Abstract. *Nowadays, in a global competitive and dynamic environment, innovation becomes more and more relevant mainly because three major tendencies: intense international competition, markets that are more demanding and various technologies, which are continuously changing. This paper presents a compilation of several various approaches on innovation, the influencing factors and the importance of innovative culture and best practices of innovative companies. Innovation is highly recognized as a key strategy for economic growth. The innovation process the process which follows certain well-structured stages in order to accomplish the goal. Innovation in a company is influenced by a series of factors which contribute to a durable economic growth. In the case of an organization which aims to promote innovation, it must create an innovative culture. Innovation is a challenge which is best solved with human resources rather than with technical ones. Developing innovative abilities requires a change in the leadership paradigm and in the way people act. But the most important item would be creating a new management style that is adapted to the specific needs of each company. There are few broadminded managers who wish to include innovations and who are aware of its necessity. This article presents a critical analysis of several written works related to innovation, thus becoming an important piece of bibliographic material, very useful to further researches in this field.*

Keywords: innovation, innovation process stages, enablers of the innovation process, innovative culture.

INNOVATION – A MUST FOR THE DURABLE DEVELOPMENT

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1. Introduction

It is impossible to imagine the world today without constant progress. Novelty is a constant presence in the way we see and feel the world. Novelty itself is necessary because, without it, everything would stop and succumb. It is good to realize that we must renew and innovate. Without innovation, there is no life. There are so many innovation planes in life that the entire process is basically innovation. Life in its all complexity is an innovative process. We must believe that everything depends on us.

How can we "master" the future? What are the key competences that our organization needs in order to increase success? Why is innovation more and more important? What are the stages of an innovative process? What are the factors influencing the innovative process in an organization? Do we need innovative culture in an organization? These are the interrogations that will be answered in this article, which can prove very useful for further research in this field.

In a dynamic economic environment, which presents a specific behavior of complex and nonlinear systems, a new challenge arises for the organizations within: innovation as a vital part of daily activities. Not long ago, quality and productivity represented key elements for the competitiveness of an organization. Nowadays, a new strategy is required: the innovation strategy – the innovation of the products and services, the innovation of production processes and methodologies, the innovation of internal structures, etc. All these require a proper innovation management (Amza, 2010).

Innovation must become an essential component of each organization. Most of the organizations that are competitive nowadays are the ones that innovate continuously. Innovation depends on a clear company strategy, clearly stated objectives, finances, competent management, a well-prepared team, very clear and correct labor evaluation criteria and a competitive environment. The need and importance of innovation comes from its contribution to productivity, competitiveness, economic performance and the accomplishment of social goals (Prahalad and Hamel, 1994). Only the organizations which develop organizational cultures and which support and encourage diversity of opinions and the innovative spirit will succeed (Brad, 2006).

2. Innovation and the process of innovation

Innovation is a very strong concept, with a wide range of meanings and applications (Brătianu, 2011). It is a current topic in the written works and many authors agree that, despite its apparent simplicity, it is not something very easily applied and maintained in companies (Marin-Garcia, Bautista and Garcia-Sabater, 2010). Innovation is one of the most critical means in supporting and improving the competitive position of a company, at the same time improving its survival chances. Its growth depends highly on its capacity of balancing the use of current knowledge and the exploration of new possibilities (Cantarello, Martini and Anna, 2012).

According to Nieto, when the new technological knowledge focuses on the development of new products or on the improvement of existing ones, we talk of product innovation (Verde, 2011). Jin sees innovation as the change management in business (Jin, 1999).

The term "innovation" comes from the Latin "inovatis" (in-in, novatis-new), which could mean renewal, novelty, change (Varis, 2010). Innovation represents something new (Brown, 2004) which has no precedent (Brad, 2006). The term "innovative" means to be open to new ideas (Hurley, 1998; Wei, 2010). OECD defines innovation as using a new product or the significant improvement of a new product (or service) or process, a new marketing, organizational or business method, a different way of organizing workplace or external relations (OECD, 2005).

