

УДК 330.3

DOI: 10.31673/2415-8089.2023.0400505

Євтушенко Н.О.,*D.Sc. in Economics, Professor,***Рязанцев Р.О.,***PhD Student of the Management Department***Кравченко В.В.,***Master of the Management Department,**State University of Information and Communication Technologies*

СТРАТЕГІЧНИЙ ВЕКТОР В УПРАВЛІННІ ІННОВАЦІЙНИМ РОЗВИТКОМ ТЕЛЕКОМУНІКАЦІЙНИХ ПІДПРИЄМСТВ

У статті запропоновано комплексну методологію управління телекомунікаційними підприємствами відповідно до стратегії управління розвитком. У процесі дослідження проаналізовано стан сектору послуг на міжнародному ринку, до якого відноситься діяльність телекомунікаційних підприємств. Проаналізовано динаміку розвитку сфери послуг у таких країнах як Америка, Японія, Китай та Україна за показником динаміки абонентів мобільного зв'язку. Встановлено, що у всіх країнах був свій індивідуальний шлях розвитку. Розроблено етапи стратегічного управління інноваційним розвитком телекомунікаційного підприємства. Стратегічний вектор інноваційного розвитку цих підприємств рекомендовано розуміти як комплекс заходів щодо розробки, впровадження, освоєння, виробництва, комерціалізації та аналізу ефективності інноваційних рішень.

***Ключові слова:** інновації, управління, розвиток, стратегія, телекомунікаційне підприємство.*

Formulation of the problem. In modern economic realities, telecommunications enterprises, which classified as services, faced with the need to increase production efficiency and competitiveness of services through the introduction of scientific and technological progress, the implementation of effective forms of management and production management. It becomes obvious that the introduction of innovation is a necessary factor in the development of the effective operation of a telecommunications enterprise, since implemented innovative solutions become a competitive advantage, without the use of which it is impossible to create a competitive service today.

Therefore, managing the innovative activities of telecommunications enterprises and its further development in a strategic perspective requires a qualitatively new approach, which provides not only for single acts of introducing innovations into a particular business process. The main thing in managing the innovative development of a communications services enterprise is the construction of a strategically oriented management system for the development, implementation, development, production, commercialization and analysis of the effectiveness of innovations.

The service sector in which telecommunications companies operate is becoming increasingly important in the global and domestic economy. This actualizes the need to conduct serious scientific work to study the methodological aspects of managing the innovative development of telecommunications enterprises.

Analysis of the latest research and publications. Nowadays, the world economic literature has accumulated significant and multifaceted experience in developing approaches to improving the methodology for managing innovative projects and innovation processes at enterprises of various forms of ownership. The problems of managing innovative projects, processes and potential are

covered in the works of many domestic scientists, such as V. Alexandrova, T. Vasilyeva, E. Galushko, G. Gromyko, O. Gudz, N. Davletbaeva, N. Yevtushenko, S. Ilyashenko, S. Zinchenko, N. Krasnokutskaya, T. Kuzenko, L. Lazorenko, T. O. Lapko, L. Fedulova, L. Shulgina, and others.

However, the experience of organizing innovative activities of telecommunications enterprises indicates the need to develop a comprehensive methodology for improving the management of innovation processes, taking into account the strategic vector of development.

The purpose of the article is to develop a strategically oriented system for managing the innovative development of telecommunications enterprises, including a set of measures for the development, implementation, development, production, commercialization and analysis of the effectiveness of innovative solutions.

Contribution to the main material. The presence of competition that takes place in the global market explained by not only the struggle for resources, but also by structural changes in consumer demand and labor productivity in such major sectors of the economy as industrial, agriculture and services. In different economic periods, the positions of these sectors were different.

Technological progress and rapid innovation have caused employment in agriculture and industry to decline in line with increased productivity and job losses. The service sector is slowly replacing the industrial sector as the leading sector of the economy.

Today, the service sector is a set of activities aimed at the production and sale of services to the population. The object of economic impact of the service sector is not raw materials and forces of nature, but various aspects of social life. Therefore, the service sector is the basis of the country's socio-economic growth.

