

INNOVATION: A STRATEGIC OPTION FOR FUTURE ECONOMIC GROWTH

Popa Ion, Vlăsceanu Cristina

Department of Management, Faculty of Management, The Bucharest University of Economic Studies, Bucharest, Romania

ijpopa@yahoo.com

crysthina2003@yahoo.com

Abstract: *The purpose of the current article is that of highlighting the importance and actuality of innovation in spurring economic growth. This empirical study analyses the concept of innovation and suggests it as a viable strategic option for increasing productivity and performance and for fostering a sustainable economic growth, especially in the current context, in which even the more developed countries took a big hit from the global economic crisis (manifested through an array of negative effects, the most noticeable one being the contraction of the gross domestic product through negative growth rates of the GDP). The results show that any worldwide economy could strongly benefit from boosting economic growth through innovation, and that this subject needs to be treated, not only as a solid solution for overcoming the effects of the economic crisis, but also as a prevention instrument, to make sure that the recession never reaches the degree it has in the past. The global economic crisis, which officially started in 2008, according to many specialists, was mainly caused by the crisis which started in the United States of America, which created a domino effect worldwide. The effects of this crisis created the greatest recession since the Second World War, causing: credit freezes, job loss, bankruptcy, low liquidities, increased unemployment, political and social strains and many other issues in the society. In this situation, in order to “re-launch” the national economies of the affected countries, the best solution is to foster economic growth through innovation, regardless of the type of innovation (managerial/technological/radical/incremental). The central point is to use innovation as a tool/instrument that will hopefully prevent another global economic crisis. That being said, companies, economies and societies need to transform into more knowledge-based ones, thus fostering innovation and providing new ways/methods of acting in a more viable and sustainable manner.*

Keywords: economic growth, innovation, innovation management, strategy, technological innovation.

JEL classification: L10, L26, O32, O40.

1. Background

In the past years, the concept of innovation has become a subject which is receiving more and more interest from experts and specialists worldwide. This term is related to a variety of other concepts/indicators that are known to cause among others, overall increased productivity for companies and other entities, regional development and economic growth.

Innovation, whether it is managerial or technological, is without a doubt a source for competitiveness, which in turn creates a series of advantages for its “holder”, giving him an advantageous edge in regards to the competitors. Since, in the current context, organizations (which are a vector for growth, for the countries which they are part of) are faced with a multitude of overwhelming changes and challenges, the issue of performance is becoming a matter of knowing how to be creative in dealing with problems and of knowing in what to invest. For example, investments in R&D (research and development), even though it’s not a “fits all” solution, can be the way to go for companies focused on increasing their competitive advantage in a sustainable manner. In the cases in which this does not apply, regardless of the reason (i.e. insufficient funds, few specialists, the domain of activity), the way to go is to use managerial innovation as a strategic option which can guide the company towards a better future, without changing the company’s core values and activities, but through adapting its outlook on how things should be done.

2. Theoretical framework

In order to have a better knowledge on the concept of innovation and its linkage to economic growth, as well as on the relationship between these two terms and others that have a direct influence over them, we believe that a literature review is necessary. This section of the article is comprised of several definitions and opinions of different authors and specialists from this field of expertise, which will allow us to further investigate the dynamics between innovation and economic growth.

According to Schumpeter, innovation is an activity that creates economic growth (Schumpeter, 1934). The subject of innovation is one discussed and studied by a multitude of experts, the vast majority of them, considering that innovation has, without a doubt, positive effects that cannot be neglected and that are obvious, if it is handled and managed in an appropriate manner.

Innovation consists of the generation of a new idea and its implementation into a new product, process or service, leading to the dynamic growth of the national economy and the increase of employment as well as to a creation of pure profit for the innovative business enterprise (Urabe, 1988).

“One criticism of Schumpeter’s innovation definition is that it is rather diffuse. There are no exact boundaries for the phenomenon. Schumpeter was more concerned with economic development than with accuracy of definition...The core of Schumpeter’s definition is that innovation is an effort made by one or more people which produces an economic gain, either by reducing costs or by creating extra income. The economic gain is in this case not created – as in traditional economic models...A qualitative change is necessary before it can be called innovation”(Sundbo, 1998).

