Mechanism for the development of publishing houses' innovation potential

Механізм розвитку інноваційного потенціалу поліграфічного підприємства

Abstract

This article aims to analyze the theoretical foundations of trends and directions of the publishing and printing industry and to develop a mechanism to optimize the innovation potential of one of the printing industry enterprises. The article substantiates the role and importance of the publishing and printing complex as an essential part of the country's industry, and the basis for the material embodiment of information flows in all spheres of the economy. In particular, it is noted that this industry has significant social importance. Its level of development is a kind of indicator of the country's socio-economic situation. The concepts and economic essence of the innovative potential of the printing enterprise are disclosed, the components of this issue are defined, and the review of trends in the development of the printing industry in different countries of the world is carried out. The priority areas of the enterprise MPS "TYPE" were analyzed, the evaluation of the degree of innovative potential of the printing enterprise was conducted.

Anotaція

Метою даної статті є аналіз теоретичних основ тенденцій та напрямів розвитку видавничо-поліграфічної галузі та розробка механізму оптимізації інноваційного потенціалу одного з підприємств поліграфічної галузі. У статті обговорювано роль і значення видавничо-поліграфічного комплексу як суттєва частина промисловості країни, основа матеріального втілення інформаційних потоків у всіх сферах економіки. Зокрема, зазначається, що ця галузь має значне соціальне значення. Його рівень розвитку є своєрідним індикатором соціально-економічного становища країни. Розкрито поняття та економічну сутність інноваційного потенціалу поліграфічного підприємства, визначено складові цього питання, проведено огляд тенденцій розвитку поліграфічної галузі в різних країнах світу. Проаналізовано пріоритетні напрямки діяльності підприємства МПС «ТИП», проведено оцінку ступеня сформованості факторів ефективності його
formation of factors of effectiveness of its development was carried out, and we built the scheme of the mechanism of analysis and optimization of the innovative potential of the printing industry enterprise on the example of the company as mentioned earlier. According to the research results, it is proposed to consider the possibility of enterprise participation in both vertical and horizontal associations of enterprises with a significant number of participants.

**Keywords:** publishing houses, innovation potential, development mechanism, latest management technologies, establishment's efficiency.

**Introduction**

The industrial sector is one of the most important parts of the economic complex. Its leading role in the economy is determined primarily by providing all economic sectors with means and resources, which makes it the most active factor in scientific and technological progress and expands reproduction altogether (Hrynkevych & Kvak, 2020).

One of the most important branches of the industrial sector is the publishing and printing sector. In addition to television, radio, and the Internet, it is one of the foundations of the information flow material embodiment and is oriented to the printed product needs. This sphere has significant social importance; its development level is a kind of indicator of the country's socio-economic situation. This sphere is sensitive to society's economic development. Although, it has an insignificant part in the gross domestic product formation and traditionally belongs to the auxiliary economy sectors (Kwilinski & Kuzior, 2020).

The publishing-industrial sector includes the publishing and printing industries, production, and social infrastructure. The printing activity defines the relationship that links the production and economic activities of legal and individual persons involved in the published products' creation, printing, and sale (Briguglio, Llorente-González, Meilak, & Pereira, 2021).

The socio-economic transformations taking place in the world have a significant impact on the changes in the information space, the publishing market, and the structure of the printing industry. The trends mainly related to the decentralization of the production and sales process of printed products, the reduction of the average length of print runs, the expansion of the product range, and the sales problems require the restructuring of the printing industry, including the creation of medium and small, mostly private companies that can withstand the new competition in product quality, service volume and order fulfillment conditions (Jin, Wang, Chu & Xia, 2018).

The rapid development of digital technology in recent years has significantly affected the publishing and printing industry, which is influenced by many external factors, for example, the unpredictability and dynamics of the market lead to additional risks and slow down the modernization of internal processes and mechanisms. Publishers and printers serving the media, advertising, and book publishers are in constant fierce competition. It is related to the rapid development of computer technologies, the increase in the number of electronic books, and the replacement of traditional information sources with online resources. For this reason, the state of domestic publishers and printing houses depends on the innovation speed, taking into account the directions of the priorities change in this sphere (Liao, 2018).

**Literature review**

Innovative development is always an important catalyst for the company's activity in a competitive environment, and innovation potential is an indicator of the company's readiness to innovate (Andrieieva, 2018).

