THE INNOVATION - ECONOMIC PERFORMANCE RELATIONSHIP. CONCEPTUAL APPROACHES

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Abstract

The paper is aimed to find the answer to the questions: What do we understand by the term of economic performance of the enterprise? What is the impact of innovation on economic performance of the enterprise? The answer to these two questions was based using qualitative analysis methods, such as documentary analysis of various scientific publications. The paper analyzes specialized previous empirical studies and researches, whose results contribute to defining and understanding the concepts of "economic performance" and "innovation" and, also, the relationship that is created between them. The performance is an economic concept, variously defined in the literature. For example, a performance approach, favored by many authors, is in terms of efficiency, effectiveness and economy indicators. Other authors consider that performance is equivalent to increasing of economic indicators from one year to another (for example, turnover, profit, profitability, market share, sales etc.). Thus, an enterprise achieves economic performance if it registers higher economical results, than the previous year. The literature gives a special place to innovation process, as key determinant of economic performance. The innovation is an expensive process for the enterprises and serve its purpose, as long as the company using it is increasing the economic performance. So, it is considered that the performance is a function of productivity and efficiency. Productivity and efficiency are the effect of innovation and technology. These results can substantiate the decisions at microeconomic level concerning the innovative investment (as action to increase the economic performance of the firm) and at macroeconomic level, where decisions are concretized in policy of increasing the competitiveness of the national economy.

Key words: performance, innovation, productivity, enterprise

The paper aims to analyze the relation between innovation - economic performance at the enterprise level. The research assumes that innovation is the key factor in achieving economic performance in the enterprise. The hypothesis was based on research findings in the field (Govindarajan, 2011 Johnson et al., 2008, Larsen, 2011). In the view of the economists M. Niculescu (1997), the performance is defined by three key concepts: efficiency, effectiveness and economy.

Other authors consider the economic performance as a phenomenon which characterizes the company's internal environment and is equivalent to growth of economic indicators from year by year (turnover, profit, profitability, market share) (Ştefan, 2010).

All these economic indicators are influenced by internal and external factors that can be or not influenced by the company. In this respect, a factor that deserves a special place in the analysis of economic performance of the company is the innovation. Remarkable is the statement of Paul Auster, american writer: "This need to make, to create, to invent, is without doubt a fundamental human impulse. But to what end?". The finality may be represented by achieving performance.

The desire to win boosts the entrepreneurship and the companies and entrepreneurs innovate to increase their profits (McKelvie and Wiklund, 2010, Achtenagen et. Al, 2010).

As long as market competition exists, innovation will also be present, inducing advantages to its holder. Innovation is not related only to technological development of innovations, but also to the creation of markets or users of innovation. Thus, there are interactions between technical and conceptual development, on the one hand, and the response received from consumers, on the other hand (Hoholm, 2009).

Innovation is an expensive process for companies and achieve its purpose as long as the company that uses it increases in economic performance.

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MATERIAL AND METHOD

The research methodology is based on documentary analysis of various scientific publications. Documentary analysis was performed on bibliographical material comprising of 37 scientific works, publications of international conferences and excerpts from books. The qualitative analysis examining different concepts focused on the economic performance of enterprise and innovation.

The identification of the main bibliographic materials subjected to the qualitative analysis was whithin the database developed within Summon, associated to Anelis Plus project. The materials were sought in a first stage by the keywords: economic performance and innovation. Further, the data selection was made according to the material content and its relevance for the research issue. The research aims to identify the main conceptual approaches of the terms "economic performance" and "innovation".

RESULTS AND DISCUSSIONS

The concept of performance is very often used by economists, researchers and analysts, while being very diverse defined.

Renewal of business processes and the implementation of new technologies improve the economic performance, growth and profitability of the company (Stenholm 2011, Wolff and Pett, 2006).

The research on enterprise performance has rapidly grown since the 1960s, when appear new models for identifying the key factors of organizations success and performance.

In this regard, a special place is the strategic approach to the economic performance of the company developed by Michael Porter. Five forces model developed by M. Porter in 1979, is based on an analysis of five forces shaping the business in an industry: new entrants, suppliers, buyers, existing competitors and substitutes (Porter, 2001).

Depending on the relation with these forces, the company can adopt a strategy of domination in terms of costs, a niche strategy or a differentiation strategy. Applying one of these strategies will lead to accomplishment of the growth objectives undertaken by the company and will help maintain economic performance.

