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BRAND VALUE ON THE UKRAINIAN DAIRY MARKET: INNOVATIVE ASSESSMENT METHODOLOGY AND DEVELOPMENT OF MARKETING STRATEGIES

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ABSTRACT

The article explores the conceptual foundations of building an effective brand. The BAV model is considered as a modern practical approach to brand valuation, its four key components are described. The methodology of the Interbrand company and its elements are studied. A model of dependence of brand value on loyalty and recognition indicators is proposed. Indicators that reflect the complex nature of loyalty and recognition indicators are defined. The author's methodological approach to assessing brand value is described, which involves conducting a survey of representatives of the target audience of the studied brands, forming a database for brand evaluation, calculating the values of partial indicators, calculating the integral indicator of loyalty/recognition. The quantitative criteria for selecting brand strategies in the matrix «Loyalty-recognition (L/R)» are determined. Depending on the values of the integrated indicators - loyalty and recognition - the matrix «L/R» is proposed, which allows to choose marketing strategies for brand development. The following marketing strategies are proposed in the matrix: expanding awareness, building a brand, preserving and protecting brand positions, and building loyalty. The key elements of the proposed marketing strategies are described. The article conducts a thorough analysis of the Ukrainian dairy market, identifies its problems and prospects. The results of surveys to determine loyalty/recognition for the most famous dairy brands in Ukraine are presented. A matrix «L/R» has been built for them. Appropriate marketing strategies for dairy brands are proposed with basic recommendations for their development.

Keywords: *brand, brand value, valuation methodology, matrix «Loyalty/recognition», marketing strategies*

1. INTRODUCTION

A brand is the most important element of a product, as it is the way a consumer recognizes and remembers a product. There is a significant difference between a product and a brand, as a product is an item manufactured by an enterprise, while a brand is a reflection of the characteristics and qualities of a product or service that creates a certain attitude towards the product, an idea about it, identifies and distinguishes it from products of other manufacturers (Zhurylo V., Chepurnyi S., Soima S., 2023). If a product can be easily imitated by a competitor, then the brand is unique. Since a brand is closely linked to perception, competition between companies is about competing for product perception.

A company that is able to create its own brand will gain sustainable competitive advantages in the market: more effective consumer perception, high loyalty from potential buyers, and a lower level of vulnerability to competition. A well-known brand is able to create high margins and ensure high efficiency from the use of marketing communications tools, so a brand is undoubtedly a valuable intangible asset for a company. In view of the above, it is important to develop methodological approaches to assessing brand value.

2. LITERATURE REVIEW

The following scholars are engaged in researching the conceptual foundations of building an effective brand: David Aaker, Philip Kotler, Kevin Lane Keller, Dani Dagustani, Herry A. Buchory, Mutia T. Satya and others.

David Aaker uses the concept of «brand equity» and believes that its essence is explained by «the set of assets and liabilities of a brand associated with its logo and corporate identity that add or reduce the value provided by a product or service to a firm and/or its customers» (Aaker David A., 2013). Brand equity depends on the marketing results obtained from a branded product compared to those that would have been obtained if the same product did not have a brand. The basis of such marketing results is consumer awareness, which makes them react differently to brand promotion.

Kevin Lane Keller uses the concept of «brand image», which is a characteristic of a brand from the consumer's point of view. To take this position into account, the author proposed a special term «customer-based brand equity», which, in his opinion, is a set of ideas about the features of a brand that arise due to the formation of knowledge about this brand and affect the attitude of consumers to the marketing complex of a branded product (Keller K.L., 1993, Kotler P., 2002).

H. Shanker Krishnan substantiated the concept of «power of associations», which depends on the quantity and quality of information about the brand (achieved through the effective use of marketing mix tools), the favorability of associations determines their ability to evoke positive emotions among consumers. The uniqueness of associations allows to differentiate competitors; these specific associations should arise only in relation to a particular brand (Krishnan H.S., 1996).

At the same time, research on the concept of brand equity is growing in popularity, as brands are one of the most valuable assets of a company. The doctrine is based on the assumption that a brand has added value, which is different from the consumer properties of the product or service itself. This added value is manifested in the form of an increase in one or more of the following criteria:

- market share;
- price premium;
- customer loyalty;
- access to markets and partnerships,
- effectiveness of marketing campaigns;
- brand expansion opportunities;
- sustainability in competition (David Aaker, 2013).

The concept of brand equity is worthy of attention for practical rational management decisions on creating relevant brands. The modern concept of brand equity involves assessing the following components of brand equity:

- awareness – perception, brand recognition by the consumer, associations with a particular product category;
- image and identification – consumer loyalty, perceptions of the consumer and the brand owner;
- perception of quality – price/quality ratio in comparison with competitors and consumer demands and expectations;
- financial value – the brand's contribution to the company's profitability and assets (Erdem T., Swait J., Louviere J., 2002, Huzhii N.M., 2022).

3. AIM OF THE RESEARCH

The purpose of this study is to develop a methodological approach to assessing brand value, which will allow determining the brand's position in the market in terms of loyalty and recognition and developing an appropriate set of brand development strategies for dairy products on the Ukrainian market.

4. METHODS

In our opinion, the model of the dependence of brand value (V) on loyalty (L) and recognition (R) can be represented as a function:

$$V = f\,(L;\ R) \tag{1}$$

Function (1) is a two-factor model. Brand loyalty is the degree of commitment and devotion of consumers to a particular brand. It is reflected in the choice of goods or services of a given brand over others. Loyalty can be caused by various factors, such as product quality, service, pricing, brand experience, etc.

The loyalty indicator (L) is a comprehensive one, which we propose to evaluate by the following indicators:

l_1 – brand perception;

l_2 – enjoyment of communication with the brand;

l_3 – emotional connection;

l_4 – loyalty program;

l_5 – customer support;

l_6 – the level of satisfaction of needs;

l_7 – price/quality ratio.

Brand Recognition (R) is a measure of how easily consumers recognize or favor a particular brand over others in the market. This can be the result of successful marketing campaigns, a distinctive logo, slogan or other distinctive branding elements.

Brand recognition is important because it allows a brand to stand out from the competition and attract the attention of consumers. If a brand is easily recognizable and associated with certain positive qualities or feelings, it can contribute to its success in the marketplace and increase the likelihood that consumers will choose its products or services.

Brand awareness can be assessed by researching brand information among the target audience, including surveys, analyzing reviews, observing consumer behavior, and other research methods.

