

Mechanisms for the Creation of Innovation in Contemporary Business and Economy

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Abstract *Innovation differentiates the company from the competition, attracts new customers and generates revenue. The struggle for customers requires constant innovation, the result of which must be the creation of new value for customers. Innovation which provides new value for customers manifests itself in the form of new products, technologies, ideas and systems, reflected in satisfaction and customer loyalty. Innovation is considered a basis of business development, competition and growth. As a result of innovation, significant changes take place in the scope and manner of commissioning and using resources, leading to changes in the strategic position of the enterprise. The purpose of this article is to show the economic mechanisms for creating innovation in the field of the economy and business.*

Key words Innovations, competition, new products, development, management

DOI: 10.6007/IJARAFMS/v5-i1/1415

URL: <http://dx.doi.org/10.6007/IJARAFMS/v5-i1/1415>

1. Introduction

Innovations are different from other ideas because they are new to both the company and the market. It is commonly believed that innovation is essential for the survival of many businesses in the long term as it is the basis for the creation of future products and services. Research indicates (Chaney, Devinney and Winter, 1991) that radical innovations are characterized by a greater return on investment than less original new products. They not only have an impact on companies, but also on societies and customers, creating economic growth and are a source of new products.

Innovations create many challenges for businesses that implement them. Firstly, when companies transform an idea into an invention, they have to cope with significant technological uncertainties. Secondly, an invention by the company does not automatically mean innovation, as the company must overcome technological challenges and gain the acceptance of customers to become a commercial success. Commercialization of innovation also requires overcoming many significant limitations associated with the market.

Inventions can be changed into innovations when they respond to the needs of customers. Creating radical innovations that satisfy the requirements of customers is extremely difficult, because in the initial stage of their development the company may not have contact with the potential customers of the created innovation. Even if the company is in contact with potential customers, the customers themselves are often unable to articulate the requirements a new type of product or service must meet (Hoeffler, 2003).

In the case of innovation, the needs of users often appear gradually (Hyysalo, 2004). It may even affect customer perception and distort the results of research. Therefore, it becomes extremely difficult to respond to the needs and desires of customers in the early stages of innovation development, even though it could contribute to a growth in the chance of achieving market success. Thus, how to create a market for innovation? Are companies that create this type of innovation able to anticipate the needs of customers and even influence them? In practice, a pro-active attitude towards clients, the ability to predict and influence their needs, can play an important role in building the relationship between innovation and the market.

2. Methodology of research

Currently, few studies concentrate on the issue of mechanisms for the creation of innovation, but unfortunately even less concern themselves with issues related to creating proactive customer behavior in the process of innovation. Moreover, there is a lack of research and analysis concerning pro-activeness throughout the entire process of innovation, focusing on how to influence and create customer activeness in these processes. It is rather surprising, considering the fact that changes in expectations and influence on the environment seem to be decisive in the formation of radical innovation, especially in this day and age, when products, markets and competitive boundaries are constantly changing.

The author of this publication has set a target to fill this gap in research and analysis. The subject of analysis in this article is the mechanisms for the creation of innovation in the field of economy and business. Furthermore, the objective of this study is to show the sources for the creation of innovation in business.

In this work, the following methods were used: the method of literature review and source materials in electronic form, the method of observation and analysis of case studies. In this study, the method of descriptive analysis, based on extensive literature study, was used. Theoretical output in Polish and English-language literature were also used, concerning the mechanisms for the creation of innovation in the economy and business, in the context of creating new value for the customer. The use of foreign literature was necessary because of the dearth of studies in the Polish language. This enriched the reasoning and reflection on new aspects, and allowed to show the research problem in a broader perspective.

3. Sources of innovation

Globalization and digitization have dominated all aspects of our lives, and a social transformation has spread all over the planet. We can predict that the Cyber-Age will develop in two directions: digitization and virtual reality. Digitalization leads to aggressive competition of everyone against everyone in every aspect of our lives. This is why there is a constantly increasing demand for creative solutions and innovation. More intelligent and efficient devices and digital programs only give strength to this process.

