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CHARACTERISTICS OF THE PREREQUISITES AND SOCIO-ECONOMIC NECESSITY FOR DIVERSIFYING ENTERPRISES' ACTIVITY

ABSTRACT

The relevance of this study stems from the complex financial and economic challenges businesses face during wartime. The research aims to identify the factors and reasons that necessitate the diversification of enterprise activities and to elucidate its significance for society. The advantages of diversification were evaluated during the study, and potential reservations regarding its implementation were examined. The key findings included identifying factors necessitating diversification during wartime, such as the migration of regular consumers abroad, disruptions in established supply chains for resources and product sales, changing consumer needs, and damage or destruction of property.

Additionally, the study highlighted diversification's main benefits to enterprises, including risk reduction, enhanced competitiveness, and improved financial health. It is emphasized that diversification plays a crucial role in stabilizing the socio-economic situation in the region by expanding job opportunities, reducing unemployment, providing essential goods and services to the population, and increasing tax revenues. The study argues that enterprises with a closed production cycle can achieve less loss-making and risky operations. Additionally, an analysis of the performance indicators of retail enterprises revealed a 25.7% decrease in sales volumes in 2022 compared to 2018. The types of activities of a retail enterprise specializing in the production and sale of cosmetic and pharmaceutical products were analyzed, and it was proposed to supplement these activities with new initiatives to enhance production self-sufficiency. An assessment of the effectiveness of each proposed new activity was conducted, leading to the formulation of an optimal diversification plan that combines two new types of activities with the lowest implementation risk.

Keywords: goods and services, product range expansion, production costs, logistics routes, diversifying, risk mitigation

JEL Classification: C44, D24, O14

INTRODUCTION

Martial law in Ukraine has impacted all spheres of the economy and state life, adversely affecting the financial condition of businesses and the population. While business serves as the engine of economic development and innovation, the hostilities have inflicted significant damage, including the loss of markets for goods and services, layoffs of skilled workers, decreased demand for products, disruption of established logistics, and destruction or damage to facilities and equipment. This situation necessitated the adaptation of enterprises to the new realities of life. Businesses were compelled to relocate their operations to different geographical areas and seek innovative ideas for altering their product ranges and sales methods. These conditions underscore the importance of researching diversification as a management strategy, the prerequisites for determining its necessity, and the socio-economic justification for implementing this strategy. Product diversification can provide significant opportunities to increase sales, mitigate risks, and enhance market competitiveness.

LITERATURE REVIEW

The concept of diversification as an economic category was explored by O. Lomonosova (2020), who highlighted its key features and established the necessity for a clear distinction between the various concepts encapsulating the essence of diversification. V. Proskura et al. (2023) identified the main directions of diversification as follows: 1) within the retail business and 2) expanding economic activities by integrating the enterprise into new business sectors. The researchers emphasized that minimizing the risks associated with activities or products is a crucial foundation for selecting the direction of diversification for a trading enterprise.

The diversification of international trade risks was examined by F. Esposito (2022), who emphasized that a risk diversification strategy can yield more significant gains from trade than those anticipated by traditional trade models that focus solely on risk neutralization. It is essential to acknowledge that all investments carry a certain level of risk, making it impossible to eliminate it. However, risk diversification can help mitigate the potential negative impact of overexposure to any single area. Additionally, diversifying investments by allocating funds across various assets is crucial for enhancing overall portfolio resilience.

The study by L. Mustafa et al. (2023) examined the impact of product and service diversification and the development of supplier and customer networks on business success. The authors highlighted the significance of diversifying offerings to adapt to market dynamics and mitigate risks. They also emphasized the crucial role of effective relationship management in attracting external resources and enhancing productivity. By diversifying their products and services and fostering strong networks with suppliers and customers, enterprises can bolster their competitive advantage, expand their market share, and achieve stable profitability.

H. Le (2019) explored the relationship between corporate diversification strategies and the overall efficiency of a company's operations. The study found no definitive consensus on the benefits of diversification for corporate performance. However, we emphasized that an enterprise's core competence is fundamentally supporting diversified business operations. This foundational competence is crucial in formulating and implementing effective diversification strategies.

L. Wang et al. (2023) examined optimal strategies for business expansion, noting that expansion is often irreversible and involves opportunity costs. Using expected utility optimization, the researchers analyzed the associated costs and incentives related to elevated trading risks, highlighting that the additional income generated through expansion is a primary motivation for pursuing growth opportunities.

A. Maulana et al. (2023) analyzed companies' business diversification strategies and their growth potential, identifying internal and external environmental factors impacting a company post-diversification. The study introduced a new strategic concept, showing varied standings among business units—some positioned as "leaders," while others require careful management or integration with stronger units. The researchers also underscored the importance of technological advancement in business to sustain competitive advantage and unlock new opportunities.

The work elucidates the essence of diversification and categorizes it by level and direction. An exploration of the theoretical approaches of various scholars reveals a significant interest in this topic. I. Mishchuk (2022) examined the key trends in the diversification practices of trade enterprises, analyzing the dynamics of turnover volume and profitability, which fluctuate due to diversification processes. Additionally, Mishchuk addressed the challenges associated with the formation of corporate systems in trade that utilize diversification strategies.

There are also many different classifications of diversification in the scientific world. For example, S. Gopal et al. (2021) examine the process of diversification through branching, mainly through the expansion of existing subsidiaries and/or the creation of new firms and argue that business groups take advantage of the opportunity-rich environment to enter new unrelated businesses in this way.

The advantages of diversification discussed in this work highlight the reasons behind its implementation in business and the subsequent effects on company operations. Consistent with these findings, D. Lederman et al. (2021) explored the economic implications of a new concept of trade diversification—covert diversification. They noted that, unlike traditional measures, covert diversification considers potential shifts in production factors towards different activities. The authors argue that hidden diversification is a crucial determinant of macroeconomic stability.

Similarly, W. Khairul et al. (2024) emphasize that diversification strategies significantly enhance the sustainability of hotel firms. They conclude that hotel companies should diversify their services or products to capture market share through customer loyalty and to improve long-term organizational performance. Investigating the hotel sector further, U. Enobong

et al. (2022) examined the role of innovation as a moderating factor in the efficiency of diversification. Their study demonstrated that concentric and conglomerate diversification strategies have a substantial positive impact on the stability of hotel firms.

