

FACTORS INITIATING IMPLEMENTATION OF INNOVATION AND BARRIERS IN THEIR IMPLEMENTATION ON THE EXAMPLE OF ENTERPRISES IN PODKARPACIE

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Abstract

The aim of the study was to assess innovation in enterprises in the province of Podkarpackie. The scope of work included in particular the determination of the factors initiating the process of implementing innovations and to present barriers perceived by their implementation. Innovation plays an important role in business management. It determines not only the pace, direction of development, competitiveness but also the forms and international structure of the business cooperation. The study shows that improving service quality, cost reduction and innovation have the greatest impact on improving the competitive position. The biggest impact on the introduction of innovation have customer requirements, the need to achieve a competitive advantage, ahead of competitors' actions (being a leader). The biggest barrier to the implementation of innovation is too long time to implement innovation and excessive bureaucracy associated with fundraising.

Key words: innovation, the company, the economy

INTRODUCTION

Innovations, as well as widely understood innovation activities of companies are of interest to both science and business practice. Innovation is one of the fundamental determinants influencing the development of the economies of individual countries, regions, businesses. They set the pace, direction of economic development, as well as forms of international cooperation [4].

Innovation is commonly new products or services that have been placed on the market. The first scientific definition of innovation, by Schumpeter, associated innovation with new combinations of factors. In this view, innovation is "the introduction of new products and new production methods, the opening of new markets, acquiring new sources of raw materials, and finally carrying out a new organization of business processes" [6].

The most common definition of innovation is considered now the definition contained in the Manual of Oslo, according to which: "Innovation is the implementation of a new or significantly improved product (good or

service) or process, a new marketing method or a new organizational method in business practice, workplace organization or external relations with the environment" [5]. The activity of enterprises mainly includes product, process, marketing and organizational innovations.

Innovation play an important role in business management. The process of globalization seen more and more clearly in the economy and the resulting intensifying competitive struggle, poses new challenges for businesses, forcing them to unconventional and innovative behavior. Betting on innovation is the basic method, which allows to keep the company on the market, and even strengthen its competitive position. Traditionally, the impulse to innovate were (and are) internal forces the company, and the result is a supply-side approach to innovation - the company's first work to produce something innovative and look for buyers for it [1].

Determinants of the emergence of innovation in enterprises are primarily to customer requests and the appearance of new technology on the market, for which you can find a variety of uses. Observation of the

behavior of competition is also helpful [2].

The aim of the study was to assess innovation in enterprises in the province of Podkarpackie.

The scope of work included:

1. Characteristics of innovation in Polish enterprises,
2. Characteristics of surveyed companies,
3. Identifying the factors initiating the process of implementing innovations,
4. Presentation of the barriers perceived at innovation implementation.

MATERIALS AND METHODS

In order to determine the factors, which initiate the process of implementing innovations and presenting barriers perceived at their implementation a comprehensive study of innovation in selected enterprises Podkarpackie Province was conducted and the presented problem is part of the research. In the first stage of the study the current state of knowledge on enterprise innovation was analyzed. The analysis allowed the development of a questionnaire. The questionnaire consisted of three parts. The first part contained questions about test company, and in particular the organizational and legal form, the range of activity, the type of enterprise. The questions in the second part were related to the innovation taking into account factors including the introduction of innovation, funding, cooperation in the implementation of innovations. The third part was related to quality management systems and, in particular, implemented and quality management systems planned to implement, benefits and problems arising from their implementation.

In the second step studies were performed. Studies covered companies that operate in the region of Podkarpackie, which introduced innovations in enterprises and use of quality management systems in production processes and manufacturing. The research process was conducted in late October and November 2015. Replies were given by people who work in quality management in enterprise. The final analysis included correctly classified 20 completed survey questionnaires.

In the third stage the analysis and presentation

of results using the computer program Excel was made.

RESULTS AND DISCUSSIONS

The level of innovation in Polish enterprises

Innovation in Polish enterprises is strongly linked to the size of the company tested in terms of number of employees. In Poland, the implementation of product and process innovations was least often in small businesses. Polish small businesses are characterized by the lowest technological innovation, and higher positions in terms of technological innovation are achieved by medium-sized enterprises and large enterprises that introduce new products or processes [8].

