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## COMPETITIVENESS OF MANUFACTURING ENTERPRISES IN KAZAKHSTAN

*This article examines the concept of industry competitiveness within a hierarchical system of management levels, including enterprise, industry, region, and state. The relevance of the study is determined by the need for a comprehensive analysis of competitiveness under conditions of increasing economic complexity and strengthening interlevel interactions. The purpose of the study is to develop theoretical provisions and methodological approaches to assessing the competitiveness of manufacturing enterprises, taking into account industry-specific factors and the influence of hierarchical relationships between different levels of the economy. The research is based on a set of methods, including analysis and synthesis, comparative analysis, economic and statistical methods, as well as graphical interpretation of results. The scientific novelty of the study lies in the development of an integrated approach to assessing competitiveness that incorporates industry-specific indicators and reflects the interaction between different levels of the economic system. The results of the study include the development of practical recommendations for improving competitiveness assessment by expanding the system of indicators used, allowing for a more accurate evaluation of an enterprise's position both within the industry and in the broader economic system. The practical significance of the research lies in the possibility of applying the proposed approaches in the strategic management of enterprises to enhance their competitive position.*

**Keywords:** rivalry, competitiveness, strategic advantage, market positioning, competitive capacity, brand awareness, industrial sector

**Кілт сөздер:** бәсекелестік, бәсекеге қабілеттілік, стратегиялық артықшылық, нарықтағы позиция, бәсекеге қабілеттілік күші, бренд туралы хабардарлық, өнеркәсіптік сектор

**Ключевые слова:** соперничество, конкурентоспособность, стратегическое преимущество, позиционирование на рынке, сила конкуренции, узнаваемость бренда, промышленный сектор

**JEL classification:** L11; O25

**Introduction.** The development of manufacturing enterprises in Kazakhstan is crucial for ensuring technological sovereignty, promoting economic diversification, and reducing dependence on raw material exports. In the context of growing global competition, economic complexity, and stronger interlevel interactions within the economic system, assessing enterprise competitiveness becomes increasingly relevant.

Existing research predominantly focuses on universal evaluation criteria and often overlooks industry-specific features and the influence of hierarchical relationships between different levels of the economy (enterprise, industry, region, and state). This creates a scientific gap due to the absence of an integrated approach that reflects both sectoral specifics and the multilevel nature of economic systems.

The study aims to develop theoretical and methodological provisions for assessing the competitiveness of manufacturing enterprises, taking into account industry-specific factors and hierarchical relationships. To achieve this aim, the research addresses the following objectives: examine theoretical foundations of enterprise competitiveness; analyze the current state and development trends of Kazakhstan's manufacturing industry; assess competitiveness based on key economic and production indicators; identify internal and external factors influencing competitiveness; and develop practical recommendations for improvement.

The methodological framework combines analysis and synthesis, comparative methods, economic and statistical approaches, and graphical interpretation of results. The study's novelty lies in proposing an

integrated competitiveness assessment framework incorporating industry-specific indicators and multilevel interactions. The results offer practical recommendations for strategic management, enabling more accurate evaluation of enterprise positions and supporting the enhancement of national and international competitiveness.

**Literature review.** Competitiveness of Kazakhstan's manufacturing sector is traditionally explained by structural constraints, including a raw materials-oriented export model, low R&D investment, and limited regional specialization [1]. While these studies offer a macroeconomic perspective, they often generalize competitiveness factors and insufficiently capture industry-specific dynamics or enterprise-level heterogeneity.

Recent empirical research (2022–2024) shows that state industrial policy has improved performance in priority sectors, yet benefits are concentrated in large enterprises, while SMEs face barriers to adopting innovation and "Industry 4.0" technologies due to limited financing and weak innovation ecosystems [2]. Regional and sectoral studies highlight the role of cluster development and localized value chains but often analyze industries or regions in isolation, overlooking interactions across economic levels (enterprise, industry, region, state).

International assessments, including OECD reports, emphasize institutional quality and regulatory frameworks as drivers of competitiveness [3]. Studies on ESG factors (2023–2025) show their growing importance for export-oriented firms but remain fragmented [4].

Overall, the literature lacks an integrated framework combining industry-specific indicators with multilevel economic interactions, revealing a clear scientific gap addressed by this study.

**Main part.** In today's world, the manufacturing industry is considered one of the key drivers of economic growth, a role that significantly increased with the rapid expansion of production capacity in the late 20th century. The contribution of industrial enterprises to accelerating economic growth and strengthening the country's position in the global market is clearly reflected in the UNIDO Industrial Competitiveness Index (CIP). According to UNIDO experts, industrial competitiveness is determined by the share of high-tech products in total supply, both in domestic and international markets [5].