Innovation can be defined as the creative process by which new products, services or production processes are developed for a business unit. Obviously, many organizations fall afterwards into a productive paradox, when they fail to identify the advantages and the productivity of a certain innovative activity. For competitiveness reasons, such organizations cannot afford to invest in innovation and, from an economical perspective, they fail to find a reasonably enough justification to do so. Thus, their evaluation efforts do not provide enough arguments to justify such an investment. Quinn indicated the fact that innovation demands complex knowledge and only a wide network of specialists can provide it. Not all companies are competent and therefore, innovation is not universally useful. Indeed, innovation can be dangerous and can provide negative effects (Huang, 2010). Innovation provides the mechanism for a company to grow faster, better and smarter than competition and can decide the direction of the company (Oster, 2010).

Innovation has been the topic of passionate discussions and debates from the 19th century (Trott, 2004; Legardeur, 2010; Ko, 2010; Li, 2011). One of its first definitions was created by Schumpeter (Leitner, 2010, Hidalgo, 2008) in 1920 and focused on its novelty nature. According to Schumpeter, innovation is reflected by new results: a new product or a higher quality of a product, a new production method, a new market, a new supply source or a new organizational structure. In other words, "making things differently" (Mohini, 2004). However, Hansen Wakonen said that it "is practically impossible to do things in the same way", which means that every change, by definition, should become innovation. According to Kuczmaki (1996) for example, innovation is regarded as a state of mind, a generalized attitude or a way of thinking looking beyond the present and envisioning the future (Atherton, 2010).

Many times an innovation may look like an imitation, which means re-interpreting or interpreting in a new way a multitude of elements more or less innovative. This comes to confirm the claim that innovations are based on new combinations of elements which are already known and may have already been applied before, only not in the same manner. This last argument leads us to the distinction between incremental innovation and radical innovation. In the first case, the accent is placed on changes that imply refinement or improvement, although

without accomplishing something completely fundamental or new. In the case of radical innovations on the other hand, the emphasis is on the changes representing something completely "new" (Ellstrom, 2010).

What is the formula for a successful innovation?

The successful innovation (SI) can be expressed: $SI = (I + E + M + L)\ D$, where:

I = idea or *invention.* Innovation begins with an idea or an invention. An invention is defined as "a creation (a new device or process), which results from study and experiments" (Staniland, 2011). The invention consists in creating a new configuration, composition or matter, device or process (Schumpeter, 1934). The invention is the first appearance of a new idea (concept) for a new product or process, while innovation is the first selling of a new idea (Fagerberg, 2004; Allio, 2005). An idea is defined as "any conception existing in the mind as a result of a mental understanding, of awareness or activity" (Staniland, 2011). This new idea can be a recombination of old ideas, a new pattern which represents a challenge for the actual order, a formula or a unique approach that is perceived as new by the stakeholders (Wikipedia, 2011). Since an invention is something new and original by definition, an idea could be the usage of an invention in a new environment (Staniland, 2011).

*E = evaluation and development process***.** The ideas and inventions must go through an evaluation and development process. E covers both elements. The process itself must be taken into account and developed to fit the needs and demands and must be taken into account for a series of questions (Table 1)

Table 1

Questions for evaluation and development process

Evaluation	Development
Does this idea / invention fulfill the desire to create? Is this idea/invention unique? Is this idea/invention practical? Is there enough of demand to justify the development of this idea/invention? Are there enough people and resources available? Are they appropriate? Is there a competition? What are the obstacles and the barriers that stand in the way of success? What is the current and future trend of the market? Is this the right time? Does it have the wow factor?	Intellectual property Applying fabrication costs Production design Usage design Elaborating the prototype Collecting and analyzing data Is there any proof that anyone wants your idea/invention? Physical or virtual distribution

Another indicator for a successful innovation is *Marketing = M*, which has to take into account the following requirements (Table 2):

Table 2

Requirements for marketing

Marketing
Understanding the market
The dimension and the dynamic of the market
Market segmentation
Market itinerary research
How many/ which clients would want to buy the innovation?
Why would a client want to buy the innovation?
Defining the benefits and the characteristics
Fixing the value and the potential of the innovation
How much would the clients be willing to pay, how many would we sell?

