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USE OF INFORMATION COMMUNICATION TECHNOLOGIES IN FINANCING INNOVATION PROJECTS IN ENTERPRISES

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Abstract: This article reveals the use of information and communication technologies in the financing of innovative projects in enterprises in the context of the development of the innovative economy. In the modern period of development of the national economy, innovations become a strategic factor of growth, affect the composition of social production, change the economic structure of society, stabilize the social situation in the country, and ensure dynamic and stable development of the economy. Modern innovations cannot be imagined without advanced information and communication technologies (ICT). ICT is becoming the main tool and environment for the development and implementation of scientific, economic and social activities. It has been thoroughly revealed that the use of information and communication technologies in the financing of innovative projects in enterprises today is the main factor in increasing competitiveness, production efficiency, optimizing management processes, and increasing labor and capital productivity.

Keywords: communication, organizational communications, innovative development, development strategy, information transfer methods, survey



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Introduction

The role of communications in the innovative development of the enterprise is increasing day by day. There are different approaches to defining the term "Communication", which try to increase the organizational potential of enterprises with social systems. The methods of information transfer in the enterprise can be divided into three groups: technological, personal, printed. Also, there are major communication problems arising from the introduction of innovations in enterprises [1]. As it turns out, there are three aspects of communication for modern enterprises: it works as a way to inform employees about current and future goals and plans, and to share and use employee knowledge [2]. Wide implementation of the results of scientific and practical research and know-how developments in the processes of modernization of production, technical and technological updating, establishment of close cooperation between scientific institutions and enterprises of real economic sectors in this direction is an important factor of rapid innovative development of the country [3]. At the same time, there are a number of factors that have a negative impact on the full implementation of innovative ideas, technologies and projects, their practical implementation in production industries, taking into account the urgency of attracting foreign investments.

2. Review of literature.

In the development of innovation processes, providing enterprises with information is an important factor that helps the effective implementation of the system [4]. The fact that all spheres of society and state life are rapidly developing requires the implementation of reforms based on

modern innovative ideas, developments and technologies that ensure rapid and high-quality progress of our country on the way to becoming one of the leaders of world civilization [5]. Therefore, the main reason for the insufficient implementation of modernization, diversification of production, increase in its volume and expansion of the types of competitive products in domestic and foreign markets is considered to be the slow use of information technologies.

The system of statistical indicators (main indicators) representing the innovation activity of industrial enterprises is created on the basis of the following sections [6]:

- 1) Innovative activity of enterprises.
- 2) A source of information about innovations.
- 3) The purpose of innovation activity.
- 4) Costs of technological innovation.
- 5) Research and development.
- 6) Number of joint research and development activities.
- 7) Technological exchanges.
- 8) Ways to support "product-process-innovation" and increase competitiveness.
- 9) Results of innovation activities.

In the economy, it is necessary to develop the necessary mathematical apparatus and modern computing tools that increase the efficiency of the decisions of financing processes (which use a methodologically error-free measurement system, ensure that the calculations correspond to the actual results [7]. Making decisions on the management of financial resources in the context of the modernization of the economy, sustainable development, the basis of timely change of production capacity, economic indicators and their validity and accuracy are related to information technology [1]. will be able to evaluate through

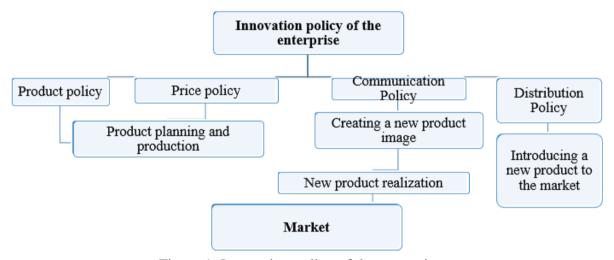


Figure 1. Innovation policy of the enterprise

Based on this picture, we can say that the innovative policy of the enterprise product policy, price policy, communication policy, and distribution policy [8] are interconnected ADDIN CSL_CITATION {"citationItems":[{"id":"ITEM-1","itemData":{"abstract":"Note by the UNCTAD secretariat Executive summary Technology and innovation, among others, are important means of implementing the 2030 Agenda for Sustainable Development because of their potential to drive innovative entrepreneurship that delivers growth and productive employment. Dynamic, innovative firms are also a key feature of successful industrialization strategies. Therefore, the development of science, technology and innovation (STI) capabilities among firms and entrepreneurs should be a focus of attention for policymakers. This note presents for the consideration of the Commission some elements of policies targeting STI capabilities at the firm level to promote the emergence of more technologically capable and innovative enterprises and ultimately, to raise productivity across all sectors of the economy. In particular, the note examines the main policy instruments used to address