Services differ from products in a number of important ways, and these differences often pose challenges when developing innovation initiatives. When planning innovative activities in the service sector at any level, one should consider four important features of services that leave an imprint on innovation management: intangibility, creation of a service at the time of its provision, variability, non-storability [1].

The services sector, being the largest and fastest growing sector in the world, contributes more to global output and employs more people than other sectors. By the mid-1990s, the global service sector was driving growth and improving the competitiveness of countries. During this period, services accounted for almost two-thirds of global GDP. At the end of the 20th century, the service sector formed about 50% of GDP in developed countries (USA, UK, Germany, etc.), currently this figure is approaching 75% [2].

In 2022, the average indicator of the service sector in the world market as a percentage of GDP was 53,77%. Its highest value is 79,4% (Bahamas), the lowest is 6,45% (Sudan). Ukraine accounts for 60,77% of the service sector as part of other sectors. A graphical representation of the indicators of part of the service sector in 2022 for a number of countries on the world market shown in Fig. 1.

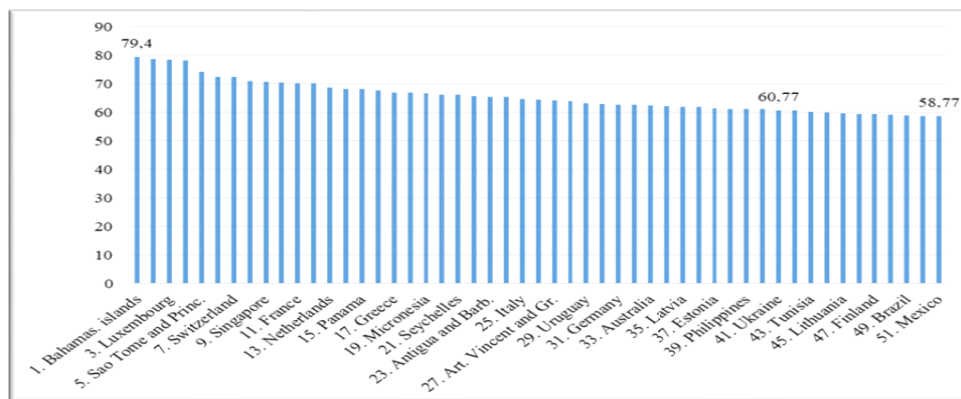


Fig. 1. Indicators of the service sector by country on the world market in 2022
Побудовано за джерелом [3]

According to studies, the growth of part of the services sector in the global market continues. Among the industries that provide large volumes of services and actively influence the level of socio-economic development of the country: hotel business, transport services and communication services. A key role in this process played by information technologies and services based on them, railway and road transport services, as well as the rapid development of mobile communications.

Let us analyze the dynamics of development of the service sector in the international communications market in countries such as America, Japan, China and Ukraine based on the dynamics of mobile subscribers per 100 people for the period 2000-2021 (Fig. 2).