The manufacturing sector is the most knowledge-intensive and capital-intensive field of the economy. It accumulates advanced scientific and technical achievements. UNIDO 2024 Industrial Development Report outlines "the role of manufacturing industries as the largest suppliers of new, better products". The information presented in this report allows the calculation of the Competitive Industrial Performance Index (CIP Index).

An important factor in the development of the manufacturing sector is the demand for products manufactured by enterprises in this industry in the internal market.

The strategic placement of manufacturing enterprises offers local authorities certain advantages, such as additional revenue for the local budget, increased employment, and improved social conditions for the population within a given area. Therefore, when deciding on the location of an enterprise, all advantages and disadvantages must be carefully considered to arrive at a specific solution. Location factors also reflect the development of productive forces within a particular territory or administrative unit, which in turn contributes to the national budget. The level of development of these productive forces can serve as an indicator of the economic status of the territory and its position within the market [6].

Moreover, a key benefit of strategically locating production facilities is the enhancement of the local workforce's skill level, as manufacturing enterprises often require highly qualified personnel and the use of advanced technologies [7].

The performance of SMEs producing goods or providing services in the manufacturing sector can be affected by factors that create competitive pressure, including the technological sophistication of products, availability of ICT resources, strategic partnerships, access to external financing, and the scope of sales markets [8, 9]. In Kazakhstan, manufacturing enterprises generally operate at local or regional levels, with only a limited number able to enter CIS markets, where they encounter numerous competitors, including foreign firms. Consequently, SMEs that primarily serve regional markets within Kazakhstan are likely to experience relatively low competitive pressure from domestic producers [10].

Having studied many papers by different authors and their approaches to the formulation of indicators of analysis and assessment of competitiveness, the study summarised all indicators and presented a graphically generalised characteristic of the indicators necessary for analysing and assessing the competitiveness of manufacturing enterprises (Figure 1).