the financial constraints faced by innovative entrepreneurs, policies and practices to promote networking and clusters of innovative firms, and policy actions needed to leverage the opportunities for innovative entrepreneurship created by the emerging digital economy.","author":[{"dropping-particle":"","family":"UNCTAD","given":"","non-dropping-particle":"","parse-

names":false, "suffix":""}], "id":"ITEM-1", "issue": "September", "issued": { "date-

parts":[["2018"]]},"title":"Science, technology and innovation for enterprise development","type":"article-

journal", "volume": "15836"}, "uris": ["http://www.mendeley.com/documents/?uuid=9b80af9e-fe5b-4353-abbc-

0a67f897c61c"]}],"mendeley":{"formattedCitation":"[8]","plainTextFormattedCitation":"[8]","previouslyFormattedCitation":"[8]","properties":{"noteIndex":0},"schema":"https://github.com/citation-style-language/schema/raw/master/csl-citation.json"}, and it is shown that the result is achieved by planning the product plan and production, its distribution process to the market, bringing it to the market, and performing the tasks of creating the market circulation [9]. As a result, investors, owners can see and analyze the information related to the enterprise and quickly assess the impact on the economic results of the enterprise [10]. The traditional view of accounting of costs and results of enterprises is reflected in the following cases:

- in order to determine the financial results of innovative projects;
- in the process related to the costs of innovative projects and their results;
- in order to carry out and evaluate new production processes based on innovative projects;
 - periodicity of innovation projects and is used in commenting on them.

The general situation and obligations of the enterprise are reflected in the financial statements. Financial statements require compliance with the rule that joint-stock companies should compare production, investment and financial activities, calculate costs and expenses necessary for enterprises. The implementation of these requirements leads to management of accounting reports based on regulations.

Financial reporting connects the enterprise with external investors and creditors with the help of documents. It should be taken into account that it is related to forecasting the production of enterprises from an economic point of view, product realization, distribution of financial resources [11], setting prices, aligning economic and financial activities with goals, as well as its planning, inclusion in the program, and control. Financial reporting data allows to analyze and evaluate the activity of the enterprise as a whole and its divisions [12] [13] [14]. At the same time, the information helps the financial manager to make financial management decisions and choose financial strategies.

The period of innovation activities of enterprises is divided into pre-investment, investment period and exploitation period. Each of these periods is further divided into stages. Of course, the pre-investment period involves its planning, and we will consider it in detail. The stage of realization of pre-investment design consists of the following:

- 1. Finding opportunities to conduct project research;
- 2. Preliminary selection of the project, preliminary technical and economic studies;
- 3. Project description stage (TIT);
- 4. To evaluate the project and make a decision to implement the investment.

Thus, the first stage shows the feasibility of the project and the appropriateness of its financing [15]. The information will be reviewed again to conduct feasibility studies and make specific project decisions based on them. This work takes a lot of time and money. It is necessary to consider preliminary technical and economic studies, making investment decisions of projects as an intermediate stage. At the last stage, all parameters of the scientific engineering project are adjusted in order to achieve cost effectiveness. As mentioned above, the profitability of the project will ultimately depend on the investment composition and production costs and the project implementation schedule. The initial data for the economic evaluation of the investment project are approximate. It should be noted that there is no ready-made formula for the calculation of investment

and production costs. In order to understand the structure of the project, it is necessary to calculate the amount of investment and production costs, and divide the project by departments into production buildings, warehouses, administrative buildings, auxiliary facilities (water, gas, electricity supply networks). In this case, the amount of necessary investment and production costs is predicted and reflected in the business plan. When the information related to the results and costs of the future implementation of the project is not sufficiently clear, the amount of funds spent on the financing and production of the projects will be reviewed and accepted. Projects with minimum cost and high efficiency are considered positive.

