

Methodological Aspects for Improving Usage of Competitive Intelligence in Ensuring the Economic Security of Enterprises

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Abstract. This paper explores the methodological foundations for enhancing the use of competitive intelligence (CI) as a strategic tool to ensure the economic security of enterprises operating in competitive markets. Recognizing the growing complexity of market dynamics and threats to business sustainability, the study proposes a structured methodology for conducting competitive intelligence activities by one enterprise (referred to as the 2nd enterprise) in relation to its market rival (the 1st enterprise). The proposed framework integrates analytical tools for data collection, competitor profiling, strategic benchmarking, and risk identification. It emphasizes ethical boundaries, legal constraints, and the integration of CI outputs into strategic decision-making processes. The methodology aims not only to improve the quality and relevance of intelligence gathered but also to strengthen the enterprise's capacity to anticipate, adapt to, and neutralize competitive threats, thereby contributing to a higher level of economic security. The findings offer theoretical and practical contributions to the fields of strategic management, business intelligence, and economic security.

Keywords: Analytical tools, data collection, competitor profiling, strategic benchmarking, risk identification, strategic management, business intelligence, and economic security.

1. INTRODUCTION

In countries with a developed electrical engineering industry, large-scale scientific research is being conducted in such areas as reducing the costs of geological exploration with the widespread use of resource- and energy-saving technologies in this industry; expanding the range of products and reducing their cost; creating an institutional, legal, and investment environment in order to form a modern national electrical engineering industry, economic stimulation of chemical industry enterprises, modernization of the chemical industry, widespread introduction of market mechanisms into the management system, development of organizational and economic mechanisms for ensuring the economic stability of chemical industry enterprises. Also, the study of scientific, methodological, and practical aspects of ensuring the economic stability of electrical engineering enterprises based on modern approaches to financial and economic management is one of the current scientific directions.

Comprehensive measures are being implemented to increase the competitiveness of the national economy of Uzbekistan, including chemical industry enterprises, in the world. The Action Strategy for the further development of the Republic of Uzbekistan for 2017-2021 defines the tasks of "further modernization and diversification of industry by transferring it to a qualitatively new level, aimed at the accelerated development of high-tech processing industries, primarily the production of finished products with high added value based on deep processing of local raw materials." Based on this, the implementation of research on the comprehensive development of the internal capabilities of industrial enterprises to increase their economic stability, the radical renewal of their material and technical base, and the effective use of available resources remain an important issue.

2. LITERATURE REVIEW

Degree of study of the problem. Issues of ensuring economic stability of the economy were studied in the works of foreign scientists I.Tyunen, V.Laundhardt, A.Weber, A.Lyosh, V.Kristaller, D.Markusen, D.Danning, S.Tauer, R.Ganeshan, D.Nrasad, G.Sanil, S.Kohen, R.Mallik, N.Stewart, H.James, V.Bell, S.Lell, T.Hikin, A.Amsden, M.Hobdey, Y.Chuang and others.

Among CIS scientists, Doronin A.I., Solomanidina T.O., Yushuk E.L., Malseva A.A., Yakovets Yu.V., Kuzik B.N., Kushlin V.I., Gubernatorov A.M., Koretskaya L.K., Belova O.A., Sergeeva I.A., Stepchenko T.S., Dovbish V.E. and others separately studied the organizational aspects of ensuring the economic security of enterprises and competitive intelligence.

In Uzbekistan, the theoretical and methodological foundations of ensuring the economic and financial stability of

enterprises are widely covered in the works of domestic scientists A. Burkhanov, S. Gulyamov, P. Pardayev, T. Shodiev, N. Makhmudov, B. Berkinov, B. Khasanov, and others. In the scientific works of the above-mentioned authors, insufficient attention is paid to the study of the practice of ensuring the economic stability of industrial enterprises. Therefore, a deeper study of the practice of ensuring the economic stability of chemical industry enterprises, which are considered strategic sectors of the economy, is one of the urgent tasks.