The problem of enterprise performance and its determinants was the basis of the Profit Impact of Market Strategy Model (PIMS). PIMS history began in 1960 when the consulting firm General Electric conducted a long-term study on strategic business units' performance, in 3,000 companies (more than 400 companies with 2,600 subsidiary) of all major industries.

The analysis covered all the elements of a business activity, such as company mission, the

interests of shareholders, internal logistics, sales logistics, market, management decisions etc.. The aim of the study was to find the answer to the following question: Which are the key variables of performance? The results showed that over 70% of the economic performance of a company is influenced by seven factors: relative market share, relative price, relative cost, vertical integration, syndication, innovation and new products, investment in research - development (Farris and Moore, 2004).

The word relative denotes growth and respond to the questions: How much we boost the sales, to increase market share? How much we increase the price, so that the company sales increase? What is the optimal cost level for the enterprise? How much we should invest in innovative technologies to increase sales? (Stefan, 2010). The answer of these questions should be accessible to enterprises managers to underpin increase strategic decisions to economic performance.

The "Organizational Health: The Ultimate Competitive Advantage" study, conducted by Keller and Price in 2011, links the economic performance to "organizational health". The question arises: Why Organizational Health? In this study, the authors define the concept of performance through "what organization provides to its stakeholders in financial and operational terms." These "terms" refers to economic indicators such as operating profit, return on capital employed, total operating costs and return on stocks (Keller and Price, 2011). Moreover, these studies state that 50% of long-term success of the company is given by the health of the organization. The authors define organizational health as "the ability of the enterprise to conform to changes and to innovate in a shorter period than its competitors". Another study on economic performance, which worth to be explored, is "In Search of Excellence". This study was conducted in 1982 by two specialists from the McKinsey Global Institute, respectively Tom Peters and Robert Waterman. The findings of this study showed that to be performant, a company must act by an own model, that meets the company's history, its objectives and the available resources.

Increasing competition involves both a need to increase market competitiveness and a need to grow the company's internal performance.

Collins and Porras's research (1994, 2011) shows that excellence and performance are phenomena that can not last forever, and enterprises which in the past appeared very efficient, over time they lost the game with performance. This phenomenon is explained by the

authors of "How do I transform my organization's performance?", Aiken et al.

According to their study, the economic performance of the company is determined both by external factors, little influenced by firm (macroeconomic policies, hazard etc.) and by internal factors of the company (using innovative technologies, the applied development strategy etc.).

Due to the variation in these factors (particularly those outside), the economic performance is easily directed to increase or decrease. The results of this study, conducted on a sample of more than 500 companies, consisted in formulation of four managerial types, applicable to majority of firms characterized by economic performance (Aiken et al., 2011).

The most important factors that determine the performance of companies are: managers competence, quality and discipline in execution, prediction and adaptation to customer requirements through innovative products and cultivation of knowledge as a valuable asset.

We also can see in this study that market targeting by creating of new (eg. innovative products, new ways of serving customers), is one of the key factors ensuring the achievement of performance. To be hard copied involves a great capacity for innovation and early anticipation of changes in the business environment.

The positive influence of technological innovations on economic performance of the company is given by the advantage achieved by the new productive technologies and new products and processes (Kafouros et al., 2008). These innovations help companies to respond easily to technological and market changes (Gunday et al, 2011).

It is also been considered that performance is a function of productivity and return. The productivity and return are the effect of innovation and technology (Stefan, 2010). In other words, a company that invests in new technologies will achieve a higher labor productivity (measured by the consumption of work per unit of time) and a higher efficiency of using fixed capital (for example, increasing the utilization capacity of production units). These increases of volumes and quality will lead to superior result indicators than those before innovation.

These increases in volume and quality will lead to the acquisition of some result indicators superiors to the previous of innovation. Thus, the company records an increase of the economic performance (measured by turnover, total productions, operating incomes etc.).

According to speciality literature, the

innovation is the key factor attribute of the company's economic performance. The innovation concept has a rich history in the economy and acquires a growing importance as much as increase the market competition.

The father of 'innovation' concept is considered by economists, the great neoclassical thinker, Joseph Alois Schumpeter (1939). He defines innovation as "a new combination" of inputs or "the implementation of a new production functions".

The innovation is a human activity and the deliberate improvement of people's skills can be crucial to facilitate the innovation of succes (Aramburu and Sáenz, 2011). We note that the authors of the study "Structural capital, innovation capability, and size effect: An empirical study" (2011) bring into account of success of innovation process the quality of human factor. A firm can not achieve and maintain the economic performance, as long as the human factor and the intellectual capital do not meet the quality requirements for efficient innovation.

