ENTREPRENEURSHIP INNOVATION MODEL FOR TELECOMMUNICATIONS ENTERPRISES

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ABSTRACT

The entrepreneurship innovation model of functioning of the info communication technologies enterprises is offered where all structures should be directed to the consumer and act in the direction of achieving the highest degree of satisfaction of its needs. At the same time, the following tasks are solved: ensuring the organizational effectiveness of applying sources of financing for innovation and enhancing the competitiveness of the enterprise. The resources identification of the enterprise innovation activity is substantiated. It is a composition of its natural, labor, financial, informational, organizational, attracted, borrowed and other own sources, facilities and opportunities they providing when applied in the production process and the implementation of innovative or other activities.

Keywords: Entrepreneurship Innovation Model, Innovation, Information Communication Technologies (ICT), Internet Companies, Multiservice, Multimedia.

JEL Classifications: I2, F6

INTRODUCTION

The presence of enterprises of modern Information Communication Technologies (ICTs) extends access to electronic arrays, allows them to receive information and use it in economic activity, reduce the products cost, stimulate its demand and lead to the expansion of globalization caused by Internet appearance. Consequently, the national economy competitiveness depends on the development of enterprises in the ICT sector, because info communications provide the infrastructure of society, create conditions for solving problems that come out in the state's economy field. The new information resource begins to play a major role in the production systems of developed countries and in the socio-economic life of the states of all countries of the world at the same time.

REVIEW OF PREVIOUS STUDIES

The globalization of services intensified the struggle for a new re-division of telecommunications and raised the world closely to the stage of telecommunication imperialism. This imperialism puts forward new info communication challenges for operators laboring in the telecommunications market, namely:

- In the center of service generation the user becomes one who actually determines the operator's strategy and tactics (user dictate) (Landoni, 2017; Agarwal et al., 2017);

- The provision of these diverse services, (controversial in terms of their implementation), leads to the creation of unified service platforms that operate on the basis of different, but convertible technologies (Han et al., 2018; Gillespie & Goddard, 2017).
- Info communication is divided into two convergent layers: infrastructure and service, where the first one solves the technical tasks of the organization of communication channels with the given characteristics, and the second realize the given algorithms of information exchange between the objects of communication (Tetiana et al., 2018).
- The operator is compelled to develop new innovative services and offers (at the user request), that is carry out innovative activities (Gassmann et al., 2017).

It is expedient to determine that the impact of these challenges is stimulated by the steady market liberalization, the constant change in technology, the emergence of convergent solutions, the general instability of the market environment, the penetration of competitors from related markets and the objective aspirations of enterprises to globalization of business. Under these conditions, the existence of telecommunications enterprises with the applying of classical policy rules and the copying of known solutions, procedures and rules inherited from the past becomes hopeless.

METHODOLOGY

The methodological basis of the work consists of the theory of market relations; conceptual approaches to the effective development problems of the information society, the main provisions of effective innovation activities of enterprises. Let's us analyze the main methods that were used in the study. The study writing is based on the use of the economic and system analysis, when developing of theoretical and scientific and methodological issues justifying the effectiveness of the development of information infrastructure; terminological analysis-to clarify the terms that reveal the essence of resource support for innovation activities; the method of classification and technology-to systematize approaches to the interpretation of economic categories; philosophical and historical analysis-to study the innovation activity of enterprises within the framework of world scientific theories and through the prism of the historical world outlook.

RESULTS AND DISCUSSION

The global economy clearly demonstrates the objective need to introduce and stimulate the innovation activity of an enterprise as an underground for its survival in a global competitive environment. For domestic enterprises in the field of support services, the introduction of innovation is one of the conditions for their effective functioning today and the possibility of potential access to world markets. In this case, we are talking not only about technological or product innovations, which due to the lack of resource provision of activities are significant problems in the implementation, but also managerial, marketing and organizational innovations. This is the kind of innovation that can become not only an effective precondition for their sustainable development, but also the reason for building up all the components of innovation activity, which will ensure in the future a comprehensive innovative development of an enterprise in the support services area.