In this paragraph, a model for ensuring the economic security of industrial enterprises based on the use of competitive intelligence tools is proposed.

3. METHODOLOGY

The importance of assessing economic security is reflected in the work of N.V. Shashlo. He developed an algorithm for assessing the economic security of the enterprise. The algorithm includes qualitative and quantitative criteria for assessing the probability of convergence of threats, as a result of which the impact (loses) is a quantity that disrupts stability, qualitative and quantitative indicators for the expected aggregate criterion that threatens economic security.

The developed model makes it possible to "determine the state of protection of the systems carrying out economic activity; the state of the enterprise's resources and capabilities; a set of methods of organizational-legal, regulatory and security, technical, technological, economic, financial, and information-analytical types; the state of the social and technological system, allowing for the avoidance of threats and resistance to destabilizing factors through the structural links of the organization's management."

Then we will develop a methodology for conducting competitive intelligence of the 2nd enterprise on the competing 1st enterprise (Fig. 3).

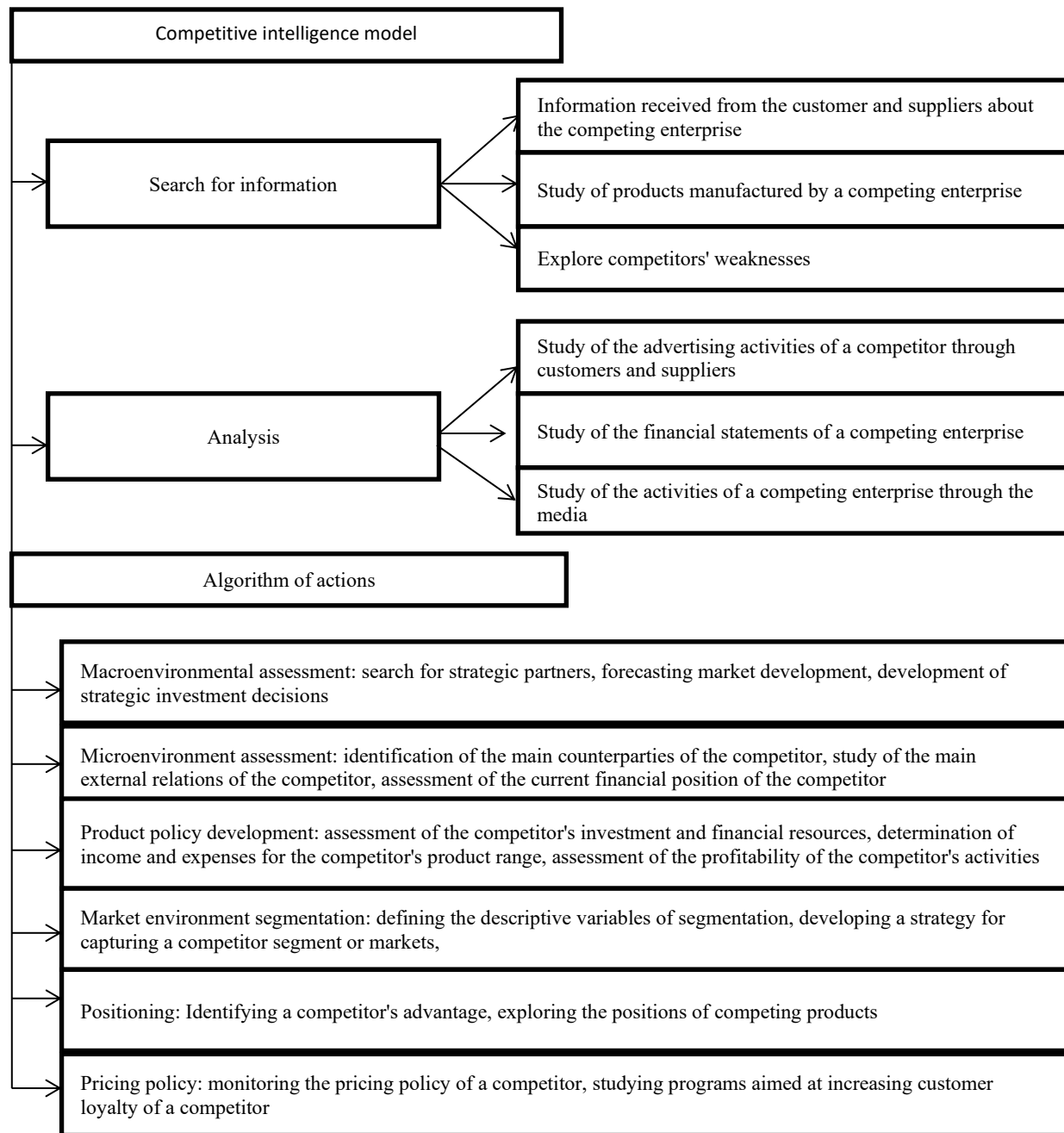


Figure 1. Methodology for conducting competitive intelligence by the 2nd enterprise in relation to the 1st enterprise, which is a competitor.

The advantage of the 1st enterprise is that it had a positive level of economic security for nine years, in 2011 the level was high, for eight years the level decreased only to an average level, in 2020 the level of economic security was negative, because restrictions were introduced due to the coronavirus pandemic, and under these conditions, the economy declined across all sectors of production.

The competitive intelligence model has two directions of implementation: the first direction provides for the search for information data, and the second direction - analytical work, i.e., the assessment of information resources.