We propose to conduct a comprehensive Brand Recognition (R) measure based on the following indicators:

r_1 – brand recognition;

r_2 – logo recognition;

r_3 – slogan recognition;

r_4 – search queries;

r_5 – brand mention;

r_6 – accessibility and completeness of brand information.

The first step in applying the methodology is to organize and conduct a survey of respondents – representatives of the target audience of the brands under study. The respondents are asked to answer questions related to the identified indicators (Table 1). The information obtained is used to generate data for brand evaluation. The proposed indicators are inherently attributive (qualitative) features; therefore, when processing the collected data, a «yes» answer was assigned a value of «1» and a «no» answer was assigned a value of «0».

The second stage of the brand valuation methodology is to calculate the values of partial indicators:

$l_1\ l_2\ l_3\ l_4\ l_5\ l_6\ l_7$ – indicators that make up a comprehensive loyalty score;

$r_1, r_2, r_3, r_4, r_5, r_6$ – indicators that make up a comprehensive measure of recognition.

The values of the partial indicators of the loyalty/recognition indicator are calculated using the formula:

$$l_i^2(r_i^2) = \frac{(x_1 - \bar{x})d_1 + (x_2 - \bar{x})d_0}{d_1 + d_0} \tag{2}$$

where x_1 (x_2) – answers received as a result of a survey of respondents that take two values – «1» and «0»:

x_1 = «1» ⟶ d_1 – share of affirmative answers that accept the value «1»;

x_2 = «0» ⟶ d_0 – share of negative answers that accept the value «0»;

$$\bar{x} = \frac{x_1 d_1 + x_2 d_0}{d_1 + d_0} \tag{3}$$

The third stage of the methodology involves calculating the integral loyalty/recognition indicator using the formula:

$$\bar{L}(\bar{R}) = \frac{\sum_{i=1}^{m} l_i^2(r_i^2)}{m} \tag{4}$$

where m – number of partial indicators of the loyalty (l_i)/recognition indicator (r_i).

Integral indicators of loyalty/recognition range from 0 to 1: $\bar{L}(\bar{R}) \in [0;1]$.

5. INTERNATIONAL INTELLECTUAL PROPERTY INDEX BY COUNTRIES: RESULTS

A modern methodological approach to brand valuation is the Brand Asset Valuator (BAV) model. The Brand Asset Valuator model is a tool used to assess the value of a brand by measuring its status and strength. The model was developed by the international marketing and advertising agency Young & Rubicam and helps companies understand how consumers perceive their brand compared to competitors.

The BAV model consists of four key components.

1. Differentiation is a criterion that determines how unique and distinctive a brand is compared to its competitors. This indicator measures the uniqueness of the brand's promises and is an indicator of its ability to justify the high price of the product.
2. Relevance is a criterion that allows you to assess how well a brand meets the needs and desires of its target audience. This measure is an indicator of the brand's market pene-

tration. The content of the criterion is realized through the marketing mix 4P (Product, Price, Place, Promotion).

3. Respect is a criterion that determines how much a brand is respected and admired by consumers. It is closely related to the brand's reputation and reflects the degree of customer loyalty to it. The indicator is closely related to the quality and popularity of the product.
4. Knowledge is a criterion that shows how well consumers know and understand the brand, their experience with the brand.

By analyzing these components, companies can gain valuable insights into their brand's strengths and weaknesses, identify areas for improvement, and develop strategies to strengthen brand equity and overall market value. Ultimately, the Brand Asset Valuator model helps companies make informed branding, marketing, and positioning decisions to build a strong and competitive brand (The story of the Young & Rubicam Inc., 1997).

The developers of the BAV model argue that relevance and differentiation build brand strength, while respect and knowledge build brand status. The following features of the Brand Asset Valuator model can be distinguished:

1. the development and implementation of a marketing program can improve each of the four elements of the BAV model;
2. the ability to assess the current position of a particular brand by four indicators, to develop a strategy necessary to move it or maintain its position, since most brands develop predictably over time (Chandra A., 2021).

Researchers have identified certain features of the BAV model:

- comprehensiveness of the assessment, as the model provides a holistic view of brand equity, taking into account four critical dimensions;
- consumer focus, as the model focuses on consumer perceptions and attitudes towards brands;
- quantitative assessment, as the model involves structured surveys, data analysis, and reliable results to assess brand equity;
- strategic focus, as the model helps companies identify areas for brand improvement and develop targeted brand strategies.
- comparability, as the model allows brands to compare themselves with competitors and industry benchmarks; track changes in brand equity over time (Cuofano G., 2024).

Using the BAV model requires collecting information about consumer preferences, which will help establish the business's position in the market and the value of the product or service offered. It is worth noting that brand value can be determined if a business has a long history of operating in the market. The BAV model can become a powerful tool for business valuation, identifying the impact of marketing strategies, and strategies to strengthen the company's brand. To become a well-known brand, a company must sell a product that customers recognize and choose among other available options (Dagustani D., Buchory H. A., Satya M. T., 2014).

The built BAV model provides such capabilities:

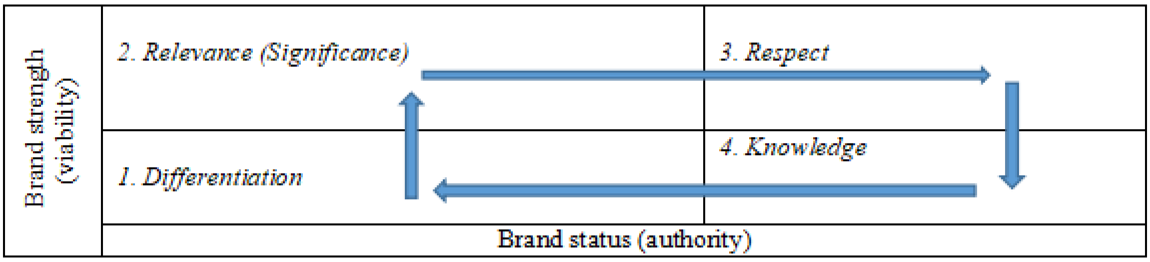
- making strategic decisions on brand positioning, marketing strategies and communication efforts;
- monitoring changes in the brand's position in the market, changes in consumer perception of the product; adapting strategies to changes;
- competitor analysis, comparing own performance with that of competitors to determine relative strengths and weaknesses;

- manage brand portfolios and make decisions on brand investments.

The BAV model allows you to create an effective management system for evaluating, monitoring, and improving brand equity; develop an effective marketing and communication strategy; and predict the consequences of mergers and acquisitions if necessary for the brand's survival.

Determining the value of a brand using the Brand Asset Valuator model is shown on the diagram below (figure 1).

