

ADMINISTRATION AND MARKETING OF ANTI-CRISIS MANAGEMENT AT THE DAIRY PLANT AS A STRATEGIC OBJECT DURING THE WARTIME

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Abstract. The article conducts an analysis of the distinctive features of marketing management and anti-crisis administration at the dairy plants as strategic objects under martial law. The pivotal challenges confronting dairy enterprises encompass a broad spectrum of issues, including political and economic turbulence, disruption to logistics networks, and shifts in consumer sentiment. The focus of this text is on the necessity of developing effective marketing strategies, adaptive management approaches and digital tools to optimise costs and increase competitiveness. In order to ensure the stability of the enterprise, a number of methods must be employed. These include the diversification of distribution channels, co-operation with local producers, the pursuit of grant financing, the use of CRM systems, and staff support. This study places particular emphasis on the function of state assistance in the post-war recuperation of the industry. This material is relevant for scientists, managers, and specialists involved in survival and business development strategies in crisis conditions. The study analyses the financial condition of the "Khmelnitsky plant dry and skimmed milk "Milk Visit" in 2021–2023, identifying the dynamics of key financial indicators and highlighting factors affecting the enterprise's profitability. The constructed model of paired linear regression confirmed the positive relationship between production volume and net profit, thereby indicating the efficiency of business scaling. Notwithstanding the favourable trends, the company is confronted with challenges pertaining to inadequate liquidity and extraneous risks arising from hostilities. The proposed strategies of crisis management are aimed at increasing financial stability, adapting marketing, product diversification and digital transformation, which are necessary conditions for ensuring the sustainable development of the dairy processing enterprise in a crisis.

Keywords: anti-crisis management, war management, crisis marketing, dairy industry, strategic management, logistics in war, risk management, supply chains, financial sustainability, government support for business.

JEL Classification: L23, M11, M31

1. Introduction

Prior to the establishment of systematic marketing tools, a prerequisite for the success of domestic enterprises, particularly in the dairy industry, is the formulation of appropriate and effective marketing strategies. Marketing management constitutes an integral and leading component of any management system, especially during wartime. However, the modern market environment is characterised by uncertainty

and globalisation, which lead to increased competition and complicate the process of enterprises adapting to changing operating conditions.

As a result, the practical implementation of marketing strategies requires a wide range of marketing functions and tools, which necessitate proper budgetary support. Without a strategic vision and a systematic approach to crisis-resilient business management, implementation of marketing activities often leads to

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inefficient costs and poor financial results. This issue is of particular importance for domestic enterprises, which are associated not only with a low level of economic development of many of them, but also with ignoring the strategic direction of many management processes in the field of marketing, especially during wartime.

The external environment exerts a considerable influence on the marketing activities of milk processing enterprises. The most significant challenges are political and economic instability, changing consumer preferences, declining purchasing power, and challenges related to logistics and raw material supply. Enterprises are required to demonstrate flexibility, adaptability, and the capacity for expeditious response to fluctuations in the market environment. In this context, digital marketing is a pivotal instrument, empowering enterprises to optimise promotional expenditure, analyse consumer behaviour, and personalise communication.

Moreover, the effective management of marketing during a crisis necessitates the formulation of anti-crisis strategies with the objective of maintaining the enterprise's competitiveness. Key measures in this regard include the diversification of distribution channels and logistics routes; the utilisation of modern technologies to enhance production efficiency and resource management; the establishment of sustainable partnerships with suppliers and distributors; the implementation of customer loyalty programs to strengthen the brand and boost consumer trust; and the utilisation of alternative sources of funding, such as grants and international aid.

Within the domain of marketing management, there exists a multitude of areas that necessitate adequate resource support, as they facilitate the systematic implementation of marketing instruments, particularly in circumstances characterised by substantial budgetary limitations. This is of particular significance for domestic dairy processing enterprises, which, in challenging market conditions, must identify methods to optimise costs, enhance the effectiveness of marketing activities, and maintain their market positions.

Military conflicts engender conditions for economic activity that are extremely difficult and unpredictable, increase business risks, and necessitate a reassessment of traditional management approaches. In such circumstances, enterprises face numerous challenges, including physical threats to assets, uncertainty in planning, disrupted logistics channels, and significant financial difficulties. The preservation of business viability, the maintenance of employment, and the assurance of economic stability during wartime are not only in the interest of individual enterprises, but are also critical for the economic and social recovery.

In times of war, enterprises are required to adopt new strategic approaches that enable them to adapt

to change and survive in conditions of instability. The present study focuses on exploring crisis management methods that can help minimise negative impacts and ensure business continuity in the face of limited resources, unpredictability, and physical threats to assets. The identification of effective strategies for the maintenance of business operations, the protection of personnel, and the establishment of alternative supply and distribution channels is of paramount importance for enterprise sustainability and the ability to swiftly resume full operations in the aftermath of conflict.