The algorithm of actions for implementing competitive intelligence is based on the following: analysis of the macroenvironment (search for profitable strategic partners, forecasting market development, developing measures for strategic investment decisions); analysis of the competitor's microenvironment (identifying the main counterparties of

the competitor, identifying external objects and their connections that support competitors, determining the current financing of competitors); development of product policy (assessing the competitor's prospective investment resources, determining income and expenses for the range of manufactured products, determining the profitability of the final activity); assessment of market segmentation (identifying descriptive variables of segmentation, identifying the market of competitors, strategies for covering target segments); determining the position of competitors in the market (identifying the advantages of competitors, the position of competing goods in the market) and pricing policy.

Each algorithm for conducting competitive intelligence should be carried out by experienced specialists. This method of obtaining information about a competing enterprise is mainly handled by a specially created department or a marketing service capable of collecting the necessary information and analyzing competitors.

4. ANALYSIS AND RESULTS

A correctly developed strategy for the further development of the enterprise, forecasting and planning financial indicators based on the data of a competing enterprise, ensures the effectiveness of the financial and economic activities of the enterprise. Can increase by %. Confirming the effectiveness of this methodology, we present the calculation of data from the 2nd enterprise, which conducted competitive intelligence against the 1st competitive enterprise.

As can be seen, as a result of competitive intelligence conducted according to the model developed by, the economic security of the 2nd enterprise in 2021 was 0.074% and is expected to be at the level of 0.262% in 2022 and 0.919% in 2023. That is, according to our scale, economic security is expected to be at a high level of 0.919.