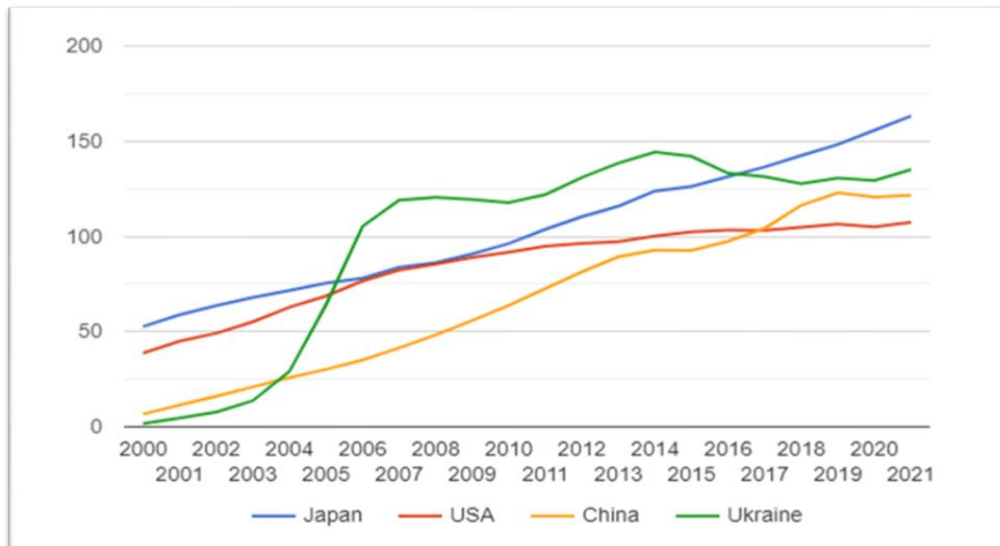


Fig. 2. Dynamics of mobile subscribers per 100 people for the period 2000-2021
Побудовано за джерелом [4]

The results established that during 2000-2021, positive dynamics of mobile subscribers observed in all countries studied. However, the service sector in America, Japan, China and Ukraine has its own individual development path. Thus, in Japan and China, in the context of the established “service economy,” there is a stable development of telecommunications, which is characterized by the emergence of new types of services of good quality. The result of this development is increased public demand for service products. In America, this service sector is not as developed as compared to Japan and China, which explained by the progressive increase in mobile subscribers.

As for Ukraine, during the analyzed period the dynamics of mobile subscribers showed rapid, but not stable growth. This is primarily due to the fact that since 2005 Ukraine has become a convenient place for the development of IT companies with international capital that provide fairly cheap IT services. During the period 2017-2022 alone, the number of active IT companies in Ukraine increased by 187 thousand. Companies.

Telecommunications enterprises both in Ukraine and around the world produce their own unique product - communication services. Such a service cannot be tested before purchase (as in the case of tangible goods), it is produced and consumed at the same time, its quality varies from one service to another within the same service category, and it cannot be stored. During the process of applying for communication services, there is close interaction with clients, the result of which is a guaranteed income.

For telecommunications enterprises, innovation and innovative development have a destructive force to ensure their economic independence and prevent a break with developed powers based on the principle of “outgrowing” don’t catch up.” So, not literally follow the path that others have already gone through, having won a position in the light market, but go, without a doubt, in the mainstream of the light development. Let us go our own way, exploring and realizing our potential advantages and occupying leading positions in the telecommunications industry [5].

Consequently, innovations in the activities of a telecommunications enterprise may concern not only the composition of the service itself, but also the method of its provision and promotion. That is, it becomes important not only “what” is currently being offered, but also “how” it is being offered. Also, the provision of services by telecommunications enterprises involves innovation primarily in processes, rather than in objects.

According to N. Davletbaeva, it is advisable to take into account the factors influencing the formation of innovations in business processes in accordance with the main types of innovation activities, in particular [6]:

1) product - the process of updating a service and ways of selling it, expanding market share, maintaining clientele, increasing prestige, creating new jobs, etc.;

2) technological – the process of updating production potential, increasing labor productivity and saving resources;

3) social – the process of systematic improvement of the social sphere, all structural levels of the enterprise as a whole.

We believe that innovation directly depends on the knowledge and abilities of the subjects of the innovation process, aimed at socio-cultural transformations of the telecommunications enterprise. The decision-making process for introducing a particular innovation into the activities of a telecommunications enterprise does not occur chaotically, but takes into account its management structure, the level of competence of managers and employees.

Making decisions regarding innovation and its implementation in an organization, in essence, means information-search and information-subject activity, the implementation of which pushes the individual to the desire to reduce uncertainty regarding the priorities and disadvantages of certain advantages and disadvantages of innovation [7].

We agree with the opinion of I. Kravchenko that new technologies require a fundamental change in human behavior and serious training. This contributes to the connection of information, innovation and cultural management and requires the spread of diffusion of innovations, based on the development of labor potential [8].

Based on the foregoing, we believe that the process of development, implementation, development, production, and commercialization of innovations in the activities of a telecommunications enterprise represents a set of decisions and actions on the part of management at each level of management. In our opinion, innovations that are associated with the introduction of information technologies into the activities of telecommunications enterprises will indicate an increase in the level of intelligence of the enterprise and its culture. All these processes will influence the formation of a management model for the innovative development of a telecommunications enterprise, and the development of effective innovative solutions.