Moreover, this subject is gaining salience in the context of the urgent need to develop state policies and support mechanisms for dairy enterprises, which will play a pivotal role in economic recovery during the post-war period. Successful instances of crisis management and marketing strategies implemented by dairy plants, as strategic assets during wartime, can serve as a foundation for the development of new business models capable of responding effectively to similar crises in the future.

Consequently, the study of management and marketing in the context of anti-crisis management for dairy plants, as strategic assets during wartime, is highly relevant. It proffers pragmatic solutions for surmounting crisis conditions and contributes to the establishment of a stable economic foundation for the nation in the midst of military turbulence.

The present article focuses on the study of marketing management and anti-crisis strategies for the dairy plant as strategic assets during wartime. The analysis of current challenges enables the identification of the key directions for improving the marketing policies of enterprises. These enterprises can thereby adapt to modern conditions, enhance operational efficiency, and ensure sustainable long-term development.

2. Economic Crisis Effects on Consumer Behaviour

Effective anti-crisis management of dairy plants during periods of hostilities is crucial for maintaining production stability, ensuring an uninterrupted supply of products, and preserving the enterprise's economic viability. Management must be flexible and able to adapt swiftly to changes in order to support the business through times of crisis, employing effective marketing strategies as necessary.

The anti-crisis management of a dairy plant involves risk analysis and strategic planning. This includes assessing potential threats, developing crisis response scenarios and identifying and optimising the use of critical resources. To ensure production continuity, processes must be adapted to new conditions, alternative raw material sources must be found, and

reserve capacities must be created. Optimising the supply chain involves forming strategic stockpiles, seeking new partners, and establishing co-operation with local manufacturers and government bodies. Achieving financial sustainability necessitates the implementation of effective cost management strategies, securing grants, leveraging credit resources, and exploring new distribution channels. Collaboration with state and humanitarian organisations has been demonstrated to facilitate the integration of the enterprise into social programmes, attract state support, and foster interactions with international funds (Barker, Gower, 2010).

Crisis marketing strategies focus on flexible and adaptive communication to ensure transparency in customer interactions and build trust through social responsibility. Customer and partner support programmes may include special offers and discounts for vulnerable population groups, as well as participation in charitable initiatives. Expanding distribution channels involves activating online sales, partnering with local retail chains and utilising mobile outlets. A company's brand and reputation can be strengthened by highlighting its social contributions, participating in charity projects and supporting environmental initiatives. Digital marketing strategies include using analytical tools, promoting SEO, running targeted adverts and making effective use of social media.

Systematic marketing control is crucial for managing a dairy plant during a crisis. Key marketing indicators that need to be monitored include sales dynamics, new customer acquisition, market share, customer acquisition costs and sales conversion rates, as well as brand reviews and reputation metrics. Modern analytics tools such as Google Analytics, CRM systems and automated marketing management platforms enable quick market analysis and informed decision-making.

Providing personnel support is critical to ensuring the stability of the enterprise during wartime. Flexible compensation systems are in place, including performance-based bonuses and rewards for achieving set goals. Career development and training are facilitated through refresher courses, webinars and workshops. Employee safety is prioritised by providing insurance, comprehensive social packages and support for employees' families.

It is evident that the implementation of effective management and marketing strategies during wartime ensures the continued operation of the dairy plant. Furthermore, it helps adapt the business to new conditions, preserves jobs, supports regional economic stability, and provides consumers with essential products.

3. Differences in Consumer Spending Behaviour Among Age Groups

Management and marketing play a decisive role in modern business, as effective market management helps to achieve goals and objectives by maximising the use of all resources (production, financial, human, technological and others) to optimise profits. In addition, it promotes the development of relationships with consumers, suppliers and other stakeholders. Key areas of business management include strategic management, operational management, financial management and human resource management. Risk management is also important, as it aims to minimise risks, reduce costs and optimise profit and success potential.

Crisis management can be defined as the process of executing activities under pressure, where management must analyse, plan, organise, oversee, and control operations to make quick, informed decisions in response to urgent challenges faced by the enterprise. In order to ensure the effective management of crises, it is essential to implement adaptive strategies that prioritise the protection of assets, the security of personnel, the diversification of markets, the establishment of alternative logistics chains, and the adoption of novel communication formats in collaboration with partners. The successful implementation of such measures has been shown to help minimise losses, maintain business sustainability, and prepare for recovery in the post-crisis period. The experience of businesses that have adapted to wartime conditions can serve as a foundation for developing management models that prioritise sustainability during times of significant crisis and uncertainty.