As known, there are additional types of service providers on the market: information providers, brokers, retailers, etc. The information provider refers information to the service provider for subscriber’s expansion. The broker provides information about service providers

and their potential subscribers assists users in search of suppliers that provide the necessary services.

The retailer acts as an intermediary between the subscriber and the supplier in order to adapt the service to the individual requirements of the subscriber (Hilorme et al., 2018).

It is worth noting that for info communication services there are such requirements as: mobility of services, the ability to flexibly and quickly create new services; guaranteed quality of services (Stoyanov, 2019).

Moreover, a process of convergence has a significant impact on the requirements for information and communication services, leading to the fact that services become available to users regardless of access methods.

Accordingly, considering on features of info communication services, following requirements may be defined for perspective communication networks:

- **Multiservic**e: It is understood that provision services technology is independent on transport technology.
- **Broadband**: It is an opportunity to change a transfer information speed in a wide range flexible and dynamic depending on the current user needs.

Multimedia is network ability to pass on multicomponent information (voice, data, video and audio) with all elements synchronization and using complex configuration of compounds;
Intellectuality is the ability to control the service, call and user connect or service provider.

Invariance of access is the possibility to organize an access to services regardless of the technology used.

Multi operational is a possibility of several operators' participation in the process of rendering services and division of their responsibilities in accordance with the field of activity.

It should be determined when forming requirements for forward-looking communication networks, it is necessary to consider the peculiarities of the service providers' activities. In particular, modern approaches to the regulation of interconnection services provide for access of service providers, including those that do not own their own infrastructure, to public network resources on a non-discriminatory basis. At the same time, the main requirements of service providers to the network environment include:

- Ensuring the operation of equipment in a *"multi-operator"* environment, that is, an increase the number of interfaces for connecting several telecom operators to the network at once, including at the access level.
- Ensuring the interaction of service provider nodes for their joint provision.
- The possibility of using "*large-scale*" technical solutions at the starting cost of equipment with minimal risk.

The demand for modern information and communication services, the quantity and quality of which is constantly growing and which are in demand by many consumers, has been maintained at a high level in recent years. This leads to the rapid development of information and communication services markets. The continuous expansion of the territorial coverage of the Internet across all continents and the rapid increase in the number of Internet users allows enterprises of this market to receive a profit, which provides production expancion, development and supply of new innovative services of the required quality.

Info communication services are a new economic reality. It is a product, a service and information. Info communication services have flexibility, mobility, guaranteed quality and fast updating of production and distribution technologies.

The modern telecommunications sector holds a special position in the country's economy, because it is most close to world standards by such criteria as growth rates, competitiveness of the services provided, the level of development of the scientific and technical base, and professional management. All this makes it possible to assume that the telecommunications sector could well become a strategic factor in increasing the overall competitiveness of the economy on the world market.

At the present stage of development of scientific and technical progress, the increasing instability of the external business environment and the deepening of the globalization, the approach to the essence and content of innovative internal corporate processes is changing dramatically. Two fundamentally new approaches and principles for the implementation of the innovation activities of enterprises are clearly traced: the complexity and continuity of the processes.

The trends of modern restructuring of innovation activities include:

- Enhancing the decentralization of innovation management. Top management reserves the function of long-term planning of innovation activities of the enterprise, and the operational management of innovations is delegated to the lower level of management.
- Active cooperation of business structures with universities and research institutes, the purpose of which is to optimize the using of the results of basic research and create a base for effective research of an applied nature.
- The creation of venture capital funds and the promotion of venture business within the enterprise. Numerous venture capital divisions are often the engine of global innovation and justify high risk and capital intensity.
- Integration of marketing and planning departments into unified strategic innovation management centers; transition to organizational structures using matrix systems for organizing work on the development and implementation of innovation activities.

Table 1 shows the classification of economic entities for the provision of telecommunication services in accordance with the criteria for assessing the degree of risk from the conduct of economic activity.