Drucker defines innovation as "... the task of equipping of human and material resources with a new greater capacity for production of the richness" (1985, cited by Swaim, 2010).

Baumol (2002) explains the miracle of capitalis growth by placing of innovation at the center of economic theory. His argument is based on the fact that the big companies no longer competes to obtain the cheapest products but to obtain the highest quality production, innovative products, "... innovation has replaced the price" (Baumol, 2002). The large companies which are the main oligopolistic innovators on the market were able to obtain competitive advantage and increase their economic performance through the routinization of the innovation process and permanent offering of the innovative products. The large corporations have their own research development departments and the generation and application of new technologies is made under their own roof. Instead, most small firms, particularly from economic domains relatively low development of technologies such as agriculture, outsources research - development activities to institutions and specialized companies. In this case, it becomes problematic adoption and diffusion of new technologies to the many small companies that are very geographically dispersed.

As much as innovation is seen as the main source of economic growth and obtaining of the economic performance (Baumol, 2002), the promotion of innovation has become one of the most important concerns of governments.

The stimulation and the innovation support

through the public policies adopted by governments and other multinational organizations represents an extremely important factor to innovative organizations, private or public. At EU level, the innovation is placed in the center of the strategy concerning the economic growth and the decrease in unemployment.

Through the programs for research and technological development, developed every seven years by the European Union, is supports the activities of science, research and innovation domains. These programs have as main objective the EU consecration as a economy based on knowledge, reaching the worldwide leader by training of the innovative public and private investments. According to the Europe 2020 strategy, the EU has the objective to accomplish until 2020 year, the investment of at least 3% of EU GDP in research and development.

The new EU strategy supports the cooperation in the scientific domain, a better relationship between communities of specialists and companies which benefits from the results of research and innovation.

The results obtained by the qualitative analysis describes the various concepts of the economic performance at the enterprise level and the role of innovation in achieving the performance.

The short review of the literature regarding the concept of economic performance shows a rich diversity of the modalities of defining and understanding of this term. For Niculescu and Lavalette, the economic performance means competitiveness. Thus, in their view, a company that succeeds cope with competitors on the market (to be competitive), is performing. This opinion is contradictory to the fundamental difference between economic performance competitiveness. Thus, the economic performance reflects only the company's internal potential measured by outcome indicators (turnover, profit, etc.), while the competitiveness reflects a relationship that is created in the market area and it is given by the competitive advantages. In this regard, we consider that the innovation has a double role in the economy, namely: 1) increase the economic performance of the company (for example, the grouth of the activity volume from year to year due to the adoption of innovative production technologies) and 2) promotes the competitiveness in the market place (for example, the innovation makes an improvement on quality of products, their diversification and provide to his holder a competitive advantage.

From our point of view, the final objective of any company, being more or less innovative is

to achieve the best economic results measured by various indicators.

According to classical literature and experience shared by different entrepreneurs, the most widely indicators used to measure the firm performance are: turnover, market share, profits, productivity and low costs. All these indicators are directly or indirectly influenced by a number of determinants (eg. capital, innovation, information, work). In determining the competitive strategies, companies must consider the influence exerted by each factor on the performance indicators.

The most common key concepts regarding the economic performance identified in the literature studied are summarized in *table 1*.

We notice from *table 1* that innovation is a key factor that interferes with the company's economic performance being analyzed in the specialized research. Over 50% of the highlighted studies in the table assigns to innovation the quality by determinant of economic performance.

From the performed analysis revealed that innovation, the new products and investments in research - development belong of the most important determinants of economic performance. These results do not surprise us, as they have a solid foundation in history. Thus, Schumpeter (1939) recognizes for the first time the unexpected effects of innovation over the existing firms in a capitalist market. The inovations helps to clean the market of monotony, the old companies that does not adapt to changes being quickly eliminated by innovators.

The qualitative analysis of various materials confirms the hypothesis from which we started, respectively that the innovation is the key factor in achieving of economic performance in the enterprise.

CONCLUSIONS

The obtained results from qualitative analysis can base the decisions at the micro level concerning the innovative investments (as a measure to increase the economic performance of company) and the decisions macroeconomic level, concretized in growth policy of the national economy competitiveness. Starting from these results, future studies will be aimed the analysis of constraints and opportunities that influence the adoption of innovation by the firm. the innovation determines performance and competitiveness in the market, question arises: Why can not all the companies to innovate?