In 2011-2013, innovative activity was showed by 18.4% of industrial enterprises and 12.8% of companies in the services sector (compared to 17.7% and 13.9% in 2010-2012). New or significantly improved product or process innovations were introduced by 17.1% of industrial enterprises and 11.4% of companies in the services sector (in 2010-2012 respectively 16.5% and 12.4%).

Taking into account the type of innovation implemented:

- Product innovations were introduced by 11.0% business in industrial and 5.8% services sector (compared to 11.2% and 7.0% in the previous study period)
- Process innovations were introduced by 12.8% of industrial enterprises and 8.5% of companies in the services sector (compared to 12.4% and 9.1%),
- Organizational innovations were introduced by 8.3% industrial and 7.1% of business services sector (compared to 10.3% and 10.5%),
- Marketing innovations were introduced by 7.5% of industrial and 7.0% services sector businesses (compared to 10.2% and 11.1%).

Given the nature of the innovations in 2011-2013 the share of companies that have introduced innovations in the total number of companies is the largest in units employing more than 250 people; both in industry and in services by the companies introducing process

innovations dominated (respectively 46.9% and 39.8%) [3].

General characteristics of the surveyed companies

The study was attended by 20 companies. Small businesses accounted for 35%, large enterprises - 30%, medium-sized companies 25%, micro-enterprises for 10%.

Taking into account organizational and legal form of surveyed companies it can be distinguished: natural persons registered to do business (30%), limited liability companies (30%), partnerships (15%), joint stock companies (10%), general partnerships (5%), partnerships (5%) and limited partnerships (5%).

65% of the surveyed enterprises conducts production, 20% commercial activity, while

15% service activities.

Research shows that over 32% of companies operate in the domestic market, 26% are active on the local market, 23% of respondents work in a foreign market, 19% are active on the regional market.

The place and the importance of innovation in the enterprise

Research shows that for 35% of enterprises introducing innovations can improve the company's competitive position.

The biggest impact on improving the competitive position is due to improvement of the quality of products (50%), cost reduction (45%), as well as the introduction of new products (30%) and modernization of applied technologies (30%) (Fig.1).