Table 1
THE CLASSIFICATION OF CRITERIA FOR ASSESSMENT OF THE DEGREE OF RISK OF CONDUCTION OF BUSINESS ACTIVITIES OF ECONOMIC ENTITIES IN THE FIELD OF TELECOMMUNICATIONS AND USE OF RADIO FREQUENCY RESOURCE OF UKRAINE

Risk degree	**Criteria**			**Planned measures of state control of the current legislation on PTG**
	Number of types of activities in the field of telecommunication services	**Regions of Ukraine where the operator carries out its activities, %**	**Regions of Ukraine, which use the radioelectronic means, %**	
High	14	$\geq 50\%$ $\leq 50\%$	$\geq 50\%$	Not often than once a year
Medium	4-13	$\leq 50\%$	$\leq 50\%$	Not often than once every three years
Insignificant	< 4	Several settlements	Several settlements	Not often than once every five years

The first group includes all operators whose activities have been analyzed in detail in this section. Today, the top ten countries with the most developed communication and

telecommunication systems that meet international standards include South Korea, Denmark, Iceland, Great Britain, Sweden, Luxembourg, Switzerland, the Netherlands, Hong Kong and Norway. Ukraine in this ranking, as of 2018, ranks 79th, is yielding not only to industrialized countries, but also to many developing countries.

Telecommunication enterprises are characterized by unified standards of communication services, uniform technological requirements for telecommunication equipment, a high degree of dependence on the state, and the maximization of the economies of scale. All these factors determine the commonality of the main directions of innovation activities of these enterprises. It should be noted a wide variety of subjects included in the telecommunications industry, these are companies that provide services and technologies for the transmission of information, as well as enterprises that manufacture and maintain equipment for this process.

The directions of innovation activity of enterprises of information and communication technologies are determined by the following features:

Telecommunication enterprises supply an unique product to the market that combines material production (equipment), services (communication providers). Thus, the enterprises of information and communication technologies operate in several sectors of the economy at once; innovation activity in the telecommunications sector is continuous through the high knowledge-intensiveness of products, when the emergence of another innovation requires the transition of the entire industry to a new technology, which, generates a new round of innovation;

The potential target market of enterprises of information and communication technologies is the majority of the population, and the degree of its coverage depends only on the time factor and new technical capabilities (that is, ensuring actual access to markets);

Due to the technical characteristics of information and communication technology products, it is almost impossible and unprofitable to act only within national frameworks.

A survey of western companies of this profile shows that all of them are international by the nature of their activities. Telecommunication enterprises have significantly greater financial opportunities for their innovation activities due to the proposed organizational form of the system of formation of sources. The strategic goal is the need to gain technological superiority, through intensive funding.

The results of our study are confirmed by the following studies. The operator is compelled to develop new innovative services and offers (at the user request), that is carry out innovative activities (Gassmann et al., 2017; Carberry et al., 2017; Tetiana et al., 2018).

CONCLUSION

Telecommunications enterprises in the modern sense are associated with the commercialization of such a primary technological innovation, such as the Internet. Being the newest result of NTP (scientific and technological progress), the Internet contributed not only to the emergence of new Internet companies and the reorientation of old communications enterprises and manufacturers of electrical equipment, but also became the source of the next wave of innovations in the field of information transfer. The Internet has become an integral part of modern business infrastructure and actively influences the economic and social structure of society. Enterprises of traditional industries are forced to adapt to the new conditions of the telecommunications revolution, turning into a spacious potential target market for telecommunications enterprises. The highest growth rates of Internet commerce occur precisely at the expense of relations between various telecommunications enterprises in the logistics and sales field.

RECOMMENDATIONS

Based on the results of our study we recommend the following actions with regard to the improvement of the innovation activities of the telecommunication enterprises. At the same time, the main requirements of service providers to the network environment include: ensuring the operation of equipment in a *"multi-operator"* environment, that is, an increase the number of interfaces for connecting several telecom operators to the network at once, including at the access level; ensuring the interaction of service provider nodes for their joint provision; the possibility of using *"large-scale"* technical solutions at the starting cost of equipment with minimal risk. The demand for modern information and communication services, the quantity and quality of which is constantly growing and which are in demand by many consumers, has been maintained at a high level in recent years. This leads to the rapid development of information and communication services markets. The continuous expansion of the territorial coverage of the Internet across all continents and the rapid increase in the number of Internet users allows enterprises of this market to receive a profit, which provides production expancion, development and supply of new innovative services of the required quality.

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