Figure 1. Determining brand value using a model Brand Asset Valuator



Source:(Dagustani, D., Buchory, H. A., Satya, M. T, 2014)

Brand strength (brand vitality) measures growth potential and reflects the future value of a brand. It is a combination of relevance and vigorous differentiation.

Brand status (brand authority) is formed through consistently high brand quality. To stand out, a brand must provide product information so that customers can recognize the difference between the brand and other similar products on the market.

Brand strength and brand status can be represented in the form of a matrix that will determine whether a company's brand is new/unfocused, niche/impulse, invisible, or a leader. If the company has high brand strength and low brand status, then the brand has untapped potential and efforts should be made to win consumer loyalty. Brands with low brand strength can create a slogan to improve their brand image. A slogan helps to recognize and memorize a branded product to provide differentiation in the minds of consumers. A slogan that addresses the brand's distinctiveness provides differentiation to consumers, which increases its strength (Dagustani D., Buchory H. A., Satya M. T, 2014).

The brand development cycle can be controlled. As shown in Figure 1, the grid consists of four quadrants, with brand strength on the vertical axis and brand status on the horizontal axis. Each quadrant is described below:

New/ Unfocused

Newly launched «new» brands have low status and little brand power. This means that customers are not familiar with the product, so the company is trying to attract attention and expand consumer awareness.

Niche/ Unrealised

New companies that have managed to gain some differentiation and awareness. The product or service is gaining momentum and generating differentiation, respect and awareness, which reflects the brand's potential in a specific market niche. To become a market leader, it is necessary to strengthen brand authority.

Leadership/ Declining

An ideal location where leading brands with high viability and high status are located, generating significant revenue for companies. This quadrant is divided diagonally, with the lower part showing declining brands.

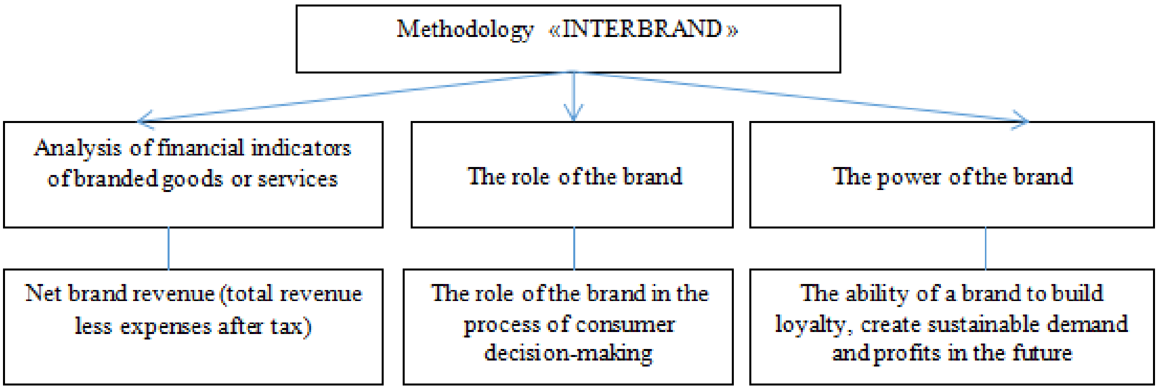
Eroding

Companies in this quadrant are well-known to consumers, but their relevance and respect are very low. That is, the brand's products do not meet their needs, so consumers choose substitutes available on the market. The brand is aging and trying to gain a foothold in the market again (Cuofano G., 2024).

A comprehensive assessment of the brand value and, accordingly, the future price using the company's methodology is well known «Interbrand» (figure 2). This methodology is based on three main components:

1. financial analysis;
2. the role of the brand;
3. brand strength.

Figure. 2. Estimation of brand value by the methodology «Interbrand»



Source: (Shevchenko, O., Vasylkova, N., 2023)

Financial analysis measures the overall financial return for the company's investors, or its profit. in this case, net income is the difference between the revenue from the sale of the brand and all types of expenses.

Brand equity measures the proportion of a consumer's purchase decision that can be attributed to a brand compared to other factors (price, convenience, product features, etc.). Brand equity is measured by three methods depending on the brand: primary surveys, a review of the historical role of brands for companies in a particular industry, or an expert panel assessment.

Brand strength measures the ability of a brand to create loyalty, continue to generate demand and profit in the future. For this purpose, the following indicators are used: leadership (brand position in the product category); stability (brand's ability to maintain consumer loyalty over a long period of time); market (whether the market is stable, growing, or has significant barriers to entry); internationalization (brand strength at the international level, its adaptation to regional and cultural characteristics); trends (direction of brand development); 6) support (marketing and communication support for the brand); protection (the company's ability to legally protect the brand). Brand strength is assessed on a scale from 0 to 100. Evaluation criteria and weight of each parameter by experts (Shevchenko O., Vasylkova N., 2023, Interbrand, 2021, Yakymchuk A., Valyukh A., Poliakova N., Skorohod I., Sak T., 2023).

We believe that it is worth proposing an updated methodological approach to brand valuation, taking into account the advantages of the previously analyzed models. We propose to assess brand value by two complex indicators – loyalty and recognition, each of which is determined by a list of specific indicators (Table 1).

Table 1. Indicators for determining brand loyalty and recognition

Loyalty	Recognition
Brand perception	Brand awareness
Pleasure of communicating with the brand	Logo recognition
Emotional connection	Slogan recognition
Loyalty program	Search queries
Customer support	Mention of the brand
The level of satisfaction of needs	Accessibility and completeness of brand information
Price/quality ratio	

Source: developed by the authors

Depending on the obtained values of the complex indicators – loyalty and recognition – it will be possible to determine the place of the analyzed brand in the «Loyalty-recognition» matrix (Fig. 3). This will allow us to propose a strategic direction for the company in the field of branding its own product.

The combination of quantitative and qualitative characteristics of the methodological approach to assessing the value of a band using the matrix «Loyalty/Recognition» or matrix «L/R» is shown in Table 2.

Table 2. Quantitative criteria for choosing brand strategies in the matrix «Loyalty/Recognition»

Integrated indicator of loyalty/recognition	
Quantitative characterization	Qualitative characterization
Level of loyalty	
0-0,5	Low level
0,51-1	High level
Level of recognition	
0-0,5	Low level
0,51-1	High level

Source: developed by the authors

In the matrix «Loyalty/Recognition», we propose to distinguish four brand strategies that correspond to different combinations of loyalty and recognition levels (Fig. 3).