Risk management can be defined as a management approach that focuses on anticipating potential crises, analysing early warning signs, implementing measures to reduce negative impacts, and leveraging crisis factors for future development. Key characteristics of crisis management include: a focus on guiding the enterprise out of crisis and preventing insolvency through programs aimed at boosting competitiveness and financial recovery; the ability to respond quickly and effectively to threats that disrupt normal operations; the development of optimal crisis recovery strategies, setting clear priorities, coordinating staff actions, and achieving operational efficiency during crisis conditions; and the forecasting of potential crisis scenarios, the creation of countermeasures, and the capacity to respond rapidly to changes in both external and internal environments.

Risk management can be defined as a comprehensive enterprise management system designed to address both potential and existing challenges by developing

and implementing targeted programmes using modern management techniques. The core principles of this system include the early diagnosis of crisis situations within the enterprise, a prompt response to emerging crisis phenomena, an appropriate reaction based on the actual level of threat, and the maximisation of the utilisation of internal resources to overcome crisis conditions (Leščinskij, Iurasova & Šliogerienė, 2025).

A fundamental element in the successful management of crises is the human factor. The deliberate and responsible actions of employees have been shown to facilitate the identification of solutions to crisis situations, the focus of efforts on resolving the most complex challenges, and the effective application of accumulated experience.

The main goal of anti-crisis management is to achieve planned and random outcomes through effective leadership grounded in organised personnel and communication management. Crisis management involves developing and implementing measures to mitigate the impact of crises and prevent and resolve crisis situations. The repercussions of a crisis pose considerable challenges for any business entity, necessitating meticulous strategic planning, harmonised actions, and fortitude to reconstruct damaged infrastructure, re-establish social cohesion, and facilitate economic recovery. Experts are reluctant to make precise forecasts regarding the scale of the economic crisis, as its extent depends heavily on the duration and outcome of ongoing conflicts. While it is possible to project the recovery and development of regional and national economies based on the duration and outcome of active conflicts, it is evident that certain negative consequences will ensue (Kaletnik, Lutkovska, 2021).

The following discussion will analyse some of these consequences:

1. A sharp decline in GDP (gross domestic product). Crises consume significant amounts of capital, often resulting in high budget deficits. The destruction of large industrial enterprises, which contribute substantially to GDP, has had a particularly severe impact on overall economic output.

2. Decline in human capital. Hundreds of thousands of skilled professionals from various sectors have left their jobs and migrated abroad. Some regions have become almost completely depopulated and are unlikely to be part of the country's socio-economic and cultural development processes again for a long time.

3. Emergence of food shortages. A significant part of the country, which had traditionally formed the basis of the agricultural sector, was left uncultivated during the sowing season and remained inactive under martial law.

4. The destruction and closure of enterprises that once provided stable employment has led to a

significant increase in unemployment. Furthermore, the influx of refugees from occupied territories into safer regions has intensified competition in the labour market and put further pressure on local employment opportunities.

Effective crisis management starts with a thorough evaluation of the damage caused by war, such as infrastructure destruction, economic losses and social displacement. A strategic reconstruction plan must be developed that addresses urgent immediate needs while also laying the groundwork for long-term recovery and sustainable development.

4. Research Methodology

For an example of anti-crisis management and administration at a dairy plant that was considered a strategic asset during wartime, the "Khmelnitsky plant dry and skimmed milk "Milk Visit" will be analysed.

The plant's products have demonstrated consistent quality, which has driven strong demand. Consequently, the market experienced rapid expansion, with its customer base growing to encompass the entire territory of Ukraine, as well as Belarus, Moldova, Georgia, and other countries.

Since 2012, the company has become one of the most successful dairy producers, and there are no plans to halt this progress. From the time of complete reconstruction to the present, the company has undergone a period of continuous expansion in terms of its production capacity. This expansion has been characterised by the construction of new workshops, the development of innovative raw material processing technologies, a constant growth in the range of dairy products, and the exploration of new markets.

As of the end of 2021, the "Khmelnitsky plant dry and skimmed milk "Milk Visit" employed 363 people. The company operates a total of 64 owned and leased milk carriers, which are utilised for the collection of milk from four agricultural enterprises. In addition, 63 reception centres have been established for the collection of milk from individuals residing in 176 settlements across the Vinnytsia and Khmelnytskyi oblasts. The raw materials delivered to the plant have been verified as conforming to the established quality standards.

