

WHAT IS AN INNOVATIVE CULTURE AND HOW CAN WE BUILD IT?

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Firmele mici și mijlocii pot obține avantaje importante prin susținerea inovării. Inovarea este un puternic avantaj competitiv disponibil oricărei firme care caută și dezvoltă aptitudinile necesare. Cultura inovativă este una dintre cele opt dimensiuni ale modelului DNA, dimensiuni care trebuie să existe pentru ca inovarea organizațională să aibă loc.

Lucrarea dezvăluie o serie de aspecte în legătură cu managementul inovării în două ipostaze acceptate, și anume, inovarea incrementală și radicală, cu accent pe cultura organizațională. Lucrarea prezintă caracteristicile unei culturi inovative, precum și modalitățile de formare a acesteia.

Small and mid-size firms can gain significant advantages by fostering innovation. Innovation is a powerful competitive advantage that is available to any firm that seeks and develops the necessary skills. Innovative culture is one of the eight dimensions of the Innovation DNA model, dimensions that need to be in place for organizational innovation to occur.

The work reveals a series of aspects about the innovation management in two accepted hypostases that is incremental and radical innovation, with emphasis on the organizational culture. The work brings forward the characteristics of an innovative culture as well as the ways of building it.

Key words: innovation, incremental innovation, radical innovation, innovative culture.

1. Introduction

In today's environment, it is dangerous for any organization to assume its products and processes will not be challenged by the competition and made obsolete. In life as well as in business Darwinian principle is applied – only the strong, adaptable and creative survive. Globalization is a challenge and assumes a concurrence of economic social, technological, cultural and political changes, seen as a result of the growth of the interdependence, the integration and the interaction between people and organization situated in various areas of the world.

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The effects are varied. Therefore:

- from the economic point of view: foreign investments, international organical structures and systems, specific practices (outsourcing, off shoring);
- from the cultural point of view: cultural changes, multiculturalism, cultural diversity, developed tourism, immigration, customs and new values;
- from the technological point of view: global understructures, transfer of information;
- from the political/legislative point of view: standardization and international legal regulations.

To be innovative means to do something different and better than at present. To be innovative doesn't mean only to think creative, but to turn creative ideas into something valuable for the organization and its customers, to bring extra value.

Innovation is an active process, a group process. It is not enough as one or more employees of an organization to be creative and have the intention to innovate so that we can talk about an innovative organization.

Creativity value of an organization represents a kind of the average of the people's creativity level who made up that organization. Even if the creative potential which consists in the individual members of an organization is important, it does not mean that the potential of innovation of the organization is a high one. This aspect has an explanation: the people's creative potential in a firm can be ignored, underused or used in an unsuited way.

It is not enough as managers to deal with the rise in creativity value of the people.

In order to be capable of innovation an organization on the whole has to offer an adequate frame work for development and valorization.

The rate of innovation of a firm depends on the management capability to create this context of updating the creativity throughout the organization. Therefore, good ideas are left disconnected and, often, they are lost. Solution to this problem is setting up an innovative culture.

2. Incremental innovation versus radical innovation

Cultures that support innovation can appear to be and often really are much more flexible.

Innovation occurs and grows up more difficult in an environment of strict controls. Strict control seeks to keep things within boundaries. Innovation tests these boundaries.

Traditional organizations embrace their past, as a rule, they stick to a winning formula and seek for more efficient ways of achieving objectives and minimizing risks. Many times, we meet a culture of low risk incremental innovation in these firms.

Incremental innovation has the basis of an applied idea, practice or method which represents an absolute novelty in proportion to the analyzed firm, while it is not an absolute novelty for the industrial branch which belongs to. This idea, practice or method was previously adopted within other firms which belong to their respective industry. It has the role to extend using of the firm's base technology representing the improvements of the present methods which determines small exceptions to the current practices and a reduced degree of novelty. As one goes along the exceptions to the current practices of the firm become more and more revolutionary, resulting in disrupting its base structure, innovation strives for being more a radical innovation [1].