Figure 3. Matrix «Loyalty/Recognition» or matrix «L/R»

Level of brand loyalty			
	High	**Expanding recognition**	**Preserving and protecting brand positions**
	Low	**Building a brand**	**Building loyalty**
		Low	*High*
		Level of brand recognition	

Source: developed by the authors

Strategy «Preserving and protecting brand positions»: *high loyalty / high recognition.* Possible elements of this strategy are:

- maintaining the high quality of the product or service;

- further development of innovations, continuous introduction of innovations and technologies that help to attract and retain customers;
- active use of marketing efforts to maintain its position in the market and emphasize its competitive advantages; further development of loyalty programs to strengthen the connection with consumers and maintain their loyalty;
- expanding the range of products or services to adapt to changes in customer demand and needs.

These strategic elements will help a market leader with high loyalty and recognition maintain its competitive advantage and brand strength.

Strategy «Expanding Recognition»: *high loyalty/low recognition.* The strategy is aimed at increasing brand or product awareness among potential audiences while maintaining a high level of loyalty among existing customers. The main aspects of this strategy may include:

- strengthening the brand identity, developing a clear and easily recognizable brand identity through logos, colors, fonts and other design elements;
- strengthening the brand's online presence on the Internet through social media, website, blogs, forums and other online channels; using effective SEO strategies to increase visibility in search engines;
- creation and distribution of interesting and distinctive content that reflects the brand's values and features and can be used in advertising campaigns and communication materials;
- active advertising and promotion through various channels to attract the attention of new customers (online advertising, television advertising, press advertising, etc.)
- special promotions and mailings with discounts and special offers;
- developing partnerships by entering into partnership agreements with other companies or influencers for joint promotion and advertising.

These strategic measures will be aimed at increasing brand awareness, attracting new customers and maintaining high loyalty of existing customers.

Strategy «Building loyalty»: *low loyalty / high recognition.* It is used by brands that have high awareness but low customer loyalty, so they need to focus on increasing loyalty and attracting new customers. The main aspects of this strategy include:

- developing and launching loyalty programs, such as point accumulation systems, discounts for regular customers, special offers and bonuses;
- using customer data to create personalized offers and promotions that meet their needs and preferences;
- increasing interaction with customers through social media, email, chats, and other channels to strengthen the connection with them;
- creating communities and forums for customers to share experiences, opinions and ideas;
- providing customers with exclusive offers, gifts or services that are available only to the most loyal customers.

These activities are aimed at deepening the connection with customers, making them more committed to the brand and increasing their loyalty, while maintaining a high level of brand recognition.

Strategy «Building a brand»: *low loyalty / low recognition*. This strategy aims to simultaneously increase brand awareness and customer loyalty. Its main objective is to create a positive brand impression among the target audience and to engage them in regular purchases through various marketing and communication efforts.

The main elements of this strategy include:

- defining the brand's mission, values, and unique features;
- creation of a logo, color palette, typography and other design elements that reflect the brand identity;
- development of advertising campaigns to increase brand awareness;
- creating and distributing interesting and valuable content that reflects the brand's values and expertise;
- organizing or participating in events, exhibitions, and conferences that are relevant to the brand's target audience;
- entering into partnerships or collaborating with other companies or influencers to jointly promote the brand;
- testing different strategies and approaches to advertising and marketing to find the most effective way to increase brand awareness.

6. DISCUSSION

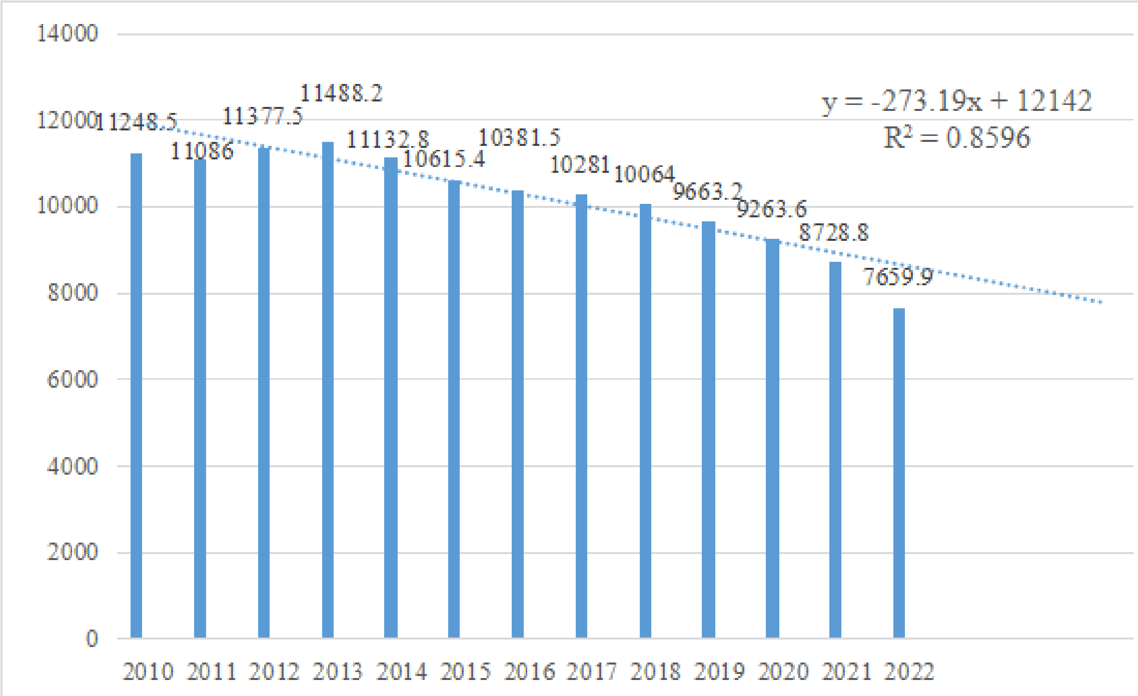
Today, the dairy industry is the leading food and processing industry in any country and forms a market of considerable capacity, characterized by a variety of products and a high level of competition. In such conditions, an important prerequisite for the successful operation of Ukrainian dairy processing companies is the development of measures to strengthen their competitive position in the markets. Dairy companies can solve this problem by actively implementing modern marketing concepts in their operations. This will improve both their financial and market performance. However, making informed marketing decisions is only possible if the company has the necessary relevant and timely information, which can be obtained through market research.

In the pre-war period, there were about 200 dairy processing enterprises in Ukraine. In May 2022, after the outbreak of hostilities, about 70% of dairy processing enterprises in Ukraine resumed production and began selling their products (About 70% of dairy processing enterprises continue to operate in Ukraine, 2023). At the end of 2022, there were 120 dairy processing enterprises operating in the dairy market, a 32.6% decrease compared to 2021.