In contrast, R. Staglianò et al. (2011) investigated the theoretical foundations behind diversification decisions. They argue that theoretical and empirical models often overlook the business conditions that influence the motivation to diversify. The research highlights that implementing a diversification strategy often incurs additional costs; however, if executed successfully, it can lead to increased profits for the company. Various scholars have examined the impact of diversification on different financial indicators within enterprises. For instance, S. Carrasco et al. (2021) explored the relationship between trade, economic growth in developing countries, and the diversification of product exports, noting that developing nations benefit significantly from importing high-tech and capital goods. Similarly, V. Sarin et al. (2022) investigated the connections between export volatility, export diversification, and economic growth, convincingly demonstrating that export diversification positively influences economic growth.

Some researchers have explored the impact of diversification on productivity from various angles. For instance, G. Bet (2024) demonstrated that diversification is crucial in explaining productivity differences among various units and over time. Additionally, N. Putri et al. (2022) examined the activities of electronic companies, investigating how product diversification influences firm productivity. Their findings indicate that the simultaneous application of product and international diversification can positively or negatively affect productivity.

Simultaneously, J. Santalo et al. (2008) demonstrated that the effect of diversification on productivity varies across industries. Diversified firms tend to perform better in sectors with fewer non-diversified competitors; however, their efficiency diminishes as the number of specialized firms in their competing industries increases.

N. Valmari (2023) assessed the production functions of multi-product firms, proposing a strategy for resource allocation and production functions within monopolistic competition.

Having analyzed the diversification of agricultural enterprises, H. Ahmadza (2022) claims that managers should more often recognize the diversification of crops (types of products) to increase the productivity and sustainability of agriculture, which can be agreed with.

However, contrary to other authors, P. Arte et al. (2022) argued that product diversification moderates international diversification and productivity. The authors found that productivity is higher in firms with low product diversity and lower in firms with high product diversity.

S. Lakner et al. (2018) highlighted that the diversification of agricultural enterprises can stem from multifunctional agriculture, although it may sometimes come at the expense of farm efficiency. They demonstrated both the advantages and disadvantages of diversification for organic farms and confirmed that agricultural subsidies significantly impact the technical efficiency of these farms. Meanwhile, J. Gloria et al. (2024) explored the diversification of production enterprises concerning their economic development. They proposed an economic theory that examines the relationship between diversification and economic development through a multi-industry model, establishing that enterprises with a well-developed production structure tend to generate higher incomes than their counterparts.

M. Žibert et al. (2022) focused on developing a strategy for diversifying non-agricultural activities on farms through system dynamics modelling. Their study revealed that the transition to agritourism is contingent upon the level of tourism development in a given area. Additionally, the system is influenced by government subsidies allocated to expand primary agricultural activities.

The analysis of financial indicators of small and medium-sized enterprises carried out by F. Menne (2022) showed that the potential of human resources and business diversification affect the financial efficiency of enterprises.

Z. Li et al. (2021) explored the costs and benefits of diversification, emphasizing that firms gain insight into effective crisis management strategies during a crisis. Additionally, E. Omaliko et al. (2022) demonstrated the influence of corporate diversification on enterprise stability, supporting the idea that corporate diversification contributes to the sustainability of businesses.

The paper suggests diversifying the company's activities by introducing new types to facilitate a closed production cycle. In support of this approach, K. Gielens et al. (2021) advocate for adopting a "smart strategy." They emphasize that retail enterprises possess extensive data that can be leveraged to understand the diverse needs of customers, as well as technologies to develop suitable products and effective communication strategies. Accordingly, we concur with the authors that a smart strategy addresses various consumer needs and enhances retail differentiation.

The work also highlights the role of diversification in enhancing the enterprise's competitiveness. A similar perspective is expressed by W. Enyindah (2020), who identified a positive and significant relationship between diversification strategies and the business performance of food and beverage companies. Enyindah recommended that, in light of the evolving competitive landscape within the industry, firms should diversify their food and beverage products to achieve growth and profitability.

The analysis of the influence of diversification strategies on the economic indicators of enterprises was conducted by A. Arif (2023). Arif demonstrated that various external factors can affect the data model, highlighting that diversification significantly impacts the results of a firm's activities. Furthermore, managerial ownership plays a substantial positive role in the effectiveness of diversification strategies.

S. Adam et al. (2022) examined the impact of diversification on profitability and operational risk, revealing that industrially diversified companies can reduce operational risk and enhance returns, as measured by return on assets. In contrast, their findings indicated that internationally diversified companies tend to experience decreased returns.

In the practical operations of large companies, several business models are often implemented; however, the dynamics of business model portfolios remain underexplored in academic research, particularly when these dynamics occur within the digital space. Studies on business model diversification strategies have focused on analyzing the synergy between an enterprise's resources and capabilities to better understand and enhance the strategic alignment across its diversified models. Although presenting significant opportunities for enterprises to gain competitive advantages, the demand and consumer complementarity category requires further in-depth study. By analyzing various business models developed by Amazon, P. Aversa and colleagues (2021) illustrated how customer complementarities can bolster enterprise growth and strengthen competitive advantage, especially within digital markets. They proposed mechanisms for an integrative business model to enhance competition, including a diagram outlining these relationships' causal structures.

AIMS AND OBJECTIVES

Although many scholars have explored the essence of enterprise activity diversification—its distinctive features, types, benefits, and cautions—the factors that drive the necessity for diversification, particularly under conditions of martial law in Ukraine and the extensive destruction of civilian and critical infrastructure due to enemy shelling, require further in-depth analysis. This complex context underscores the need for additional study to address the prerequisites compelling enterprises to diversify their activities in such challenging circumstances.

This work aimed to examine the reasons and factors underlying the need for enterprise activity diversification by analyzing the state of trading enterprises both before the war and after the onset of the full-scale invasion in 2022. The primary objectives were to identify the advantages of enterprise activity diversification and to offer recommendations for assessing the effectiveness of diversification implementation within trade enterprises.

METHODS

This study was conducted using data from Ukrainian trade enterprises for the period 2018–2022. The prerequisites and socio-economic need for company activity diversification were identified through a comprehensive approach to analyzing the challenging conditions driving diversification during wartime, comparison of product sales volumes and production costs of trade enterprises, probability theories, and methods of mathematical statistics to evaluate the effectiveness of specific types of diversification; and graphical methods for data visualization.

General and financial data on trading and manufacturing companies were sourced from the analytical portal Opendatabot ("Information about entities...", 2024). Performance indicators of trading enterprises were obtained from the Statistical Collection *Activity of Business Entities* for the years 2020 and 2022 ("Statistical Collection...", 2023).

The study considered four scenarios of the development of events (A1, A2, A3, A4) in the market with different subjective probabilities (p_1 , p_2 , p_3 , p_4).