Incremental innovation that brings small changes every time, through accumulation, in time, it can lead to great changes, being received favorably by old producers on the market, because that implies low investments and risks.

Incremental innovation represents most of the innovative activity at the industrial enterprise level, centering more round the products and less round the processes.

Radical innovation brings substantial changes with an advanced level of investments and risks, and offers opportunities to some new producers to enter on the market. Once a radical innovation is brought in on the market, it is succeeded by many and various incremental innovations, minor or major redesigning developed from this [1].

Studies have showed that enterprises had regular to aim radical innovation in order to survive on long term.

However, this type of innovation is difficult to be achieved, both internal where it's possible that the idea cannot be sustained being considered too radical and the marketing research cannot foreseen the market potential, and external concerning the acceptance of the market, the embracement of the consumers and the awareness of the benefits brought by this.

The way from the incremental innovation to the radical one goes through broader and broader innovative activities which imply higher risks, but an increased degree of creativity.

Incremental innovation assumes a series of process which are more or less creative (even the attempts to copy the novelties occurred on the market due to the competition, imply time and again intense efforts of creative adjustment), undoubtedly it wasn't possible a fast and efficient working out of the problems emerged in technical, commercial and organizational field.

Imitators have increased successful chances if they improve and perfect the original innovation, becoming themselves innovators, therefore, spreading of an innovation is the basis of other creative processes (an important innovation at one area is the beginning for a series of other successive innovations that are focused in or around the respective area).

McFadzean's paradigm (2000) is showed in figure no. 1, which as a result of the research, it identified a bigger volume of knowledge about the innovation management in case of the incremental innovation to the detriment of the radical innovation, although the innovation management is much more complex than at the radical innovation. There are known very little information about the effective management of the development process for radical innovation, than the incremental one.

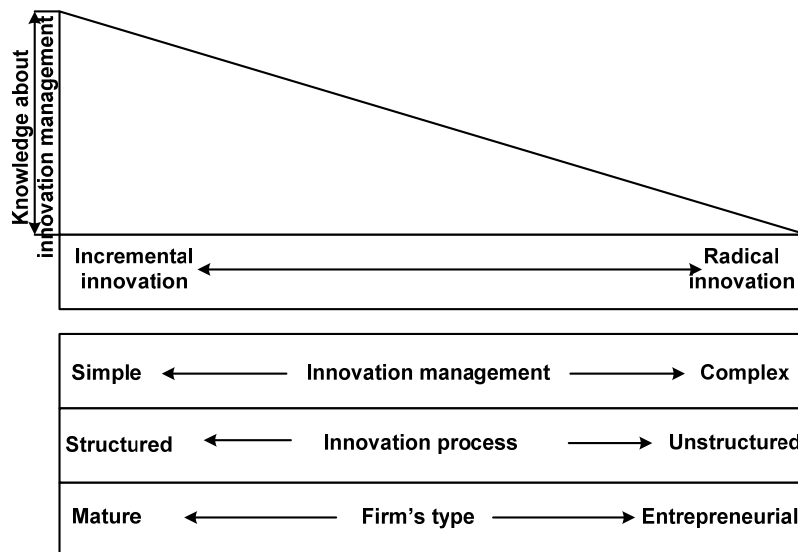


Fig. 1. McFadzean's paradigm [2]

Between organizations orientated towards the two ways of innovation appear major differences at the level of the type of the organizational structure, procedures, human resources, methods of work, management systems and final results (table 1).

The organization orientated towards incremental innovation relies on units with relatively formalized roles and responsibilities, centralized procedures, functional structures, efficiency-oriented culture, emphasis on production from the quantity and quality viewpoint, experienced capacity of sale. These units are characterized by a high degree of inertia, emphasizing efficiency, teamwork and continuous improvement [2].

The organization orientated towards radical innovation relies on relatively small units, with freedom of action, decentralized, in which prevail entrepreneurial and technical competencies; build up by relatively young and heterogeneous employees [2].