The dairy market is highly competitive, with the result that the production of finished dairy products is concentrated mainly in large enterprises that can invest heavily in continuous modernization of production processes to improve the quality of their products and respond quickly to constant changes in commodity markets, expand their product ranges, offer organic or unique products, and products that are healthy, although some dairy producers use price-based methods. However, at the current stage of development of Ukraine's economy, there is a decrease in the production of some dairy products in physical terms with an increase in their prices. This is due to an increase in the cost of the main raw material, milk, and a decrease in its quantity (Fig. 4). The latter factor is explained by a decrease in the number of cows in Ukraine. According to preliminary forecasts, the number of cows in Ukraine is expected to reach 1.39 million as a result of the war, which is the lowest figure for the entire period of our country's existence due to a decrease in the number of cows in households (Industrial Livestock Production Tries to Preserve the Number of Cows, 2023).

According to experts, in 2022, 34.2% of milk was produced by agricultural enterprises and 65.8% by households. During the year, 7 million 659.9 thousand tons of milk of all types were milked, which is 12.2% less than in 2021. Due to the war, the industry lost 1 million tons of raw materials (State and Prospects of the Dairy Industry of Ukraine during the War and the Postwar Period, 2023).

Figure 4. Dynamics of milk production in Ukraine, thousand tons



Source: developed by the authors based on the data of the State Statistics Service of Ukraine

Another factor that makes it difficult for domestic dairy processing companies to offer quality dairy products on the market is the poor quality of raw materials (milk), about 90% of which is supplied by households. They often do not comply with the requirements for keeping cows, milking technology, violate sanitary and hygienic standards, which causes high bacterial contamination of milk, do not carry out primary processing of milk, and do not comply with the conditions for its cooling.

Table 3 shows the main indicators characterizing the Ukrainian dairy market.

Table 3. Dynamics of dairy market indicators in Ukraine

Indicators	1990	2003	2020	2021	2022
Number of milk processing enterprises, units	643	441	192	178	120
Milk production, mln tons	24,5	13,67	9,8	8,7	7,66
Milk processed, mln tons	18	4,5	3,5	3,2	2,74
Whole milk products, thousand tons	6430	1230	1010	1046	780
Butter, thousand tons	441,1	145,3	87,5	64,4	60
Cheese, thousand tons	183,8	167,8	115,8	106,5	89
Milk powder, thousand tons	61,1	19,8	35,3	34,1	34
Condensed milk, thousand tons	166	101,4	74,5	74	60

Source: developed by the authors based on the data of the State Statistics Service of Ukraine

The analysis of Table 3 shows that during 1995-2022, the production of milk and milk products in Ukraine decreased annually. In 2022, production of all types of dairy products decreased.

Consumer organizations, primarily retail chains, can have a significant impact on the activities of dairy processing enterprises by increasing trade margins, raising retail prices for dairy products, and thus reducing demand for them. This is exactly the situation that has arisen today, under martial law, with regard to hard and processed cheeses.

In Ukraine's dairy industry, cheese production accounts for about 10% of dairy production. This product is produced by more than 150 companies, of which 66% offer hard rennet cheeses, and the rest offer soft and processed cheeses (primarily processed cheeses) (Semenda D. K., Korman I. I., Semenda O. V., 2022). The moderate quality of domestic cheeses and high prices for them lead to a significant volume of imports, which increased by 97% in 2020, from 23.7 thousand tons to 46.8 thousand tons (Agravery, 2021). A significant share of cheeses is supplied to the Ukrainian market from Poland.

After falling by 16.6% in 2022, milk processing volumes may increase by 10% in 2023. Due to a significant drop in dairy consumption, dairy plants were forced to refocus on exports in 2022, significantly reducing production of cheese and fresh dairy products.

Due to the forced migration and decreased solvency of Ukrainians who remained in the country, sales of dairy products in 2022 are estimated to have decreased by 27% to 2.5 million tons (in terms of milk).

Despite the expected increase in consumption and decrease in milk production, the surplus is still too high. According to analysts, exports of dairy products in 2022 increased to about 700 thousand tons (in milk equivalent). In 2023, this figure may be maintained, but the structure of exports will change: sales of butter and cheese products will decrease most significantly, while exports of skimmed milk powder will increase (State and Prospects of the Dairy Industry of Ukraine during the War and Postwar Period, 2023).

One of the biggest challenges for the dairy industry in 2023 is a significant drop in global and, consequently, Ukrainian export prices for dairy products. Given the current cost of production, external sales of a number of products are currently considered unprofitable.

Table 4. Changes in exports and imports of dairy products in Ukraine

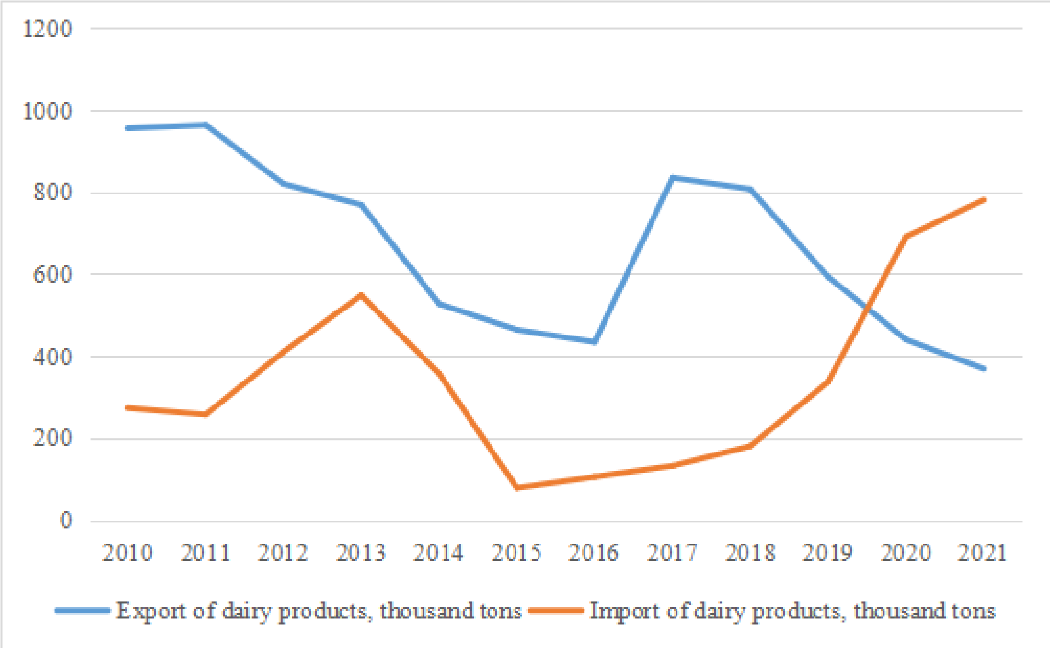
Years	Export of dairy products, thousand tons	Import of dairy products, thousand tons	Milk consumption per capita per year, kg
2010	956	273	206,4
2011	964	257	204,9
2012	820	410	214,9
2013	769	548	220,9
2014	527	357	222,8
2015	464	78	209,9
2016	434	105	209,5
2017	835	132	200
2018	807	180	197,7
2019	593	337	200,5
2020	440	691	201,9
2021	369	781	201,5