From the economic point of view, innovation potential is a characteristic of the innovation flow, the level of technological leadership, the speed of bringing innovations to the market, and the effectiveness of corporate research and development, which determines the synergistic
nature of the company's activities. In addition, innovation potential is defined as a set of humans, material, technical, information, and financial resources provided by the appropriate infrastructure for the implementation of innovation (Kostetskyi & Prymachenko, 2020).

Innovation potential scientists Kreidych I., Bielova A., and Olijnyk G. consider the future potential or organizational mechanisms mobilized to achieve the innovation goal (Kreidych, Bielova & Olijnyk, 2019).

Y. Vorzhakova and A. Amelkyna argue that it is unacceptable to identify the concepts of "capacity" and "resources," although they do not deny that the availability of resources is necessary for innovation and is a prerequisite for their implementation. These scientists show interesting attempts to analyze the existing definitions of innovation potential and interpret them more deeply (Vorzhakova & Amelkyna, 2019).

We agree with a fairly complete interpretation of Calabrese A. and Costa R. that innovation potential is a characteristic of the enterprise, reflecting the provision of the company with scientific personnel and highly qualified specialists who are ready to perceive innovations from the outside, as well as ensuring the quality of the organizational structure and production means, ability to innovative development (Calabrese & Costa, 2015).

In general, the innovation capacity of an enterprise can be considered as a holistic set of related factors in specific socio-economic forms:

- real resources;
- potentially possible innovative resources that can be used by the enterprise under certain current factors of the internal and external environment within a certain period;
- the ability and willingness of the company to accept and effectively use these resources and opportunities to achieve the strategic objectives of its activities.

For this reason, it is important to increase the innovation potential of the enterprise, which entails the need to monitor its condition and assess the process of implementation (Piperopoulos, Wu & Wang, 2018).

In our opinion, while investigating the concept of the "innovative potential of a publishing houses," we should take into account the specific features of the publishing industry. Their main one is that a book, as a result of creative or scientific activity, is the basis for the final product creation. In addition, the uncertainty factor inherent in the publishing market should be taken into account since it is difficult to predict the timing of orders, as well as consumer demand for an already published product since both authors and consumers are creative individuals whose skills and needs cannot be predicted or calculated.

Summarizing the above, we propose to interpret the innovation potential of the printing enterprise as a set of scientific, financial, material and technical, human, and organizational resources and skills that ensure the desire and ability of the enterprise to innovate with constant improvement of its management systems, taking into account the technology in the market of printing products.

The structure of the innovation potential of the printing enterprise includes financial components (investments, intangible assets, funding sources, solvency, and financial stability), logistical support of modern innovation, and information technologies (computer systems, availability of advanced equipment, materials, organizational structure, use of modern forms of organization and innovation management, organization culture, optimized technology of production processes).

To characterize the innovation potential of a printing enterprise, the assessment of the cost structure and its impact on the innovative activity of publishing and printing activities is of great importance (Pavlenko, Kyrylko & Tsybina, 2017).

Many publications are devoted to the current state and prospects of publishing houses' development in various world countries. Their authors are Skonieczny, J., Safonov, Yu., Mykhailovska, O., Manaienko, I., Kravets, A., and others (Skonieczny, 2017), (Safonov & Mykhailovska, 2019), (Manaienko & Kravets, 2018).

However, the perspective development of publishing and printing companies' activities has not yet been fully explored and needs further consideration. Namely, the study of the printing market structure, the dynamics of the number of publishers and printing houses, as well as the investment level in the publishing/printing industry, and the structure of such expenses (Moradi, Mousavi & Vahdani, 2020).
The printing companies in the United States are expanding the market by offering multimedia design services to increase the industry's competitiveness, especially given the spread of modern information technology. Adapting this experience to the conditions of Ukraine is designed to give preference to designers during the projects, rather than involving them permanently, creating a permanent designer team (Kolodiazhna & Borblik, 2017).

Canada's experience in consolidating large companies trying to maintain profits is as effective as cross-industry integration (Carvalho, Siluk & Schaefer, 2022).

To solve the problem of training industry professionals in Canada at the printing houses' expense, there is a trust fund that provides scholarships for talented young people and pays for student internships. The development of this direction is relevant from the perspective of the need to solve the problems associated with the reduction of higher education public funding and the need for students to gain practical experience. The Polish experience is interesting to study the issue of increasing the printing companies' efficiency. State support plays a significant role in the development of the Polish printing and publishing industry. Thus, the state regulates the development of the publishing and printing business, compensating the publications of Polish authors in foreign languages and foreign authors in Polish, creating favorable conditions for investment, and setting prices for certain products (Carvalho, Siluk & Schaefer, 2022).