Taking into account the above, the methodological basis of the research is the general scientific principles of the systematic approach; methods of analysis - logical, factorial, comparative, strategic, management, etc.; economic-mathematical and organizational-structural modeling methods, quantitative and qualitative research of the main trends and trends in the formation and development of the service sector, network and digital infrastructures, industrial (in the service sector) management, etc

Methods

In this article, comparative analysis and induction and deduction evaluation methods were used. Using the comparative method, developing proposals and practical recommendations on the use of information and communication technologies in the financing of innovative projects in enterprises based on the information of the Statistics Committee of the Republic of Uzbekistan and the Ministry of Innovative Development of the Republic of Uzbekistan.

Result and Discussion

It is necessary to expand the practice of tender placement of budget funds for the implementation of innovative projects presented by state joint-stock companies. Improvement of the mechanism of creation of non-budgetary resources for the implementation of projects and their effective use. First of all, this applies to extra-budgetary funds for the support of ITTKI, part of which is used to support international patents used in innovative projects, and to finance national and foreign patenting.

In the past, the role of the state in the innovation process was to create an innovation environment and sponsor basic science and new developments. In the modern world, the pace of changes is increasing and the role of the state is becoming more important. This can accelerate the pace of development of individual sectors, encourage cross-sector cooperation and help overcome barriers to innovation (legislative and infrastructural).

1. The state as a customer of innovations

The first success factor for innovation is the demand for new technologies and products. The state order for innovations is to stimulate innovative activities of higher educational institutions, research institutes and companies.

For example, important elements of smartphones, such as touch screens and Internet access, were originally ordered by the US Department of Defense, while Tesla's solar panels and battery technologies were funded by grants from the US Department of Energy.

An example of such an innovation in Russia is the GLONASS navigation system, which was created for military purposes on the basis of a state order and put into use for civilian purposes in 1995. It is currently used in navigation devices, radar detectors and other systems.

2. As a creator of state infrastructure, Russia has created infrastructure for the development of innovations with state support, but qualitative development in their development and business activity has not yet occurred.

in Russia push made up innovator development institutions successful works:

- 1. Funding of fundamental or applied research Russian Science Foundation (RFF), Russian Foundation for Fundamental Research (RFTJ);
 - 2. Innovation to companies service show for technological parks, incubators and another

institutions - Skolkovo, Mosgormash technopark and others;

Institutions developing cooperation between science and industry are poorly developed in Russia. Now these functions, Keynesian analysts write, take over technology platforms, but industry leaders do not often participate in them.

3. The state as a source of financing. The state selectively sponsors fundamental and applied research or potential research in priority areas. That is, we will finance not only issues of national security and defense complex, but also research beyond these topics.

The state played an important role in the formation of the innovation financing system, including the venture financing market.

In the future, it will be necessary to change the attitude towards innovation financing and accelerate venture financing, because a small part of innovative projects can end up with great success. Reducing the level of bureaucracy in granting grants can simplify the process of attracting funds for the development of innovations.

4. Creation of state and new powers. According to McKinsey forecasts, between 10 million and 800 million jobs worldwide could be automated by 2030. Therefore, the most important task in the near future will be to create a professional retraining system and give employees the opportunity to acquire new skills that are required in the market throughout their career. Businesses can organize on-the-job training and provide opportunities for employees to improve their skills. But the main role in this process will be in the hands of the state.

Who is responsible for training IT professionals? The state encourages research and development of skills in the private sector, engages in foreign technology transfer and attracts foreign companies with advanced technologies to the national market. The next steps for Uzbekistan may be the development of new competencies in the country and the training of specialists in innovative professions in leading companies and the launch of an internship program.

5. State and innovation culture. The state plays an important role in the development of the culture of entrepreneurship and innovation by implementing educational programs, supporting the mentoring system, establishing and supporting development agencies and institutions, as well as encouraging national innovative entrepreneurship.

