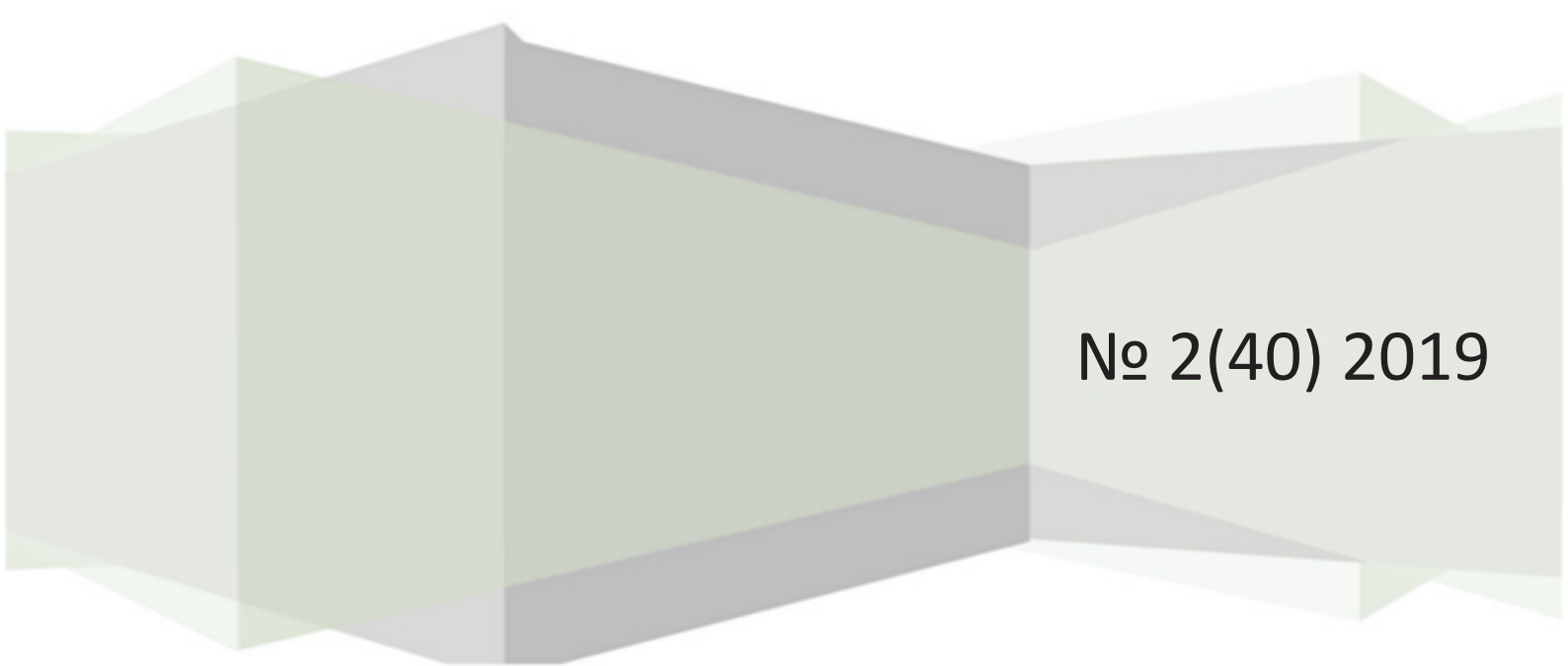


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UDK 330.1

The Analysis of China's Economic Development in the Context of Waves of Innovation

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Key words and phrases: innovative paradigm; China; Industry 4.0; economy; innovation; development; industry; energy dependence; overproduction.

Abstract: The article analyzes the development of China's economy in conditions of emerging waves of innovation. The transition to a new innovative paradigm using the experience of China is explored; the fundamental economic factors and prerequisites the transition of China to a new innovative paradigm are identified. Industrial overproduction and international competition have become some of the reasons for the development of the innovative paradigm in China, which ensured the transition from an agricultural model to an industrial model of development.

The current stage of development of human civilization is directly related to its transition to the sixth innovative paradigm. The pattern of this stage on a global scale is a deep, comprehensive integration of technologies and the expansion of the technological basis.

The sixth innovative paradigm determines dynamic competitive advantages in the development of companies by changing not only the production of a particular product, but also by creating fundamentally new consumer characteristics. It is predicted that "smart plants" will be less energy-consuming, and human labor will be replaced by robots and machines, which will significantly increase productivity, reduce the number of industrial accidents, etc. These factors are key drivers for the formation of the Fourth Industrial Revolution (or Industry 4.0). According to experts, in innovative countries in 20 years, almost 50 % of jobs will be fully automated [1].

In 2015, the Chinese government developed an innovative development program in the context of introducing Industry 4.0 – "Made in China 2025", and today, according to a study by Thomson Reuters, China is the undisputed innovation leader in sectors of Industry 4.0 such as the aerospace industry, manufacturing semiconductors, information and communication technologies, biotechnologies, pharmaceuticals (Table 1) [2].

In this context, given the rapid development of industry and the innovative paradigm in China over the past decades, which allowed it to occupy a leading position in the world, it seems appropriate to study the economic factors and determinants that stimulated this process in the country, which generally confirms the relevance, theoretical and practical significance of the chosen research topic.

Table 1. Chinese leading companies in the global market for Industry 4.0 technologies

Industry 4.0 technologies	Market Leaders	Market value of the company, billion US dollars	Annual income, billion US dollars
Cloud technologies	ZTE	6.49	15.83
	Huawei	1.5	60.84
Big data	Alibaba	233.45	19.16
	Baidu	56.85	10.88
	Tencent	240.36	21.17
Low cost robots	Siasun Robot & Automation Co Ltd	4.24	0.08
	Foshan Xinpeng Robotics Technology Co Ltd.	N/A	N/A

The article aims to analyze the features of the changing innovative paradigm in theoretical and applied aspects using the experience of China to determine their economic determinants.

