
MEANS OF ECONOMIC GROWTH THROUGH INNOVATION

Maier Dorin¹, Murswieck Raphael², Bumbac Robert³ and Maier Andreea⁴

^{1) 4)} *Technical University of Cluj-Napoca, România*

^{2) 3)} *The Bucharest University of Economic Studies, România*

E-mail: dorin.maier@ccm.utcluj.ro; E-mail: raphael@murswieck.de;

E-mail: robert.bumbac@com.ase.ro; E-mail: andreea.maier@ccm.utcluj.ro

Abstract

Innovation is an activity with deep implications in economic and social development, representing a concept studied at both macro and micro-economic level. To ensure the competitiveness and success of the organization, managers need to accept innovation as a key element for the organization. The aim of this paper is to highlight the most important aspects related to innovation and how it can be used to generate economic growth. In general, economic growth can be obtained in two ways, the first one is to increase the number of inputs to increase the number of outputs, and the second way is to increase the number of outputs using the same inputs. Innovation can lead to higher productivity, meaning that the same input generates a greater output. As productivity rises, more goods and services are produced – in other words, the economy grows. For this we have analyzed the evolution of the importance of innovation as a key force to determine the competitiveness in the industrial sector over the past five decades. We identified the main requirements for a competitive organization and proposed a model of innovation management that shows that all stakeholders should innovate to achieve a high level of performance.

Keywords

innovation, competitively, innovation models, economic growth

JEL Classification

O31, O43, O16

Introduction

Innovation is considered to be a focal point of an organization's strategy and a crucial factor for its competitiveness and survival. Organizations develop innovations to adapt to their external environment and react to perceived changes inside or outside the organization. Innovations can be implemented in organizational results, structure, and processes to maintain or improve performance or effectiveness.

Innovation is an activity with deep implications in economic and social development, representing a concept studied at both macro and micro-economic level. Innovation generates a growing interest, both from the perspective of economic development and the need to find new alternative solutions such as resource consumption and environmental impact, driven by economic and industrial results.

Figure 1 shows the evolution of the key strengths of competitiveness in the industrial sector over the past five decades. It can be noticed that until 1970, most companies looked at

innovation from a very narrow perspective, focusing mainly on results (Gandhi, 2008; Maier, 2012a).