Profitability from the implementation of a specific type of activity under the condition of four possible development of events scenarios in specific markets (A_i), which have different subjective probabilities (p_i), is calculated as a percentage of the cost of production in the income from its sale:

$$X_{Ai}(p_i) = \left(\frac{H_{ij}}{C} - 1 \right) * 100\%, \quad (1)$$

where: X is a random variable; A_i – is the scenario of the development of an event on the market; p_i - is subjective probability; H_{ij} – is income from sales; C is the cost of sales

The expected efficiency of the enterprise is calculated by the ratio of the profitability outcome to the total expenses incurred to achieve that profitability. The effectiveness of this ratio can vary significantly based on various influencing factors, making it a probabilistic measure. In this study, the specific value of activity efficiency, denoted as x , resulting from the expansion of operations will be treated as a random variable X .

To calculate the variance of a discrete random variable, the following formula was used:

$$D(X) = M(X^2) - [M(X)]^2, \quad (2)$$

where: X is a random variable; $D(X)$ is the value of the dispersion of a discrete random variable; MX is the value of the mathematical expectation of the deviation of a random variable.

The mathematical expectation of the square of the deviation of a random variable is calculated according to the formula:

$$M(X^2) = x_1^2 p_1 + x_2^2 p_2 + \dots + x_n^2 p_n, \quad (3)$$

where: x is a random variable; p is the probability of an event.

When the efficiency variance is zero, it indicates a complete absence of uncertainty, implying no associated risk. Conversely, a higher variance signifies more significant uncertainty and increased risk. In this context, the standard deviation of efficiency (σ) is a key measure of risk (Nekrasova et al., 2021).

The mean squared deviation is the square root of the variance:

$$\sigma = \sqrt{D(X)}, \quad (4)$$

where: σ is the root mean square deviation; $D(X)$ is the variance of a discrete random variable.

Suppose a choice must be made between two enterprise activity types with the same average expected profitability ($m_1=m_2$). However, the root mean square deviation of the first type of activity is greater than that of the second ($\sigma_1>\sigma_2$). In that case, the second type will be preferred. Its implementation entails a lower risk than the first type (Nekrasova et al., 2021).

For each combination of m and σ , the expected risk and expected return behaviour can be established.

The expected profit from implementing the diversification plan, when considering different shares (percentages) of production, can be calculated using the following formula:

$$m p_i = V_1 * m_i + V_2 * m_i, \quad (5)$$

where: $m p_i$ – profit from implementing the diversification plan; $V_1 V_2$ - shares (percentages) of production.

RESULTS

Diversification is a strategic approach within a company's operations that involves entering new markets or engaging in industries where its products have not been previously sold. The primary objectives of diversification include mitigating business risks by spreading them across various areas, generating new income sources, leveraging new opportunities, and enhancing the enterprise's overall financial and operational stability.

A well-planned and carefully calculated diversification strategy can invigorate an enterprise facing challenging circumstances, making it particularly relevant during wartime.

The diversification strategy can be classified by level and direction (Table 1) (Williams..., 2024).

Table 1. Classification of Diversification Used by Business Entities. (Source: compiled by the authors based on data (Williams..., 2024))

Classification Criteria	Diversification	Characteristics (example)
By level	Vertical	The enterprise starts manufacturing products that are technically or marketing-related to its previously produced items
	Horizontal	Entering new areas of activity that are unfamiliar to the enterprise but aimed at fulfilling the needs of existing customers
By direction	Diversification of products	A business primarily focused on selling goods in a specific category (such as clothing) can expand its offerings by introducing products in other categories, such as home goods or accessories
	Market	Expansion of the enterprise from domestic markets to international markets for sales purposes
	Industry	An enterprise within a specific industry can diversify its operations into other industries
	Diversification of services	The company is broadening the scope of services it can offer
	Mergers and Acquisitions	Acquisition or merger with another company that works with other products, services, etc
	Joint ventures	Mergers of enterprises with others and expansion of cooperation
	Geographical	A business operating in only one region can expand into new geographic regions

The advantages of the vertical diversification strategy outlined in Table 1 include coordinating and controlling the company's operations, stabilizing internal business relations, ensuring and adjusting the supply of material and technical resources, and enhancing proximity to end consumers. However, the critical disadvantages of vertical diversification include the company's dependence on external changes. This limited sales market can reduce competitiveness and high costs associated with the need to improve activities due to elevated expenses. These disadvantages can ultimately lead to a decrease in the efficiency of vertical diversification.

The advantage of horizontal classification lies in the ability of enterprises that produce specific products to gather information from buyers regarding the demand for other types of goods or services and effectively utilize that information. This approach enables companies to comprehensively address consumer needs while achieving a synergy effect, as the combination of various activities generates a more significant overall impact than each activity would yield individually.

Diversification is a strategic management decision aimed at reducing risks and increasing income based on calculations made by company management. While it can be a highly effective solution in specific contexts, it may not always be the most advantageous approach in other situations.

Diversification can be a successful business idea in the following situations:

1. Saturation of the market with a particular product or service. In this case, diversification helps the business to attract new consumers.
2. Management of external and internal risks. With the help of diversification, enterprises differentiate their investments and reduce the impact of various risks.
3. Increasing competitiveness, which means expanding the range of products offered, attracting new customers, and entering markets that competitors do not have access to.
4. Increasing business stability and reducing its dependence on one product or market.

In situations where the risks associated with diversification are significant—such as issues related to resource allocation, potential conflicts of interest during mergers or acquisitions, and a low probability of successfully entering new markets—the idea of diversification may not be suitable. Poorly executed diversification efforts can result in new market failures and substantial financial losses.

Successful examples of diversification include the strategic decisions made by the American company Apple. During the decline of its computer business in the early 1990s, Apple began releasing the iPod and iTunes software in 2003. Subsequently, in 2007, the company launched the iPhone, which utilized many of the same resources and design principles as its computers (Williams, 2024). iPhones enjoy immense popularity today, and Apple continues to thrive as a successful business.

However, not all diversification efforts lead to success. For instance, in the 1990s, Harley-Davidson, renowned for its motorcycles, attempted to expand into the fragrance market by launching a perfume. This move angered many of its loyal

fans and ultimately backfired. The unsuccessful launch served as a wake-up call for the company, prompting it to adopt a more thoughtful and strategic approach to diversification (Williams, 2024).

Specific prerequisites typically guide every decision. When a company's situation deteriorates significantly or is experiencing stable growth and seeks to expand its activities, the concept of diversification comes into play. The reasons for considering diversification can include the following (Figure 1).