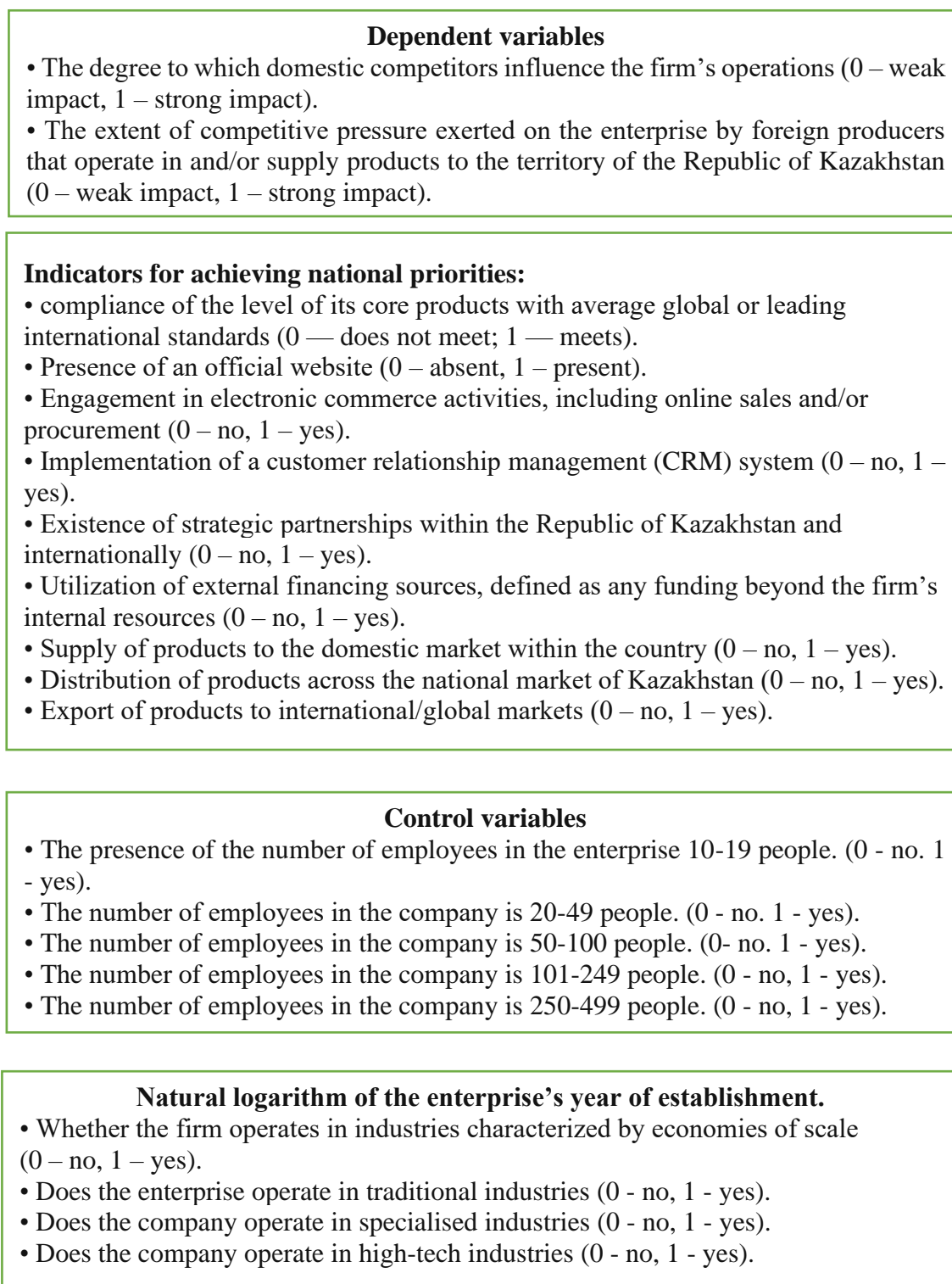


Figure – 1. **Characteristics of indicators for analyzing and assessing the competitiveness of manufacturing enterprises**

*\*Compiled by the authors based on the source [11]*

Today industrial production focuses on significant investments to enhance the competitiveness of agricultural and food products domestically and in other CIS countries. With the adoption of the industrial and innovation-driven development strategy, the authorities introduced mechanisms to support the manufacturing sector [12]. A review of the sector shows that, although technological backwardness persists,

enterprises are gradually adopting modern technologies. However, a large share of products is still produced using low- and medium-level technologies, indicating limited diversification. This is partly due to insufficient systematic efforts to create conditions for stable and sustainable industrial development.

Currently, the main sectors driving Kazakhstan's development and global competitiveness are mining, manufacturing, and agriculture. Despite the pandemic, the manufacturing sector shows positive growth. Industrial development can be further enhanced through increased investment, production localization, and export support measures. Following a brief overview of the manufacturing sector, the study's findings on its competitiveness are presented. A petal matrix was used to analyse competitiveness across different technologies, as shown in Figure 2.