The research has proved that at various stages of the life cycle of the innovative paradigm, the nature of the technical and economic development of business entities is changing. At the stage of the initial formation of a new innovative paradigm, there are a significant number of options for its basic technologies. However, the competition of enterprises that have applied alternative technologies leads to the selection of several most effective options [3].

The fulfillment of public inquiries minimized the need to modify products of basic industries, due to changes in consumer preferences, the need to reduce costs and improve product quality. With the expansion of the variety of manufactured goods and the “branching” of the reproductive contour of the new innovative paradigm, the specialization of production is growing [4].

Based on the foregoing, it is noteworthy that the transition from the agro-industrial model to the industrial-agrarian model has become the fundamental economic factor in the change of innovative paradigm in China over the past decades. Over the past 30 years, more than 250 million people have moved from the agricultural to the industrial sector, which created the prerequisites for increasing labor productivity by 23.4 %. At the same time, China's economy and production potential depended heavily on imports of foreign technology and foreign patents.

In these circumstances, the government set itself the objective to develop the economy on the basis of Chinese intellectual property, which in turn stimulated innovators, scientists, research institutes and organizations [5].

“Domestic innovation” allowed China to reduce its dependence on the export of low value-added products and switch to the production of high-tech products. Since the beginning of the 21st century the need for developing and supporting the national innovation sector has become the main component of the country's economic development policy, which is aimed at moving from a model of economic development based on labor and natural resources to a model based on innovative technologies.

A very significant economic impetus to the development and implementation of new technologies of Industry 4.0 was the struggle against the volatility of Chinese industries. The country annually imports 37.5 % of global coal supplies, 19.1 % of oil and 13.6 % of natural gas [4].

Also, at a certain stage in the development of the Chinese economy, the problem of

overproduction of industrial products, in particular cement, steel, and chemicals, became very acute. This led to a drop in sales, lower prices and a reduction in investment; in this regard, the government focused on overcoming the economic imbalance in the country.

For the establishment of a new innovative paradigm in China, government investments, the resources of educational centers and venture financing institutions have played a major role.

In a certain historical period, the Chinese economy exhausted the current paradigm of its development, which led to an active search for alternative sources of growth that stimulated the country's transition to a new innovative paradigm and its full involvement in the Fourth Industrial Revolution.

The withdrawal of the economic system of the country and society from crisis trends, which are also called "diseases of economic growth", has become a priority for the PRC government. Already today, the country is successfully implementing and moving towards the development of the sixth technological order. China continues to rebuild its development concept, embodying large-scale projects for the implementation of which significant investments have been attracted.

References

1. Zhang, Shangfeng. The effects of energy price, technology, and disaster shocks on China's Energy-Environment-Economy system / Shangfeng Zhang et al. // Journal of cleaner production. – 2019. – Vol. 207. – P. 204–213.

2. Hong, Jin. Technology Gap, Reverse Technology Spillover and Domestic Innovation Performance in Outward Foreign Direct Investment: Evidence from China / Jin Hong et al. // China & world economy. – 2019. – Vol. 27. – No. 2. – P. 1–23.

3. Singhal, Kalyan. Technology and Manufacturing in China before the Industrial Revolution and Glimpses of the Future / Kalyan Singhal, Jaya Singhal // Production and Operations Management. – 2019. – No. 28(3).

4. Zhao, Qiaozhi. Low-carbon economy transformation performance evaluation and spatial trends in China: a provincial aspect / Qiaozhi Zhao // Greenhouse gases: science and technology. – 2019. – Vol. 9. – No. 5. – P. 886–904.

5. Wang, Miao. Technological gap, scale economy, and China's industrial energy demand / Miao Wang // Journal of cleaner production. – 2019. – Vol. 236. – P. 12–22.

Анализ особенностей экономического развития Китая в контексте смены технологических укладов

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Ключевые слова и фразы: Индустрия 4.0; инновации; Китай; перепроизводство; промышленность; развитие; технологический уклад; экономика; энергозависимость.

Аннотация: Рассмотрены теоретические и прикладные аспекты становления экономики Китая в условиях смены инновационных технологических укладов. Проведен анализ особенностей смены технологических укладов с использованием опыта Китая, выделены

фундаментальные экономические факторы смены технологических укладов; выявлены предпосылки перехода Китая к новому технологическому укладу. Перепроизводство промышленной продукции и международная конкуренция стали причиной для смены технологического уклада в Китае, что обеспечило переход от аграрной к индустриальной модели развития.

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UDK 658

Approach to Management of Trade Enterprises Development

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Key words and phrases: trade enterprise; strategic management; value management; sustainable development; risk management.

Abstract: The article analyzes modern approaches to managing the development of trading enterprises and puts forward a proposal on the use of a convergent approach in order to build a competitive system of managing the trading enterprises development. It is assumed that the convergent approach in the activities of trading enterprises will allow them to achieve strategic goals. To do this, it is necessary to solve the following problems: to analyze the factors constraining the development of trade enterprises and approaches to the effective management of their development. Research methods: study and generalization, analysis and synthesis, comparison. In the course of the study, a convergent approach was proposed, which includes the principles and concepts of strategic management, value management, sustainable development and risk management.

At the moment, trade enterprises are in dire need of developing new strategies that make it possible to achieve planned economic growth and development in the future by increasing the level of competitiveness. The conditions for the activities of economic entities, the environment in which they exist, are currently undergoing dynamic transformation. This is due, on the one hand, to a change in the conditions of economic activity of domestic economic entities in connection with a change in the political and economic situation in the world, and, on the other hand, to a rather intensive change in economic processes within the country caused by various factors [1].

At present, despite significant management achievements, issues of economic development of trade enterprises in the face of uncertainty remain not fully worked out, namely, studies aimed at integrating sustainable development and cost-based management approaches as part of the development of effective strategies and systems for managing the development of trade enterprises [2].

