151</td>
<td>.536</td>
<td>.063</td>
</tr>
<tr>
<td>IV 3</td>
<td>-.005</td>
<td>-.005</td>
<td>.935</td>
<td>.496</td>
<td>-.004</td>
</tr>
<tr>
<td>IV 4</td>
<td>.444</td>
<td>.450</td>
<td>.000</td>
<td>.670</td>
<td>.279</td>
</tr>
<tr>
<td>IV 5</td>
<td>.077</td>
<td>.091</td>
<td>.120</td>
<td>.487</td>
<td>.068</td>
</tr>
</tbody>
</table>

The Tolerance coefficients show that there is little multicollinearity among the independent variables while the adjusted R-Square level of .491 is satisfactory suggesting that the model encompass the organizational reality.

The OLS regression show that employees come up with innovative proposals when their proposals are taken into consideration by management and implemented, as well as when employees seek for development at the work place. The last one seems to be the most important in the process of innovation.

Based on the OLS results there are a few conclusions related to the initial assumptions:
1. The highest, positive and statistically significant relationship (p = .000) is between our dependent variable and the predictive variable „Employees seek for development and innovation at the work place”. It has the highest effect on the dependent variable “employees come up with innovative proposals” as evidenced by .279 value of Part.

2. There is a positive and statistically significant (p = .002) relationship between the independent variable “employees proposals are implemented by organization” and our dependent variable. There is a significant effect of this independent variable on the dependent variable “employees come up with innovative proposals” as evidenced by .135 value of Part.

3. There are two independent variables with a similar quota of effect on the level at which employees come up with innovative proposals. The results show that when employees are active in solving the problems that appear, they come up with innovative proposals. There is a positive relationship between these variables (Beta = 0.92), but not statistically significant (p = 0.151). Also, the variable “employees are active in solving the problems that appear” have an insignificant effect on the dependent variable “employees come up with innovative proposals”, as evidenced by the level of .063 of Part Correlation coefficient.

4. Also, when organizations provide incentives for innovation to employees, they come up with innovative proposals. There is also a positive relationship between these variables (Beta = 0.91), but not statistically significant (p = 0.120). Also, the variable “organization provide incentives for innovation to employees” have an insignificant effect on the dependent variable “employees come up with innovative proposals”, as evidenced by the level of .068 of Part Correlation coefficient.

5. Last, but not least, this research does not support one of our initial hypothesis. It reveals that there is a negative relationship between the employees’ innovative proposals and their willingness to take risks (Beta = -.005), not statistically significant (p = 0.935). Also, the variable “employees are willing to take risks” has an insignificant effect on the dependent variable “employees come up with innovative proposals”, as evidenced by the level of -.004 of Part Correlation coefficient.

V. CONCLUSIONS

Organizations are looking for a competitive advantage that, when achieved, it (unfortunately) degrades in time. To face this problem, they have to innovate continuously. Innovative proposals from employees are used by organizations to redesign their products, structure or processes.

The study has tried to detect a few elements that influence the process of organizational innovation and to propose a mathematical formula that provisions the level of innovative proposals from employees.

Our research has tried to capture insights from the companies that pursued various innovative approaches through organizational change, such as technical innovations (e.g., new products, new production methods) and non-technical aspects (e.g., new markets, new forms of organization) as well as product innovations (e.g., new products or services) and process innovations (e.g., new production methods or new forms of organization).

Employees’ internal motivation for development and innovation is the main driver of innovative proposals within an organization. When they are willing to involve themselves in the development of organization and found themselves in situation where they can add value, they come up with new innovative proposals. It is the organization’s management the one who decide whether the proposal is applicable.

Innovative proposals does not necessary arise when employees are active in solving the problems that appear; employees can be just extremely effective implementers. However, the knowledge-sharing networks they belong to might support further innovative proposals that can arise from other members.

Our research has found that innovative proposals from employees are negatively correlated with the willingness to take risks. This might be a result of the risk avoidance behaviour and of the Romanian mentality.

However, a few strategies and directions of activity arise from this study. First, organizations should set up mechanisms to receive and to implement the viable proposals from employees. The awareness of the fact that employees’ proposals are considered by management and implemented is extremely important and can further stimulate innovative proposals. Also, organizations should provide incentives for innovative proposals. This practice, together with a transparent analysis of the proposals can determine an organizational cultural distinction, which can secure the existence of a permanent competitive advantage.

These results are limited. The limits come from the fact that the study considers just a few variables that can influence the numbers of innovative proposals from employees. For instance, the specific facets such as the network relationships among members, the organizational communicational process or organizational size were not taken into consideration. Our endeavour focused only on the employees-specific factors (intrinsic motivation and behaviour) and the organizational framework (routines) that support the implementation of innovative proposals.

This research, limited by its scope and size of the sample, can be a preliminary point for further studies of the innovation processes within organizations.
VI. REFERENCES