Global competition embraces individuals, companies, organizations, cities, regions and nations. Today, a large source of innovation is nascent economies in the developing parts of the world, such as China or India. Another significant source of innovation is digitization. At present ICT is an important tool for raising human activity to ever higher levels.

The scope of innovation is very wide and can literally be about everything. It can start with small changes, and end with groundbreaking transformation. This is why it is important to remember that when the scope of innovation expands, it becomes increasingly risky.

Innovation is often contextual. Depending on the context, innovation can have a positive or negative impact on the values created. We tend to associate innovation only with its positive effects. However, it should be remembered that what is positive for one group of beneficiaries may be negative for others. To develop the ability to be innovative, the following elements are keys:

- The ability to use anachronism through research and assessment of its value. Abandoning the shadows of the past and focusing on the future, towards a desired vision (designing the future);
- Creativity and innovation. Creative people are the most valuable resource of the organization, but today most innovation is done through carefully selected teams;
- Partnership and collaboration. Most innovation is the result of collaborative efforts. The key is to go from envy to empathy and from competition to cooperation;
- IT competence. Nowadays, it is difficult to develop innovation without adequate competence and deliberate involvement in the area of ICT;
- Provision of adequate resources and support: open space, technology, skilled people, access to information and knowledge.

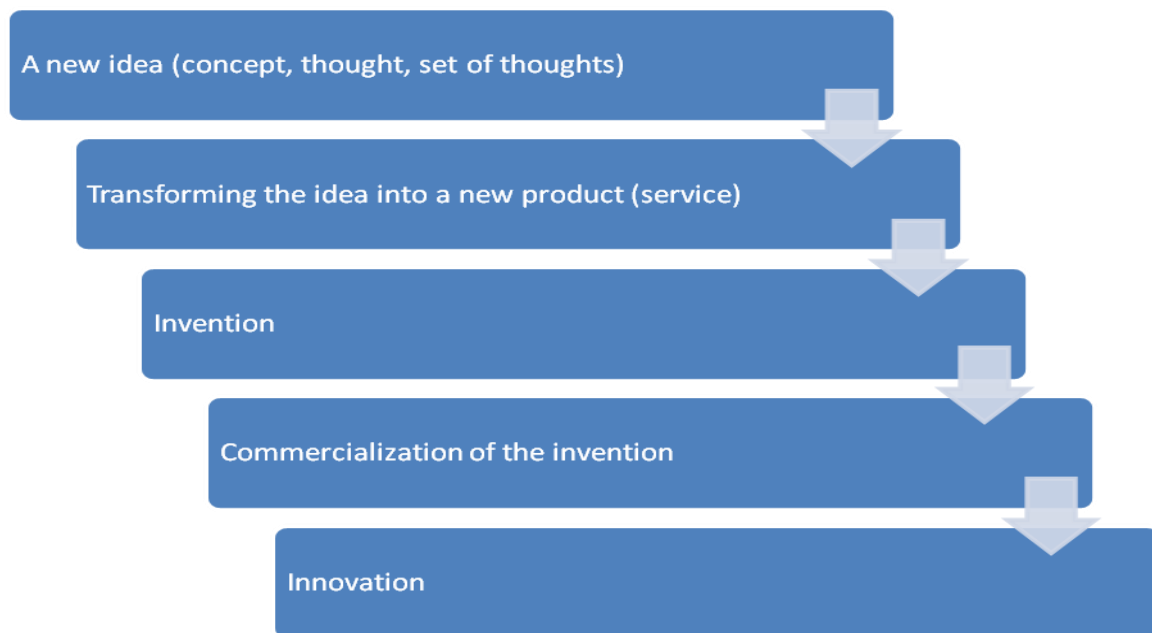
Knowledge is one of the most important sources of innovation. Creation of new knowledge, especially when it is unique, has particular benefits for every company. Firms, using patent protection or copyright, can protect the often intangible results of the work done by their knowledge workers. This can lead to attempts to quantify the work done and allow companies to compare themselves to one another.

Knowledge workers are an important asset for the organization because of the specialized knowledge they possess. They usually know more than anyone else in the company, they are treated as experts in their field, and cannot be easily replaced. They can also be a valuable source of innovation.