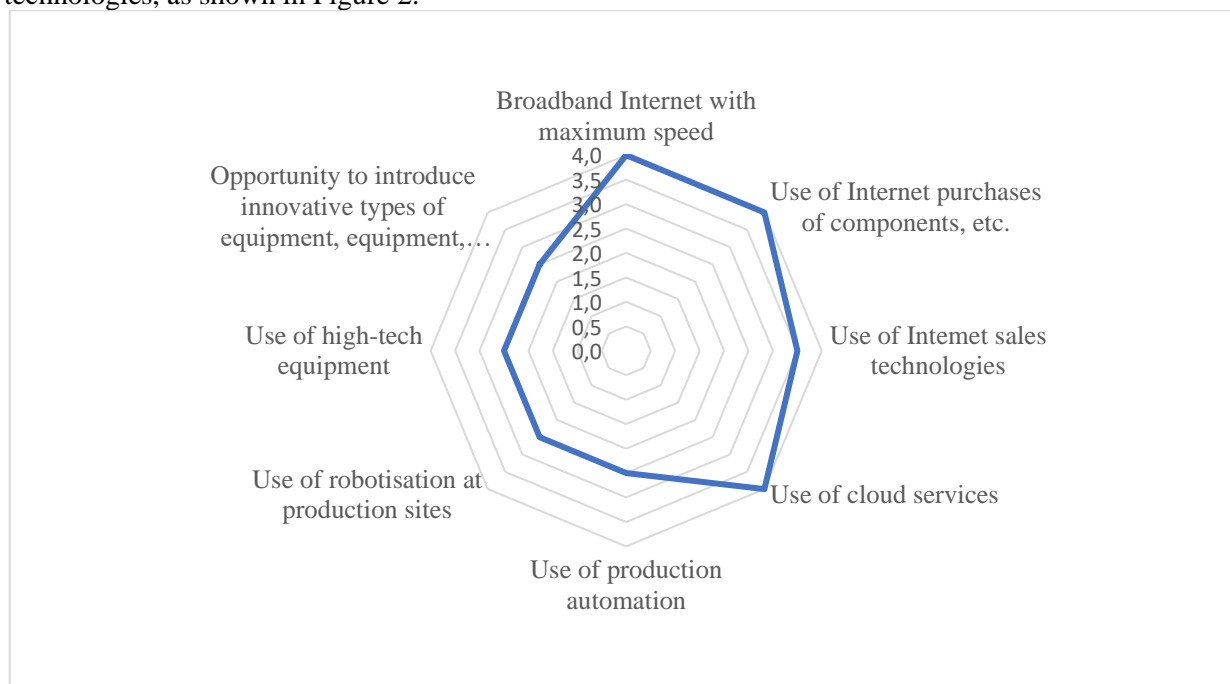


Figure – 2. Indicators of the competitiveness of the manufacturing sector, considering the use of a number of different technologies in the Republic of Kazakhstan

*\*Compiled by the authors based on the research results*

*Research dataset:* The diagram is based on statistical data on the development and implementation of technologies in the manufacturing sector of the Republic of Kazakhstan (including indicators of digitalization, automation, innovation activity, and the technological capabilities of enterprises).

*Indicator composition:* The assessment includes indicators characterizing the level of use of key technologies (including Industry 4.0 elements, digital solutions, automated production systems, and innovative developments).

*Assessment method:* To ensure comparability of indicators, a point scale from 1 to 5 was used, where 1 corresponds to a low level of technology development/use, and 5 corresponds to a high level. Standardization of indicators was carried out based on a comparative analysis of actual values and benchmarks.

*Calculation of the integrated indicator:* the final value (3.4) was obtained as the arithmetic mean of the standardized point scores for all included indicators, allowing for a general characterization of the sector's level of technological competitiveness.

Analysis of average scores shows that the studied indicators give 3.4 points on average, out of 5 possible for the industry. This suggests that there is potential for increased use of technology. The existing technological lag leads to a loss of competitiveness in the global market and increases the level of production costs compared to leading foreign companies. However, the list of indicators in the sector of digital transformation showed that 3D printing technologies, automation of individual processes, and many others are not yet used at manufacturing enterprises in the Republic of Kazakhstan.

Considering that the economy of the Republic of Kazakhstan is currently evolving along an industrial and innovation-driven trajectory, this policy aims to enhance the competitiveness of the manufacturing sector in both domestic and international markets. The government of the republic has repeatedly stated

that support for enterprises today and in the future will be based on a balanced development model, according to which industrial enterprises will receive comprehensive support at all stages of their development – from startup to successful enterprise in the market. Table 1 shows the group of enterprises that will receive the greatest attention in the development of the industrial and innovative economy of the Republic of Kazakhstan according to the development plan of the Republic of Kazakhstan until 2029.

Table – 1

**Categories of enterprises that warrant greater focus within the framework of developing an industrial and innovation-driven economy in the Republic of Kazakhstan**

New industrial players	Strong rear	Competitive Producers	Centres of gravity
<ul style="list-style-type: none"> <li>start-up entrepreneurs of the manufacturing industry and related services</li> </ul>	<ul style="list-style-type: none"> <li>manufacturing enterprises, due to which the volume and range of domestic products will be increased, including consumer goods, and a pool of future exporters has been created</li> </ul>	<ul style="list-style-type: none"> <li>acting exporters, their tasks: expanding the range and increasing the complexity of the export basket</li> </ul>	<ul style="list-style-type: none"> <li>are large, capital-intensive projects, including in basic industries, as well as with the participation of TNCs and foreign investors. Due to them, the development of the production of new types of industrial semi-finished products and the provision of the necessary raw materials will be ensured</li> </ul>

*\*Compiled by the authors in accordance with the development plan of the Republic of Kazakhstan until 2029.*

The development of the manufacturing industry is considered a priority by the state, as this sector ensures sustainable economic growth. Industrial policy occupies a key position within the National Development Plan through 2029. The strategic objective, based on industrialization and innovation, is to strengthen the competitive position of manufacturing companies both domestically and internationally. Successful achievement of this goal would be reflected in the introduction of new products, the expansion and diversification of existing product lines, including consumer goods and items that are in demand in foreign markets.

To develop competitiveness and increase its level in all types of markets (internal and external), it is required to develop a strategy for the development of the country based on a model that would be able to determine the vectors of forming advantages over competitors of internal industry in the global economy in the context of the development of an innovative technological order, as priority. To implement the strategy, first of all, effective organisational, managerial and financial mechanisms for the reproduction and distribution of resources are required, which are necessary to achieve the set strategic development goals.

Given that the above represented a grouping of entities at the micro-, meso- and macro-levels, at which certain tasks are solved and goals are achieved using appropriate methods of assessing competitiveness, it will be possible to identify the main vectors for increasing the competitiveness of Kazakhstani industrial enterprises at each level.