Table 1

Differences between incremental and radical innovation		
Incremental innovation		Radical innovation
<ul style="list-style-type: none"> • Formalized • Centralized • Systematic 	Procedures	<ul style="list-style-type: none"> • Unformalized • Decentralized • Loosely structured
<ul style="list-style-type: none"> • Functional • Efficiency oriented 	Organizational structure	<ul style="list-style-type: none"> • Facilitating knowledge gathering • Supporting risk taking
<ul style="list-style-type: none"> • Homogeneous • Older and experienced 	People	<ul style="list-style-type: none"> • Heterogeneous • Younger and entrepreneurial • Technical • Questioning
<ul style="list-style-type: none"> • Mature • High inertia • Focus on efficiency • Focus on team-working • Continuous improvement • Low investments • Minor risk taking 	Characteristics of the organization	<ul style="list-style-type: none"> • Entrepreneurial • Emphasis on intrapreneurship • Focus on discovery • Individual co-operation • High investments • Major risk taking
<ul style="list-style-type: none"> • Cost reduction • Feature addition • Efficiency improvement 	Focus	<ul style="list-style-type: none"> • Experimentation • Creativity • Foresights • Psychology • New methods and technologies • New products
<ul style="list-style-type: none"> • Mostly existing 	Products/Technologies	<ul style="list-style-type: none"> • Mostly new
<ul style="list-style-type: none"> • Linear • Predictable 	Processes	<ul style="list-style-type: none"> • Non-linear • Explorative • Experimental
<ul style="list-style-type: none"> • Between 6 and 24 months 	Periods for notable and practical achievements	<ul style="list-style-type: none"> • Between 2 and 7 years
<ul style="list-style-type: none"> • Exploitation 	Management	<ul style="list-style-type: none"> • Exploration

Source: Remark after [2].

Incremental innovation usually emphasizes cost or feature improvements in existing products, in contrast radical innovation concerns the development of new business or product lines based on new ideas or technologies, as far as conceiving and achieving completely new products.

Radical innovation is associated with an inherently messy, fraught with uncertainty. The process is non-linear, highly explorative and experimental, involving probing and learning rather than targeting and developing.

Time and again, mature firms are less interested in radical innovation, as the mechanisms that allow them to be successful become inhibitors to innovation.

Major risks implied by the radical innovations are accepted more difficult by big or medium firms; several times, entrepreneurs with new and daring ideas are those who made break innovations within the framework of some small firms. Their wish to put into practice their own ideas is much stronger than the assumed risks, the criteria of the profit or the economic success being overtaken by his or her complying dream or at least by trying to achieve it.

3. The relationship between the organizational culture and the innovation

It's obvious that it cannot be discussed about an organizational culture which is adequate both for incremental innovation and for radical innovation.

As concerns the problems of innovation, having a culture of innovation is an essential factor.

The Innovation DNA Model (named after its authors that is to say the members of the Innovation Denver Network Association) presents the existence of the innovative culture as one of the eight dimensions that are the basis of innovation within an organization. The eight dimensions are [3]:

1. Change, ideas, passion and trends. These are the innovation drivers. They provide the stimuli needed to start the innovation.
2. Challenge. The bigger the challenge and the passion behind it, the more energy the innovation efforts will have.
3. Customer focus. Innovation finally leads to create value for the customer. Interacting with and understanding the customers' needs are one of the best stimulators of new possibilities of innovation.
4. Creativity. The start point in innovation is the creativity and it follows up providing of potential useful ideas. Innovations means to bring successfully on the market a creative idea among many other possibilities.
5. Communication. Open communication of ideas, information and feelings is the lifeblood of innovation.
6. Collaboration. Innovation is a group process. It feeds on interaction, information and a shared vision.

7. Continuous learning. Learning from completed projects is favorable for the innovative projects that will come up.
8. Innovative culture. Creating an environment that honors ideas, supports ideas generation and communication, tolerates risk and may be the biggest challenge facing all organizations that want to be innovative.