L = Luck. The innovation needs luck to bear fruits. But luck grows more with the aid of work well done. More work implies more people, and that leads to more opportunities for the luck to show up. Denzel Washington said: "I say that luck is when an opportunity comes and you are ready for it".

D = Demand, controls the entire equation. It is essential that the innovation meets the demands of potential customers. When the innovation doesn't sell (demand is nil), then there is no point in innovating.

What are the stages of an innovation process?

An innovation process must undergo the following stages (Procesul de inovare şi inovarea proceselor, 2011) presented in Figure 1.



*Figure 1.***The stages of an innovation process**

The first stage is generating the idea, which can come from external or internal sources. The internal sources of product ideas come within the company and they can be: ideas from the R&D department (motivated by the technological possibilities) or ideas from the production department (motivated by the production occupancy possibilities), ideas from the design department (motivated by aesthetic and ergonomic reasons), ideas from the management department (motivated by the perception on the clients' needs), ideas coming from employees (opportunities linked to their own activity). External sources can come from customers, letting the company know if their demands have been met or not; from distributors, who may recognize the need for new products demanded by their customers; from suppliers, who identify the ways in which the raw materials or the components can be used to create new consumers or new products; from competitors, who create products that can be copied or improved; from research institutes, which identify potential applications of a new

product based on scientific research; and from advertising and marketing agencies, which can identify the consumers' or companies' needs by means of marketing research (Procesul de inovare şi inovarea proceselor, 2011).

During choosing an idea stage, the company must try to eliminate less profitable ideas before start spending money on investigating and developing it. With this stage two types of errors can occur, namely missed errors – as is the case with companies, which fail to foresee the potential of an idea – and errors failed to be perceived, such as those errors that imply a further development of a product idea followed by their market failure. When choosing an idea there are usually two levels: the first one is the evaluation of the market potential of the product, its production capacity and its selling abilities; the second one implies numerical evaluation of that specific product. After the second stage of choosing an idea, this idea must be tested on its potential market.

During the business analysis stage, the company is assumed to own the best information on the nature and the specifications of the product and a marketing evaluation is a must. This should include: a description of the target market, a sales market prognosis, indications regarding the position of the product, an analysis of the probable reactions of the competitors, the specification of the new product (including quality levels), the evaluation of accomplishable price levels, the distribution strategy and declaring the promotion needs.

The financial analysis is based on marketing evaluation. The calculations have to show the sales value, the variable and fixed costs and the benchmark profitability for the new product. The next stage is developing and testing the product, when the company is faced with the task of determining aspects related to establishing a low cost in order to obtain a realist price. The marketing test represents the stage in which the new product is placed face to face with the consumer but in a smaller quantity than in the case of a subsequent mass launch. This stage uses the following tests: the standard market test (used to test consumer products), the limited market test (because the product might alert the attention of the competition, the company may choose to expose the new product to a limited number of consumers in a limited number of shops and for a limited period of time), and test based on using the product (a few customers are chosen to use the product in normal conditions and for a limited period of time). Selling represents the last stage of the innovation process (Procesul de inovare şi inovarea proceselor, 2011).

The enablers of the innovation process

The enablers of the innovation process, which determine an organization's innovation capability (Dervitsiotis, 2010), are shown in Figure 2. These enablers or innovation drivers are system variables under the influence of management and include the following:

– Leadership, which shapes the vision, the shared values and the alignment of incentives, both material and intangible, for all key stakeholders.

– The organizational culture, which sets the breeding ground for engaging the creative talents of employees, providing opportunities for creative interactions and making good use of the ideas generated by other sources. Key culture attributes include the prevailing degree of trust, the risk attitude for experimenting with new ideas, tolerance of failure, degree of diversity in education and ethnic background of employees, willingness to share knowledge and cooperate and others.