Strategic management of the innovative activities of a telecommunications enterprise based on comprehensive planning of all business processes, from the production of a competitive service using efficient production technologies and equipment, to the development of an innovative strategy for promoting the service to the market.

The stages of the strategy for innovative development of a telecommunications enterprise presented in Fig. 3.

The first stage of strategy development is the formation of principles and strategic goals for the innovative development of a telecommunications enterprise. At this stage, management decisions made on the following issues:

technological choice (the effectiveness of technologies is assessed in terms of the possibility of creating a service with improved characteristics and low cost);

implementation of technology (licenses from individual inventors);

time of release of innovative products (taking into account risks: innovative, financial, operational, personnel, management, non-acceptance of services);

volume of investments in technology;

depth of theoretical processing (technology development through fundamental and applied research).

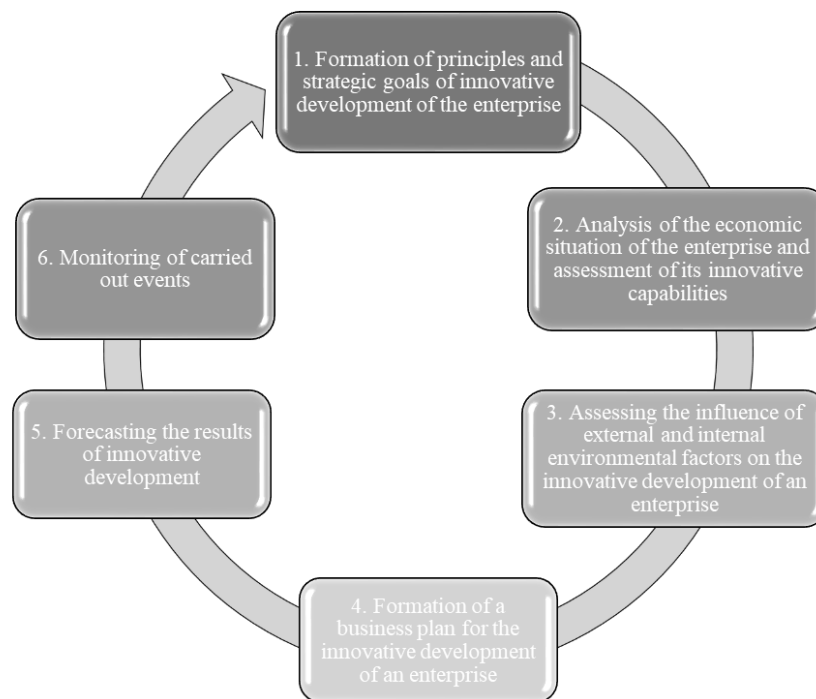


Fig. 3. Stages of the strategy for innovative development of a telecommunications enterprise (developed by the authors)

At the second stage, the economic situation of the telecommunications enterprise analyzed and its innovative capabilities assessed. An important component of this stage is the selection of criteria for operational efficiency and the enterprise's readiness for innovation. The main indicators for assessing the economic and financial condition of an enterprise are the profitability of the enterprise's assets; liquidity ratios characterizing the solvency of the company; the rate of economic growth of the enterprise associated with the production activity of the enterprise, and the like.

Also at this stage, it is advisable to analyze the innovative potential of a telecommunications enterprise using indicators that formed into groups:

- 1) intellectual: technological documentation, number of patents received for inventions; utility model certificates; licenses; innovative projects and business plans;
- 2) material: advanced technologies, technological processes and equipment; experimental laboratories and computing centers;
- 3) financial: funds intended to finance the innovative activities of the enterprise (own, borrowed, attracted);
- 4) personnel: the number of specialists engaged in scientific research and development; the share of employees who initiate innovations;
- 5) infrastructural: the number of structural units engaged in innovation activities; composition and number of creative, proactive teams and groups engaged in innovation.