Currently, there are two approaches to the definition of an enterprise [3; 4]: a traditional (classical) approach, in which technological and resource concepts are distinguished; an institutional approach, in which the contract (transactional, structural) concept and evolutionary concept are distinguished.

These concepts are not exclusive, do not contradict one another, but are designed to

Table 1. Description of the basic concepts of enterprise management.
Developed by the author based on [3]

Characteristic of the concept	Functional focus	Management object	Mentality	Managerial qualities	Attitude to the environment
Strategic management	Direction function	Goal management	From a successful future to the present	Creativity	Unity with the environment
Value Based Management	Cost function	Cost management	From present to a successful future	Profitability	Unity with the environment
Sustainable development	Time function	Balance management	From future to present	Balance	Mutual dependence of the environment and the environment
Risk management	Risk level function	Risk management	From past through present to future	Diligence	Environmental dependence

reflect one of the aspects of the enterprise. For the technological concept, the main driving factor (innovation) is technology, and the scope is the scale effect. For a resource concept, the leading factor is the uniqueness of resource combinations, and organizational abilities act as limitations. As part of the transactional approach, the leading development factor is monitoring mechanisms and innovations in information transfer processes. The limiting factor is the erosion of responsibility and property rights. In the evolutionary concept, the ability of an enterprise to create and introduce new technological and organizational innovations acts as a driving force for development. The limitations are a set of types of competencies within which the enterprise can create and introduce innovations [4].

The analysis of the content of the above concepts, from the point of view of providing opportunities for the development of the enterprise, showed that each of them has certain limitations that act as a ceiling for development. Achieving such restrictions in the process of growth and development can lead to a loss of competitiveness, a decrease in financial stability, solvency and further to bankruptcy of the enterprise.

In order to avoid the emergence of negative scenarios of enterprise development, it is necessary to develop a new development concept. Currently, such a concept can be based on a strategic approach, which is called the theory of strategic management. The essence of the strategic approach is to expand the system contour of enterprise management [3; 4]. The strategic approach is based on a new look at the enterprise as a twofold entity: on the one hand, the enterprise is seen as an object of management and an investment good that can bring the required income to the owners (creditors). On the other hand, the enterprise appears to be an active subject of the economy, capable of creating and introducing product, managerial, technological innovations and, based on these abilities, have a significant impact on market operating conditions. It is the recognition of the economic and social activity of the enterprise as a subject of relations that ensures the continued growth and development of the enterprise in

the future.

Consideration of the enterprise from the point of view of the economic essence duality, in turn, requires changes in the tools and management technologies. The following factors can be attributed to such changes that are being actively introduced into practice: transition to the concept of value management (**VBM**), taking into account the interests of stakeholders in the activities of the enterprise, recognition of the enterprise as an investment good [5].

Analysis of the development of trade enterprises in terms of a systematic approach allows us to identify a number of problematic issues that must be considered when managing the development of trade enterprises today: what are the activities of the enterprise, the object of management, mentality in the organization, the success of managers, interaction with the external environment, etc. (Table 1).

It should be noted once again that the development of the modern concept of the “enterprise” is due to the desire to solve the most important problem – the construction of an effective enterprise development management system [3]. Each of the concepts discussed above – strategic management, value management, sustainable development and risk management has its own ideology, principles and management processes, so the interweaving of specific procedures and tools of various concepts currently leads to a convergent approach, which, taking into account basic principles of various concepts, allows you to build a competitive system for managing the development of trade enterprises.

References

1. Delovoj klimat v realnom sektore i sfere uslug Rossii. – M. : NIU VSHE, 2018. – III kvartal. – 41 s.
2. Pirogova, O.E. Finansovyy outsorsing kak instrument povysheniya konkurentosposobnosti gostinichnogo predpriyatiya / O.E. Pirogova, A.N. Rudakova // Perspektivy nauki. – Tambov : TMBprint. – 2018. – № 9(108). – S. 179–182.
3. Pirogova, O.E. Kompleksnyj podkhod otsenki resursnogo potentsiala servisnogo predpriyatiya v usloviyakh globalizatsii / O.E. Pirogova, A.A. Grigoreva // Globalnyj nauchnyj potentsial. – SPb. : TMBprint. – 2018. – № 9(90). – S. 53–58.
4. Neznakhina, E.L. Upravlenie razvitiem predpriyatiya na osnove modeli zhiznennykh tsiklov : monografiya / E.L. Neznakhina, S.V. Ratafev, F.F. YUrlov. – N. Novgorod : Nizhegorodskij gos. tekhn. un-t, 2009. – 142 s.
5. Ivashkovskaya, I.V. Upravlenie stoimostyu kompanii: Vyzovy rossijskomu menedzhmentu / I.V. Ivashkovskaya // Rossijskij zhurnal menedzhmenta. – 2004. – № 4. – S. 113–132.

Подход к управлению развитием торговых предприятий

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Ключевые слова и фразы: предприятие торговли; риск-менеджмент; стоимостное управление; стратегический менеджмент; устойчивое развитие.

Аннотация: Данная статья включает анализ современных подходов к управлению развитием торговых предприятий и разработку предложения по использованию конвергентного подхода, который позволит выстраивать конкурентоспособную систему управления развитием торговых предприятий. В работе предложена гипотеза: применение конвергентного подхода в деятельности торговых предприятий позволит им достичь стратегических целей. Для этого необходимо решить следующие задачи: проанализировать факторы, сдерживающие развитие торговых предприятий, и подходы к эффективному управлению их развитием. Методы исследования: изучение и обобщение, анализ и синтез, сравнение. В ходе исследования был предложен конвергентный подход, который включает в себя принципы и концепции стратегического менеджмента, стоимостного управления, устойчивого развития и риск-менеджмента.

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UDK 33

Ways of Improving the Economic Potential of the Company

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Key words and phrases: enterprises; economic potential; energy management; cost of production; financial stability.