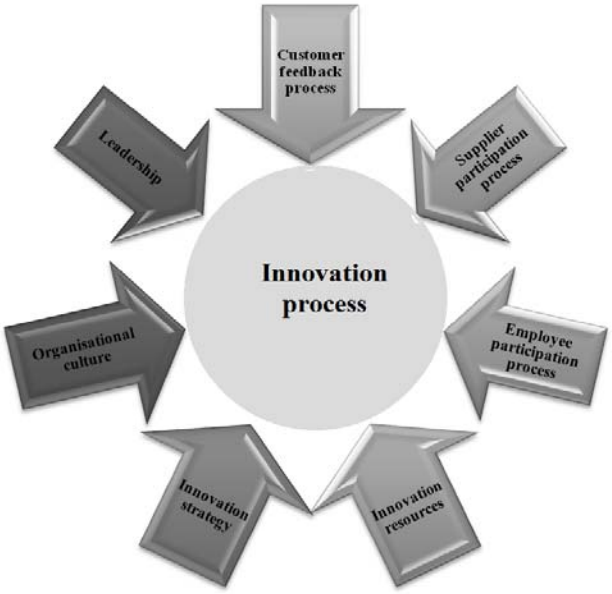


Figure 2. **The enablers of the innovation process**

– An innovation strategy, which identifies and takes advantage of new opportunities emerging in a changing business landscape. This strategy is reflected in a firm's portfolio of innovation projects, aiming to balance the benefits and risks from short-term incremental innovations, which improve existing products and services, and those from long-term breakthrough innovations creating new ways of generating value to satisfy emerging customer needs.

– An employee participation process that feeds valuable input and provides support for the innovation strategy, especially in regard to product features and production process improvements.

– The innovation resources, i.e. the internal available human talent, the needed investments and the desirable external partnerships that can complement an organization's unique strengths, knowledge and skills.

– A customer feedback process that enables an organization to collect the feedback on its products' performance and satisfaction provided, on a regular basis.

– A supplier participation process that utilizes the expertise, unique competencies and advice of its partners in the development of desired new products and services.

– The innovation process that utilizes all the above inputs to select the best ideas for the development of new value-adding products or services that can reach the market fast and become converted to new streams of revenues and profits. This process is analyzed for each of the four value-adding stages which are:

a) the generation of new ideas;

b) the selection of specific innovation projects;

c) the development of new products through prototypes; and

d) the commercialization or taking to market of a promising product.

The key results and benefits of the innovation process

The key results or benefits that flow into an organization's internal environment from a firm's innovation capability include the following (Dervitsiotis, 2010):

1) Customer impacts in the form of increased customer satisfaction from products and services offering greater value along with increased loyalty to the organization.

2) Employee impacts in the form of greater employee satisfaction, increased loyalty and greater cooperation within the organization. The assessment of variables 1 and 2 may be performed in the same way as in the well-known quality assessment frameworks such as the European Quality Award.

3) Organization impacts in the form of increasing levels of trust, a healthier attitude towards reasonable risks and a greater degree of cooperation, leading to more functional and effective informal networks to facilitate the exchange of valuable information and tacit knowledge.

4) Overall improvement of performance, expressed in:

– economic terms, as measured by the revenue from new products, the time to break even, the return on total investment for innovations and most critically the revenue captured relative to the revenue generated from innovations;

– market performance, as measured by the percentage (%) change of market share and time to market.

– environmental footprint, as measured by the change in pollution levels and the change in requirements for energy or other critical resource from the use of the innovations.

Management can develop and utilise a set of guiding questions, similar to those used for quality assessments, to obtain a rating for each variable, which can then be used to identify an innovation system's strengths and weaknesses (Dervitsiotis, 2010).