For milk processing, the company uses equipment valued at 13,785.1 thousand UAH as of the end of 2021. Additionally, it leases property from Agro-Industrial Scientific-Production Enterprise "Visit" under a property lease agreement dated June 1, 2021 (No. 61/21-06). The leased property is a production complex located at 27 Letopysna Street, Khmilnyk, Vinnytsia Oblast, with a total value of 33,712 thousand UAH. The complex includes buildings and structures with a total area of 5,539 m², comprising the following facilities: an administrative

building (487.3 m²), an entrance building (20.5 m²), a whole milk processing plant (897.4 m²), a skim milk powder shop (873.5 m²), a laboratory (90.2 m²), a boxing hall (179 m²), a butter production shop (462.4 m²), a transformer station (55.8 m²), a waffle cup baking shop (248.9 m²), an ice cream production shop (161.3 m²), an auto garage (433.1 m²), a boiler room (823.1 m²), a substation (23 m²), a machine shop (115.8 m²), a compressor room (283.5 m²), a brick warehouse (20.5 m²), a central warehouse (304.1 m²), and an acid storage facility (56.6 m²).

The milk processing facility has a daily capacity of 200 tons of milk. However, in practice, up to 150 tons of milk are processed on a daily basis. In order to facilitate a more detailed analysis, it is first necessary to conduct the relevant calculations.

"Khmelnitsky plant dry and skimmed milk "Milk Visit" increased its net revenue from sales by 189,074 thousand UAH, while the cost of production rose by 155,945 thousand UAH. The growth rate of production costs was lower, which contributed to an increase in the company's net profit.

The following analysis will examine the production activities of the "Khmelnitsky plant dry and skimmed milk "Milk Visit" for the years 2021–2023.

"Khmelnitsky plant dry and skimmed milk "Milk Visit" gradually increased its product output during the studied period, particularly butter (by 10%), pasteurised milk (by 28%), hard cheese (by 30%), skimmed milk powder (by 17.3 times), and dairy products (by 3%). The substantial decline in the production of specific product types is attributed to the escalation in the cost of tolling services for milk processing. A comprehensive

analysis reveals that the augmentation in processed milk and production has precipitated an escalation in revenue from product and service sales by 189,074 thousand UAH, or 41%, in comparison with the year 2021.

Due to the military events in 2023, "Khmelnitsky plant dry and skimmed milk "Milk Visit" exported only 4% of its products, compared to 10% in 2022 and 11.16% in 2021.

The total capital of the enterprise showed a growth trend. In 2021, the share of equity was only 7%, which indicated a negative financial position.

However, in 2022–2023, the "Khmelnitsky plant dry and skimmed milk "Milk Visit" changed its strategy, leading to an increase in equity capital and a reduction in financial risk.

Financial stability is determined by the efficient formation, allocation, and utilisation of financial resources.

The total asset turnover ratio of the "Khmelnitsky plant dry and skimmed milk "Milk Visit" demonstrates a steady increase, indicating greater efficiency in utilising available resources. The financial stability ratio is defined as the proportion of equity to debt funds, with a normative value of at least 0.6. At the "Khmelnitsky plant dry and skimmed milk "Milk Visit", the value of this ratio has been increasing, but the company still has low financial stability.

The coverage ratio is calculated as the ratio of working capital to current liabilities, reflecting the company's ability to quickly meet its short-term obligations. At the "Khmelnitsky plant dry and skimmed milk "Milk Visit", the value of this coefficient increased by 62%.

Table 1

Key financial and economic performance indicators of the "Khmelnitsky plant dry and skimmed milk "Milk Visit"

Indicator	2021	2022	2023	Deviation for 2023 compared to 2021, (+;-)
Net revenue from sales	464371	614615	653445	+189074
Cost of goods sold	454574	586274	610519	+155945
Net income	-4524	19334	24729	+29253

Source: calculated by the authors based on their own research

Table 2

Production dynamics of the "Khmelnitsky plant dry and skimmed milk "Milk Visit"

Product name	2021	2022	2023	Deviation for 2023 compared to 2021, (+;-)
Butter	1078	1274	1191	+113
Pasteurised milk, 2.6%.	974	913	1243	+269
Hard cheese	734	989	958	+224
Skimmed milk powder	25	285	432	+407
Demineralised whey powder	1934	1352	1568	-366
Milk-based products	1555	1487	1264	-291
Fermented dairy products	988	1184	1018	+30

Source: calculated by the authors based on their own research

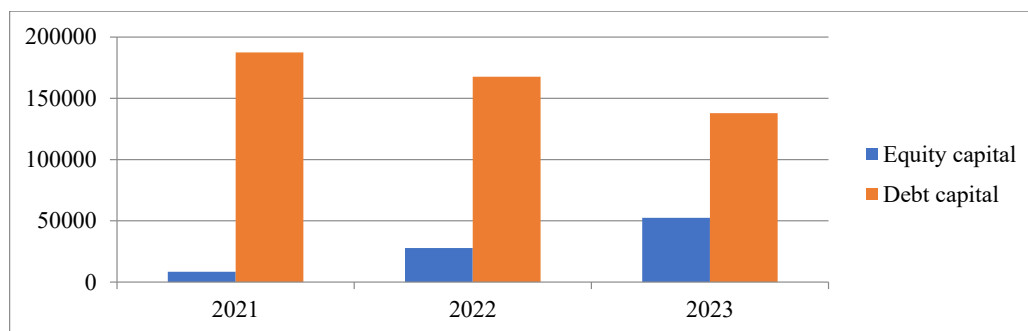


Figure 1. Ratio of equity and debt capital of the "Khmelnitsky plant dry and skimmed milk "Milk Visit"