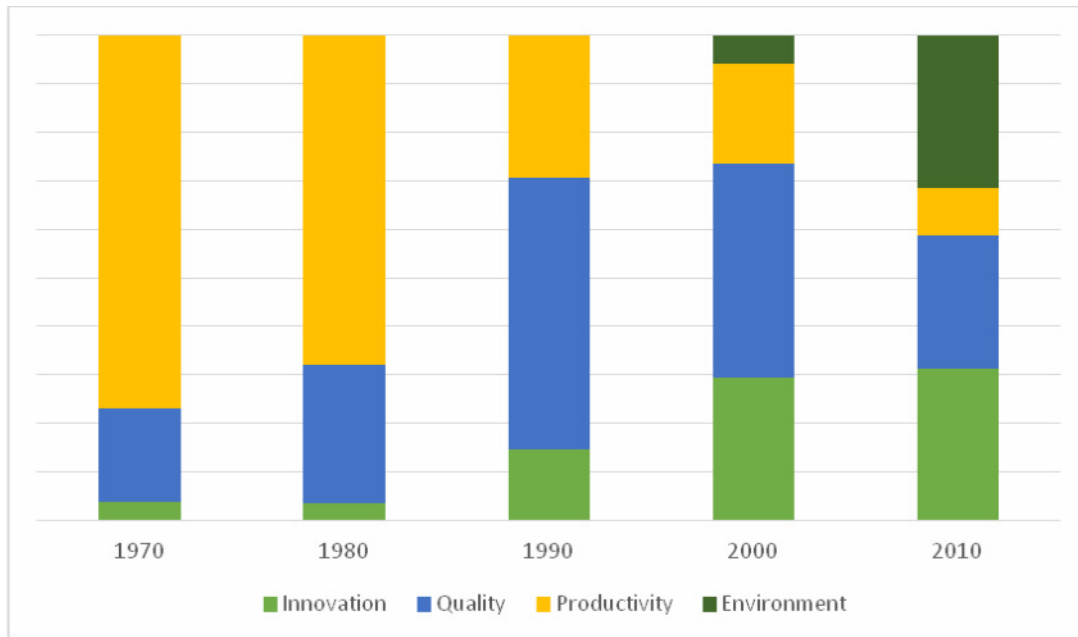


Fig. no. 1. Evolution of key forces to determine competitiveness

Source: Maier, 2014

Then, in the 1980s, the emphasis was put on productivity, quality being second and innovation found only in some points (Brad, 2008c). Over the last twenty years, businesses have been focused on quality management through processes and systems. This has helped to achieve competitive positioning through the concept of continuous improvement. In the 1990s, global market competition prompted companies to consider quality as a key driving force, without omitting productivity in the competitiveness equation. In 2000, a shift of priorities emerged and companies realized that innovation is as important as quality to provide them with a competitive edge in the market (Maier, 2012a; Brad, 2008c; Leitner, 2010), this approach reaching its maximum at present.

1. Theoretical Framework - Increasing competitiveness through innovation. Innovation Management

We will define working terms that contribute to the concept of innovation. Many have a different view on innovation, confusing the innovative product with the innovation process, resulting in an innovative, competitive, profitable product designed to be transferred to industry by known means (Săvescu, 2015).

What is Competitiveness?

Competitiveness is a complex concept which, at a general level, expresses the ability of individuals, firms, economies, regions to stay in competition at an internal and / or international level and to obtain economic advantages under a certain business environment. Professor Carbaugh of Washington University, USA, defines a firm as competitive if it produces goods and services of superior quality or at a lower price than its internal or external competitors. Otherwise, competitiveness is the ability of products and services to withstand the market test in advantageous conditions, resulting in constant increases in productivity and standard of living (Săvescu, 2015).

What is innovation?

Innovation is a topic that is very much addressed in the scientific literature and defined by both practitioners and researchers because of its relevance to increasing success and surviving firms (Brad, 2008). The term “innovation” derives from the Latin word “inovatis” (in -, novas - new) what the translation would mean renewal, novelty; change. Innovation is something new that has no precedent. Innovation comes from the verb to innovate; the action to innovate and its outcome; renewal; innovation. Innovation involves making a change, introducing a novelty into a domain, into a system; to renew; to introduce, adopt or propagate an innovation (Academia Română, 1998).

The concept of “innovation” from an economic point of view was analyzed for the first time by the Austrian scientist J. Schumpeter in 1934 (Mohini & Waddell, 2004), where innovation was defined as “all changes to implement and use new types of innovation products, means of production and transport, markets and forms of organization of the production process”. In innovation, as defined by Schumpeter, five types of activities are admitted: 1) the creation of a new product or the substantial improvement of an existing one; 2) introducing a new production method; 3) opening a new market / entering a new market; 4) the development of new sources of raw materials and materials, respectively; 5) a new organization of the company. In the last period, the sixth activity can be admitted: creating a new image of the organization (Butlin, 2004). According to Schumpeter’s belief, innovation is the main source of profit. He stated that, in essence, profit is the result of new combinations, and without development there is no profit, and vice versa, there is no development without profit (Băloiu, 2001).

From the above definitions, the following innovation issues arise: a) innovation can be the ultimate result of scientific and research activity (new technology or technology, new product, etc.); b) innovation is a process of creation, implementation and expansion of new technologies, new forms of organization, etc.; c) the existence of a new idea and the achievement of useful results through its application having a positive influence on performance are the essential elements of innovation; d) innovation is the result of an investment process in scientific research and development through the creation of new products, new technologies or new methods in order to obtain profit. All of these above-mentioned approaches to innovation are based on the fact that:

$$\text{Innovation} = \text{Idea (Invention)} + \text{Implementation (Commercialization)}$$

What is innovation management?

Through innovation management, we can understand the process of organizing and allocating available resources, both human, technical and economic, in order to acquire new knowledge, to generate ideas that enable us to obtain new products, processes and services, or to improve existing ones through transfer of best ideas to the manufacturing and marketing phases (Săvescu, 2015).

2. Research Contribution - The imposed requirements for an organization to have a competitive innovation

On a competitive market in which a multitude of organizations with innovation concerns evolve, they have to periodically assess both the current and the prospective external environment (market) and internal (technological possibilities).