Abstract: The paper deals with the ways of raising the economic potential of the company. The economic potential of the company can be improved by three key mechanisms – reducing the cost of production, developing a system for managing energy costs and increasing the level of financial stability.

Any company in the process of its performance is faced with a large number of challenges. The main task of any company is to make a profit through the sale of goods and services, as a result of which economic and social needs are satisfied. The increased competition in the market requires enterprises to increase production efficiency and improve product competitiveness by modernizing manufacturing technologies. The most important aspect of the development strategy is to increase the economic potential of the enterprise, which is possible due to the following complex methods, described below in the article.

The first method of increasing the economic potential of the company is the process of reducing the cost of production, which is possible using the following measures [1; 2]:

- improving the technical level of production, which involves the use of innovative technologies, automation and robotization of production, the use of more economical types of resources or those that give a greater effect on the product quality system;
- improving the organization of production and labor, which involves the optimization of business processes, including logistics, the supply of raw materials, as well as the use of fixed assets and labor improvements using a scientific approach (ergonomics);
- changing the product portfolio of the enterprise due to the volume and structure of the goods, which implies a decrease in fixed costs, depreciation, or vice versa, implies an increase in the quality level of manufactured products;
- improving the use of natural resources of the enterprise, which involves changing the structure of raw materials, their suppliers, preparatory work on the ground, etc.;
- expanding the specialization and cooperation of production by selling small batches of products, the company often faces unprofitable activities. For this reason, it is more advisable to cooperate and produce similar products together with other competitors or to give them to contractors;
- reducing losses from defected products, which involves the analysis of the production

process, identifying the causes of product defects and eliminating them in order to increase the production quality system.

The second direction of increasing the economic potential of the environmental management enterprise will be the development of an energy management system, which consists of the following four blocks [3]:

- determining the reserves of the economy of energy costs, which, first of all, is possible due to energy audit;
- forming and applying energy-saving measures;
- implementing energy efficiency of the enterprise due to the energy management system;
- assessing the economic efficiency and monitoring the energy management system.

The most important tool for the development of the energy management system at environmental enterprises can be considered an energy audit. An energy audit of a business entity is carried out to identify sources of irrational energy costs and unjustified energy losses; determination of energy efficiency indicators; identify energy conservation potential; development of a targeted, comprehensive energy conservation program [4].

The most important tool for the development of the energy management system at environmental enterprises can be considered an energy audit. An energy audit of a business entity is carried out to identify sources of irrational energy costs and unjustified energy losses; determination of energy efficiency indicators; identify energy conservation potential; development of a targeted, comprehensive energy conservation program [4].

The last method of increasing the economic potential of the company is to increase the level of financial stability of the organization, which is possible due to the following measures [5]:

- development of a long-term strategic plan for the development of the enterprise and its divisions;
- business planning of new areas of the company, its new products or access to new markets;
- creation of a favorable credit history, which will facilitate loan facilitation with an increase in interest rates;
- implementation of measures for reforming (restructuring) in order to improve financial stability;
- strengthening of control and analysis of receivables, because due to instability of the ruble exchange rate, cases of non-sale of products by unreliable distributors have become more frequent;
- the introduction of factoring operations and the use of financial leasing instead of loans;
- creation of reserves for value-impaired debt.

Thus, in the course of the study it was found that the main methods for increasing the economic potential of an enterprise are reducing the cost of production, developing a system of managing energy costs and increasing financial stability.

References

1. Talamaj, M.A. Puti i rezervy snizheniya sebestoimosti / M.A. Talamaj, A.A. Rogozhenko, L.S. Fillatova // *Novaya nauka: problemy i perspektivy*. – 2016. – № 10.
2. Domysheva, M.V. Osnovnye napravleniya snizheniya urovnya sebestoimosti ot vyruchki / I.V. Domysheva // *Innovatsionnaya nauka*. – 2017. – № 5.
3. Meshcheryakova, T.S. Organizatsiya upravleniya energozatratami na predpriyatii / T.S. Meshcheryakova // *Energoberezhenie*. – 2015. – № 6. – S. 64–67.

4. Karpushova, S.E. Innovatsionnye podkhody k upravleniyu energozatratami / S.E. Karpushova, L.N. CHizho, V.A. Gets, V.A. CHEvanin, O.V. Maksimchuk, S.A. Alekhina // Regionalnaya ekonomika, investitsii, innovatsii, sotsialno-ekonomicheskoe razvitie: teoriya, metodologiya i kontseptsiya modernizatsii. – 2019. – S. 123–129.

5. Lavrenko, V.D. Investitsionnaya privlekatelnost i sposoby ee povysheniya / V.D. Lavrenko // Vestnik GUU. – 2014. – № 8.

Пути повышения экономического потенциала компании

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Ключевые слова и фразы: предприятия; стоимость продукции; управление энергией; финансовая стабильность; экономический потенциал.

Аннотация: В статье рассматриваются способы повышения экономического потенциала компании. Экономический потенциал компании можно улучшить с помощью трех ключевых механизмов: снижения себестоимости продукции, разработки системы управления затратами на электроэнергию и повышения уровня финансовой устойчивости.

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UDK 33

Methods of Analysis of Economic Potential of an Enterprise

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Key words and phrases: enterprise; economic potential; efficiency; development; resources; competition; capacity.

Abstract: The article discusses the essence of the economic potential of the enterprise, explores the methods of analysis of the company's economic potential and describes current approaches to its management for a more efficient use of the existing capacity.

Valuing the economic potential of an enterprise is an organized, focused process that determines the value of an object, taking into account the potential and real income over a certain period of time in a particular market.

The following agents are involved in valuing the potential of an enterprise (Fig. 1).

They want to realize their economic interests and determine the main objectives of the valuation, namely [5]:

- determining the value of the enterprise in case of its sale;
- improving the efficiency of its current management practices;
- restructuring the company and developing its strategic plan;
- measuring enterprise creditworthiness and its loan collateral value;
- signing an insurance agreement to determine the value of its insured assets;
- establishing the base;
- making informed managerial decisions (regarding minimizing the impact of inflation processes);
- implementing the investment project of business development.