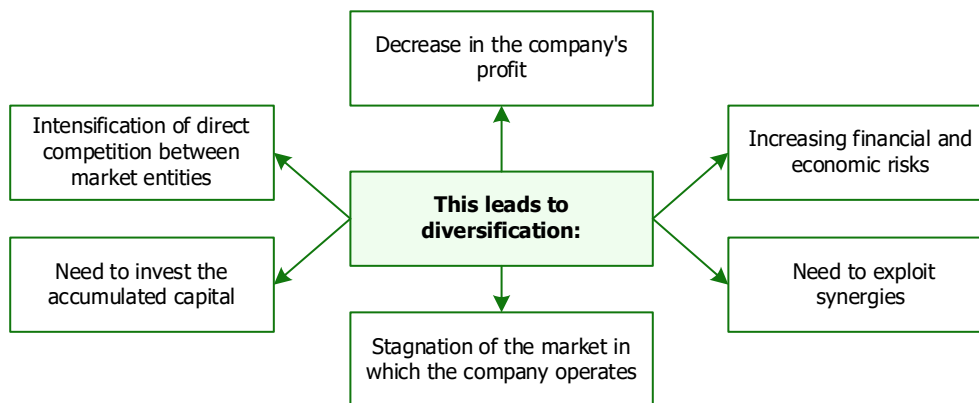


Figure 1. Main Factors and Reasons for Diversification. (Source: Williams..., 2024)

Figure 1 illustrates the primary conditions that drive diversification during peacetime (Williams..., 2024). Upon analyzing these prerequisites, it is important to recognize that they can be categorized as general economic or specific factors related to the industry.

General economic prerequisites should include all those that are characteristic of enterprises of all types of activity: increase in profit, entry into a new market (or coverage of different market segments), but at the same time, the indicator of cost-effectiveness in the chosen field of activity must be at a satisfactory level; the need to increase the efficiency of the use of free financial resources and the material and technical base at the disposal of the enterprise; increased competition in a particular area; favourable conditions for the production of new products.

Specific prerequisites for diversification vary by industry and are closely tied to the unique characteristics of each sector. For instance, in agriculture, these may include changes in soil fertility or climatic conditions in a particular area. In contrast, for enterprises in heavy industry, relevant factors encompass shifts in technological processes that render previously essential products obsolete, as well as changes in the structure of product exports.

It is essential to delineate the specific prerequisites characteristic of the wartime period:

1. Product consumers are decreased due to population migration to other regions or abroad.
2. The closure of branches of enterprises located in high-risk areas.
3. A shift in consumer needs, such as a decline in the purchase of furniture and appliances, coupled with an increase in demand for construction materials, necessitates expanding the range of goods and services offered.
4. The inability to utilize specific logistical routes due to occupation or ongoing hostilities.
5. A deterioration in enterprises' financial and economic conditions stems from the loss or damage of property during combat shelling.

Such prerequisites catalyze the diversification of enterprise activities, offering businesses an opportunity to stabilize and grow amid challenging economic conditions in the country.

Diversification, as a vital tool for enhancing the operations of an enterprise, significantly contributes to the socio-economic development of territorial communities and the provision of essential goods and services to the population. It also acts as a critical catalyst for the recovery of the national economy. The successful activities of small and medium-sized businesses ensure that consumer demand is met, which stimulates monetary circulation within the economy and fosters the socio-economic stability of territorial communities.

Furthermore, the operations of enterprises promote increased employment opportunities for the population and enhanced tax revenues, which is crucial given the persistent rise in external public debt. This, in turn, helps to generate financial resources for pension provisions.

By implementing a diversification strategy, the enterprise can:

1. Provide a greater number of people with products.
2. Increase employment opportunities for the population.
3. Establish new logistics routes for product delivery and sales.
4. Collaborate with smaller, less competitive enterprises to strengthen their market position.
5. Enhance tax revenues for governmental budgets.
6. Generate profits to facilitate further improvements and contribute to the country's economic growth.

This underscores the socio-economic necessity of diversifying enterprise activities under wartime conditions. Therefore, it is essential to identify the factors that will contribute to the success and effectiveness of diversification.

To effectively promote diversification, it is essential to identify the strengths and weaknesses of the enterprise. Management reporting can play a crucial role in this process by providing detailed insights into the company's financial indicators, highlighting areas of activity that are performing well and those that require improvement. Another vital tool is the assessment of the financial feasibility of diversification opportunities, which involves providing comprehensive financial forecasts and analyses. Effective risk management is also vital for successful diversification, as it enables a detailed financial analysis of income and expenses along with risk forecasting.

Performance monitoring is also crucial, as it allows for assessing the effectiveness of the new activity areas following the implementation of the diversification strategy. This information is invaluable for managers, enabling them to make informed decisions regarding the viability and ongoing operation of these new types of activities within the enterprise.

Trade enterprises serve as a vital link among business entities, with their primary activities encompassing purchasing, storing, selling goods, and providing services. Their main objective is to generate profit while effectively meeting the needs of consumers.

An analysis of the performance indicators of trade enterprises can be conducted by comparing data from the pre-war period to the period following the introduction of martial law, as presented in Table 2 (Statistical Collection..., 2023).

Table 2. Characteristics of the Trade Enterprises Activity in Ukraine (2018-2022). Note: Enterprises in the sector of "Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles". (Source: compiled by the authors based on data (Statistical collection..., 2023))

Indicators	Period, years				
	2018	2019	2020	2021	2022
Total number of operating enterprises, units	1839593	1941625	1973577	1956248	1732508
Number of enterprises*, units	818217	834159	826129	777419	661158
The share of trade enterprises in their total number, %	44	43	42	40	38
The volume of products sold, UAH million	4110094.2	4345851.2	4519524.7	5994849.5	4452093.6
Production costs, UAH million	424118.5	504879.0	571803.3	892066.5	822987.8

The data in Table 2 shows that the number of enterprises operating in the wholesale and retail trade sector decreased by 20% in 2022 compared to 2018. Additionally, their share in the total number of economic entities fell by six percentage points during the same period. Furthermore, the sales volume for trade enterprises in 2022 declined by 25.7% compared to the previous (pre-war) period, while production costs nearly doubled compared to 2018 (Statistical Collection..., 2023).

These indicators suggest a decline in the activity of trade enterprises, highlighting the urgent need to explore strategies for increasing sales volumes and improving their financial health.

Diversification of activities is a key strategy for expanding the capabilities of trade enterprises and adapting their operations to the challenges of wartime. Therefore, it is essential to analyze the activities of specific enterprises and explore the potential for diversification.