Source: developed by the authors based on the data of the State Statistics Service of Ukraine

The analysis of Table 4 shows that per capita milk consumption in Ukraine in 2017-2021 fluctuated at approximately the same level – 200 kg per capita – and was the lowest in 2018 for the entire study period – 2010-2021. The rational rate of dairy product consumption, as determined by the Ministry of Health, is 380 kg per capita. In France, as well as Finland and Poland, this figure exceeds 400 kg. (Kuzio N. E., Kosar N. S., Malyha V., 2023). The above shows that there are significant problems in the dairy market in our country, but there are prospects for further market development and building strong brands among producers.

Figure 5 shows the ratio of exports and imports of dairy products in Ukraine in 2010-2021.

Figure 5. The ratio of exports and imports of dairy products in Ukraine



Source: developed by the authors based on the data of the State Statistics Service of Ukraine

We have been observing a trend since 2020 when the volume of imports exceeded the volume of exports, which is a threat to food security and determines the need to strengthen brand management of Ukrainian campaigns.

In Ukraine, in 2022, almost 25% of the milk processed went to the production of export products. In the previous year, 2021, this share was 17%. For comparison, in Poland, the figure was 35%.

According to the Ukrainian Association of Business and Trade, the share of dairy exports in Ukraine's total agricultural exports is 0.8%, and its volume is quite small compared to the leaders in world dairy trade. In 2022, Ukraine exported 700 thousand tons of dairy products in milk equivalent for $420 million. For comparison, according to the results of the same year, US dairy exports amounted to $ 9.5 billion ($ 7.6 in the previous year). In metric tons, the US exported 2.82 million tons of dairy products.

Despite the constant increase in prices for dairy products, the volume of its production during 2015-2020 changed insignificantly, remaining at the level of 1700-1800 thousand tons. During 2019-2021, the volume of dairy exports decreased in physical terms (in 2021 by 55.81% compared to 2018), but imports increased (in 2021 by 4.34 times compared to 2018). A significant decrease in dairy exports and an increase in imports were observed in 2021.

The combination of the value of exported and imported dairy products in Ukraine is interesting (Table 5).

Table 5. The value of exported and imported dairy products in Ukraine, mln.

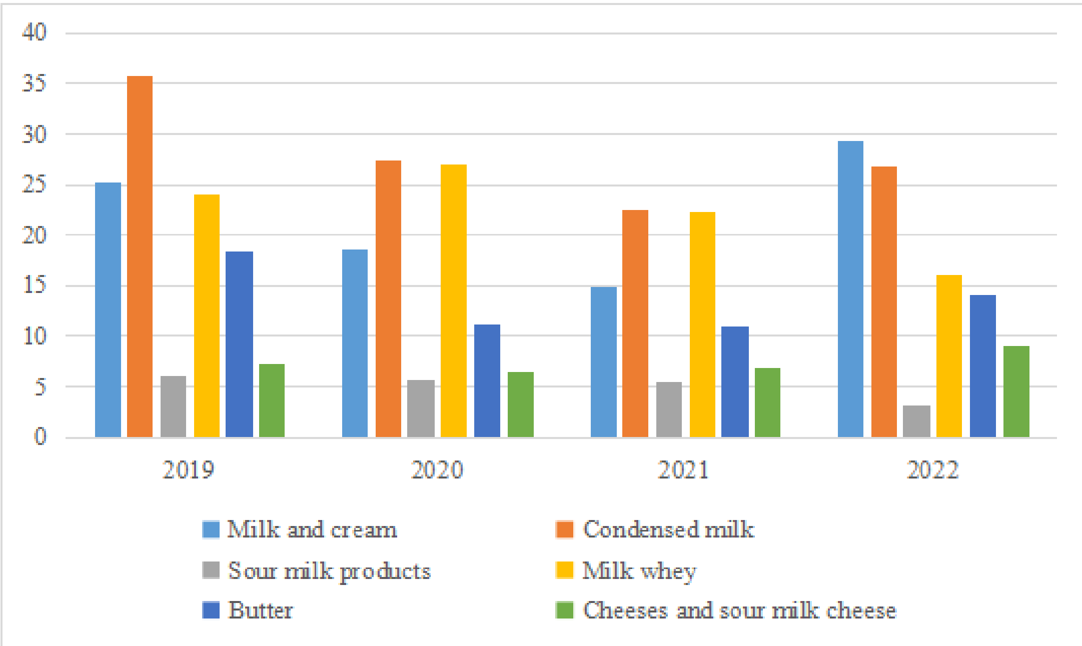
	Exports, mln USD Imports, mln USD				Exports, mln USD Imports, mln USD			
	2019	2020	2021	2022	2019	2020	2021	2022
Condensed milk and cream	15,3	11,9	10,4	13,5	3,7	11,8	13,4	7,0
Condensed milk	76,1	55,3	57,4	80,5	5,7	13,8	21,2	3,5
Fermented milk products	9,5	8,9	8,6	4,1	9,1	13,8	20,0	12,7
Milk whey	17,9	22,2	22,8	13,3	5,5	6,9	12,3	5,6
Butter and other fats	76,2	48,8	52,3	66,6	17,3	39,6	45,5	6,2
Cheese and cottage cheese	26,5	24,6	26,7	32,1	108,8	207,4	260,3	151,0
Total	221,5	171,8	178,2	210,1	150,1	293,4	372,8	186,0

Source:(State and prospects of the dairy industry of Ukraine during the war and in the post-war period, 2023)

In 2022, the country received the largest export revenues from the sale of condensed milk ($80.5 million) and butter ($66.6 million). USD 151 million was spent on cheese imports.