3. The innovative culture: principles and practices

One of the reasons for which most companies and institutions are so cautious regarding the increase in their innovative capacity is that innovation apparently represents a problem for executive managers. They are the ones who have to initiate and lead the organization towards innovation. Innovation implies transforming ideas into tangible results. Three important aspects have to be taken into account in this approach. First, if a new idea is not put into practice, there is no effect. Secondly, when a new idea is applied but it does not change the day-to-day reality of a company, that company is in a status of continuous improvement rather than in an innovative state. Thirdly, innovation demands a new contribution to the basic knowledge, a process innovation or a change of direction, a sort of internal development, which completes the status of originality and novelty.

The attention of many top managers is mainly focused on solving day-to-day urgent problems. Innovation is most of the times left behind, although this is viewed as highly important. When company managers have been aware of the fact that postponing innovation today could damage their innovative capabilities tomorrow, those managers should pay higher attention to innovation and should create willingness amidst the executive managers to establish a foundation for innovation. When a leading team becomes aware of the changes needed by innovations, a series of challenges arise. Usually, they are:

– The need to protect innovation from potential threats;
– In order to gain credibility, innovation must produce substantial results;
– New ideas need a certain attitude (thinking big, seeing more possibilities than problems, etc.), which, in most cases, it is the exact opposite the way in which people have been taught to perceive such situations;
– Innovation will flourish only if there is a change in the management style.

Faced with such a scenario, most managers tend to capitulate. There are cases when the managers are willing to face the challenges in the development of new opportunities in society and are aware of the fact that innovation prospered in traditional societies in almost every field. There are two key aspects for every organizational solution, which aims to make innovations in a company. First of all, innovation is a challenge, which is solved better with human resources than with technical ones. The development of innovative abilities requires a change in the management paradigm and in the way people act. Secondly and more importantly, innovation aims at the management pyramid. The transition towards a completely innovative culture requires new managerial competences and practices, which, so far, have not been seen as vital for top management qualifications.

Innovation is successfully brought on the market by combining efforts from various fields. The key for spreading the responsibility for innovation is to limit it to a small, specialized group of people. The advantage of creating an environment in which everyone in the company can contribute to the creation of an innovative culture becomes one of the top priorities on the agenda of all executive managers. The most

used concept, that of organizational culture, means that this is the sum of the values and beliefs gained by the people in time and which dictates the proper standards of corporate behavior. The best tactics for creating an innovative culture is to introduce management practices that can promote the desired innovation. This should be progressively done amongst all the employees at all the levels, using various channels. The next thing should aim at the change of our management style in every aspect: the way we set the objectives, the plan, the way we budget the resources, the evaluation of the workers, the way in which we attribute reward and recognition, the degrees of responsibility and autonomy, information management, etc. All these lead towards an aware or less aware innovative culture.

The aim of this chapter is to emphasize the best practice found in the most innovative companies. Such practices can become examples to be followed. The management style is the driving force behind the innovation capabilities in many of these companies. When examining the best practices found in the most innovative companies, the first reaction is to emphasize their specific characteristics. After analyzing the administrative leverages used by innovative companies and comparing them with the ones found in the less innovative ones, Tushman and O'Reilly (2002) have noticed that all innovative companies share the same set of managerial principles, irrespective of their geographical location or their area of expertise. The conclusion is that, although the application of a new management style should be adapted to the specific needs of each company, the basic principles governing the innovation exercise are universal.

The team is a fundamental factor for understanding the innovative capacity of a company. For example, Apple, one of the most innovative companies nowadays, started with a few failed attempts, such as Newton PDA or Apple TV and Apple Pippin. However, Apple has learnt valuable lessons from the errors done and applied those to further evolutions. The most important thing is that a company should not fall into the trap of error and it should try to come out of the gap as soon as we feel we had fallen into one.