Valuation of the enterprise's potential is based on the use of a number of indicators and standards (norms, standards), to achieve which the company becomes competitive.

Valuation of the economic potential of an enterprise's competitiveness takes into account at least the minimum of 5 economic standards, namely the efficient use of material and information resources, economic space, time, technology and profitability. Based on these standards, you can choose the appropriate scorecard to assess the potential of the enterprise.

1. Utilization rate (**UR**) is correlation between the enterprise profitability factor (**EPF**) and the enterprise resources factor (**ERF**):

$$UR = EPF / ERF.$$

There are resources that are currently being used and resources that are not used (backup

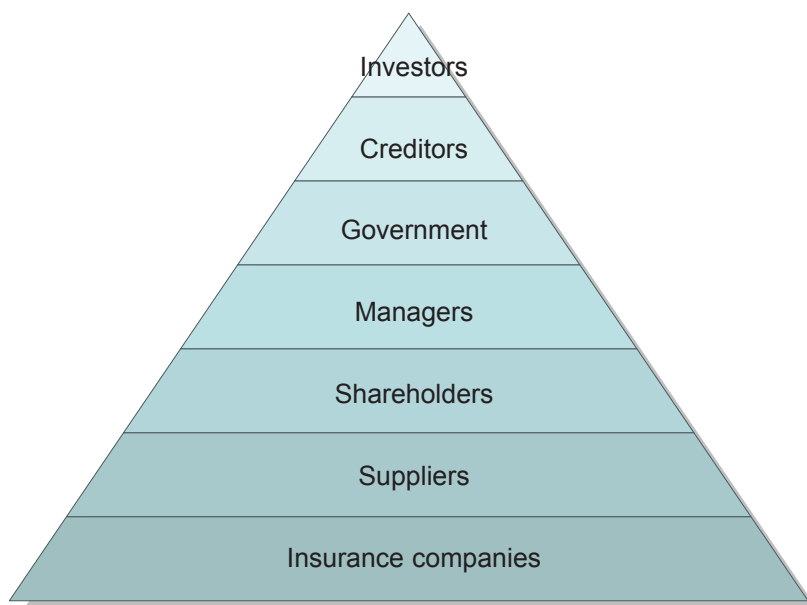


Fig. 1. Agents involved in assessing the potential of the enterprise

tasks, overtime raw materials, uninstalled equipment, insurance funds and risk funds).

2. The use of labor (**UL**) is the ratio of net profit (**NP**) and the enterprise overheads (**EO**):

$$UL = NP/EO.$$

The enterprise overheads are the average enterprise overheads determined by comparing the average annual cost of fixed assets and the average number of jobs.

3. Market capacity indicator (**MCI**) is the ratio of the enterprise balance profit (**EBP**) and the cost-effective product market capacity (**CEMC**):

$$MCI = EBP/CEMC.$$

The market capacity indicator is determined by the total cash supply of consumer demand for goods, minus the conditional part of demand, which is aimed at restoring the costs of production and sale of goods.

4. Profitability Index (**PI**) is the ratio of the enterprise gross income per employee, including the shareholders (**EGI**), and similar income received from the activities of the commercial sector (industry) as a whole in the national economy – industry gross income (**IGI**):

$$PI = EGI/IGI.$$

5. The general indicator of the level of fixed assets is the return on assets (**RoA**):

$$RoA = VMP/FA,$$

where VMP is the volume of marketable products; FA is fixed assets.

Along with the return on assets, the utilization factor of the active part of fixed assets, or only machinery and equipment, is also applied.

6. Labor productivity is one of the key indicators of the efficiency of using the labour resources.

Increased productivity means increased production per unit time.

In the analytical calculation of the level of productivity and reserves, its growth formula is as follows:

$$LE = WTF / LCPU,$$

where LE is labour efficiency (the number of product units per time unit; LCPU is labour coefficient per product unit; WTF is working time fund per employee.

As can be seen from the above the source of growth productivity is a more rational use of working time and a reduction in labor costs per product unit. Labor productivity (**LP**) is determined as follows:

$$LP = VMP / ANIW,$$

where VMP is volume of marketable products; ANIW is average number of industrial workers.

The method of valuing the constituent elements in the aggregate of elements relating to the potential of the enterprise during its formation can be determined by the formulas.

1. Assets potential (**AP**) is calculated by the formula:

$$AP = AFA / NE,$$

where AFA is the average annual value of fixed assets; NE is normative coefficient of capital investment efficiency.

2. The potential of working capital (**WC**) is calculated by the formula:

$$WC = M / C_m,$$

where M is annual volume of materials; C_m is the coefficient of product extraction from the resource mass calculated by the ratio of the value material resources used in production and the total value of material resources used by the enterprise.

3. The potential of technological personnel, the average labor costs (**ALC**) is calculated by the formula:

$$ALC = LP / (CLR / ILP),$$

where ALC is average labour costs; LP is labor productivity per worker; CLR is increase in capital-labor ratio per employee; ILP is increase in labour productivity per employee.

The value of the potential of technological personnel (**PTP**) is calculated by the formula:

$$PTP = A \times M \times ECI,$$

where ECI is the coefficient of the potential of technological personnel taken as a standard for the effectiveness of capital investments.

4. The value of production potential (**PP**) is calculated as the sum of its parts:

$$PP = WC + SP + WC + NP + PTP.$$

5. The volume of enterprise potential (**EP**) is an integral indicator.

These indicators are compared with standards or the actual performance of competitors, which allows a person to measure the potential enterprise of the competitiveness against the economic standards.

Summing up the above, it can be concluded that in order to increase the economic potential of an enterprise, it is necessary assess what factors affect its performance, because they influence profitability, business activity, monetary stability and liquidity.