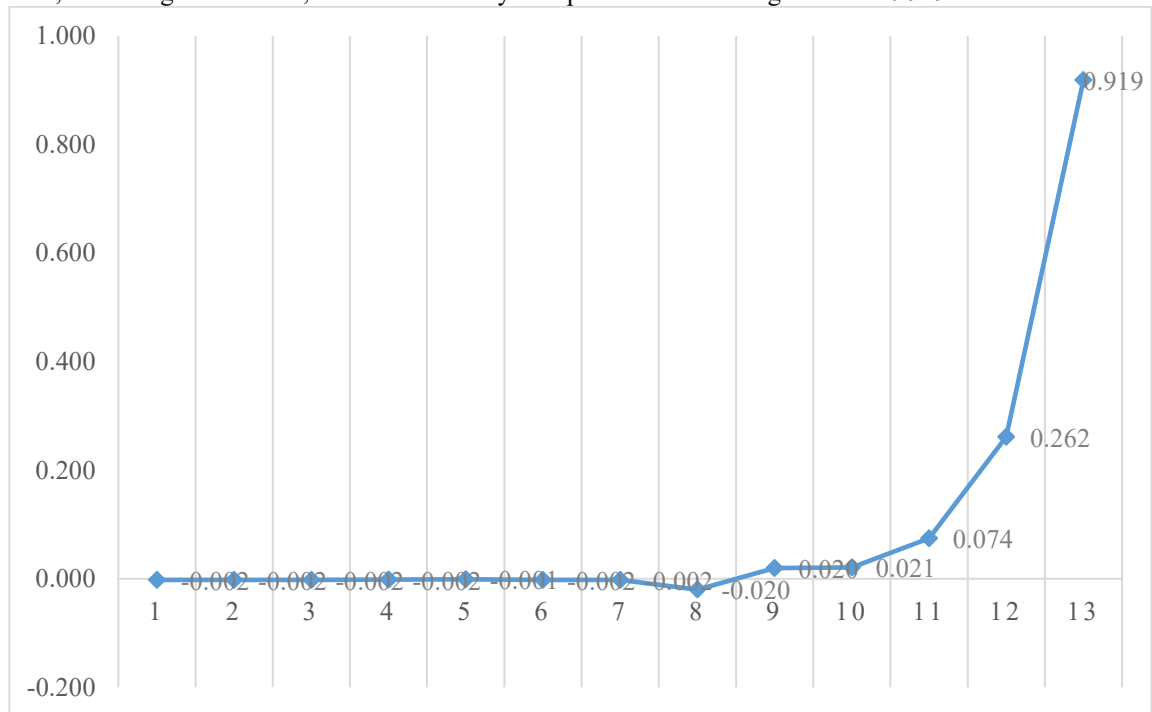


Figure 2. Effectiveness of economic security of industrial enterprises based on the use of competitive intelligence tools.

A significant increase in the coefficients of financial and economic activity of the 2nd enterprise is observed, the indicator of cash receipts of the enterprise is increasing, the indicator of equity and funds is increasing, the foreign exchange balance is rising, the profit of the enterprise is increasing, as a result, the level of economic security of the enterprise is increasing. Thus, it should be noted that the developed model for assessing the effectiveness of the enterprise's economic security system based on the use of competitive intelligence tools is effective.

In this paragraph, a theoretical analysis of research conducted by foreign and domestic authors on assessing the economic security of an enterprise is presented, and a model for ensuring the economic security of an enterprise based on the use of competitive intelligence tools is considered. In the work, we considered the tools of competitive intelligence in order to ensure the economic security of industrial enterprises, identified their advantages and

disadvantages. Also, based on the simulation model, we developed a model for assessing the economic security of industrial enterprises. The factor statistical method, based on the calculation of the coefficients of financial stability, profitability, and business activity, was taken as the basis. These criteria assess the overall financial condition of the enterprise. The competitive intelligence algorithm consists of collecting data on external and internal indicators of the competitor's activity. The formula has the form of an integral assessment, consisting of a set of financial criteria. The advantage of the model is a thorough study of the financial indicators of the enterprise's activities, the components that form its constituent factors. The disadvantage of the model is the complexity of calculations. As a result of the approbation of the developed model, we came to the following conclusions: the coefficients of financial and economic activity increase significantly, the indicator of cash receipts of the enterprise increases, the indicator of equity and funds increases, the foreign exchange balance increases, the profit of the enterprise increases, as a result, the level of economic security of the enterprise increases. We conclude that the developed model for assessing the effectiveness of the enterprise's economic security system based on the use of competitive intelligence tools is effective.