At the third stage, the level of influence of a complex of internal and external environmental factors on the innovative development of a telecommunications enterprise is determined. External (exogenous) factors include political, economic, legal, social, technological, international and environmental. Internal (endogenous) factors include organizational, managerial, resource, financial, personnel, scientific and technical factors. Using methods and models (SWOT analysis, PEST analysis, Boston Advisory Group Matrix, Shell matrix), it is possible to identify and carry out strategic analysis in order to comprehensively assess the external and internal environmental factors affecting the activities of a telecommunications enterprise, identify key success factors and adopt effective management decisions on choosing an innovative development strategy.

The fourth stage - the formation of a business plan for the innovative development of a telecommunications enterprise - involves the analysis of alternatives and the creation of a system of strategic and tactical plans for the telecommunications enterprise. This will allow you to effectively respond to technological threats and ensure a synergistic relationship between the innovation strategy and other functional strategies.

The fifth stage is forecasting the results of innovative development of a telecommunications enterprise. The content of this stage is to calculate the economic and financial performance indicators of the telecommunications enterprise, taking into account the implementation of planned activities.

The final stage is the implementation of the strategy for the innovative development of a telecommunications enterprise and monitoring of the activities carried out. During this stage, continuous systematic monitoring of the state of processes assumed in order to assess, control and forecast the results of the innovative development of a telecommunications enterprise. It is advisable for enterprise managers, including those at the functional level of management, to conduct: employee surveys, checking compliance with the innovation implementation schedule; monitoring the implementation of assigned tasks; assessment of satisfaction of service consumers, suppliers, financial institutions, potential investors.

The implementation of the stages of the innovative development strategy of a telecommunications enterprise will create favorable conditions for intensifying the processes of developing new products and improving existing services, which will allow the enterprise to enter the stage of sustainable high-quality growth, quickly adapt to market changes and strengthen its competitive position.

Concepts and propositions. Thus, in modern conditions of development of the domestic food industry, the determining factor in the sustainable economic growth of enterprises in the industry is their continuous innovative development, which involves the implementation of targeted and interconnected stages of implementing innovative solutions into the production, organizational and sales system of the company.

The choice of an innovative development strategy depends on the experience of the enterprise's innovative activities, the professionalism of managers responsible for making decisions on innovative development, consumers and the possibilities for the practical implementation of innovative projects. Therefore, to implement the goals of the innovation strategy, a specialized management apparatus needed that is capable of integrating and coordinating the activities of the functional and production departments of a food enterprise. It is also necessary to continuously monitor and diagnose the degree of compliance of the resource and intellectual potential of the enterprise in accordance with the constantly changing needs of the market.

Список використаних джерел

1. Євтушенко Н.О. Механізм консалтингової взаємодії підприємств на ринку телекомунікаційних послуг: монографія. Київ: SIC GROUP Україна, 2017. 535с.
2. Lawly Das, Rajesh Raut. Impact of Changes in Service Sector in India in Shaping the Future of Business & Society. *Procedia Economics and Finance*. 2014. #11, P. 795 – 803.
3. The World Bank. URL: https://www.theglobaleconomy.com/share_of_services
4. The International Telecommunication Union. URL: <https://economy.com/compare-countries>
5. Гудзь О.Є., Байрамов С. Інноваційна платформа розвитку підприємств ТК. *Економіка. Менеджмент. Бізнес*, 2016. №1 (15). С. 11-17.
6. Давлетбаева Н.Б Стратегическое управление инновационным развитием пищевых предприятий. *Науковий вісник Міжнародного гуманітарного університету*. 2015. Вип. 14. С.132-135. URL: http://nbuv.gov.ua/UJRN/Nvmgu_eim_2015_14_32
7. Синяєва Л. В., Олексенко Р. І., Плаксина І. М. Екологічні проблеми України та шляхи їх вирішення. *Вісник Сумського національного аграрного університету*. 2007. № 4. С.12- 15.

8. Кравченко І.М. Аналіз категорій трудовий потенціал в контексті категорій робоча сила, людський потенціал, людський капітал та трудові ресурси. *Гуманітарний вісник Запорізької державної інженерної академії*. 2012. Вип. 51. С.124-131.