Table 1
Sources of funding for innovative projects
Billion sources

No	Funding sources	2016	2017	2018	2019	2020
1	Own funds	213.4	2501.5	1381.5	1251.8	1180.0
2	Foreign funds	39.9	1228.7	32.3	156.6	314.9
3	Bank loans	26.8	533.5	262.5	280.1	157.3
4	Other sources	31.7	370.6	2081.0	3839.7	919.1

It can be seen from Table 1 that financing of innovative projects from own funds is increasing year by year. That is, if the situation in 2016 was 213.4 billion soums, by 2020 this indicator will be 1180.0 amounted to billion sums. It is observed that the share of foreign funds in the structure of financing sources is increasing year by year, that is, in 2016 it was 39.9 billion soums, and by 2020 it has increased to 314.9 billion soums. In 2017, the amount of bank loans amounted to 533.5 billion soums, and by 2020, it can be seen that its amount has decreased. We can see that the weight of other sources is increasing year by year.

The peculiarity of the modern era is that the formation of a multi-system economy determines the urgency of the problem of creating an effective mechanism for managing innovative activities in enterprises. The way out of the crisis situation of enterprises can be ensured by developing new products that meet market requirements based on the development of innovative activities. The most important component of the sustainable development of new Uzbekistan is the formation of the

necessary conditions for the realization of the intellectual potential of the society.

There are many problems that hinder innovative development in Uzbekistan.

1. Acute shortage of skilled workforce, quality and coverage of higher education leaves much to be desired. The scientific potential of each country is determined by the number of scientists. According to 2018 statistics, we have 476 scientists per 1 million people. The average in the world is 1478. In Israel, this indicator is 8342, in the Republic of Korea 7498, in the USA 4245, in Russia 2822.

In Uzbekistan, there are not enough specialists with knowledge and skills in the organization and management of innovative activities. At the moment, there are no educational directions and educational institutions for modern personnel training to expand innovative entrepreneurship, to ensure the technological development of the economy and social networks. Staffing is limited to specialists who have worked for a certain period of time in foreign companies or specialists who have completed short-term training courses. This has a negative impact on both the process of creating innovations and their implementation.

2. The material and technical base of research and higher educational institutions is outdated physically and spiritually. In order to eliminate this problem, 2 million 950 thousand dollars were allocated for the purchase of 40 types of modern equipment for scientific research institutions and scientific laboratories of higher education institutions.

Currently, most of the state bodies of our republic lack centralized databases, skilled personnel in the field of information-communication and Internet technologies, unified public catalogs and classifiers.

Today, Uzbekistan strives to create an efficient national innovation system that ensures the effective implementation of innovative activities of all participants of the innovation process. One of the priorities of the national development of the innovative system of Uzbekistan is the activation of the innovative activity of the entrepreneurial sector of the economy, which leads to the continuous technological improvement of production and the emergence of new sectors that require a lot of science.

Conclusion

In conclusion, it is worth saying that modern scientific and technological complexes, business incubators, start-up accelerators for the development and commercialization of innovative ideas, developments and technologies, including the involvement of leading global manufacturers, as well as support for the development of IT infrastructure; taking into account the needs and trends of long-term technological development, taking the initiative to develop and implement projects for the localization of modern high-tech production, including new generation vehicles, robotics and other types of high-tech products; it is desirable to develop effective mechanisms that allow the introduction of local innovative products, including those based on formalized international patents and licenses, to direct them to the domestic and world markets.

Unaggregated information is used for a more in-depth analysis of the project. That is, information on the components of investment and production costs should be shown in detail. In this case, it is necessary to pay attention to the schedule of the project, because its duration affects the effective implementation of the project. It should be noted that the results of these reports are of an evaluation nature and serve only as a tool for decision-making.

- In particular:
 - firstly, insufficient measures are being taken to actively involve foreign innovation and scientific centers, leading investment funds, technological agencies, technology parks and other interested entities to participate in the implementation of local innovative developments;
 - secondly, the level of demonstration of technologies that have been introduced and successfully used in production with the participation of state bodies and representatives of the private sector, free economic and small industrial zones remains low.

Thus, the basis of providing information for the calculation of the economic efficiency of investments is the financial and accounting accounts that make up the business plan units, and the information on the evaluation of innovation projects.

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