“Innovations are not to be considered as transformation of new (scientific) knowledge into new processes, products and services, but as a largely endogenous process of creating new combinations from existing technologies” (Frenken, 2006).

In terms of the way in which innovations occur and happen, there are two types of innovations, namely: radical and incremental. “Effectively, incremental innovation deals with incorporating new knowledge into existing products and services. It is used to solve emerging problems with the aim of increasing the efficiency and effectiveness of existing products or processes. In contrast, radical innovation involves a whole set of new knowledge and its advent is like a tidal wave sweeping across the industry landscape” (Liyange, et. al., 2006).

According to authors Margaret White and Garry Bruton in their book: “The Management of Technology and Innovation: A Strategic Approach”, the management of innovation is “a comprehensive approach to managerial problem solving and action based on an integrative problem-solving framework, and an understanding of the linkages among innovation streams, organizational teams, and organization evolution” (White & Bruton, 2011).

Not all innovations end up producing benefits, and some in fact destroy value, but we would argue that by innovating, a firm at least tries to produce some private rents, that is, competitive advantage for the firm (Pitsis, Simpson, & Dehlin, 2012).

“The era of the innovation economy is already transforming the leading companies in each industry worldwide, and forcing them to compete in entirely new ways that take advantage of this vast array of changes. Simultaneously it is causing entrepreneurial firms to arise, and together this is causing major disruptions in all industries as we knew them in the 20th century” (Davenport, Leibold, & Voelpel, 2006).

3. Innovation: a viable strategy for future economic growth

Transition to knowledge-based economy – the most important process that takes place in these decades – has as a defining element the amplification of creativity and innovation, in dimensions never seen before, which generates strategic knowledge, ultimately decisive in achieving competitiveness (Popa, 2011).

In this new economy, the knowledge-based economy, the central “player” is the knowledge based organisation. This new type of organisation is a more efficient and performance oriented entity that focuses its activities on the creation of new knowledge and its most precious resource is the human one. This new type of management, knowledge management, is beneficial to organisations due to a number of benefits that it can create, among which is that the core employees of the company are highly skilled specialists, that are more likely to create innovation and are more likely to be able to properly capitalize it. As a rule of thumb, the organisational culture of an intensive knowledge oriented organisation is based upon continuous learning, know-how transfer and creativity (that can ultimately lead to the creation of innovation). Due to the emphasis on knowledge transfer, the knowledge-based organisations are more flexible when confronted with change, and can implement more easily and effectively its strategy thus resulting in the completion of its objectives.

Innovation management is paramount for strategic management and is manifested in the ability to outline bold new strategies, to set based on them effective policies of implementation and to quickly find corrective solutions when the adopted strategy does not give the expected results. In the company of the future, the emphasizing of managerial innovation is provided, given the fact that the changes in all areas of activity of the company are increasingly broader and more frequent. It is natural, in these circumstances, to expect the acceleration of the pace of obsolescence of innovation in management, which means, once again, that it should become increasingly dynamic, creative and flexible. It might even get to the situation where the introduction of managerial innovations precede those of a technological nature, in order to facilitate the achievement of the latter and significantly enhance their beneficial technical, technological and economic results (Popa, 2006).

Knowledge-based economy represents the newest form of economy, that focuses on specialized human capital and that is technology intensive. As mentioned above, these highly skilled and specialized employees are able to create innovation, but also, through their expertise and with a little bit of help from an adequate organizational culture, they are able to foster an environment that is supportive of learning, know-how transfer and creativity. This emphasis on the human resource, that knowledge-based economy has, is due to the fact that, the management of knowledge-based organizations understood the potential of skilled employees and managed to support them in creating innovations, thus enabling the organization to develop and expand. This expansion refers to, not only higher annual turnovers and profits, but also to the fact that the organization will have more resources to better train employees, to hire new ones and to keep funding R&D projects or even to start new ones.

