



STAGES OF THE INNOVATION PROCESS IN INDUSTRIAL ENTERPRISES IN THE DIGITAL ECONOMY

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Article history:	Abstract:
Received: 23 rd October 2023 Accepted: 24 th November 2023 Published: 28 th December 2023	The article expresses an opinion about the use of innovative processes in industrial enterprises and their importance, and the stages in the use of innovative processes by enterprises are analyzed. Also, the activities of enterprises and their use of innovative processes were analyzed. Also, according to the analysis, the innovation results of the enterprises were discussed.

Keywords: innovation, industrial enterprises, innovation stages, entrepreneurship, marketing, idea

ENTER. Innovation is the result of creative entrepreneurial activity, which usually involves many departments of the company and is increasingly influenced by external factors (state influence, environmental requirements, cooperation with other institutions, etc.). does. Innovation has its own life cycle, starting from the birth of a new idea, to the introduction and approval of a new product in the market. Six typical stages can be distinguished in this cycle, with characteristic activities, decision situations, and outcomes for each.

MATERIAL AND METHOD. NAGareyeva's article "Innovatsionnoye razvitiye promishlennogo predpriyatiya: otsenka i perspektiviti" discussed the components of innovative development and analyzed it through relevant models. Relevant prerequisites for the implementation of innovative processes in an industrial enterprise have been studied. Innovative activities based on innovative parameters have been studied by the author and opinions have been expressed. The article analyzes the innovative activities of enterprises as part of determining the strategy of innovative development and concludes with appropriate conclusions.

"A Case Study on R&D Investment of Technology-Intensive Private Enterprise in Sichuan Province of China" published in SCOPUS database by W. Zhen, J. Li, M. Zhang, Z. Zhang, Y. Helar. (A Case Study on R&D and Investment of a Technology-Intensive Private Enterprise in China's Sichuan Province) [6] At present, private enterprises in China's Sichuan Province face the problem of "innovation weakness and lack of resilience". From a theoretical point of view, this paper has made a micro-contribution to the literature on "innovation chain" and "R&D and investment of technology-intensive enterprises". From a practical

perspective, this paper has provided a reference for government decision-making on R&D and investment activities that are useful in terms of improving the independent innovation capabilities of technology-intensive private enterprises in Sichuan Province. In the article by AVPlatonova, AIAfonichkin, EVPustinnikova, IS Pinkovetskaya, VV Baklushinsky published in the SCOPUS database "The model of mutually beneficial cooperation of industrial enterprises in the conditions of innovative development" (the model of mutually beneficial cooperation of industrial enterprises in the conditions of innovative development) the authors present their views on the model of formation of mutually beneficial cooperation between industrial enterprises based on cooperative relations. Innovative development methodical approaches to classification of groups of industrial enterprises were considered. Network characteristics (by types of economic activity) are revealed for each defined group of industrial enterprises.

The stages, as a rule, follow each other, but some cases of parallelism (and therefore crossing) of individual stages are not excluded. Thus, the assessment and calculation of economic efficiency should be carried out not only at the stage of searching for ideas, but also at subsequent stages. In the process of scientific research and development and development of new solutions, on the one hand, bringing the product to the market, on the other hand, there is a temporary and meaningful repetition of certain tasks.

On innovative activities can and should be made only in connection with decisions in the field of the general strategy of the enterprise and the strategic program of production. At the same time, they pre-determine the initial conditions of the decisions regarding the further



process. The strategy allows to define in advance all the innovative aspirations of the enterprise. The following strategic decisions are crucial for the innovation process:

- choosing a market or market segment;
- confirmation of the used technology;
- selection of goods and services produced in the enterprise ;
- decision on cooperation in development , production and marketing;
- determining the size and speed of the process of updating goods and services.

In this case, we are talking about an ideal (theoretical) process. In business practice, the opposite is also possible, that is, innovations can have a decisive impact on the strategic direction of the company's policy. In small and private enterprises, one innovation often determines the development of the entire enterprise for a long time.

Step 2: search for ideas and evaluate them

At this stage, the search for creative ideas to solve problems is carried out. There are three search paths:

- development of new ideas (creating ideas);
- critically review and modify certain problem solutions or identified solution options;
- search for common or individual solutions that already work (use of well-known scientific and technical experience and knowledge, obtaining licenses).

In search of new ideas, small and medium-sized enterprises are especially recommended to frequently refer to external sources of information, such as data banks, licensed intermediaries, fairs and materials of research centers.

A number of methods can be used to generate ideas inside.

The spontaneous creative generation of ideas by people with above-average intelligence, as well as special knowledge. As an example of searching for new ideas, we can name the methods of "brainstorming", contests, expert surveys.

Logically structured procedures occupy the main place in analytical methods. This includes the decision tree method, morphological methods, analogical methods, scenarios, synectics and heuristic methods.