Limited Liability Company "Dobrodia FUDS" (hereinafter referred to as "Dobrodia FUDS" LLC) is a manufacturing enterprise primarily engaged in the production of flour and grain products (Information about entities..., 2024). Additionally, the company participates in various other activities, including the trade of agricultural and textile raw materials, semi-finished products, live animals, fuel, ores, metals, industrial chemicals, food products, beverages, and tobacco products. It also engages in various forms of wholesale trade, encompassing grain, unprocessed tobacco, seeds, and animal feed.

LLC "Dobrodia FUDS" is recognized for producing flakes and mixtures from grain crops. At the onset of the full-scale invasion, the enterprise was occupied for several months, during which its technological production facilities were partially looted, and the lands designated for cereal sowing were mined.

The LLC "Dobrodia FUDS" financial statements indicated that the company's net profit in 2021 was UAH 18.7 million. However, in 2022, the company lost UAH 15 million. In 2023, while the company reported a profit, it was three times lower than the pre-war level, amounting to UAH 5.6 million (Information about entities..., 2024).

Despite significant losses, the company swiftly regained its pre-war production levels, expanded its product range, and opened its own sales office in Poland. It continues to adapt its strategy by reorienting products for export (Leonidov, 2023).

Private Enterprise "Golden-Pharm" (hereinafter referred to as "PE Golden-Pharm") has been operating in the pharmaceutical and cosmetic markets of Ukraine since 1998 (Information about entities..., 2024).

The main activity of PE "Golden-Pharm" is the production of perfumes and cosmetics. In addition, the enterprise engages in several supplementary activities, including producing baby food and dietary products, wholesale trade in various food products, perfumery and cosmetic items, and pharmaceutical products. The company also produces soaps, detergents, cleaning and polishing agents, and essential oils. Furthermore, PE "Golden-Pharm" provides information services and conducts market and public opinion research. The enterprise serves as a distributor for both foreign and domestic manufacturers, including NVO "PhytoBioTechnology", "Vansiton", "ANS Performance", "Country Life" and others.

At the beginning of 2024, PE "Golden-Pharm" shifted its primary focus from the wholesale trade of perfumes and cosmetics to producing these products.

Financial reporting indicators of PE "Golden-Pharm" show that during 2020-2023, income and net profit grew steadily (Information about entities..., 2024).

Diversification of a company's activities undoubtedly impacts its income and expenses. Implementing this strategy requires certain expenditures, which the company must manage without jeopardizing its financial stability. However, if the diversification is successful, these expenses can yield returns that exceed the income generated before the diversification.

Therefore, it is crucial for a business to thoroughly analyze the costs and benefits of diversification before making a decision.

A vital advantage of the diversification strategy is income stability. When companies diversify, they offer different products or services or enter different markets, which helps businesses maintain a steady stream of revenue by reducing the impact of fluctuations in any one market or product category.

An enterprise may encounter financial resources, personnel, or time limitations during diversification. Diversification necessitates allocating resources to new ventures; however, insufficient resources can adversely affect finances, workforce, and management capacity. This scarcity can hinder effective maintenance and growth, leading to inefficiencies and missed opportunities.

Financial risk becomes a significant concern for businesses when diversifying, as it relates to the uncertainties and challenges associated with effective financial management. There is always a possibility that these investments may not yield the anticipated returns. Companies must thoroughly evaluate their decisions' potential costs and benefits to mitigate financial risk. Key factors to consider include competition, market trends, and resource requirements.

Consider establishing a closed production cycle to enhance operational efficiency and maintain market presence during challenging times. Enterprises that operate with a closed production cycle benefit from a comprehensive approach, encompassing all activities from raw material production to the release of finished products. This integration allows for reduced production costs and increased competitiveness.

One such enterprise is the Open Joint-Stock Company "Ternopil Union 'Texterno", which produces cotton fabrics and is recognized as one of the largest companies with a fully closed production cycle (Information about entities..., 2024). Similarly, the Bilotserk Educational and Production Enterprise of the Ukrainian Society of the Blind operates under a closed

technological cycle, encompassing everything from the design development of equipment to the final production of goods. Additionally, Velta-Cosmetics Limited Liability Company, specializing in cosmetics and household chemicals, employs a closed production cycle essential for product creation. This includes developing and producing bottles, formulating and implementing recipes and technologies, and designing labels and packaging (Information about entities..., 2024).

Prospects for Diversification of the Trade and Production Enterprise

The closed production cycle offers several advantages that enhance the financial stability of enterprises, particularly crucial during wartime when businesses face numerous challenges.

Golden-Pharm LLC primarily focuses on the markets for baby food, dietetic products, perfumes, cosmetics, and pharmaceuticals. Given this concentration, the company should enhance its production independence by processing raw materials for specific activities and establishing the production of packaging materials for its products.

To move towards establishing a closed-loop production system, PE "Golden Farm" should consider expanding its range of activities by incorporating the following:

1. Processing of milk, which will allow the use of own raw materials in the production of baby food.
2. Cultivation of medicinal crops, which will be used in the process of production of cosmetic and pharmaceutical goods.
3. Specialized design activities, which will solve the problem of finding companies that provide appropriate services and will allow to reduce costs for the development of labels and packaging for goods.

The proposed expansion of the types of activities for the trade and production enterprise should increase the efficiency of its activity for the calculation of which formulas (1) and (2) were used.

To determine the type of activity optimal for implementation, the results of the calculations are below. Data on the cost of production and profit from the implementation of each of the proposed activities are given in Table 3 (Information about entities..., 2024).

Table 3. Indicators of Planned Costs and Profits from Proposed Diversification Activities at "Golden-Farm" PE.					
Type of activity	Cost of production, UAH thousand (C)	Income from product sales, UAH thousand (Hij)			
		A1	A2	A3	A4
		P1=0,4	P2=0,2	P3=0,1	P4=0,3
Processing of milk	75.6	90.8	83.5	98.9	92.3
Cultivation of medicinal crops	59.1	68.2	77.5	80.4	70.6
Specialized design activities	81.3	95.5	102.7	93.1	105.9

According to the data presented in Table 3, it is possible to calculate the profitability from the implementation of a specific type of activity (for example, milk processing) under the condition of four possible scenarios of the development of the situation on the markets, which have different subjective probabilities, using formula 1 for this purpose. The average expected profitability can be calculated by the formula of the mathematical expectation of the deviation of a random variable (Formula 3).

The risk associated with the introduction of milk processing will be calculated using the formulas of dispersion $D(X)$ (Formula 2) and root mean square deviation σ_1 (Formula 4).

Calculated data on the effectiveness of diversification for all types of activities proposed to be implemented at the Golden-Farm PE are shown in Table 4.