We ask ourselves: On the level of humanity, does the innovation is just as benefic?

Through the game innovation happens a considerable improvement of the existing products quality on the market, the labor productivity increase, the diversity of portfolio of products and services increases, and the consumer enjoys the "miracles of technology" and he thanks to a supernatural force for the chance to live in this era.

But did "the creative destruction" produced of innovations does not also have negative influences on the human?

As Baumol admits, "... the innovation has replaced the price" respectively we purchase innovation without interest in "the price we pay", price that may have a intangible non-monetary component unimaginable.

The key concepts regarding the economic performance

Table 1

Nr. crt.	The author / authors of scientific material and the year of publication	The title of scientific material	The key concepts
Ort.	material and the year of publication		- efficiency
1	Niculescu, 1997	The global diagnostic strategic	- effectiveness
	<u> </u>		- economy
2	Ştefan, 2010	Technical - economic analysis. Class notes	- output indicators rising
			- productivity
			- yield
3	Swaim, 2010	The strategic Drucker. Growth strategies and marketing insights from the works of Peter Drucker	- economic results
			- increasing returns
		HOIH the works of Feter Didcker	- rational strategy - the conversion needs into
4	Druker, 1985	Innovation and Entrepreneurship	business opportunities
			- opportunities for innovation
		Product innovation and economic	- new solutions to common
5	Lundvall and Vinding, 2004	theory – user-producer interaction	problems
	Nr. I II I II I I I I I I I I I I I I I I	in the learning economy	
6	Niculescu and Lavalette, 1999	Strategies for growth	- competitiveness
7	Porter, 2001	The competitive advantage	- strategic approach - the model of the 5 forces
			- the model of the 5 forces - the relative market share
8	Farris and Moore, 2004	The Profit Impact of Marketing Strategy project: retrospect and prospects	- the relative price
			- the relative cost
			- the vertical integration
			- the syndication
			- the innovation and new
			products
			- the investment in research -
			development
9	Keller and Price, 2011	Organizational health: The ultimate competitive advantage	- the organizational health
			- the operating profit
			- the capital employed return
			- the total operating costs
			- the stocks return.
10	Peters and Waterman,1982	In Search of Excellence	- custom model of action, innovative
			- the competence of managers
11	Aiken et al., 2011	How do I transform my organization's performance?	- the quality and discipline in
			execution
			- the innovative products
			- the cultivation of knowledge as
			an valuable asset
12	Damanpour and Aravind, 2011	Managerial innovation: conceptions, processes, and	- balanced portfolio of
			technological and
		antecedents	organizational innovations - new technologies more
13	Kafouros et al., 2008	The role of internationalization in explaining innovation performance	productive
			- new products and
			processes
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REFERENCES

- Achtenhagen L. et al. 2010, "Business growth"- Do practitioners and scholars really talk about the same thing? Entrepreneurship Theory and Practice. 34, 294-303.
- Aiken Carolyn et al. 2011, How do I transform my organization's performance?. McKensey Global Institute. Extras de pe internet pe 18 Decembrie, 2014, de la adresa: ,http://hcexchange.conference-board.org/attachment/ Transformorganization-perf
- Aramburu N., Saenz J. 2011, Structural capital, innovation capability, and size effect: An empirical study. *Journal of Management & Organization*. 17, pp. 307–325.
- **Baumol W.J. 2002,** The free-market innovation machine: Analyzing the growth miracle of capitalism. Princeton: Princeton University Press.
- **Collins J. 2011,** Good to great: Why some companies make the leap...and others don't. New York: Harper Business.
- **Collins J., Porras J. 1994**, *Built to last: successful habits of visionary companies.* New York: Harper Business.
- **Damanpour F., Aravind D. 2011,** Managerial innovation: conceptions, processes, and antecedents. *Management and Organization Review.* 8 2, pp. 433 454.
- Damanpour F., Schneider M. 2006, Phases of the adoption of innovation in organizations: effects of environment, organization and top managers. British Journal of Management. 17 3, pp. 217 – 228.
- Dizgah M.R et al. 2011, Innovation characteristics and the organizational learning capabilities and the Ebusiness success. *Interdisciplinary Journal of Contemporary Research In Business.* 3 6, pp. 882-891.
- **Drucker P. 1985**, *Innovation and Entrepreneurship.* New York: Harper & Row.
- **Drucker P. 1980,** *Managing in Turbulent Times.* New York: Harper & Row.
- **Fakhri S., Bahoussa A. 2014,** Obstacles of innovation among the entrepreneur: An empirical study. *International Journal of Innovation and Applied Studies.* 9 1, pp. 393 400.
- **Farris P.W., Moore M. J. 2004,** The Profit Impact of Marketing Strategy project: retrospect and prospects. *Cambridge University Press.* pp. 15 20.
- **Freel M.S. 2005**, Perceived environmental uncertainty and innovation in small firms. *Small Business Economics*. 25 1, pp. 53 61.
- Govindarajan V. and Ramamurti R. 2011, Reverse Innovation, Emerging Markets and Global Strategy. Global Strategy Journal. 1, 191–205.
- **Grønhaug K., Kaufmann G. 1988,** *Innovation: a cross-disciplinary perspective.* Oslo: Norwegian University Press.
- **Gunday G., et al. 2011,** Effects of innovation types on firm performance. *International Journal of Production Economics*, 133 2, pp. 668 –672.
- Hoholm T., Mørk B.E. 2009, Stabilizing new practices:
 A case study of innovation and networked learning. International Conference for Organizational Learning, Knowledge, and Capabilities $27^{th} 28^{th}$. Amsterdam. pp. 12 15.