Source: calculated by the authors based on their own research

Table 3

Dynamics of financial stability of the "Khmelnitsky plant dry and skimmed milk "Milk Visit"

Indicator	2021	2022	2023	Deviation for 2023 compared to 2021, (+;-)
Total asset turnover ratio	2,33	3,14	3,39	+1,06
Financial stability ratio of the enterprise	0,043	0,142	0,276	+0,233
Coverage ratio	0,520	0,654	0,837	+0,317
Debt ratio	22,285	6,041	2,63	-19,65
Capital concentration ratio	0,957	0,858	0,727	+0,23

Source: calculated by the authors based on their own research

The debt ratio is calculated by dividing raised capital by equity. During this period, the ratio decreased by 19.65%, which indicates a significant reduction in current liabilities for goods, works and services.

The capital concentration ratio is defined as the proportion of capital that has been attracted in relation to the total value of funds invested in its activities. At the "Khmelnitsky plant dry and skimmed milk "Milk Visit" this indicator decreased by 0.23 percentage points, which is a positive trend.

Liquidity analysis of the enterprise is a process which assesses the enterprise's ability to meet its obligations with available assets. The following investigation will examine the liquidity indicators to evaluate their dynamics over the period under consideration.

As demonstrated in Table 4, the "Khmelnitsky plant dry and skimmed milk "Milk Visit" is distinguished by comparatively diminished liquidity ratio values, despite the presence of a favourable upward trend. The

prevailing value of the current (total) liquidity ratio continues to signal a high level of financial risk.

The quick liquidity ratio is indicative of the enterprise's capacity to fulfil its present obligations by utilising its current assets, excluding stocks. At the "Khmelnitsky plant dry and skimmed milk "Milk Visit" this ratio ranged from 0.21 in 2021 to 0.41 in 2023. This figure remains below the standard level and indicates a limited ability to cover current liabilities, even with timely settlements from creditors.

As on December 31, 2023, the cash ratio of the "Khmelnitsky plant dry and skimmed milk "Milk Visit" was 0.181, which is below the normative level and indicates that the enterprise is not able to pay its debts immediately.

5. Findings

Constant monitoring of a company's financial condition and changes is essential today, as it forms the basis for effective management decisions and

Table 4

Dynamics of the relative liquidity indicators of the "Khmelnitsky plant dry and skimmed milk "Milk Visit"

Indicators	Normative value	2021	2022	2023	Deviation for 2023 compared to 2021, (+;-)
Current liquidity ratio	1,0-2,0	0,52	0,65	0,84	+0,32
Quick liquidity ratio	0,6-0,8	0,21	0,29	0,41	+0,2
Cash ratio	0,25-0,5	0,024	0,026	0,181	+0,157

Source: calculated by the authors based on their own research

improved profitability. In order to make well-informed and balanced decisions, managers need access to information on the quantitative and qualitative aspects of the enterprise's operations, including its capabilities and potential risks. The acquisition of such information necessitates exhaustive analytical research, encompassing both the enterprise in its entirety and discrete operational domains. A financial condition analysis is typically conducted in several key areas, namely financial stability, business activity, solvency and liquidity, cash flows, and property status. Each of these areas is a critical component of the company's overall performance. The most crucial indicators for investors, creditors and owners are the enterprise's solvency and liquidity levels.

Liquidity analysis constitutes a pivotal component in the assessment of an enterprise's financial condition. However, calculation of liquidity ratios alone does not provide a comprehensive overview of liquidity dynamics within the selected sample, as it fails to demonstrate their relationship with other financial indicators. In the opinion of the present authors, a comparison of these ratios with recommended normative values is insufficient for a full understanding of the implications of changes in liquidity, as such comparisons do not consider the enterprise's development strategy or its adopted practice of financing assets.

The construction of a simple linear regression model will be undertaken in order to analyse the dependence of net profit on the actual volume of production.

Table 5

Dynamics of actual output and net profit, thousand UAH

Indicator	2021	2022	2023
Production volume	464371	614615	653445
Net profit	-4524	19334	24729

Source: calculated by the authors based on their own research

Linear equation of simple regression:

$Y = a_0 + a_1x$, where a_1 , a_0 are the parameters of the theoretical dependence to be calculated.

The following data has been collated for the purpose of calculating the parameters of the relationship between available income per person and the level of meat consumption (in kilograms per year).