Table 4. Indicators of Potential Efficiency from the Expansion of Activities at "Golden-Pharm" PE.						
Type of activity	Xij				mi	oi
	A1	A2	A3	A4		
	P1=0,4	P2=0,2	P3=0,1	P4=0,3		
Processing of milk	20,1	10,5	30,8	22,1	19,8	5,56
Cultivation of medicinal crops	15,5	31,1	36,0	19,4	21,8	7,43
Specialized design activities	17,5	26,3	14,6	30,2	22,8	6,08

The information presented in Table 4 shows that the first type of activity (milk processing) poses the lowest risk, making it a priority for further implementation and development.

For an enterprise contemplating diversification, three distinct plans can be formulated, each representing different combinations of activities:

- 1st – the first and second types of activities.
- 2nd – the first and third types of activities.
- 3rd – the second and third types of activities.

Formula 5 was used to calculate the expected profit of diversification. The risk of a specific production plan was calculated by the formula of root mean square deviation (Formula 4). The results of the calculations are given in Table 5.

Table 5. Structure and Expected Effectiveness of Various Diversification Plans (%).

Structure of the diversification plan				Expected performance and risks of diversification plan options			
Production share		Variant 1 (1 i 2)		Variant 2 (1 i 3)		Variant 3 (2 i 3)	
first type	second type	mp1	op1	mp2	op2	mp3	op3
100	0	19.80	5.76	21.80	7.43	22.8	6.08
90	10	19.80	5.49	21.90	5.49	22.70	7.55
80	20	20.20	5.70	22.00	5.43	22.60	7.64
70	30	20.41	5.89	22.10	5.48	22.51	7.76
60	40	20.61	6.17	22.20	5.64	22.41	7.93
50	50	20.81	6.55	22.30	5.90	22.31	8.14
40	60	21.01	7.00	22.40	6.25	22.21	8.37
30	70	21.21	7.51	22.50	6.67	22.11	8.64
20	80	21.42	8.06	22.60	7.15	22.02	8.94
10	90	21.62	8.66	22.70	7.67	21.92	9.26
0	100	21.82	9.29	22.80	8.24	21.82	9.60

The data presented in Table 5 indicate that, depending on the structure of the diversification plans, an increase in the expected profit of a specific plan is accompanied by a corresponding change in its risk level.

For each variant of the plan, we can choose a certain number of products, in the case of production, the risk becomes minimal compared to other variants (Table 6).

Table 6. Results of the Search for the Optimal Structure of the Diversification Plan, %.

The structure of the diversification plan with different shares of production		Portfolio option	Expected indicators	
first type	second type		efficiency	risk
0.9	0.1	1 and 2	19.8	5.49
0.8	0.2	1 and 3	22.0	5.43
1.0	0	2 and 3	22.8	6.08

The calculations presented in Table 6 indicate that the optimal diversification plan consists of 80% milk processing and 20% specialized design activity. This combination yields the highest expected indicators while maintaining the lowest associated risk compared to other activity combinations.

Thus, under martial law, the prerequisites for diversifying enterprise activities arise primarily from the consequences of hostilities, such as damage to production infrastructure, destruction of product stocks, disruption of logistics nationwide, shifts in population needs, and financial difficulties businesses face.

Companies that adapt to the needs of the military and the victims will strengthen their reputation and trust. Enterprises in the light, cosmetic, and chemical industries may start producing wet wipes, soap and disinfectants, disposable towels, antiseptics, and gels. These products are essential both on the front line and at home, especially where access to water is

limited. This reorientation contributes to social sustainability and ensures that companies remain economically active and enter new markets.

Diversification involves expanding activities, often reorienting towards new markets or even uniting with other entities, opening new opportunities and contributing to the socio-economic development of regions. A functioning enterprise within a region plays a vital role in reducing unemployment and supplying the population with essential goods and services. Financial resources, human, production, and other necessary assets must back successful diversification. An analysis of potential diversification plans reveals that selecting the most effective strategy requires a combination of the key success factors inherent in each plan.

DISCUSSION

This work examined the conditions under which a diversification strategy can succeed. In related studies, G. Li et al. (2022) highlight that adequate diversification should minimize disruptions in the supply of essential materials and products required for enterprise operations. The authors argue that such reductions in supply disruptions can be achieved by sharing information about manufacturers. The advantages of diversification outlined in the study highlight why decisions to implement it in business are made and the consequences of this process for enterprise activity. D. Lederman et al. (2021) emphasized that hidden diversification considers potential shifts in production factors towards new activities, unlike traditional measures. Meanwhile, W. Khairul et al. (2024) highlight that a diversification strategy positively impacts the resilience of hotel firms and conclude that hotel companies must diversify their services or products to gain market share by maintaining customer loyalty or improving organizational efficiency in the long term. Investigating the diversification of the hotel business, U. Enobong et al. (2022) covered the impact of innovation as a moderating factor in the efficiency of diversification for the sustainability of hotel firms.

I. Mishchuk and K. Trofimenko (2022) found five key trends in corporate systems in trade in Ukraine: classical corporatization through joint-stock companies, business companies with cross-shareholding in the capital, and contractual vertically and horizontally integrated structures through cooperative and franchise types. Modern conditions show a decrease in cluster formation and corporate relations through business associations, while the number of trading enterprises is decreasing, and their efficiency is increasing, creating favourable conditions for various corporatization formats. Similarly, R. Staglianò (2011) explored the theoretical foundations of diversification decisions, arguing that theoretical and empirical models fail to account for the real business conditions that influence the motivation for diversification. This article stands out for its comprehensive focus on wartime business diversification, providing a unique analysis of the specific preconditions that emerge during armed conflict. Unlike other research, it presents concrete mathematical models to evaluate diversification effectiveness under different market scenarios, making it distinctly practical. I support the authors' position on diversification as a critical strategy for business survival during war, as they convincingly demonstrate how expanding into complementary activities can mitigate wartime disruptions like supply chain breakdowns and changing consumer needs. However, we disagree with Mishchuk and Trofimenko's emphasis on corporatization through joint-stock companies as a primary trend because the article demonstrates that smaller-scale diversification through adding complementary product lines and services is more feasible during wartime when resources are constrained. While R. Staglianò correctly points out that theoretical models often fail to account for real business conditions, this article effectively bridges that gap by incorporating both mathematical modelling and practical wartime business cases.