With regard to external environment analysis, organizations need to take into account:

- buyer / consumer tastes, market issues;
- legislation, regulations specific to the field of innovation, including in the field of intellectual property;

→ technical, economic and social aspects.

An innovation management model is shown in Fig. no. 2 and includes:

- ∠ The culture of innovation
- ∠ Strategy
- ∠ Competence and knowledge
- ∠ Technology
- ∠ Types of innovation: product innovation, process innovation, innovation in marketing, innovation in human resources, innovation in network development and administrative innovation
- ∠ Infrastructure
- ∠ Market

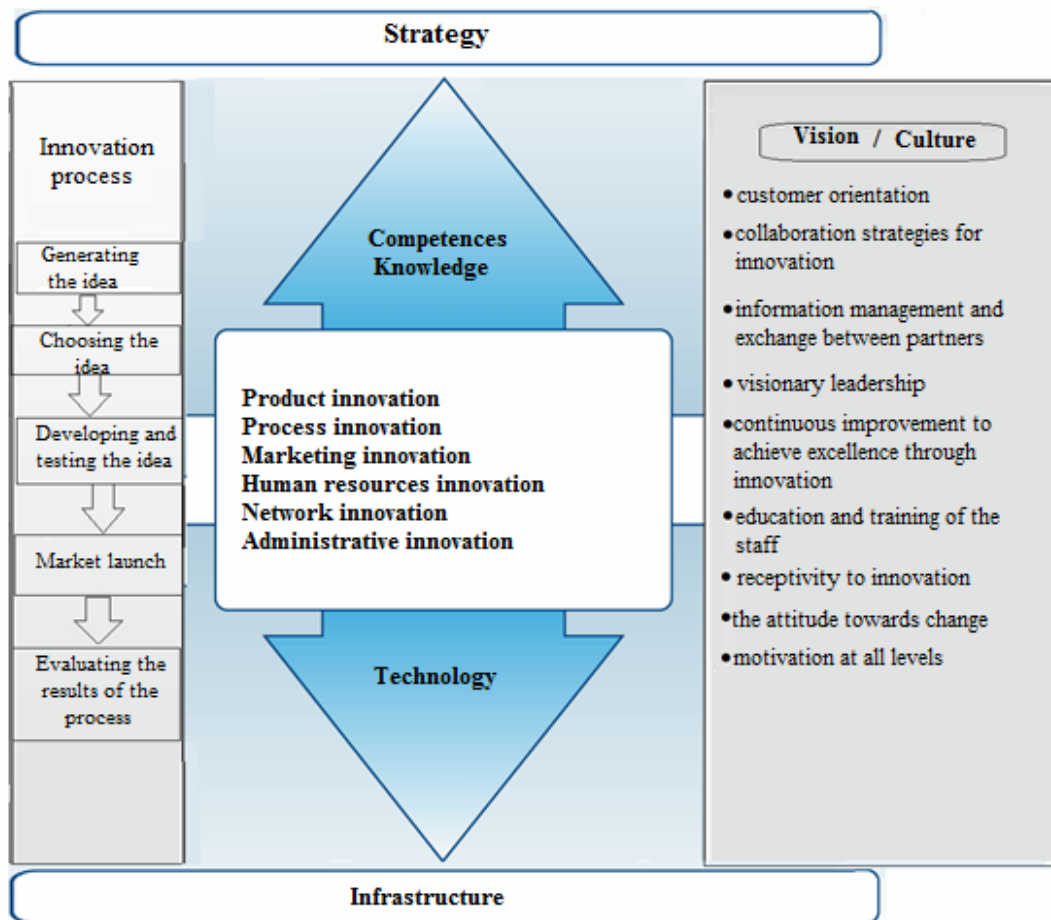


Fig. no. 2. Model for innovation management

Source: own illustration

The model shows that all stakeholders should innovate to achieve a high level of performance. Specific solutions for each innovation section need to be developed. The model can be seen as a range of tools, techniques and methodologies that help companies adapt to the circumstances and respond to market challenges in a systematic way.

To be a successful innovation, managers must accept, plan, and fuel an innovative culture. The advantage of creating an environment where everyone can contribute to creating an innovative culture becomes one of the priorities on the managers' agenda. The best tactic to

create an innovative culture is to introduce management practices (progressive, disseminating employees at different levels through different channels) to promote innovation.