Year	x	y	x ²	xy	Y
2021	464,371	-4,524	215640,4	-2100,8	-5,16
2022	614,615	19,334	377751,5	11882,9	17,79
2023	653,445	24,729	426990,3	16159,0	23,19
Total	1732,43	39,539	1020382,2	25941,1	-

The calculation of the parameters is achieved through the utilisation of the least squares method, which

involves the definition of a system of equations in the following form:

$$\begin{cases} a_0n + a_1\sum x = \sum y; \\ a_0\sum x + a_1\sum x^2 = \sum xy. \end{cases}$$

$$\begin{cases} a_0 \cdot 3 + a_1 \cdot 1732.43 = 262.6 \\ a_0 \cdot 1732.43 + a_1 \cdot 1020382.2 = 25941.1 \end{cases}$$

$$a_0 = \frac{\sum y \sum x^2 - \sum xy \sum x}{n \sum x^2 - (\sum x)^2} = \frac{39.539 \times 1020382 - 25941.1 \times 1732.43}{3 \times 1020382 - 1732 \times 1732}$$

$$= -74,76 \quad a_1 = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2} = \frac{3 \times 25941 - 1732 \times 39.53}{3 \times 1020382 - 1732 \times 1732} = 0,15$$

The given model has the following form:

$$Y = -74,76 + 0,15x$$

The economic meaning of this equation is as follows: when the production volume increases by one unit, the net profit increases by 0.82.

The coefficient of elasticity $K_e = a_1 \cdot \frac{\bar{X}}{\bar{y}} = 0,015 \cdot \frac{577}{13} = 6,65\%$.

It is evident from the coefficient of elasticity that with a 1% increase in production volume, there is a concomitant 6.65% increase in net profit.

Consequently, an increase in economic growth and production volume is conducive to enhanced profitability.

6. Conclusions

During the period under scrutiny, the company experienced a substantial increase in net revenue from product sales, which grew by 189,074 thousand UAH (+41%) in comparison with 2021. The revenue growth was accompanied by an increase in the cost of goods sold (+155,945 thousand UAH). However, the rate of cost growth was lower than the rate of revenue growth, which contributed to an increase in net profit by 29,253 thousand UAH.

It is evident that there has been an upward trend in the production of key product types between 2021 and 2023. The highest growth rates were recorded for skimmed milk powder (17.3 times), hard cheese (30%), pasteurised milk (28%) and butter (10%).

However, the production of certain product types has been observed to decrease in response to the escalating costs of milk processing services.

It is evident that there has been a positive correlation between the increase in milk processing volumes and the revenue growth of the company.

The proportion of export products fell from 11.16% in 2021 to 4% in 2023 as a consequence of the war and restrictions on external supplies. This has exerted further pressure on the company's profitability and necessitates the adaptation of sales strategies, particularly market diversification and the expansion of domestic consumption.

The company has demonstrated a positive trend in its financial ratios. The financial stability ratio increased from 0.043 in 2021 to 0.276 in 2023, indicating a reduction in reliance on borrowed funds. The current ratio improved from 0.520 to 0.837 (+0.317), reflecting an increased ability to meet short-term liabilities. The debt ratio decreased from 22.285 to 2.63, indicating a significant reduction in debt burden. The capital concentration ratio underwent a decline of 0.23 points, a development that is indicative of a favourable circumstance.

Despite the improvement in liquidity ratios, they remain below the normative values.

The total liquidity ratio exhibited an increase from 0.52 to 0.84, yet it remains below the recommended range of 1.0–2.0.

The quick ratio increased from 0.21 to 0.41, yet it remains below the minimum standard of 0.6–0.8.

The absolute liquidity ratio increased from 0.024 to 0.181, but remains below the standard value of 0.25–0.5.

The findings of the present study demonstrate that the linear regression model demonstrates a direct correlation between net profit and the volume of production. The calculation of the elasticity coefficient (6.65%) indicates that with a 1% increase in production volume, net profit increases by 6.65%. This finding suggests a high level of efficiency in business scaling.

General conclusions and recommendations for anti-crisis management at the dairy plant are as follows:

1. Optimisation of crisis management. It is imperative that the company enhances the flexibility of production process management in the context of wartime conditions.

2. Marketing adaptation. In order to maintain revenue flow, it is necessary to expand sales channels, make more active use of the domestic market and develop e-commerce platforms to reach new customer segments.

3. Financial stability. Reducing debt positively impacts a company's stability, which is critical during periods of crisis.

4. Liquidity. Working capital needs to be optimised in order to achieve standard liquidity ratios.

5. Production diversification. The company should consider launching additional types of products that are in demand during wartime.