S. Gopal et al. (2021) examine diversification through the creation of branches, particularly by expanding the scale of existing subsidiary companies and/or establishing new firms. They assert that business groups benefit from a rich environment full of opportunities to enter unrelated new businesses in this way. Still, we find Gopal's perspective on branch-based diversification less applicable in wartime contexts where establishing new physical locations may be impractical due to infrastructure damage and security concerns.

In justifying the factors and reasons that drive diversification, this work emphasizes that various risks, along with a sharp decline in profit and profitability, prompt management to opt for diversification. A similar perspective is shared by B. Volsi et al. (2022), who investigated how diversifying agricultural products in crop rotation enhances production profitability. Supporting the authors' position, it is noteworthy that grain production with species diversification demonstrated better productivity and profitability than a system focused solely on two species.

The diversification of enterprise activities, particularly in the trading sector, is crucial for the socio-economic development of regions. Successful enterprise operations ensure that the necessary goods and services are available to the population. M. Sansone et al. (2021) studied the factors influencing the purchase of private-label food products and demonstrated that consumer choice is shaped by various factors, including product perception, post-consumption satisfaction, the role

of the store, and trust in salespeople. I agree with the authors that expanding the product range generates greater consumer interest and increases the likelihood of sales, thereby ensuring the enterprise's financial stability and meeting the socio-economic needs of consumers. This research showed that enterprises operating with a closed-loop system — covering everything from raw material production to product sales — achieve greater business success than those focused solely on specific areas. It has been proven that creating a closed-loop system requires business expansion.

The study's results indicated that enterprises operating within a closed production cycle—ranging from raw material production to product implementation—tend to achieve tremendous business success compared to those focused solely on specific areas. It has been demonstrated that expanding activities is essential for establishing a closed production cycle. Furthermore, S. Kara et al. (2022) examined the closed production cycle system and emphasized that its implementation necessitates broadening the economic focus to include not just technical and economic aspects but also political and socio-cultural dimensions, thereby reducing humanity's environmental impact.

S. Carrasco et al. (2021) examined the relationship between trade and economic growth in developing countries and the diversification of export products. V. Sarin et al. (2022) explored the relationship between export volatility, export diversification, and economic growth, convincingly demonstrating the positive impact of export diversification on economic growth. We support V. Sarin et al. (2022) position as their research provides convincing evidence of the positive correlation between export diversification and economic growth, which aligns with the document's overall theme about diversification as a strategy for stability and growth during challenging times. However, we cannot fully evaluate S. Carrasco et al.'s (2021) position since the document does not elaborate on their specific findings regarding the relationship between trade, economic growth, and export diversification in developing countries.

Several researchers comprehensively explored the effects of diversification on productivity. G. Bet (2024) showed that diversification plays a key role in explaining differences in productivity across units and over time. Using the case of electronic companies, N. Putri et al. (2022) investigated the impact of product diversification on company performance and demonstrated how the simultaneous use of both product and international diversity can positively or negatively affect productivity. Meanwhile, J. Santalo (2008) discovered that the impact of diversification on productivity is not uniform across industries. Diversified firms tend to operate more in industries with fewer undiversified competitors, but they are less efficient as specialized firms increase in the sectors where they compete. N. Valmari (2023) assessed the production functions of multi-product firms and proposed a resource allocation strategy for multi-product firms engaged in monopolistic competition. H. Ahmadza (2022), after analyzing the diversification of agricultural enterprises, argued that managers should more frequently acknowledge crop (types of products) diversification to enhance agricultural productivity and sustainability — a conclusion with which one can certainly agree.

However, contrary to other researchers, P. Arte et al. (2022) discovered that firms with low product diversity exhibit higher productivity, whereas firms with high product diversity demonstrate lower productivity. F. Menne (2022) showed that human resource potential and business diversification influence the financial performance of enterprises. Z. Li et al. (2021), in their study of the costs and benefits of diversification, explained that companies gain insights into managing corporate crises more effectively during a crisis.

Also, corporate diversification and its impact on company revenues were studied by R. Setianto (2020), who emphasized that such an impact will be different for different firms and will change at higher levels of diversification, so one should agree with the author that it is necessary to look for the optimal level of diversification in order to obtain income from diversification. S. Adam et al. (2022) demonstrated that industrially diversified companies simultaneously reduce operational risk and increase profitability in terms of return on assets, while internationally diversified companies see a decline in profitability. We support the views of H. Ahmadza (2022) regarding crop diversification as a strategy to enhance agricultural productivity and sustainability. This position aligns with practical evidence from various agricultural contexts where diversification reduces pest risks, improves soil health, and creates more resilient farming systems - all critical aspects of sustainable agriculture. We disagree with P. Arte et al. (2022), who claimed that firms with high product diversity demonstrate lower productivity. This contradicts the findings from other researchers like G. Bet (2024) and the combined evidence from N. Putri et al. (2022), who showed positive correlations between diversification and productivity when implemented strategically. The negative relationship P. Arte et al. (2022) suggests likely overlooks contextual factors and industry-specific conditions that S. Setianto (2020) and J. Santalo (2008) identified as crucial moderating variables in determining diversification outcomes.

S. Lakner et al. (2018) illustrated the advantages and disadvantages of diversification for organic farms and confirmed that agricultural subsidies significantly influence the technical efficiency of organic farms. We do not fully support this position on agricultural subsidies significantly influencing the technical efficiency of organic farms because while financial support can enable diversification, the document emphasizes that successful diversification during wartime requires a more

comprehensive approach that includes analyzing market changes, creating new logistical routes, and establishing closed production cycles rather than relying primarily on subsidies. When examining manufacturing enterprises' diversification and economic development, J. Gloria et al. (2024) proposed a multi-sector model with links between costs and output, demonstrating that companies with a more developed production structure exhibit higher revenues than others. Simultaneously, K. Gielens et al. (2021) support adopting a new strategy, termed a "smart strategy," highlighting that retail enterprises equipped with big data can use it to understand the diverse needs of customers and apply technology to develop suitable products and communications. Agreeing with the authors, it should be noted that a smart strategy allows businesses to meet varied consumer needs and achieve greater differentiation in retail. A. Stevens et al. (2024) measured vertical and horizontal diversification in the supply chain segment based on revenues and employed several methods of reverse probability assessment. K. Arai et al. (2021) conducted an empirical analysis to determine if an increase in sales within the transport sector improves the profit margin of a railway company's real estate operations, revealing both positive and negative indirect effects, with some enterprises displaying significant impacts while others exhibit more subdued outcomes.