The most innovative companies admit the fact that relevant information, good ideas and initiatives can come from sources outside the company as well. The values, principles and practices used by executive managers in innovative companies are not limited to a certain industry or geographical region. Extremely innovative companies do not have the word "impossible" in their dictionary. When faced with repeated failure, they just say, "We don't know how to do this right". Besides Apple, another example is IKEA. They became a model thanks to their perseverance with which they tried to solve the problems that could sink down their company. Their persistence regarding maintaining low costs and finding an original idea on how to transport and assemble the pieces of furniture in the very homes of the customers has been very successful. "When you fail the first time, try, try and try again", this is the IKEA motto. In the case of Amazon, the employees working in innovation fields are encouraged to create continuously ideas and concepts, even if those ideas or concepts do not bear fruits on the short term. Sony created a proper environment where the exchange of values and beliefs

stimulate innovation. Innovation needs changes in the way a company works, so that the new ideas can be turned into results. Those changes should be understood and supported by most employees. Moreover, innovation today is found not just in the technology sector or in the newly launched products. Thus, building a strong foundation for innovation is a high priority for managers. Still, changing the values and convictions in order to create an innovation-friendly environment for innovation seems like a rather difficult task at first glance (Vilá, 2010).

Figure 3 presents those "instruments" needed by the executive managers who want to lead an innovating culture.

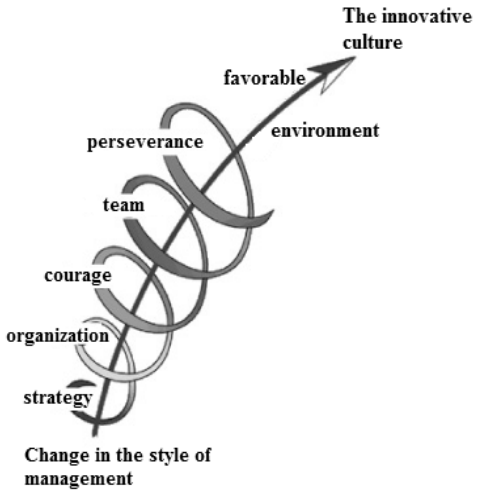


Figure 3. **"The Road" to an innovative culture**

We think that the actions of the executive managers (their values, principles and practices) taken when establishing ambitious objectives, supervising progress in accomplishing those objectives and the adversities which were faced along the way are fundamental when determining if an innovative culture stands or fades in time. It is most imperative that company managers should understand and accept their fundamental responsibility in such a critical process like promoting innovation (Vilá, 2010).

Conclusions

Nowadays, any organization, irrespective of their area of expertise, must be prepared to face radical and continuous changes that are specific for the knowledge-based society (Robu, 2008). In an environment that changes so rapidly, innovation plays an important role and becomes mandatory for both the public and the private sector. In addition, innovation is the driving force of the economic growth (Arpaci, 2010). In the 21st century, only the organizations that will continuously innovate will be

competitive. Innovation is not only the way to success in business; it also represents the survival condition in a globalized market. Its importance and necessity reside in its contribution to the increase of productivity, competitiveness, economic performance and the reach of social goals (Brad, 2006). Innovation depends on a realistic company strategy, clearly formulated objectives, finances, competent management, very well prepared and multidisciplinary teams, clear and correct work evaluation procedures, a good working climate. In the case of a competitive environment, a company may focus on the market competitors, reacts to their movements and, most of the times it adopts a mimetic behavior. However, this kind of reaction will not provide guaranteed success on the market; neither will it ensure a dominant position. Adopting such innovative processes ensure the necessary conditions for the birth of valuable customers by means of products and services provided and reaching internal development objectives. Through innovation, the company tends to orientate towards solutions, while the creation of values for the client aims to define continuously the problems at hand (Amza, 2010). Incze stated, "Companies cannot grow by merely reducing costs and engineering... the innovation is the key element in ensuring aggressive top growth and the increase of results" (Incze, 2009). The success of innovation is given by the degree by which value is created for the customers by means of the companies that transform new knowledge and technologies in profitable products and services for the national and global markets. At the same time, a high innovation rate contributes at the increase in the market number, economic growth, and the creation of more jobs, wealth and a higher life standard (Innovation Framework Report, 2004). This article presented a critical study of written works related to innovation and can become an important bibliographical source for further research in this field.

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