- **Kafouros M.I., Buckley P.J., Sharp J.A., Wang C.Q. 2008,** The role of internationalization in explaining innovation performance. *Technovation*, 28 1/2, pp. 66 72.
- Keller S., Price C. 2011, Organizational health: The ultimate competitive advantage. Extras de pe internet pe 08 Decembrie, 2014, de la adresa: http://bobmorris.biz/organizational-health-the-ultimate-competitive-advantage
- Larsen H. 2011, Improvisational Theatre as a Contribution to Organizational Change. In Baungaard, L. ed., Facilitating Change. Polyteknisk, Copenhagen, pp. 327.
- Lundvall B.A., Vinding A.L. 2004, Product innovation and economic theory user-producer interaction in the learning economy. Product Innovation, Interactive Learning and Economic Performance Research on Technological Innovation and Management Policy, Volume 8. pp. 3 12.
- **McKelvie, A., Wiklund, J. 2010,** Advancing firm growth research: A focus on growth mode instead of growth rate. *Entrepreneurship Theory and Practice*. 34, 261-270.
- Niculescu M., Lavalette G. 1999, Strategii de creștere. București: Editura Economică.
- Niculescu M. 1997, Diagnostic global strategic.
 București: Editura Economică. pp. 22 25.
- Peters T., Waterman R. 1982, In Search of Excellence. New York: Harper & Row.
- **Porter M. 2001**, *Avantajul concurențial*. București: Editura Teora.
- **Roseboom J. 2002**, Essays on agricultural research investment. PhD. Thesis. Wageningen University.
- Ruttan V.W. 2003 Social Science Knowledge and Economic Development: An Institutional Design Perspective. Michigan: University of Michigan Press.
- Schumpeter J. A. 1939, Business cycles a theoretical, historical and statistical analysis of capitalist process Vol. II. New York: McGraw Hill Book Company INC.
- **Stenholm P. 2011**, Innovative behavior as a moderator of growth intentions. *Journal of Small Business Management.* 49 2: 233-251.
- Swaim R.W. 2010, The strategic Drucker. Growth strategies and marketing insights from the works of Peter Drucker. Singapore: John Wiley & Sons Asia.
- Ştefan G. 2010, Analiză tehnico economică. Suport de curs. Extras de pe internet pe 5 Ianuarie, 2015, de la adresa: http://www.scribd.com/doc/126890935/Curs-Analec-PDF#scribd.
- Van de Ven A., Polley D.E., Garud, R., Venkataraman S. 1999, *The innovation journey*. Oxford: Oxford University Press.
- Van der Valk T., Gisberg G. 2010, The use of social network analysis in innovation studies: Mapping actors and technologies. *Management, Policy & Practice*. 12 1, pp. 5 17.
- Veugelers R., Cassiman B. 1999, Make and buy in innovation strategies: evidence from Belgian manufacturing firms. *Research Policy*. 28 1, pp. 289 303.
- Wolff J. et al. 2006, Small-firm performance: Modeling the role of product and process improvements. Journal of Small Business Management. 44 2: 268-284