The current study also highlights the enhancement of enterprise competitiveness due to diversification efforts. W. Enyindah (2020) shared a similar perspective and recommended that, given the changing nature of competitiveness in the industry, food and beverage firms should pursue diversification to achieve growth and profitability. A. Arif (2023) demonstrated that a range of external factors can influence the data model and that diversification significantly affects firm outcomes, with managerial ownership playing a substantial positive role in the influence of diversification strategies. M. Žibert et al. (2022) showed that the shift towards agrotourism depends on the level of tourism development in a specific region and that subsidies allocated by the government to expand core agricultural activities influence the system. I support the perspective of W. Enyindah, who recommends diversification for food and beverage firms as a strategy to achieve growth and profitability in a changing competitive landscape, as this directly aligns with the current study's findings that diversification enhances enterprise competitiveness. I am less convinced by M. Žibert's view that focuses primarily on external factors like regional tourism development and government subsidies as determinants of diversification success because this approach underestimates the importance of internal company decisions and capabilities that the current study emphasizes as crucial for adequate diversification during challenging conditions like wartime.

The research indicates that diversifying a company's activities can significantly mitigate risks and enhance its financial condition. This finding is corroborated by other scholars who advocate for diversification across various enterprises, emphasizing the need to consider the specific characteristics of each industry. The article presents a novel mathematical model for assessing diversification efficacy in diverse market situations with variable subjective probability, giving a realistic decision-making framework for high-uncertainty wartime environments. Furthermore, it is established that critical drivers for diversification include the decline in a company's financial performance, along with various external and internal factors.

CONCLUSIONS

The study demonstrates that economic entities operating under wartime conditions face significant challenges due to the consequences of hostilities and financial instability. These factors serve as primary catalysts for enterprises to expand their activities, aiming to mitigate risks and enhance their financial and economic conditions. An analysis of the concept of diversification and its various types, as applied in practice, reveals that it can be classified by level and direction.

Diversifying enterprise activities during martial law is essential for preventing the deterioration of financial conditions or the complete cessation of operations. The research findings indicate that the primary prerequisites for diversification stem from heightened risks faced by enterprises due to the ongoing war. These risks include damage or destruction of property and inventory, as well as disruptions in logistics affecting the delivery of raw materials and the sale of products.

The study identifies key advantages of diversifying activities, including maximizing coverage of consumer needs and reducing risks. However, it also highlights certain disadvantages associated with specific types of diversification that enterprises should consider to avoid declining operational efficiency. These disadvantages include limitations on sales markets and an increased dependence on external factors.

The primary factors and reasons for diversification are identified as follows: a decline in profits, increased risks, business stagnation, heightened competition, and the necessity to leverage potential synergies. These conditions can be classified into general economic and specific categories based on their nature. It is important to note that during the period of martial law, the prerequisites for diversification included a decrease in demand for certain products due to population migration, the closure of branches in war-affected areas, a shift in consumer needs, and the deterioration of logistics and financial stability among business entities.

The socio-economic necessity for diversifying the types of activities within an enterprise lies in several key factors: increasing the supply of essential goods and services to the population, establishing new logistics routes, reducing unemployment by creating new job opportunities, and enhancing regional infrastructure.

The analysis of trade enterprises in Ukraine from 2018 to 2022 reveals a significant decline, with the number of wholesale and retail trade businesses decreasing by 20% in 2022 compared to 2018. Additionally, there was a 25.7% reduction in the volume of products sold by these enterprises in 2022 relative to the previous year. Concurrently, production costs nearly doubled compared to 2018. These trends indicate a deterioration in enterprises' financial and economic stability following the onset of Russia's full-scale armed invasion.

The main advantages of a closed production cycle include a reduction in production costs and decreased reliance on other enterprises essential for product sales. While initial diversification efforts may lead to increased expenses due to the expansion of activities and the introduction of new technologies, successful implementation can ultimately lower production costs and enhance profit margins from product sales. This, in turn, leads to an improved financial condition for the enterprise.

We proposed to expand the activities of the trading enterprise by incorporating the following types of operations: milk processing, cultivation of medicinal crops, and specialized design activities. Using mathematical statistics, the effectiveness of each proposed type of activity was evaluated, and the least risky option for diversification was identified. This optimal variant comprises 80% milk processing and 20% specialized design activities.

The limitation of this study was the need for more information regarding changes in the types of activities of enterprises from the beginning of 2022 to the beginning of 2024. This gap hindered a comprehensive analysis of income and expenses before and after the diversification of enterprise activities. Future research will focus on the peculiarities and challenges of establishing corporations within the network of trade and production enterprises.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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ХАРАКТЕРИСТИКА ПЕРЕДУМОВ ТА СОЦІАЛЬНО-ЕКОНОМІЧНОЇ НЕОБХІДНОСТІ ДИВЕРСИФІКАЦІЇ ДІЯЛЬНОСТІ ПІДПРИЄМСТВ

Актуальність дослідження зумовлена складною фінансово-економічною ситуацією для бізнесу, що склалася у воєнний період. Метою дослідження було визначити фактори і причини, що зумовлюють диверсифікацію діяльності підприємств та розкрити її сутність для суспільства. В ході роботи оцінено переваги та розглянуто застереження для проведення диверсифікації діяльності підприємств. Головними результатами стало: означення факторів, що зумовлюють застосування диверсифікації діяльності у воєнний період (міграція постійних споживачів за кордон; порушення налагоджених ланцюгів постачання запасів та реалізації продукції; зміна потреб споживачів; пошкодження або знищення майна); виявлення основних переваг, які надає проведення диверсифікації діяльності підприємства (зменшення ризиків, підвищення конкурентоздатності, покращення фінансового стану). Наголошено, що диверсифікація сприяє стабілізації соціально-економічному стану регіону шляхом розширення робочих місць та зменшення безробіття, забезпечення населення необхідними товарами та послугами, збільшення податкових надходжень до бюджетів. Обґрунтовано, що підприємства, які мають замкнутий цикл виробництва, можуть забезпечити менш збиткову та ризиковану діяльність. Проаналізовано показники діяльності торговельних підприємств, що дозволило виявити зниження обсягів реалізації на 25,7% у 2022 році порівняно з 2018 роком. Проаналізовано види

діяльності торговельного підприємства, що спеціалізується на виробництві і торгівлі косметичних й фармацевтичних засобів та запропоновано доповнити їх новими видами, що сприятиме підвищенню самодостатності виробництва. Проведено оцінку ефективності кожного із запропонованих нових видів діяльності підприємства та визначено оптимальний план диверсифікації, що передбачає комбінацію двох нових видів діяльності із найменшим ризиком їх впровадження.

Ключові слова: товари та послуги, розширення асортименту продукції, витрати виробництва, логістичні шляхи, диверсифікація, зменшення ризиків

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