REFERENCES

1. Yevtushenko N.O. (2017). *Mekhanizm konsal'tynhovoyi vzayemodiyi pidpryyemstv na rynku telekomunikatsiy nykh posluh: monohrafiya* [The mechanism of consulting interaction of enterprises in the market of telecommunication services: monograph]. Kyiv: SIC GROUP Ukrayina.
2. Lawly Das, Rajesh Raut. (2014). Impact of Changes in Service Sector in India in Shaping the Future of Business & Society [Vplyv zmin u sektori posluh v Indiyi na formuvannya maybutn'oho biznesu ta suspil'stva]. *Procedia Economics and Finance*, vol.11, pp. 795 – 803.
3. The World Bank. Retrieved from: https://www.theglobaleconomy.com/share_of_services (accessed 10 November 2023)
4. The International Telecommunication Union Retrieved from: <https://economy.com/compare-countries> (accessed 12 November 2023)
5. Hudz' O.YE., Bayramov S. (2016). Innovatsiy na platforma rozvytku pidpryyemstv TK [Innovative platform for the development of TC enterprises]. *Ekonomika. Menedzhment. Biznes*, vol. 1(15), pp. 11-17.
6. Davletbayeva N.B (2015). Strategicheskoye upravleniye innovatsionnym razvitiyem pishchevykh predpriyatiy [Strategic management of innovative development of food enterprises]. *Naukoviy visnik Mizhnarodnogo gumanitarnogo univ'ersitetu. - Scientific newsletter of the International Humanitarian University*, vol. 14, pp. 132-135. Retrieved from: http://nbuv.gov.ua/UJRN/Nvmgu_eim_2015_14_32 (accessed 11 November 2023)
7. Synyayeva L. V., Oleksenko R. I., Plaksina I. M. (2007). Ekolohichni problemy Ukrayiny ta shlyakhy yikh vyrishennya [Environmental problems of Ukraine and ways to solve them]. *Visnyk Sums'koho natsional'noho ahrarnoho universytetu. - Bulletin of the Sumy National Agrarian University*, vol.4, pp.12- 15.
8. Kravchenko I.M. (2012). Analiz katehoriy trudovyy potentsial v konteksti katehoriy robocha syly, lyuds'kyy potentsial, lyuds'kyy kapital ta trudovi resursy [Analysis of labor potential categories in the context of labor force, human potential, human capital and labor resources categories]. *Humanitarnyy visnyk Zaporiz'koyi derzhavnoyi inzhenernoyi akademiyi. - Humanitarian Bulletin of Zaporizhzhya State Engineering Academy*, vol.51, pp.124-131.

EVTUSHENKO NATALIA, RYAZANTSEV RUSLAN, KRAVCHENKO VLADIMIR. STRATEGIC VECTOR IN MANAGING INNOVATIVE DEVELOPMENT OF TELECOMMUNICATION ENTERPRISES. *The article proposes a comprehensive methodology for managing telecommunications enterprises in accordance with the development management strategy.*

The study analyzed the state of the service sector in the international market, which includes the activities of telecommunications enterprises. It revealed that the services sector is the fastest growing in the world and makes a greater contribution to global output in contrast to other sectors of the economy. It found that in 2022, the average indicator of the service sector in the world market as a percentage of GDP was more than 53%.

The dynamics of development of the service sector in the international communications market in countries such as America, Japan, China and Ukraine analyzed in terms of the dynamics of mobile subscribers per 100 people for the period 2000-2021. Based on the results, it established that during the analyzed period, positive dynamics of mobile subscribers observed in all countries and had an individual development path. Japan and China have a stable development of telecommunications, which characterized by the emergence of new types of high quality. As for

Ukraine, during the analyzed period the dynamics of mobile subscribers showed rapid, but not stable growth.

It revealed that innovation directly depends on the knowledge and abilities of the subjects of the innovation process, aimed at the sociocultural transformation of a telecommunications enterprise. The decision-making process for introducing a separate innovation into the activities of this enterprise does not take place chaotically, but takes into account its management structure, the level of competence of managers and employees.

The stages of strategic management of innovative development of a telecommunications enterprise developed. It recommended understanding the strategic vector of innovative development of these enterprises as a set of measures for the development, implementation, development, production, commercialization and analysis of the effectiveness of innovative solutions.

Key words: *innovation, management, development, strategy, telecommunications industry.*