References

1. ZHurova, L.I. Upravlenie razvitiem predpriyatiya na baze ekonomicheskogo potentsiala / L.I. ZHurova // Vestnik VUiT. – 2016. – № 1(30). – S. 131–135.
2. SHeshukova, T.G. Ekonomicheskij potentsial predpriyatiya: sushchnost, komponenty, struktura / T.G. SHeshukova, E.V. Kolesen // Vestnik PGU. Seriya: Ekonomika. – 2017. – № 4. – S. 5–12.
3. SHCHerbakov, V.N. Ekonomicheskij potentsial predpriyatiya kak obekt upravleniya / V.N. SHCHerbakov, A.V. Vishtunts // Problemy ekonomiki i yuridicheskoy praktiki. – 2018. – № 5. – S. 91–96.
4. YAn, L. Otsenka ekonomicheskogo potentsiala predpriyatij / L. YAn // Izvestiya BGU. – 2016. – № 3. – S. 24–28.
5. Petrova, E.E. Svyaz investitsij i innovatsij s prirodookhrannoj deyatel'nostyu / E.E. Petrova // Perspektivy nauki. Materialy VI mezhdunarodnoj nauchno-prakticheskoy konferentsii «Perspektivy i tempy nauchnogo razvitiya». – Tambov : TMBprint. – 2016. – № 12(87). – S. 131–134.
6. Petrova, E.E. Vnedrenie printsipov okhrany okruzhayushchej sredy v khozyajstvennyuyu deyatel'nost predpriyatij RF na sovremennom etape / E.E. Petrova // Globalnyj nauchnyj potentsial. Materialy IX mezhdunarodnoj nauchno-prakticheskoy konferentsii «Rol nauki v razvitiie obshchestva (perspektivnye tekhnologii, nauki o zhizni)». – SPb. : TMBprint. – 2017. – № 10(79). – S. 159–162.
7. Voronkova, O.V. Nekotorye voprosy sovershenstvovaniya nalogovoj sistemy RF / O.V. Voronkova // Nauka i biznes: puti razvitiya. – M. : TMBprint. – 2018. – № 3(81). – S. 142–145.
8. Abdukarimov, I.T. Analiz khozyajstvennoj deyatel'nosti / I.T. Abdukarimov. – M. : Ekonomika, 2016.
9. Abryutina, M.S. Analiz finansovo-ekonomicheskoy deyatel'nosti predpriyatiya : uchebno-prakt. posobie / M.S. Abryutina, A.V. Grachev. – M. : Delo i servis, 2016.

Методы анализа экономического потенциала предприятия

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Ключевые слова и фразы: конкуренты; предприятие; развитие; ресурсы; способность; экономический потенциал; эффективность.

Аннотация: В данной статье автор раскрывает сущность экономического потенциала предприятия и методы анализа экономического потенциала предприятия, а также описывает современные подходы к его управлению, которые позволяют более эффективно использовать имеющийся потенциал.

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The Role of Territorial Branding in the Development of Russian Regions

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Key words and phrases: territorial branding; the regions of the Russian Federation; development.

Abstract: The article presents an approach to regional development in Russia through the concept of territorial branding. The stages of formation and ways of promoting the brand of territories are highlighted. Examples of successful development of brands of several Russian regions are given.

The huge territory of Russia has an unconditional impact on its economic development. The development of regions determines the dynamics of socio-economic indicators of the country. In the last five years, work has been carried out to reduce the gap between the subjects of the Russian Federation. Regions that demonstrate positive development dynamics receive additional encouragement from the Federal budget. In addition, independent work is being carried out to attract investment to each individual region [1]. Many Russian regions are already engaged in the formation of their own brands. Thus, their positioning as independent territorial units, and as part of the country is allowed. It is important to note that the high-quality level of regional brands allows the development of a full-fledged national development strategy of Russia. The brand of the territory is an indicator of the promotion of national and regional foreign economic and political interests. As well as a key competitive resource in the formation of business relationships. It is formed based on opinions, emotional preferences and bright image [2].

It was S. Anholt, adviser on building the image of states, who spoke about branding of territories for the first time. He considered that public entities can be equated with trademarks, and proposed parameters for assessing the brand. These include tourism, exports, people, culture and heritage, foreign and domestic policy, investment and migration. The basis for the creation of branding places is the identity of the territory, that is, its key features that can manipulate the minds of residents, citizens and foreign guests. Identity can influence certain economic conditions and activities of the region, such as attracting investment, tourists, reliability to investors, increasing political, national and international influence, partnership, the effect of "place of origin" of goods and services, the pride of residents. For the region's brand to remain popular and relevant for a long time, the region must consider the needs of all stakeholders. Branding of territories is a complex multifunctional complex of actions, considering a set of different factors. The main stages of formation and development of the brand [3]:

- 1) definition of territory as a commodity;
- 2) setting goals and objectives;
- 3) the selection of target groups;

- 4) research and analytic;
- 5) development platform and development strategy;
- 6) creating a visual identity;
- 7) image formation;
- 8) selection of promotion channels;
- 9) efficiency evaluation.

The territorial brand is a basic resource for the development of the region. The main factors determining the comfort of living, working and leisure in the territory are geographical location and climatic conditions; availability of natural resources; level of socio-economic development; culture and traditions; political stability. Understanding the needs of the main target groups (residents, investors, business, tourists) is a crucial step in developing a territorial brand. Research of perception of the territory by target audiences is the most important stage allowing to estimate strengths and weaknesses, to allocate competitive advantages, to define key features which can be used in further development. The information base of the study can be made up of various ratings of regions on key indicators, media materials, cultural products, official information of authorities and public organizations, legal acts, historical documents. The result of the study is an array of data that contains characteristics of the region and its population, visual images, data on objects related to the territory (settlements, natural objects, cultural objects). The peculiarity of territorial brand promotion: it can be integrated into the infrastructure of the region and work with the space, using it as an object of implementation and a channel of information transfer to target groups. There are various ways to reflect the territorial brand and its main visual elements in the environment of the territory. A brand can be embedded in a region's infrastructure in the following ways:

- by embedding in landscape design (use of visual elements in the design of Park areas, embankments, green areas);
- the creation of architectural projects;
- through thematic zoning (division of the territory into zones focused on target audiences- tourist zone, business area, residential area) [4].