It must be kept in mind that innovations does not refer only to technological innovations (i.e. a new way of organizing data, so that the access to it is greatly enhanced) but it can also refer to an managerial innovation (i.e. a new way of project management that lowers the risks and ensures that a certain project is going to be implemented correctly and by meeting the deadlines and milestones).

Seeing how many ways innovation can aid an organizations' growth, it is not hard to imagine what will happen to a region, from an economical and social point of view, if more and more companies from within would adopt this modern style of management. If we take a look at Silicon Valley from California, we can see that it has one of the highest innovation rates in the world. Other regions with high innovation rate are Central and Southern Germany (Munich and Stuttgart) where big automotive engineering companies reside and fund research and development projects, and the metropolitan region of Seoul, where we can find big multinational companies and smaller ones that have adopted knowledge-based management and increased their innovational potential and the regions overall innovational potential.

Table 1: Growth rate of GDP of the top 4 countries according to GDP

Country	Growth of GDP (%)								
	2005	2006	2007	2008	2009	2010	2011	2012	2013
United States	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8	2.8	1.9
China	11.3	12.7	14.2	9.6	9.2	10.4	9.3	7.7	7.7
Japan	1.3	1.7	2.2	-1.0	-5.5	4.7	-0.5	1.4	1.5
Germany	0.7	3.7	3.3	1.1	-5.1	4.0	3.3	0.7	0.4

Source: made by author with data from The World Bank (<http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>)

Table 2: Number of patents of the top 4 countries according to GDP

Country	Number of patents								
	2005	2006	2007	2008	2009	2010	2011	2012	2013

United States	825 86	1022 67	936 90	920 01	950 38	1211 78	1212 57	1341 94	1476 66
China	565	970	123 5	187 4	227 0	3303	3786	5341	6597
Japan	318 34	3941 1	359 41	366 79	380 66	4697 7	4825 6	5277 3	5417 0
Germany	957 5	1088 9	100 12	100 85	103 52	1363 3	1296 7	1504 1	1660 5

Source: http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_all.htm

One way that we can measure a country's' innovational potential is by examining the number of patents from the given country. In Table 1, the situation regarding the growth of GDP (gross domestic product) of 4 most powerful economies from the year 2005 until 2013. In Table 2, given the same time span, the situation of the number of patents recorded in those countries. As we can see from the first table, in 2008 all 4 national economies suffered blows, in the sense that the growth was negative in the case of the United States of America and Japan, almost stagnant for Germany, and China's' growth dropped by almost 5%. In 2009 the downwards trend of the GDP growth rate continued for all 4 countries. When we take a look at the second table, with the number of patents, in 2008 the value decreased, when compared to values from 2006 and 2007. In the case of China, we can observe that the number of patents does not follow the trend of those from the other 3 analyzed countries. One of the reasons this is happening, may be because the Chinese economy is mainly based on massive factories that mass-produce items, which are mostly destined for export.

For countries to be able to grow in a sustainable way, it is imperative to invest in research and development. By doing this, and by encouraging the organizations, that reside within it, to adopt the new knowledge-based management system, they will foster innovation, that will lead to the development of the companies and, inevitably, to the sustainable economic growth of their national economies.

At European level, the European Council understood this very important and sustainable way of economic growth, and included in the 2020 Europe Strategy, performance indicators for each Member of the European Union, for the percentage of the gross domestic product that is invested in research and development activities. Also, to increase the European Union's' innovation potential, a project called Horizon 2020 was started, with the main objective being to fund R&D projects that firms or other entities want to undertake.

4. In conclusion

In conclusion, we believe innovation to be a relevant and current concept in the context in which the contemporary society exists. Its positive effects and benefits should not be taken lightly, even more, now, when worldwide economies are struggling to prevent another major global economic crisis. The obvious linkage between innovation and economic growth underlines the fact that further research should be taken into account in order to find new ways and approaches by which the advantages caused by innovation can become increasingly more visible and so that both companies and other entities could profit on this behalf, and in turn create added value for the overall economies.

The reason why innovation should be seen as a strategic option for future economic growth is that in order to reach a level of productivity and performance that is sustainable, the vision of the companies/economies/societies needs to be a long-term one and needs to focus on the main objective which is increased economic growth.

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