Thus, it can be concluded by systematising the directions of increasing the competitiveness of products and enterprises in general:

1. Significant expansion of the base for assessing the competitiveness of manufactured products.
2. Mandatory observance of the technical parameters of the product with the conditional characteristics of the manufactured products that meet the technical standards of the exporting countries.
3. Accurate determination of the conditional characteristics of the technical parameters of the manufactured products.
4. Compliance with the sales and after-sales service, image of the manufacturer, considering the market situation, fluctuations in demand.
5. Researching competitors to find a relatively free niche ensure the implementation of competitive advantages identifies opportunities for cooperation with a potential competitor.
6. Staff retraining, preparation of the "work shift".

**Conclusion.** The study demonstrates that enhancing the competitiveness of Kazakhstan’s

manufacturing enterprises requires an integrated approach that accounts for both industry-specific characteristics and hierarchical economic relationships (enterprise, industry, region, state). Empirical and analytical results indicate that while state industrial policies have improved performance in certain priority sectors, small and medium-sized enterprises still lag in innovation adoption, highlighting persistent structural and investment gaps.

The scientific novelty of this research lies in the development of a methodological framework that combines classical competitiveness indicators with industry-specific and multilevel factors, allowing a more accurate assessment of enterprise positions. Practically, the findings provide actionable recommendations for policymakers and managers, including targeted investment in high-tech production, digital transformation strategies, and cluster development initiatives, which collectively strengthen national and international competitiveness across Kazakhstan's manufacturing sector.

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### ҚАЗАҚСТАНДАҒЫ ӨНДІРУШІ КӘСІПОРЫНДАРДЫҢ БӘСЕКЕ ҚАБІЛЕТТІЛІГІ

#### Андатпа

Бұл мақалада басқару деңгейлерінің иерархиясы шеңберінде «салалық бәсекеге қабілеттілік» ұғымы қарастырылады, ол келесі санаттарға қатысты: кәсіпорын, сала, аймақ және мемлекет. Онда саланың бәсекелестік қабілеті және иерархияның төменгі деңгейінде (кәсіпорын, өнім) және иерархияның жоғарғы деңгейінде (аймақ, мемлекет) ең жақын бәсекелестеріне қатысты өз орнын нығайту қарастырылады. Зерттеуде келесі әдістер қолданылды: теориялық (талдау; синтез); салыстыру; экономикалық және статистикалық талдау; нәтижелердің графикалық көрінісі. Зерттеу нәтижелеріне сүйене отырып, кәсіпорынның бәсекеге қабілеттілігін тек классикалық критерийлер бойынша ғана емес, сонымен қатар белгілі бір салаға тән көрсеткіштер бойынша және белгілі бір ел мен тұтастай алғанда әлем үшін әртүрлі экономикалық даму сценарийлеріндегі оның өміршеңдігі мен динамикасын сипаттайтын көрсеткіштер бойынша бағалау бойынша ұсыныстар ұсынылады.

Бұл зерттеудің мақсаты - негізгі бәсекелестерді талдауға және зерттеліп отырған кәсіпорынның бәсекеге қабілеттілік деңгейін жалпы қабылданған критерийлерді қолдана отырып бағалауға бағытталған теориялық қағидалар мен практикалық әдістерді жетілдіру.

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## **КОНКУРЕНТОСПОСОБНОСТЬ ПРЕДПРИЯТИЙ ОБРАБАТЫВАЮЩЕЙ ПРОМЫШЛЕННОСТИ КАЗАХСТАНА**

### **Аннотация**

В статье рассмотрено понятие «конкурентоспособность отрасли» в иерархии уровней управления которое относится к категориям: предприятие, отрасль, регион, государство. В статье изучена способность отрасли конкурировать и укреплять свои позиции относительно ближайших конкурентов, как на нижнем уровне иерархии (предприятие, продукт), так и на верхнем уровне иерархии (регион, государство). В исследовании использованы следующие методы: теоретический (анализ; синтез); сравнение; экономико-статистический анализ; графическое представление результатов. По результатам исследования предложены рекомендации по оценке конкурентоспособности предприятия не только по классическим критериям, но и по показателям, характерным для данной конкретной отрасли и характеризующим степень её жизнеспособности и динамичности при различных вариантах развития экономики данной страны и мира в целом.

Целью данного исследования является совершенствование теоретических принципов и практических методов, направленных на анализ основных конкурентов и оценку уровня конкурентоспособности изучаемого предприятия с использованием общепринятых критериев.