Knowledge may be retrieved from the research and development department of the company, or it may come from the market. Innovative knowledge related to research and development is new and rare information, directly transferred from the sender to the recipient. Consequently, in enterprises based on research and development, innovation-related activities should be concentrated spatially. There should be pressure to locate the process of innovation in one place.

Innovative companies must almost always enter the international market. It is extremely difficult to operate on the local market and simultaneously find protection against domestic and foreign intellectual piracy. Therefore, it has been suggested that the most effective way to enter the market is to present innovative solutions in many countries at the same time. To cover the high cost and risk associated with the development of innovation, actions on a broad arena (the global market) are required. This is of particular importance in the case of companies that operate in narrow market niches.

New ideas are the beginning of any innovation. According to Trott, an idea may be a concept, a single thought or a set of thoughts (Trott, 2002). To become an innovation, customers must regard an idea as new, even if it is not entirely so. Thus, a key issue in assessing the novelty of an idea is how customers perceive it. Sometimes a new idea arises from the discovery of a previously unknown law of nature. The idea becomes an invention when it takes the form of something real and tangible (Figure 1).



Source: Own research, based on Sandberg, 2008, p. 53.

Figure 1. Stages of innovation

The emphasis on economic success (of a given invention) is visible in many definitions of innovation. It is also present in the views of Wakonen and Hansen, who believe that the goal of invention is to solve technological or scientific problems and the goal of innovation is to resolve the issue of its commercialization (Hansen and Wakonen, 1997). An invention therefore does not necessarily have to lead to innovation. Innovation means a technologically new product or service which requires significant changes in customer behavior and which is capable of increasing profits in a significant way (Sandberg, 2008).

Innovations can set new consumption habits or modify existing ones. If innovation is seen as complex, both in terms of its comprehension and use, there is often a problem with its adaptation. In this case, a chance to test out the product or service before making a purchase can reduce customer dissonance to the innovation, can bring about positive attitudes toward the innovation, and can even change negative

attitudes into positive ones. It should be noted that despite the fact that radical innovations cause changes in the behavior of customers, they do not necessarily cause changes in their needs.

In order to succeed in the market, the innovation must provide customers with new benefits –it should provide them with new quality and functionality. Customers typically evaluate these advantages by comparing the innovative product with the product it is replacing in the market. Thereby, clients can determine the relative advantage of using the innovative product. The more noticeable the benefit, the faster the innovation will be adapted. Preparing information about future benefits is especially difficult when the product has not yet been made, and potential customers must try to imagine its functionality and advantages based only on its description. This situation is typical for radical innovation (JW Mullins and Sutherland, 1998).

According to a study by Veryzer, the key factors affecting the evaluation of new products radically differ from those that are important in the evaluation of products which are already profitable (Veryzer, 1998):

- Lack of knowledge about the product may cause resistance and even fear in customers,
- Novelty of the product can encourage customers to focus on irrational attributes of the product that may not correspond to reality,
- Problems encountered in the interaction between the product and its user force customers to invest their time and effort to learn how to use the new product,
- Uncertainty in customers to the advantages of using the innovative product, not mentioning the risk associated with its use (uncertainty stems from the lack of having a product to compare it to), can cause resistance to its application,
- Ethical aspects affect the attitudes of customers, their confidence in the product and their interest in it; ethical aspects play an important role even at the stage of testing product prototypes,
- A clash between a new product and the lifestyle and consumption patterns of customers cause resistance to their use.

The advantages of innovation are more noticeable when they are consistent with existing values, and with previously held ideas and disclosed needs of potential customers.

Innovation can cause significant changes in the environment in which the company operates – the company often creates their own market. Innovation gives companies the opportunity to create a new competitive space and change the structure of existing markets, and sometimes contribute to the establishment of a new industry. Whole new production facilities are often created to use the full potential of the groundbreaking innovation.