6. Innovation and digitalisation. Modern production and sales management technologies should be implemented.

Overall, the "Khmelnitsky plant dry and skimmed milk "Milk Visit" has demonstrated positive dynamics despite challenging external conditions. However, effective crisis management necessitates the strengthening of financial stability, the expansion of market reach, and the implementation of innovative solutions in management and marketing.

In the context of wartime, management strategies ought to encompass initiatives that stimulate the development of the dairy business, attract investments, and support entrepreneurship, particularly in regions affected by the conflict.

The provision of social safety nets, vocational training programmes, microfinance schemes and grants has been demonstrated to be an effective means of empowering individuals and communities to rebuild their lives and to contribute to broader recovery efforts. The enhancement of governance structures and institutions is imperative to ensure transparent, accountable, and inclusive reconstruction processes. Effective crisis management requires reforming the legislative framework, enhancing public administration capacity and tackling corruption, in order to rebuild trust and confidence in the reconstruction process. A core objective of post-war recovery efforts is the development of resilient institutions that can respond to future crises and support sustainable development.

The ongoing war in Ukraine has had a profound impact on all aspects of civilian life, particularly in the business sector. In addition to these fundamental changes, the war has precipitated its own adjustments. In light of the complexity of the current situation, it is essential that specific crisis management objectives are clearly defined and implemented effectively. These goals will form the basis of efforts to eliminate and minimise the severe negative consequences of the war in Ukraine, both those that have already occurred and those that continue to unfold.

Ultimately, the way in which crisis management and marketing are currently being implemented in the dairy sector represents a conceptual model for addressing crisis phenomena, and the dairy industry is no exception. A well-developed model of anti-crisis measures can help minimise the impact of negative factors on dairy plant operations.

The main tasks of such a model of crisis management and marketing in the dairy sector include the following:

1. The development of methodological and practical approaches to implement, execute and form a management and coordination concept to ensure the effectiveness of crisis management at dairy plants.

2. A clear analysis and practical assessment of the overall situation and operations of specific dairy

plants during wartime, achieved by comparing data from different periods.

3. A series of managerial decisions are being made regarding the implementation of anti-crisis management in dairy plants. Key areas under consideration include finance, economics, investment, society, organisation, production, logistics and communications.

4. Development of a comprehensive crisis management strategy to promote and support the long-term sustainability of the amalgamated hromadas (AHs) in which the dairy plant is located.

5. Ensuring continuous monitoring at all stages of the development and implementation of this model of a amalgamated hromada (AH), taking into account the rapidly changing external and internal conditions during wartime.

6. Ensuring coordinated actions to support the implementation of all necessary stages of this model of crisis management for dairy plants during the war.

The implementation of effective management and marketing strategies during wartime is not merely a means of maintaining the dairy plant's operations; rather, it constitutes a comprehensive system for adapting the business to extremely volatile market and societal conditions. This enables the company to:

Adapt the business to new realities by optimising production and management processes in order to respond quickly to growing challenges related to logistical difficulties, limited access to resources and changes in consumer demand. Use digital technologies to monitor the market, analyse consumer demand,

and make rapid decisions, allowing the product range to be adapted to current needs.

Preserve jobs and ensure social stability by rationalising internal resources and implementing innovative management methods to reduce costs and increase labour productivity. Ensure the continuity of the work process to retain existing staff and create the foundation for the further development of human resource potential.

Contribute to the region's economic stability: supporting the enterprise has an impact on the region's overall economic climate. Stable plant operations ensure local budget revenues are preserved, stimulate the development of related industries and enhance investment attractiveness. An active marketing strategy can help to attract new customers, expand market segments and provide competitive advantages, even in challenging conditions.

Provide consumers with the products they need: by adopting adaptive marketing approaches, enterprises can respond quickly to changes in consumer preferences, ensuring products are available and of good quality, even during crises. A systematic marketing approach helps to maintain a positive brand image, strengthening consumer trust and ensuring stable sales.

The effective integration of management practices and marketing strategies is not only a matter of survival, but also of continued development of the enterprise in conditions of military conflict. This approach encompasses a set of measures that not only minimise the negative consequences of the crisis but also lay the foundation for the future restoration and growth of the business.