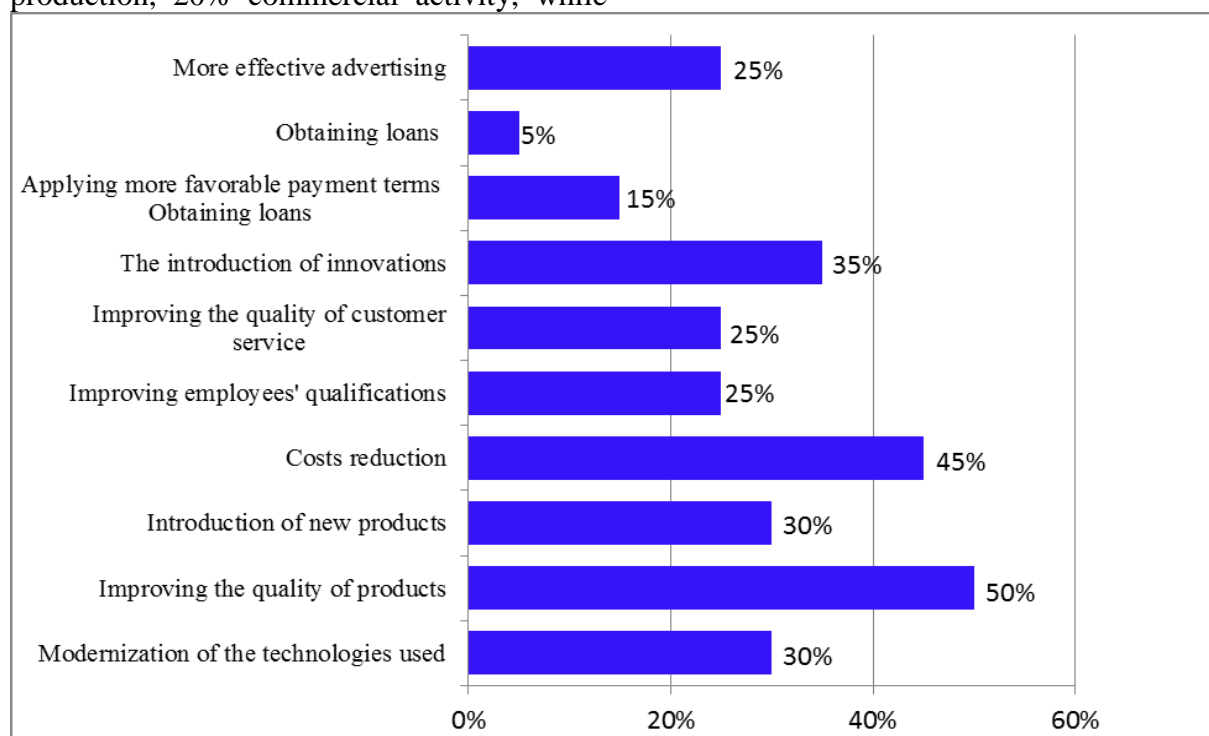


Fig.1. Improving the competitive position of the company
 Source: Own calculations based on studies

Factors initiating the process of implementing innovations

The research shows that the main factors that influenced the introduction of innovations were the requirements of the clients (75%), being ahead of competitors' actions (35%), the need to achieve a competitive advantage (35%).

Less important were the requirements of suppliers (10%), the need to meet the legal

requirements (10%) and the recommendations of consumers (5%) (Fig. 2).

Barriers perceived at innovation implementation

Among the most important barriers to innovation in the literature the following can be listed:

1. Market barriers associated with:
 - Regional variation in demand,
 - Strong competition in the market;

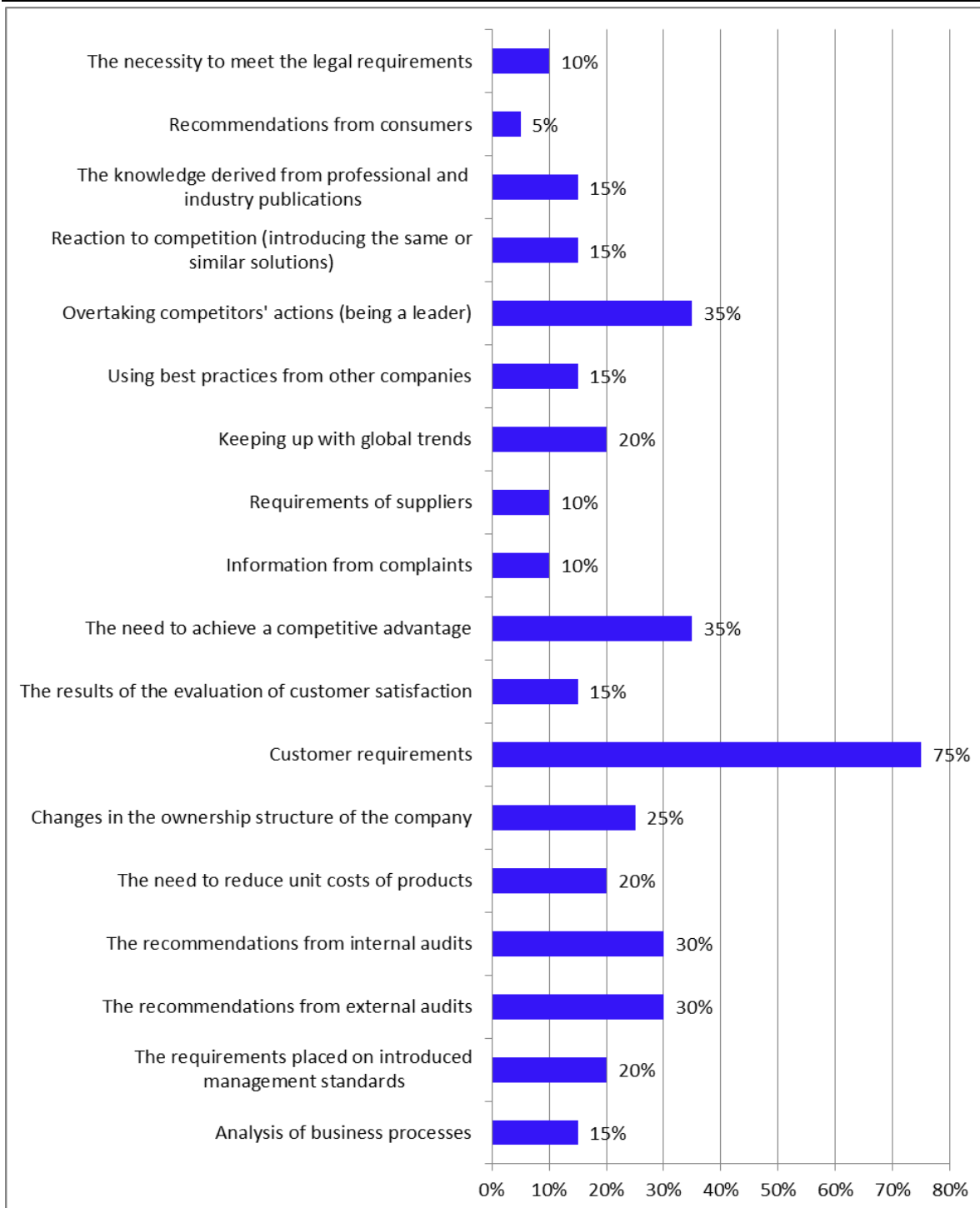


Fig. 2. Factors affecting the introduction of innovation in enterprise
 Source: Own calculations based on studies

2. Financial barriers associated with starting a business, which include:

- The limited possibilities of obtaining funds for new projects,
- Financing for development,
- Leasing as a form of investment financing.
- The lack of reliable information about contractors,
- The tax system;

3. Barriers associated with government policies concerning:

- The introduction of legislation into force
- Unclear regulations in commercial law,
- Licensing of business,
- Regional policy;

4. Barriers related to the production, concerning:

- Factors of production,

- Employment,
 -Technical infrastructure barriers and buildings policy;
 5. Barriers related to access to information at the local level [7].
 Research shows that the greatest barrier to innovation implementation is too long time to

implement innovations (50%) and too much bureaucracy associated with obtaining funds (45%). The lowest barrier is the lack of proper infrastructure for research and development (5%) and insufficient protection of intellectual property (5%) (Fig.3).