Visual elements of the territorial brand can be used in the design of transport infrastructure, in the design in the same style of city signs and signage. The most effective currently is online brand promotion on the Internet by creating a website, blog, accounts in social networks, conducting video broadcasts. The use of standard communication channels (advertising) allows you to influence many people. The following advertising communication channels can be used to promote a territorial brand [5]:

- conventional advertising (TV, radio, print, outdoor) can be used to promote the territory as a tourist brand;
- PR (public relations) allows establishing connections and build relationships with groups of influence, when promoting a territorial brand, the impact is carried out through agents of influence of specific target groups, which contributes to the maximum coverage of the necessary target groups; PR tools make it possible to demonstrate the competitive characteristics of the territory, by showing stories for different groups of people in TV shows, on the radio, in magazines;
- direct marketing tools are quite effective in promoting a territorial brand. In this case, the role of sellers is travel agencies, real estate agencies.

The promotion program should contribute to the creation of an attractive image of the region, motivating interaction with the region: the desire to visit it, buy goods, invest in industry. In the process of brand development, the most important elements are visual attributes (elements), through which the brand is recognized and remembered, which cause an associative series.

Table 1. Key indicators of territorial brands of the Russian Federation [6–8]

Ranking	Tatarstan	Kaluga region	Perm Krai
Rating of the socio-economic situation of the subjects of the Russian Federation (11 indicators)	66.9 point's	44,1 point's	57,9 point's
Rating of quality of life of subjects of the Russian Federation (72 indicators)	63.1 points	51.8 points	44.4 points
Rating of investment attractiveness of the region (54 indicators)	High level	High level	Average level

These elements are the main identifiers that affect emotions and perception. The use of a single corporate identity, logo, slogan and visual image in the development of a territorial brand contributes to the formation of trust among the target audience. Visual identity is a powerful tool to highlight a brand in a competitive environment. When selecting channels for territorial brand promotion, it is necessary to assess the readiness of target groups to make decisions, the peculiarities of behavior, as well as the degree of impact of these channels.

The comparative characteristics of the Perm region, Kaluga region and Tatarstan can be cited as examples of successfully formed territorial brands. One of the first regions, who had their own brand, was the Perm region. The concept of “Perm as the cultural capital of Russia” was developed and the region has its own logo (the letter “P”). It is noteworthy that the Perm brand is a model of identity, which is based on the modern and fashionable image of the city. Tatarstan uses any means to gain fame in the European and world community, emphasizing its special status, power, efficiency of the state system, ancient history and traditions. The Kaluga region brand is also actively developing, where due to the creation of attractive investment conditions, the factories of the largest foreign companies are now present and successfully functioning.

The level of investment attractiveness of the regions are based on such factors as: the level of availability of natural resources, environment, the quality of labor resources, the level of regional infrastructure, internal market, power production potential, social and political stability, institutional environment, financial stability of the regional budget and regional enterprises. Tatarstan and Kaluga region are among the regions with a high level of investment attractiveness. These regions have a favorable investment climate, as well as the most comfortable institutional conditions for investors. The policy of transparent and understandable conditions for foreign and Russian investors allowed the Kaluga region authorities to build an economy focused on technological and innovative industries. Tatarstan occupies a leading position in terms of socio-economic situation and quality of life. Tatarstan has created all conditions for quality education, a high level of medical care, favorable housing conditions, low unemployment.

Thus, territorial branding is a complex multifunctional set of actions, considering many parameters related to the economy, social sphere, culture, tourism, innovation, population. The creation of own unique image, demonstration of potential opportunities and comparative advantages is caused by the growing competition between territories and is a necessary condition of increase of investment attractiveness of regions of the Russian Federation.

References

1. News RBK [Electronic resource]. – Access mode : [http:// www.newsrbk.ru](http://www.newsrbk.ru).

2. Alferova, L. Osobennosti territorialnogo brendirovaniya / L. Alferova // Molodoy ucheny. – 2017. – № 9. – S. 493–496.
 3. Dinny, K. Branding territory / K. Dinny. – Mann, Ivanov i Ferber, 2015. – S. 201.
 4. Brending regiona [Electronic resource]. – Access mode : <http://www.rusnauka.com>.
 5. Kolody, N. Tehnologii brendirovaniya kak sposob razvitiya territoriy / N. Kolody // Sovremennye problemy nauki i obrazovaniya. – 2017. – № 1. – S. 1713.
 6. Reiting investizionnoy privlekatelnosti regionov Rossii HPA [Electronic resource]. – Access mode : <http://www.ra-national.ru>.
 7. Reiting regionov RF po kachestvu zhizny [Electronic resource]. – Access mode : <http://www.riarating.ru>.
 8. Reiting sozialno-ekonomicheskogo polozheniya regionov [Electronic resource]. – Access mode : <http://www.riarating.ru>.
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Роль территориального брендинга в развитии регионов России

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Ключевые слова и фразы: развитие; регионы РФ; территориальный брендинг.

Аннотация: Представлен подход развития регионов России сквозь призму концепции территориального брендинга. Выделены этапы формирования и способы продвижения бренда территорий. Приведены примеры успешного развития брендов нескольких российских регионов.

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UDK 33

Some Problems of Developing Artificial Intelligence Technologies and their Assimilation into Society

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Key words and phrases: assimilation into society; development of artificial intelligence technologies; the problem of the possibility of deliberate use of artificial intelligence against man and society.

Abstract: In most countries, organizations are actively involved in the development of artificial intelligence technologies and their assimilation into society. The problem of culture, security, ethics and the possibility of deliberate use of artificial intelligence against humans and society is acute.