The experience of the Finnish printing industry is unique, especially in finding new market niches, which is relevant due to the decline in demand in traditional markets. Some printing houses have found new niches and offer services for the electronic archives' creation, consulting on the selection of the most effective types of advertising products and advertising products distribution.

The experience of the Chinese printing industry is also interesting, with companies paying great attention to improving product quality by introducing quality management systems and their product quality management systems. The adaptation of this experience for vertically integrated associations of publishing and printing complex in other countries consists of print technologists' involvement at the design stage of publications (Carvalho, Siluk & Schaefer, 2022). Every company requires constant investment for functioning, excluding the printing industry.

From 2010 to 2013, investment volume dynamics were positive and even increased by 19.76% from 2010 to 2011. Since 2013, however, the amount of investment in the publishing and printing industry has been steadily decreasing by 0.2 - 0.5%. Political and economic factors within the country are a consequence of this trend. The downward trend still exists today (Vorzhakova & Amelkyna, 2019).

The most important factor determining the current level of printed products' quality and the prospects for its improvement is the price of the work done, which affects the profit, profitability, and, finally, the competitiveness of enterprises and the industry as a whole (Lo & Yang, 2020).

Among the prospects for the industry, experts highlight the creation of "on-demand" distribution centers for printed publications because, in today's environment, many publications require limited print runs, the production of which is not economically feasible under normal conditions. These can be reference works and instructions, special catalogs, and additional editions of scientific publications.

**Materials and methods**

Let us estimate the potential possibilities of MPS "TYPE" printing enterprise investment activity located in the western part of Ukraine (Ternopil) to work out the mechanism of innovative potential development.

To estimate the efficiency and determine the tendencies of the enterprise development, we used the MPS "TYPE" reporting and strategic plan, as well as analyzed its position in the domestic polygraphy products market.

Analytical and logical methods, analysis and synthesis of information, as well as methods of system analysis, were used to assess the effectiveness of the existing mechanism of the company's innovation potential development to collect data and evaluate the effectiveness of individual work areas and the company. In addition, we used the specified methods to assess the enterprise's strategy, reporting and analytical data on the volume of products and services, analyzing the effectiveness of personnel policy, and evaluating the state of the company's infrastructure facilities.
Results and Discussion

MPS "TYPE" has been working on the printing market for more than fifteen years. The production of cardboard packaging, books in hard and soft covers, cardboard books, advertising, and presentation products was defined as the priority direction of its work. The company performs the whole complex of printed products: from the technological development of a layout and printing to a wide range of post-printing works and delivery of finished products to customers. The company works in different market segments due to the product diversification and offers different product types (Figure 1).

![Figure 1. MPS "TYPE" company's work priorities for 2019-2020, %.](image)

The analysis of the company's strategic activities showed the contributing factors to the company's development:

- high innovation capabilities, given the significant resource potential, positive business development dynamics;
- high quality of human capital;
- developed infrastructure;
- information and communication technologies prevalence (Figure 2).

![Figure 2. Level of company development efficiency factors formation, %.](image)
Considering the existing potential of MPS "TYPE," the company's innovative development requires a systematic approach, including versatile support for the optimal use of all opportunities (Figure 3).

**Figure 3.** Analysis, optimization and development mechanism of printing industry company innovation potential on the example of MPS "TYPE".

According to Figure 3, the development level and growth rate of printing houses depend on the efficiency of the latest technologies' implementation.

Development of the company's innovative potential should be based on the results of the international experience study and should be carried out, taking into account global trends in the printing industry and improving the approaches to the management system structure of all enterprise resources.

Based on the results, we should consider the company's participation in both vertical and horizontal companies associations with a
significant number of participants, taking into account examples of companies' successful experience in this area worldwide.

The main component of the mechanism of innovative potential development of MPS "TYPE" is the selection and effective planning of the investment activity stages, as well as the sales market expansion due to the multimedia and design services.

Comprehensive state support is one of the main mechanism components, which includes financial assistance, access to new technologies and equipment, provides increased flexibility and development of innovative potential, and gives an opportunity to jointly and effectively solve problems at the governmental level.