An organizational culture that supports innovation has a series of characteristics:

- encouraging informal meetings in and out of the departments and interactions between employees and customers;
- recognizing and rewarding successful outcomes;
- unpunishing the failures;
- encouraging employees to share knowledge freely;
- appreciation of risk taking;
- permission to risk;
- job flexibility and autonomy;
- sustaining behaviors that question tradition;
- encouraging managers to be flexible about the staff's work time without a closely monitoring;
- focusing on long-term performance.

An innovative culture is not achieved easily and requires strategic thinking. It can be talked about the existence of several types of organizational cultures that support more or less innovation (figure no. 2).

Foundation organizational culture	Advanced organizational culture	Breakthrough organizational culture	
Hierarchical command	Departmental cooperation	Self-directed virtual teams	MANAGEMENT
Transactional and aggregated	Integration across the enterprise	Learning	INFORMATION
Cost and risk reduction	Productivity improvement	Collaborative improvement	OPERATIONS
Product	Segmented but still product based	Customers' individual needs	MARKETING
Growth	Growth and performance	Innovation	STRATEGY

Fig. 2. Types of organizational cultures [4]

There is no guarantee that a breakthrough organizational culture will lead to innovation, but certainly it's a prerequisite.

4. The present state of innovation in Romania

The concern for innovation does not recover in the local business environment too. According to EUROSTAT report, in 2006, only 6.8% of Romanian entrepreneurs think that their firms bring in on the market new and improved products from the important features viewpoint. The rest of the questionees are satisfied with the imitation of the competition movements. The percentage of the innovators is less than both the one registered in the developed countries such as Luxemburg (25.8%) and Sweden (39.9%) and the nearer countries as level of development such as Bulgaria (9.6%) and Czech Republic (19.6%) [5].

Even the attempts of imitation the innovations come into being on the Romanian market owing to the competition imply, several times, strong efforts of creative adjustment which lead to incremental innovation. Imitators have increased opportunities of success if they improve and perfect the original innovation, becoming themselves innovators.

In the absence of their own innovation activities many industrial enterprises from our country are in the position to have an imitative behavior which has the mission to put the successful innovations from the industrial developed economies into Romanian economy context, remained behind from the technological viewpoint.

During the absence of some sufficient financial resources to purchase licenses, patents and know-how, the modernization of the products and of the processes of production is achieved through imitations that have a bigger or smaller success depending on the organization's capacity of change, on the abilities, knowledge and last, but not least on the personnel's creativity.

The incremental innovation becomes a necessity in the next stages of the adoption of some innovations, purchasing licenses, patents or any other type of

technological transfer that take place within the framework of the industrial enterprise.

5. Conclusions

In order to be competitive firms have to innovate.

After the intensity of the strategical and structural change that the firm is confronted with as part of the innovation process, it can be met the radical innovation and the incremental innovation.

Incremental changes have the role of spreading base technology within the firm, while the radical innovations represent breakthroughs so important that they have to be sustained by an essential change of the organizational culture and of the firm's structure.

As the embracement of the incremental innovations may not imply major changes of the enterprise's strategy, they do not always cause the change of the enterprise's organizational culture and structure.

The work emphasizes the essential differences between incremental innovation and the radical one, the way of building an organizational culture which supports innovation, as well as the relationship between the two types of innovation and the organizational culture.

Personal contribution limits to present a general picture over the analyzed problem as well as to perform a radiography of the current situation from Romania.

BIBLIOGRAPHY

- [1]. *G. Șipoș*, Inovarea în întreprindere, Mirton, 2004
- [2]. *P. McLaughlin, J. Bessant, P. Smart*, Developing an organizational culture that facilitates radical innovation in a mature small to medium sized company emergent findings, The Cranfield School of Management Working Paper Series ISBN 1 85905 174X
- [3]. *** Innovation DNA: Framework of Principles, www.thinksmart.com/mission/dna

- [4]. *R. Angel*, Putting an innovation culture into practice, Ivey Business Journal Online January/February 2006, www.iveybusinessjournal.com
- [5]. *** Raportul EUROSTAT privind inovarea pe 2006