Modern assessments of the intellectual creativity of artificial intelligence (AI) machines can be contradictory in accordance with expectations of social and cultural consequences: from delight to struggle with AI. Opponents of the development of artificial intelligence will soon appear as globalists and will form groups and communities. Contradictions in the ethics of using artificial intelligence will emerge as globalists are forming groups and communities. Contradictions in the ethics of the use of artificial intelligence will require the development of ways to resolve the interests of minimizing losses and preserving the positive that can be in conflicts such as “man-machine”. It is also necessary to develop a theory of predicting conflicts associated with the use of artificial intelligence.

Countries leading in the development of artificial intelligence pay great attention to ethics, protection and implementation in society. For example, Canada has established an Institute (Canadian Institute for advanced studies) dealing with ethical issues of artificial intelligence. The government has allocated an investment of \$ 125 million for the creation of the AI & Society CIFAR program, aimed at studying the application of artificial intelligence in society in different areas: Economics, ethics, politics, philosophy and law. As an example-among the topical topics of the 2019 seminar held by AI & Society in partnership with CNRS & UKRI are such topics as artificial intelligence and culture, security and privacy of artificial intelligence. Questions on ethics of possible improvements of the person by means of technologies of artificial intelligence are widely studied. The role of artificial intelligence in global natural conflicts is studied on the example of Arctic problems and climate change in the world. The problems of development, future, biology and medicine of artificial intelligence are studied. It raises the question of how the development of artificial intelligence affects the diversity of cultures and expression, the impact of artificial intelligence on ethnic discrimination. Options of human rights, problems of justice, confidentiality in consumer services are considered separately.

In Australia, for example, the “technology roadmap” has been created, the most important

tasks for the introduction of artificial intelligence are being developed, and the issues of the impact of artificial intelligence on social justice and human security are being studied.

China has adopted the “Next Generation Artificial Intelligence Development Plan”. Artificial intelligence will have far-reaching consequences in the future; it is seen as a technology that can lead to violations of legal, cultural and social ethics, violation of personal privacy and norms of international relations, which will create problems for economic security, public administration and social stability, as well as for global governance.

Finland is considering the possibility of becoming one of the leading countries in the world in the application of artificial intelligence technologies. The government of Finland considers the ethics and social implications of artificial intelligence as a priority.

A number of countries are involved in the development of artificial intelligence applications and are creating special organizations and communities.

A specially created Organization for economic cooperation and development in 2019 developed and presented to the public recommendations on the use of artificial intelligence – “Recommendation of the Council on OECD Legal Instruments Artificial Intelligence”. Earlier in 2018, the Commission of the European Union adopted Communication Artificial Intelligence for Europe, which identified the main tasks in the field of artificial intelligence development, including the problems of preparing the population for socio-economic changes caused by the introduction of artificial intelligence, and ensuring the appropriate ethical and legal framework for the use of artificial intelligence.

Today, the problem of the possibility of deliberate use of artificial intelligence against humans and society is often raised. Unfortunately, the low level of consciousness in society increases the likelihood of such an application of artificial intelligence. The period of time between the creation of the first computer program to help a person and the development of a computer virus aimed at harm is very small and it is necessary to prepare, the same will be the use of artificial intelligence technologies. A large number of developers and users of destructive character make attempts of destructive influence on the person and his mentality, bring systems out of control, setting opposite functions. This creates serious problems in public life. The implementation of these destructive actions with the help of artificial intelligence will contribute to the creation of social tension.

The most likely and understandable problems at the current level do not give a complete picture of the directions and scale of threats to the future application of artificial intelligence technologies, most likely as the development of the picture of the problems will be much more complete, complex and diverse.

In Russia, the possibility of solving a large number of problems associated with the use of artificial intelligence and its introduction into public life is seen through the creation of a scientific and practical Institute engaged in the prediction, study, development of new research methods of the impact of artificial intelligence on humans, social groups, society and the development on the basis of these studies proposals for regulating relations “artificial intelligence society”.

The most anticipated outcome of such an institution would be:

- the development of end products aimed at eliminating threats associated with the possible use of artificial intelligence;
- the creation of artificial intelligence ethics;
- the development of recommendations for the integration of artificial intelligence into society.

This allows, as a result of the Institute’s activities, to accelerate the integration of artificial intelligence into society through the use of tools that ensure ethics, cultural and social security.

References

1. Iskusstvennyj intellekt. Almanakh (Analiticheskij sbornik). – M. : TSentr Natsionalnoj tekhnologicheskoy initsiativy na baze MFTI po napravleniyu “Iskusstvennyj intellekt”, 2019.
2. Il Microsoft napisal kartinu po kompozitsii “Na zare” grupy “Alyans” // Microsoft Press-TSentr, 29 May 2019 [Electronic resource]. – Access mode : <https://news.microsoft.com/ru-ru/neural-kandinsky>.
3. Putin, V.V. monopolist v sfere iskusstvennogo intellekta mozhet stat vlastelinom mira / V.V. Putin // TASS, 30 May 2019 [Electronic resource]. – Access mode : <https://tass.ru/ekonomika/6489864>.
4. KHizhnyak, N. Bill Gejts sravnil iskusstvennyj intellekt s yadernym oruzhiem / N. KHizhnyak // Hi-news [Electronic resource]. – Access mode : <https://hi-news.ru/technology/bill-gejts-sravnil-iskusstvennyj-intellekt-s-yadernymoruzhiem.html>.

Некоторые проблемы в развитии технологий искусственного интеллекта и ассимиляции их в социум

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Ключевые слова и фразы: ассимиляция в социум; проблема возможности преднамеренного использования искусственного интеллекта против человека и общества; развитие технологий искусственного интеллекта.

Аннотация: В большинстве стран созданы организации, активно участвующие в развитии технологий искусственного интеллекта и ассимиляции их в социум. Остро стоит проблема культуры, безопасности, этики и возможности преднамеренного использования искусственного интеллекта против человека и общества.

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