We should pay much attention to the sales market expansion through exports and the use of the latest technologies for printing products in the further company activities when analyzing the best prospects for the company development.

The resource approach, which focuses on the allocation of innovative projects resources, in particular, on the financial-economic and organizational-technical aspects of innovation, is one of the approaches for studying the directions of increasing the innovative potential of printing houses. In other words, the authors understand innovation potential as a set and list the resources needed for the innovation activity by disclosing the innovation potential's structure. This approach is limited because it ignores some of the "innovation potential" category characteristics.

We should note that the use of resources is always a purposeful and organized process and is not always associated with the growth of innovation potential, especially in the case of the study of multi-layered, systemic, synergistic effects and various development vectors. At this phase of market transformations, the domestic economy resource approach can achieve the ultimate innovation goals, mostly at the micro-level of the economic system:

- positioning companies in the market with new products,
- maintaining a niche in the market,
- retaining the market niche,
- increasing competitiveness through the improvement of the innovative product range,
- getting additional market shares,
- increasing profits, etc.

The modern market requires the production of target and high-quality performance of a wide variety of printing services and works, renewal of products according to the consumers' needs and initiatives. In addition, the market increases the requirements to the enterprises for timely settlements with suppliers of raw materials, technical resources, energy resources, payment of wages to their employees, and timely payments to the budget. It is only possible with a balanced operation and well-organized financial work in the company accordingly.

Current problems in the publishing and printing industry are exacerbated by the global economic crisis and affect all domestic economic sectors. The present-day industry decline is related not only to general economic problems but also to many factors associated with the authorities' neglect of the specifics of this important area, which, in turn, affects the overall state and development strategy.

Thus, as evidenced by the research in the printing industry sector, this area has experienced a difficult period in recent years. Dynamism, complexity, and unpredictability of external factors lead to an increase in the risk of economic activities of printing companies, which, in turn, leads to slow improvement of internal processes and mechanisms (Gomes & Wojahn, 2017).

According to Adamenko, M., Zinchenko, O., Kęsy, M., Pohrebnia, A. and Redko, K., printing, advertising, and media companies constantly face new competitors because of the active and rapid computer technology development. A growing number of e-books and online resources have replaced traditional information sources such as newspapers, magazines, and books, digital controls and printing technologies are transforming the printing basics and taking this industry to a new development level (Adamenko, Zinchenko, Kęsy, Pohrebnia & Redko, 2021).

The analysis of the printing industry experience in different countries (the United States, China, Poland, and others) shows that they have their characteristics, but at the same time, there is a general trend toward the companies' mergers, both vertically and horizontally. The US experience as the country with the world's highest annual printing industry revenue, $80 billion, is quite interesting (Carvalho, Siluk & Schaefer, 2022).

According to Sherifi I., the industry's efficiency is ensured by the implementation of such
development areas as investment activities and the creation of business associations with a significant number of members (several dozens) (Sherifi, 2020).

Hence, the publishing and printing sector has become one of the most innovative industries under modern conditions of technological development. Therefore, to achieve successful results in the development of this industry sphere, it is necessary to define as fully as possible the meaning of the category “innovation in printing enterprise” and to know its components. After all, only through a clear understanding of these concepts and consideration of the publishing industry characteristics can make effective administrative decisions.

**Conclusions**

The analysis showed that the world's publishing houses pay great attention to maintaining their positions in the market, which requires constant improvement of approaches to the construction of the resource management system. The innovation process must meet the requirements of the market space and the real economic conditions.

According to many analysts, the printing industry development directly depends on the speed of innovation processes taking into account trends and changes in priorities in this business.

The analysis showed that, at present, the publishing and printing industry worldwide has both internal and global problems. It happens due to the growing demand for digital technology and the transition from print products to digital media. As the publication of books decreases, the level of self-education of people decreases, so the support of publishers is a huge social issue.

It is necessary to improve the approaches to the management system construction of all company resources to optimize the publishing houses' activities. This system must meet the requirements of the market space and the real economic activity.

The elaborated development mechanism of publishing house innovation potential illustrates that to increase the effectiveness of this sphere companies it is reasonable to take such measures as investing in product modernization and association creation, which will increase company competitiveness, profit, and investment attractiveness and will contribute to the growth of the intellectual potential of society and the growth of the entire economy.

**Bibliographic references**