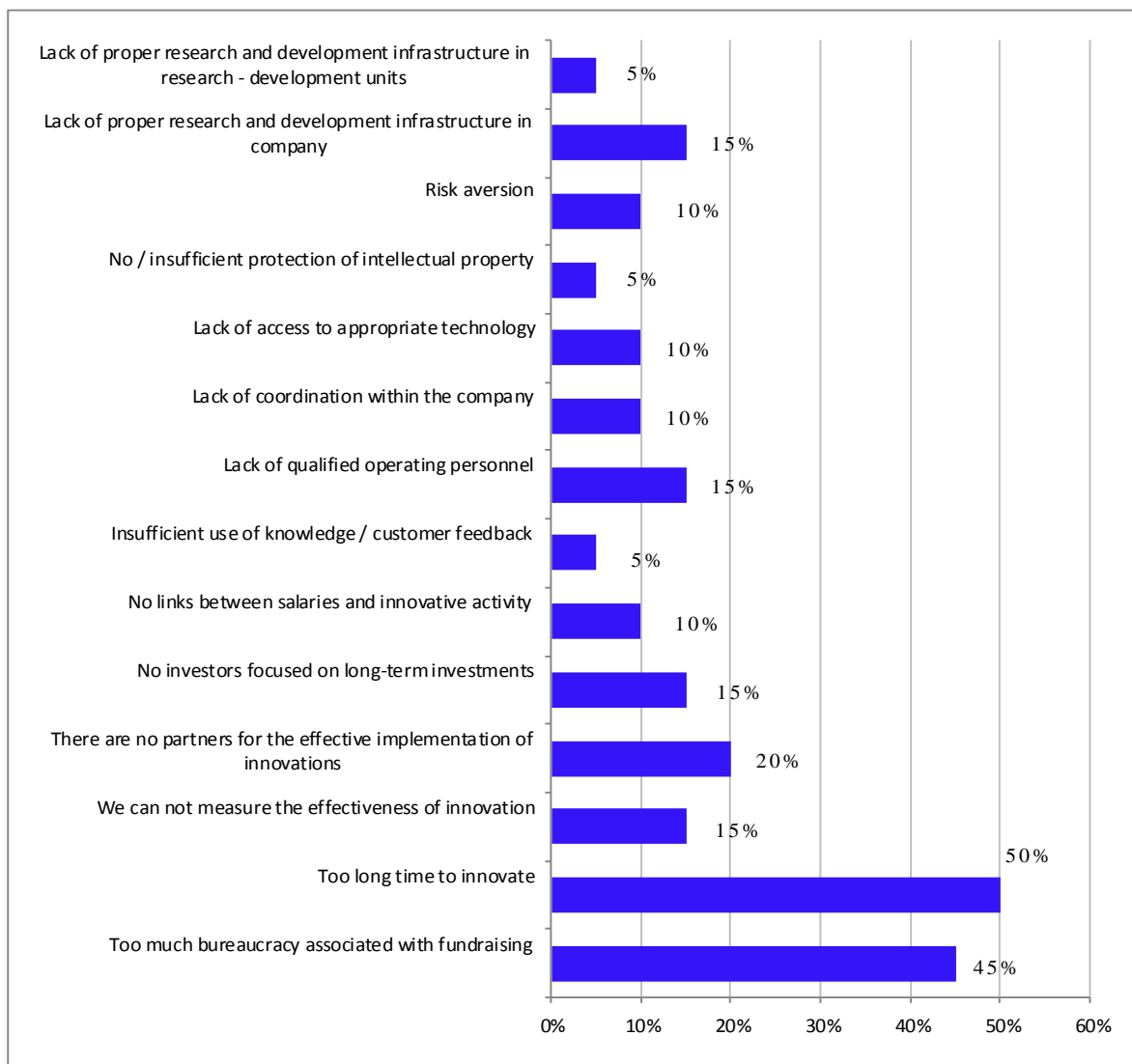


Fig. 3. Barriers perceived at innovation implementation
 Source: Own calculations based on studies

CONCLUSIONS

In the light of growing competition, a huge momentum and a wide range of changes in the market, innovation is necessary in order to adapt to current requirements, and thus remain on the market. Only through innovation one can become a pioneer and leader in the given area.

Wanting to develop and maintain a

competitive position in the domestic market, especially in the international market, Polish companies face the challenge of systematic innovation. They must use the advantage innovation gives. Unfortunately, despite the many years that have passed since the beginning of political and economic transition, currently the level of innovative activity undertaken by Polish enterprises is relatively low [4].

There are many motives for taking innovative activity by enterprise. In Poland the main drivers are: customer requirements, requirements of introduced management standards, the recommendations of the audits, the need to achieve a competitive advantage, keeping up with global trends, the use of best practices from other companies, overtaking competitors' actions (being a leader), the need to meet legal requirements.

Despite the desire to introduce innovation by Polish companies, their low level is mainly due to the existing financial barriers, insufficient funding for R & D (low level of expenditure on R & D remaining at the level of 0.6%), underdeveloped mechanisms for the transfer of research results into business practice [4].

Significant barriers also exist in the enterprise. These are mainly: too much bureaucracy associated with raising funds, too long time to implement innovation, lack of partners for effective implementation of innovations, the lack of investors focused on long-term investments, the lack of qualified operational personnel, lack of access to appropriate technology, lack of proper infrastructure for research and development in company and research - development units.

The study leads to the following conclusions:

(i)The biggest impact on improving the competitive position has improvement in the quality of services 50%, cost reduction of 45%, the introduction of innovations 35%

(ii)The biggest impact for innovation have customer requirements 75%, the need to achieve a competitive advantage 35%, ahead of competitors' actions (being a leader) 35%

(iii)The largest barrier to the implementation of innovation is too long time to implement innovations; such a situation occurred in 50% of the companies and excessive bureaucracy associated with obtaining funds 45%.

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