Found ideas are evaluated: first, the unsuitable ones are eliminated, and then the most promising ones are checked to determine their potential market opportunities. The result of the selection of the best ideas is for the production of a new product is a proposal, in which the basis for further action is determined.

Step 3: product solution

At this stage, the company must ensure that the product idea is included in the strategic program of the company and that it develops a real product that can be brought to the market. All this requires extensive planning, which includes:

- setting goals and objectives for this product;
- drawing up a timetable for the use of resources necessary at this stage;
- production planning for the entire enterprise;
- sales planning with calculation of economic efficiency.

Includes all important tasks necessary for further analytical work within the research and development process until the product is successfully introduced to the market . Here are the intersections of marketing and production; areas of communication between innovation, program planning and marketing are established.

4th stage: research and development, technology transfer of research and development: basic research is not directly related to the product, applied research is focused on the future application of the obtained results, and the main interest in the development process is unique. market outcome.

Small and medium-sized enterprises, their business, as a rule, is limited to development; research literally fades into the background here.

Depending on their goals, these companies may introduce technical products through their own development (perhaps research) or collaborate with other companies. Basically, this task should be solved taking into account the following points:

- final explanation of the task and development of a fundamental solution for a new product or a new service;
- constructive development of the product until the creation of the prototype ;
- preparation for new product design and production with production and testing of prototype , production equipment and zero series.

And at this stage, it is recommended to refer to external sources of knowledge, for example, in the following forms:

- exchange of scientific and technical information by participating in conferences , fairs, publishing articles;
- transfer of knowledge by employing specially trained employees, graduates of higher educational institutions;
- conducting research in cooperation with other enterprises;
- obtaining patents and licenses for use in a special project;
- development of cooperation .



• The influence of modern technologies on the competitiveness of small and private enterprises is constantly increasing, requiring the purposeful use of all opportunities of technological transfer. Even today, highly effective technology leaders are rarely able to keep up with all trends in technology and keep up with the latest practical and theoretical advances.

Stage 5 : development of production

Production can begin and all attention can be focused on the product during the manufacturing phase. The importance of this transition stage in the innovation process is often underestimated, which leads to significant time losses for the enterprise. The following are important at this stage:

- adaptation of the prototype to production and technical requirements;
- familiarizing involved employees with technological processes, methods and new areas of tasks;
- starting machines and equipment up to the specified power limits;
- search for new supply channels.

It is important to ensure the deployment of production in the shortest possible time, in particular, the appropriate preparation and planning, as well as the flexible implementation of goals. Reducing production time often provides a market advantage over competitors, as well as quickly reduces costs and increases enterprise profits.

Step 6 : market entry. The innovation process ends with the introduction of new products to the market. Empirical studies show that about 1/3 of new product introductions fail, and among those introduced, only 1/3 bring above-average profits, and the rest can only cover costs. Launching goods or services on the market means checking the competitiveness of products with the help of market analysis, as well as targeted use of marketing tools. The implementation phase ends with the successful installation of the product in the market.

considered as a crucial condition for successful implementation . This can be achieved through appropriate public relations, advertising, customer consultation and the use of additional marketing tools (for example, pricing policy). At the same time, it is important to calculate give very high results. The fact that enterprises do not pay much attention to the involvement of innovations indicates that most of the ideas remain only on paper. As a result, the production and service of the enterprises, especially in export relations, are low.

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the time correctly , i.e. choosing the right moment for the company to enter the market with new products.

In large enterprises, before the final introduction of the innovation, the product and the market are tested, if possible, at the earliest stage of the innovation project. Risks can be reduced with the help of such tests , but this is associated with high costs. Therefore, both product and market testing are rarely carried out by SMEs.

Often they rely here on "theoretical" considerations, as well as on the experience and intuition of the participants of the innovation process.

requires a lot of money over time . The task of innovative management is to manage the process in such a way that the necessary resources are optimally used. The table shows the approximate distribution of total costs for innovation projects in small and private enterprises. Research shows that these companies underestimate the cost of entering the market at the last stage. Also, in innovative processes , the method of cost allocation, which assumes that the cost of reproduction of intellectual property objects at current prices, minus depreciation , is disclosed as the most effective method of intellectual property valuation.

It should be noted that the innovation process cannot be seen as the result of more or less random technical inventions or other entrepreneurial ideas.

it requires strategic planning and market-oriented management. "It is known that the basis of the effectiveness of the modern national economy is the innovative potential of the country along with natural and labor resources. Its use opens wide opportunities for ensuring macroeconomic stability, ensuring the competitiveness of the real sector, increasing the technical-technological level of leading industries, and introducing modern management methods.

These opportunities are manifested, first of all, in fundamental research, scientific innovations, new knowledge, modern information technologies and service methods . Related tasks are the object of innovation management.

SUMMARY. In conclusion, it should be said that today the number of enterprises that involve innovative processes in their activities does not further development of the Republic of Uzbekistan". February 7, 2017.

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