There is a widespread opinion that the effectiveness of information and analytical activity, like any ideological product, cannot be measured. For example, the products of human intellectual creativity (to which we can also include the results of competitive intelligence activities) can be evaluated based on the volume of "products" produced, which indirectly reflects labor costs. However, such a measurement system is rarely used today. Remuneration (wages) is paid depending on the volume of sales and the funds received from sales, and the value of this product is characterized by demand.

According to the renowned scholar A. Mol, the total cost of an "intellectual product" can consist of the sum of the following indicators: the time of birth and specific formation of the idea, the cost of materials, the "complexity" of the product and the coefficients of various bonuses for the author's competence, various types of honorary rates, and, to one degree or another, constant production costs.

Since the life cycle of information products is short, and the effectiveness of their use largely depends on their timely use (an important indicator of the use of the results of competitive intelligence activities), the effectiveness of information influence is often not proportional to the effort and resources spent on creating such a product. Therefore, it is not advisable to use the A. Mol approach as a basis for measuring the effectiveness of competitive intelligence.

Current researchers propose to consider a sufficiently large number of methods for assessing the effectiveness of information and analytical activity. One such methodology is the system proposed by the economist M.V. Kurashova, which is based on the joint study of three elements: scientific and technical, social, and economic efficiency.

Scientific and technical effectiveness reflects the contribution of the information support system implementation project to the scientific and technical development of the enterprise. Evaluation of effectiveness in this direction is aimed at determining the following indicators: novelty, scale, prospects of the intended technology and technical equipment, etc. Social effectiveness reflects the effectiveness of information and analytical activity and its share in the social environment. This is expressed in changes in working, living, and leisure conditions, socio-psychological climate, culture, science, etc. When solving the theoretical and practical problems of determining indicators of social effectiveness, difficulties arise not only with the separation of the social result in value terms, but also with the identification of calculation methods that allow obtaining a specific social result. Economic effectiveness is the reflection of the ratio of results and costs.

This approach is based on the "cost-outcome" principle and statistical evaluation of individual production elements.

Despite the diversity of approaches to assessing the effectiveness of information-analytical and marketing activities, it should be understood that not all of them are suitable for measuring competitive intelligence activities. This primarily depends on the specifics of competitive intelligence and the specifics of using its results.

The main difficulty in building a perfect model for assessing the effectiveness of competitive intelligence lies in the problem of "separating" results related to intelligence activities, since the results of competitive intelligence are partially manifested in other functions and processes. The impossibility of assessing the entire long-term effect of using competitive intelligence at the enterprise, the large number and diversity of performance indicators, as well as the results themselves, also complicate this process.

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5. CONCLUSIONS

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However, despite all the difficulties, domestic and foreign researchers often emphasize the need to develop methods for measuring the economic effectiveness of competitive intelligence. Such "measurability," according to M.V. Kurashova, would give management "the opportunity for rapid, integrated, multi-level analysis, planning, and modeling of the enterprise's activities."

The performance measurement system allows for the determination of injection volumes, the formation of budgets of departments responsible for information gathering and analytical activities. Thus, as Ya.V.Brannitsky notes, "evaluation of the results of the activities of any system, department is an integral part of the evaluation activity of the company as a whole. But the importance of the assessment for the competitive intelligence agency also depends on how the company decides whether to finance competitive intelligence."

Also, a competent assessment of activities related to competitive intelligence contributes to the rational use of budget funds allocated for competitive intelligence, ensuring a level of information security of the company that corresponds to the current business goals and objectives. The use of data obtained during the assessment of information and analytical activity systems will ultimately allow the heads of competitive intelligence services to prove the effectiveness of their employees' work. While there is a clear need to develop criteria for evaluating competitive intelligence, it should also be remembered that the cost of performance evaluation should not exceed the cost of competitive intelligence itself.

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