Organizational infrastructure if it does not support innovation then innovation cannot be a strategy to achieve performance. The organizational infrastructure includes its areas of interest, its objectives, strategy, management performance and support for the introduction of innovation.

An innovation is the result of a process that consists of a set of activities and a succession of events. From the Figure analysis. 2. It is noticed that the innovation process starts with *generating the idea* that can come from internal sources or external sources to the firm. This phase is generally characterized by something that resembles to chaos. According to the frequency analysis, only 8% of companies have a very clear and fixed structure for collecting ideas, and one in three has a poor structure. This implies that ideas are created at random, and even worse, they are not accounted for. This stage is very important for the success of the innovation process, and there are clear criteria and objectives for generating ideas, as well as formal procedures and systems for filtering ideas (Kusiak, 2007).

Then goes to the next stage of *choosing the idea*, and at this stage, the company must try to eliminate less costly ideas before spending money on future investigation and development. It is possible that, at this stage, two types of errors appear:

- noticed - is the case for enterprises that fail to foresee the potential of an idea;
- unnoticed - are those decisions that require the further development of a product idea, followed by a subsequent failure on the market.

In the process of choosing an idea, two levels are usually met: the first is to assess the market potential and the production and sales capacity of the product, and the second level involves the numerical assessment of the product.

After the second stage, the choice of the idea follows the *development and testing of the idea*. At this stage, the organization is faced with the task of determining the low cost aspects in order to obtain a realistic price.

The marketing test is the stage where the new product is made available to the customer but in a smaller quantity than in the case of a next table launch. At this stage, the following tests can be used:

- standard market test - is used for testing consumer products;
- limited market test - due to reasons for alerting competitors to the potential of the new product, the company may choose to place the product at a limited number of stores for a short period of time;
- tests based on product use - some potential customers are selected to use the product under normal and short term.

Testing is important because innovation itself is not a guarantee of long-term success. There must be a clear link between innovation, basic skills and strategy - the growth potential is maximized when all three elements are aligned; a survey shows that 28% of all companies reject an idea if it does not fit the company strategy, while 22% are ready to adapt the strategy to benefit from innovation (Kusiak, 2007). The final step *involves launching and evaluating the results*.

It is very important that after the innovation process is completed, its consequences must be traced to the “adaptation and integration” of innovative and newly discovered solutions in the existing product / service / process structure, helping to significantly improve working conditions and transformation environmental conditions.

The results of the impact analysis of the innovation process must be concrete, substantiated and to contain directions, to be followed, to improve risks and increase value application of innovation results. The impact of the innovation process is the following (Dervitsiotis, 2010):

- *customer impact*, customer satisfaction has grown from products / services that offer greater value, along with increased loyalty to the organization;
- *impact on employees*, a form of employee satisfaction, increased loyalty and better cooperation within the organization;
- *the impact on the organization*, in the form of increased confidence, a healthy attitude towards reasonable risks and a greater degree of cooperation;
- *overall performance improvement*, measured by revenue from new products.

Conclusions

The purpose of innovation is mostly to survive, to grow, to make a profit, but what matters for innovation is how it affects the chances of survival, profit and growth opportunities. The main purpose of the economic growth is to increase the standard of living. It is obvious that a long term economic growth is the main objective of every society and in general this can be obtained by two ways, the first one is to increase the number of inputs that go into the productive process and the second way is to think of new ways in which you can get more outputs from the same number of inputs. The first approach in creating conditions for economic growth is a solution that implies more resources and there are a lot of situation when this is not possible. In this context is tempted to think about the second solution and through innovation we can obtain more using the same resources. This is one of the major benefits of innovation it can take to economic growth.

Innovation and productivity growth bring vast benefits for consumers and businesses. As productivity rises, the wages of workers increase. They have more money in their pockets, and so can buy more goods and services. At the same time, businesses become more profitable, which enables them to invest and hire more employees (ECB, 2017). In the end the increasing of the living standards is due to innovation — this has been the case since the Industrial Revolution. Today, innovative performance is a crucial factor in determining competitiveness and national progress. Moreover, innovation is important to help address global challenges, such as climate change and sustainable development.

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