References:

- Lutkovska, S., Koval, N., Lozova, O., Okhrimenko, I., Shatskaya, Z., & Vytrykhovskiy, Y. (2024). Project management of innovation-oriented cluster business agrostructures in a smart economic model. *Financial and Credit Activity Problems of Theory and Practice*, Vol. 6, Issue 59. P. 613–632. DOI: <https://doi.org/10.55643/fcaptp.6.59.2024.4631>
- Kaletnik, G., & Lutkovska, S. (2021). Implementation of Public-Private Partnership Models in the Field of Ecological Modernization of the Environmental Safety System. *European Journal of Sustainable Development*, Vol. 10 (1). P. 81–89.
- Ishchenko, Y., & Podolianchuk, O. (2021). Accounting of real costs for the production of organic food: world experience and practice of Ukraine. *Independent Journal of Management & Production*, Vol. 12 (6). P. 610–631.
- Kaletnik, G., Tsurkan, O., Spirin, A., Prysiadniuk, D., & Didyk, A. (2025). A Mathematical Model of Ozone Distribution over Walnut Layer in a Vibrating Dryer. *Journal of Engineering Sciences (Ukraine)*. Vol. 12, Issue 1. P. F1–F7.
- Razanov, S., Aliksieiev, O., Aliksieieva, O., Vradii, O., Mazur, K., Puyu, V., Piddubna, A., Povochnikov, M., Postoienko, D., & Zelisko, O. (2024). The Content of Heavy Metals and Trace Elements in Different Soils Used under the Conditions of Homestead Plots and Field Agricultural Lands of Ukraine. *Journal of Ecological Engineering*. Vol. 25(6). P. 42–50. DOI: <https://doi.org/10.12911/22998993/186820>
- Lohosha, R., Krychkovskiy, V., Moroz, Y., Kolesnyk, T., & Vakar, T. (2024). Methodology and Engineering of a Sustainable Market Model. *European Journal of Sustainable Development*. Vol. 13, No 1. P. 306–320. DOI: <https://doi.org/10.14207/ejsd.2024.v13n1p306>
- Honcharuk, I., Gontaruk, Y., & Pantsyreva, H. (2024). Economic aspects of using the potential of bioenergy crops for biogas production and advanced technologies for digestate application. *Baltic Journal of Economic Studies*. Vol. 10(2). P. 68–77. DOI: <https://doi.org/10.30525/2256-0742/2024-10-2-68-77>

- Patyka, N., Khodakivska, O., Pronko, L., Kolesnyk, T., Klymchuk, O., Kamenschuk, B., & Nurul Mohammad Zayed (2021). Approaches to evaluation of the agriculture competitiveness level: empirical evidense in Ukraine. *Academy of Strategic Management Journal*. Vol. (1). P. 1–15.
- Lohosha, R., Prylutskyi, A., Pronko, L., & Kolesnyk, T. (2023). Organization of the System of Internal Marketing and Marketing of Interaction of Agricultural Enterprises for the Production of Biodiesel Based on Value Chain Analysis. *Journal of Environmental Management and Tourism*. Volume XIV Issue 3(67). P. 823–841. DOI: [https://doi.org/10.14505/jemt.v14.3\(67\).21](https://doi.org/10.14505/jemt.v14.3(67).21)
- Aleskerova, Y., & Fedoryshyna, L. (2023). Financial mechanism in the system of economic vectors of development of hotel and restaurant and agricultural enterprises. *Baltic Journal of Economic Studies*. Vol. 9. № 4. P. 19–30. DOI: <https://doi.org/10.30525/2256-0742/2023-9-4-19-30>
- Kulinich, T., Materynska, O., Aleskerova, Y., Kuzmenko, H., & Balian, I. (2023). Leadership in Unstable Conditions: Change Management Strategies and Effective Crisis Management for Achieving Success. *WSEAS Transactions on Business and Economics*. Vol. 20. P. 2781–2788. DOI: <https://doi.org/10.37394/23207.2023.20.236>
- Hmyria, V., Nikitchenko, V., Shynkarenko, O., Aleskerova, Y., & Kostyuk, O. (2024). Development of the defence industry of Ukraine to ensure national security. *Financial and Credit Activity Problems of Theory and Practice*. Vol. 3(56). P. 321–333. DOI: <https://doi.org/10.55643/fcaptp.3.56.2024.4366>
- Leščinskij, R., Iurasova, O., & Šliogerienė, J. (2025). The impact of creativity as a factor of economic development on gdp growth in eu countries. *Baltic Journal of Economic Studies*. Vol. 11(1), P. 135–146. DOI: <https://doi.org/10.30525/2256-0742/2025-11-1-135-146>
- Barker, R. T., & Gower, K. (2010). Strategic application of storytelling in organizations: Toward effective communication in a diverse world. *The Journal of Business Communication* (1973), Vol. 47(3). P. 295–312. DOI: <https://doi.org/10.1177/0021943610369782>
- Alam, M. K., Thakur, O. A., & Islam, F. T. (2023). Inventory management systems of small and medium enterprises in Bangladesh. *Rajagiri Management Journal*. Vol. 18. P. 8–19. DOI: <https://doi.org/10.1108/RAMJ-09-2022-0145>
- Hendayana, Y., Ahman, E., & Mulyadi, H. (2019). The effect of innovation on business competitiveness of small and medium enterprise in Indonesia. *Advances in Economics, Business and Management Research*. Vol. 100. P. 116–120.

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