Traditional products of Ukrainian dairy exports are exchangeable products such as butter, spreads, milk powder and whey, casein, cheese, cheese products and canned milk. Fresh dairy products such as milk, sour cream, cream, cottage cheese, and desserts are also exported, but the volumes are small (Fig. 6).

Figure 6. Structure of dairy exports in Ukraine in 2019-2022, % in physical terms



Source: (State and prospects of the dairy industry of Ukraine during the war and in the post-war period, 2023)

Ukraine's position as an exporter of dairy products on the global market is constantly changing. Over the past few decades, the country has traditionally been a net exporter of dairy products, but in 2019-2021, the situation changed, with exports declining and imports growing rapidly. In 2021, for the first time since independence, the volume of dairy imports actually equaled the volume of exports in milk equivalent, and even slightly exceeded it in money terms.

Export opportunities and their economic attractiveness affect the domestic dairy market: they determine the demand for raw milk by processing companies and, accordingly, lead to changes in its purchase price. Export sales activity depends on the global market conditions, the ability of domestic enterprises to compete in this market, and the availability of affordable raw materials.

In 2022, despite the war, exports grew significantly, with the share of post-Soviet countries continuing to decline, and the overall increase compared to the previous year was due to a significant 3.5-fold increase in exports to the European Union. In recent years, Ukrainian dairy products have been exported to almost 100 countries - in 2021 to 92 countries, in 2022 to 80 countries. In 2021, the share of the ten largest importers was 68% of total exports, in 2022 - 76%. Before the full-scale war, more than half of exports were to post-Soviet countries. In particular, in 2021, the largest importers were Kazakhstan (19%), Moldova (14%), Poland (7%), Azerbaijan (7%), and Georgia (7%).

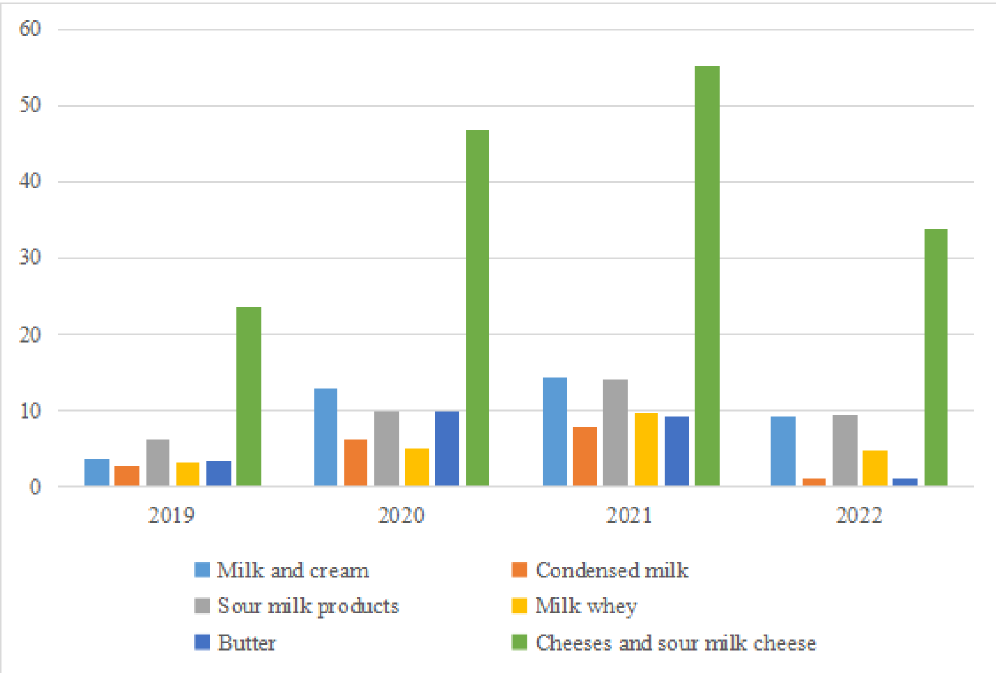
In 2022, due to logistical problems and new opportunities for trade with Europe, 4 EU countries entered the top 10 largest importers of Ukrainian dairy products. Poland became the absolute leader with a share of 27% of all sales. A lot of products were supplied to the Netherlands (5%), Germany (3%), and Lithuania (3%). However, in 2022, supplies to Kazakhstan and Moldova remained quite significant (13% each). In terms of export geography, Israel and China should be singled out, as they were among the top ten importers of dairy products from Ukraine before the war and now.

Last year, Poland became the absolute leader in purchasing Ukrainian butter, milk powder and casein. One third of cheese was shipped to this country. Moldova buys a wide range of Ukrainian products, but it is not a leader in purchases for any product item (Agribusiness-Ukraine, 2023).

The main prerequisite for export development is the availability of sufficient quality raw materials, which has been threatened since the outbreak of hostilities. During the year of war, the number of livestock decreased by 13.5%. Many dairy farms ended up in the occupied territories, as did some processing plants. Against the backdrop of falling prices on the EU commodity market, this will create obstacles for Ukrainian exports due to the inability of finished products to compete on price.

The structure of dairy imports to Ukraine in 2019-2022 is shown in Fig. 7.

Figure 7. Structure of dairy imports to Ukraine in 2019-2022, % in physical terms



Source:(State and prospects of the dairy industry of Ukraine during the war and in the post-war period, 2023)

Cheese accounts for the largest share in the import structure. Thus, in 2022, the share of cheese and cottage cheese exports amounted to 56.6% of imported dairy products, which in quantitative terms amounted to 33.8 thousand tons worth $ 151 million (State and Prospects of the Dairy Industry of Ukraine during the War and the Postwar Period, 2023).

Thus, the main trends in the dairy industry of Ukraine are

- limited opportunities for exporting Ukrainian dairy products through the EU;
- increase in production costs;
- reduction in the number of consumers in the domestic market;
- loss of production facilities in the occupied territories;
- imports of dairy products from the EU, primarily cheese;
- problems with payments by retail chains;
- lack of an effective instrument for lending to the industry.

Ukrainian dairy producers need to justify brand management strategies, as competition in the dairy market is very strong, especially with imported brands. Strengthening the brand will help producers stand out among other offers and attract consumer attention; a strong brand ensures consumer confidence in product quality and safety.

To strengthen the brand, dairy producers can use strategies such as investing in product quality, creating an excellent consumer experience, building partnerships with consumers, actively participating in community events, and implementing environmental and social responsibility programs. All these measures will help strengthen the market position of Ukrainian dairy producers and ensure their success in the future.