4. The role of customers in the formation process of innovation

The introduction of innovation necessitates the cooperation of companies and customers in the creation of a new market. Analytical processes that accompany decision making typical for constant innovation are rather unnecessary here, and decisions made must take precedence over the adopted plan. In this type of planning, it is necessary to predict what might happen. Basic assumptions are estimates that can be questioned. Over time, new data is added and the plan is changed, and the true potential of the product is explored along with its development. Christensen calls this discovery of markets for breakthrough technology agnostic marketing, indicating that at the beginning of the process of development of a radical product its final use is unknown (Christensen, 1997).

Investigation of the activity of customers during the entire development process of an innovation would be very interesting. However, it seems more important to focus on the initial stages that determine, to a large extent, its success. The results of research show that the market opportunities for future innovation often originate at the stage of the formation of ideas, which also indicates a company's activity. The researcher may initiate a project to find a solution to his problem, and thus respond to future needs of clients (Czarniewski, 2014).

During the creation of ideas for innovation, the needs of customers are usually not clearly articulated. Hence, it is often thought that innovation does not arise in response to specific customer requests. On the other hand, Hippel and others emphasize the role of key customers in this process. They argue that by identifying a group of future, leading users and learning from them, companies can

systematize the innovation process and ensure the future success of the product (Hippel, Thomke and Sonnack, 2000). In their opinion, these key users are an excellent source of innovative ideas, enriching the research activities of the company focused on the creation of new solutions.

Innovative ideas come about by predicting the future needs of customers or by conducting basic market research. If the innovation creates tangible benefits for clients and has no competitive solutions, it can be assumed that its chances are not limited to one country or a region, but to the most attractive market niches in the world. The scope of business activities for customers at this stage is geocentric.

It must be stated that it is difficult to determine a significant contribution of customers to the creation of innovation before a prototype of the product is created, because it is difficult to imagine the innovation or its positive impact on the company or on purchasers and their market behavior (Davis, 2005). Customers may have no experience with the technology of a new product, so there is usually a lack of a reference point necessary for understanding the innovation. At this stage, the company may attempt to collect information from customers about their attitude to the product through electronic presentations of its different variants. Thus, instead of focusing on customer benefits and commercial opportunities of the product, attention is focused on the technological superiority of the innovation over existing solutions (Lavie, Haunschild and Khanna, 2012).

When further details about the product are determined, it is time to collect information about the expectations of customers to its application. These cursory market studies are carried out before the start of work on the prototype of the product. The purpose of these studies is to see whether it makes sense to continue working on the project and to estimate its chances for success (Mayo, 2001). At this stage, the overall image of the product plays a very important role, connecting the engineering process with product feasibility and market analysis.

Once the use of the future product has been defined, and its prototype has been built, the innovation process becomes more focused on the client. Before a prototype is built, one can only predict the needs of the relevant market, but has no power to influence it. Only later are future clients able to express their needs and opinions about the innovation and its properties. The role of the company decreases in relation to the role of the customer as the innovation process nears the stage of its introduction on the market (O'Connor, 1998).

Studies on the process of innovation creation indicate that the needs of the target recipient are predicted (the stage before the creation of prototype) and fulfilled (the stage after the creation of the prototype), mainly in the context of the domestic market. On the international market, the above activities require advanced knowledge, financial resources and the existence of special research units.

5. Conclusions

1. Innovation based on a close connection with the needs and expectations of customers is characterized by a much lower risk of failure, as well as lower costs of introduction on the market. In order to improve or maintain the achieved level of customer equity, companies need to innovate on a continuous basis, protecting their ideas from imitation.

2. Growing globalization causes an increase in competitiveness of the market. For companies to survive on the market, they have to offer innovative products and services. The making of such products requires research and development of various forms of innovation. The connection between business and scientific research determine the effectiveness of the innovation system, which translates into the competitiveness of the company.

3. Scientific analysis indicates that innovations are characterized by a higher rate of profit (return on investment) than less original new products. They not only have influence on the value of the company, but also on societies and customers, as they create economic growth and are sources of new technological solutions, as well as new products and services.

4. Companies that strive to modernize the values offered to their customers should take care to build closer relationships with customers who are eager to transfer information to companies about their problems, expectations, opinions about current offers, all of which may form the basis of innovation.

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