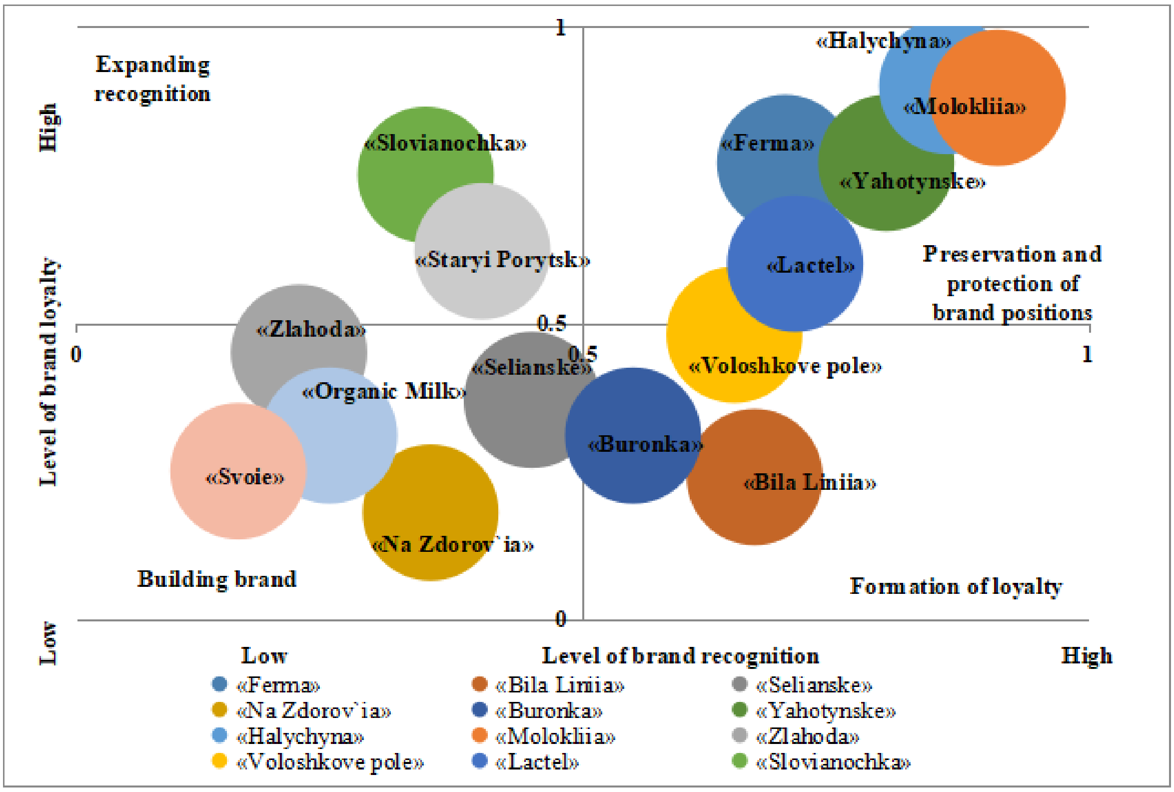
Due to the importance of the dairy industry for Ukraine's economy and the need to boost sales of domestic dairy products both on the domestic and foreign markets, the authors of the study tested a methodological approach to assessing brand value among dairy producers in Ukraine.

The most well-known dairy brands in Ukraine include the following trademarks: «Ferma», «Bila Liniia» (TERRAFUD Ltd), «Selianske», «Na Zdorov`ia», «Buronka» (Liustdorf Ltd), «Yahotynske» (Yahotynskyi maslozavod Ltd), «Halychyna» (Halychyna PJSC), «Molokliia» (Ternopilskyi molokozavod PJSC), «Zlahoda» (Kombinat «Prydniprovskyi» PJSC), «Voloshkove pole» (Yuriia PJSC), «Lactel» (Molochnyi dim Ltd), «Slovianochka» (Vimm-Bill-Dann Ukraina PJSC), «Organic Milk» (ORGANIC MILK Ltd), «Svoie» (Farm «Paruboche»), «Staryi Porytsk» (Staryi Porytsk Ltd) (The best milk producers, 2023).

Using formula (2), based on the information collected during the survey of respondents, we calculated the values of partial loyalty indicators and the values of partial recognition indicators for each dairy brand under study. Using formula (4), we determined the integrated loyalty indicators and integrated recognition indicators for each brand selected for the study.

Based on the data obtained, we constructed the matrix «Loyalty/Recognition» for the most well-known dairy brands in Ukraine (Fig. 8).

Figure 8. Matrix «Loyalty/Recognition» for the most famous dairy brands in Ukraine



Source: developed by the authors

The Loyalty/Recognition matrix, built for the most well-known dairy brands in Ukraine (see Figure 8), makes it possible to offer brand owners appropriate marketing strategies for developing or winding down their brands.

7. CONCLUSIONS

The best positions in the Ukrainian dairy market are held by the following top brands: Ferma, Yahotynske, Halychyna, Molokliia, Lactel, which are characterized by a high level of loyalty and high level of recognition among consumers. This means that brand owners are advised to choose the strategy of «Preserving and protecting of brand positions»: maintaining a high level of quality, expanding the product range, and using innovative marketing tools to promote brands in the market.

For such Ukrainian brands as Slovianochka and Staryi Porytsk, it is worth choosing the «Expanding recognition» strategy, as these products are characterized by high customer loyalty but low recognition among the potential target audience. The implementation of the proposed strategy requires strengthening brand identification, expanding the brand's online presence in social networks, using integrated marketing communications, and developing interesting content for the target audience.

According to the study, Buronka, Voloshkove pole, and Bila Liniia brands are in the field with a high level of recognition and low loyalty among consumers, so according to the matrix «L/R», they are recommended to use the strategy «Loyalty Formation». Companies that own brands should focus on increasing loyalty and attracting new customers, developing effective loyalty programs, creating personalized offers and promotions, and enhancing customer interaction through the creation of communities and forums.

According to the survey, Ukrainian brands Selianske, Na Zdorov`ia, Zlahoda, Organic Milk, and Svoie have been found to have low levels of customer loyalty and low recognition among potential buyers. This means that companies that own these brands should choose a strategy to focus on the «Building Brand» strategy and focus on improving the mission, values and unique features of the brand; updating the logo, color palette, and other design elements that reflect the brand identity; developing advertising campaigns to increase brand awareness.

Thus, the proposed methodology for assessing brand value allows transforming the qualitative assessments of respondents into quantitative indicators, on the basis of which specific marketing strategies can be proposed and methods for their implementation can be developed.

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